

LOGO! Logic Modules

LOGO! basic modules without display

Overview



LOGO! basic module without display

- The cost-optimized basic versions
- Interface for connecting expansion modules, max. 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- With connection option for LOGO! TDE text display
- All basic units with integrated web server
- Enclosure width 72 mm (4 MW)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro SD cards

Selection and ordering data

Version	SD	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU			
LOGO! 8 logic modules						
LOGO! logic modules 24CEo Control supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 digital outputs 24 V DC, 0.3 A; integrated time switch, Ethernet interface, without display or keyboard, 400 function blocks can be combined, modular expandability	1	6ED1052-2CC08-0BA0		1	1 unit	200
LOGO! logic modules 12/24RCEo Control supply voltage 12 ... 24 V DC, 8 digital inputs 12 ... 24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 relay outputs 10 A, integrated time switch, Ethernet interface, without display or keyboard, 400 function blocks can be combined, modular expandability	1	6ED1052-2MD08-0BA0		1	1 unit	200
LOGO! logic modules 24RCEo Control supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface, without display or keyboard, 400 function blocks can be combined, modular expandability	1	6ED1052-2HB08-0BA0		1	1 unit	200
LOGO! logic modules 230RCEo Control supply voltage 115 ... 230 V AC/DC, 8 digital inputs 115 ... 230 V AC/DC, 4 relay outputs 10 A, integrated time switch, Ethernet interface, without display or keyboard, 400 function blocks can be combined, modular expandability	1	6ED1052-2FB08-0BA0		1	1 unit	200

For accessories, see page 10/34 onwards.

Overview



LOGO! expansion modules

- Expansion modules for connection to LOGO! basic modules
- With digital inputs and outputs, analog inputs or analog outputs

Selection and ordering data

Version	SD	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU			
LOGO! 8 expansion modules						
LOGO! DM8 24 Control supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A	1	6ED1055-1CB00-0BA2		1	1 unit	200
LOGO! DM16 24 Control supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A	1	6ED1055-1CB10-0BA2		1	1 unit	200
LOGO! DM8 12/24R Control supply voltage 12 ... 24 V DC, 4 digital inputs 12 ... 24 V DC, 4 relay outputs 5 A	1	6ED1055-1MB00-0BA2		1	1 unit	200
LOGO! DM8 24R Control supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A	1	6ED1055-1HB00-0BA2		1	1 unit	200
LOGO! DM16 24R Control supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A	1	6ED1055-1NB10-0BA2		1	1 unit	200
LOGO! DM8 230R Control supply voltage 115 ... 230 V AC/DC, 4 digital inputs 115 ... 230 V AC/DC, 4 relay outputs 5 A	1	6ED1055-1FB00-0BA2		1	1 unit	200
LOGO! DM16 230R Control supply voltage 115 ... 230 V AC/DC, 8 digital inputs 115 ... 230 V AC/DC, 8 relay outputs 5 A	1	6ED1055-1FB10-0BA2		1	1 unit	200
LOGO! AM2 Control supply voltage 12 ... 24 V DC, 2 analog inputs 0 ... 10 V or 0 ... 20 mA, 10-bit resolution	1	6ED1055-1MA00-0BA2		1	1 unit	200
LOGO! AM2 PT 100 Control supply voltage 12 ... 24 V DC, 2 analog inputs Pt100, temperature range -50 °C ... +200 °C	1	6ED1055-1MD00-0BA2		1	1 unit	200
LOGO! AM2 AQ Control supply voltage 24 V DC, 2 analog outputs 0 ... 10 V, 0/4 ... 20 mA	1	6ED1055-1MM00-0BA2		1	1 unit	200

For accessories, see page 10/34 onwards.

LOGO! Logic Modules
LOGO! Communication Modules

LOGO! CMK2000 communication modules

Overview



LOGO! CMK2000 communication modules

- Expansion module for the LOGO! 8 basic versions
- For integration of LOGO! 8 in KNX installations
- 24 digital inputs, 20 digital outputs and 8 analog inputs and outputs each for processing of process signals via KNX

Information regarding compatibility:

LOGO! CMK2000 communication modules can be used with LOGO! ... 0BA8.

Application

With the LOGO! CMK2000 communication modules, the LOGO! 8 logic module series can be integrated in the KNX building system bus.

Designed for small-scale automation solutions, LOGO! 8 can be used in combination with the new communication module for building automation tasks, for example for monitoring, access control, air conditioning, lighting, shading and watering, even extending to pump control.

Selection and ordering data

Version	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU		
LOGO! CMK2000 communication modules					
For integration of LOGO! 8 in the KNX building system bus, max. 50 communication objects can be configured; RJ45 port for Ethernet; supply voltage 24 V DC/40 mA	1	6BK1700-0BA20-0AA0	1	1 unit	470

For accessories, see page 10/34 onwards.

Overview



LOGO! CSM unmanaged

The module is used for the connection of a LOGO! and up to three additional nodes to an Industrial Ethernet network with 10/100 Mbps in an electrical line, tree or star structure.

Key features of the LOGO! CSM are:

- Unmanaged 4-port switch, of which one port on the front side is for simple diagnostics access
- Two versions for the voltage ranges 12/24 V DC or 230 V AC/DC
- It is easy to connect via four RJ45 standard plug-in connections
- Space-saving, optimized for connection to LOGO!
- Economical solution for creating small, local Ethernet networks
- Stand-alone use for networking any number of Ethernet devices

Information regarding compatibility:

LOGO! CSM 12/24 communication modules can be used with LOGO! ...0BA7/...0BA8.

Benefits

- Savings on installation costs and installation space compared to using external network components
- Fast commissioning since configuring is not necessary
- Fast and uncomplicated diagnostics access in the control cabinet
- Flexible expansion of the network thanks to simple connection of the CSM

Application

LOGO! CSM is an Industrial Ethernet switch in a compact, modular design for use in devices of the new LOGO! generation with Industrial Ethernet connection. With the LOGO! CSM, the Ethernet interface of the SIMATIC LOGO! can be multiplied to enable simultaneous communication with control panels, programming devices, other controllers, or the office world.

External access (e.g. for diagnostics purposes) is possible without problems via the four Ethernet ports.

Product versions

LOGO! CSM 12/24 (now in LOGO! 8 design)

For operation with direct current at 12 and 24 volts

Selection and ordering data

Version	SD	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU			
LOGO! CSM compact switch modules						
Unmanaged switch for connection to a LOGO! and up to three additional nodes in the Industrial Ethernet with 10/100 Mbps; 4 x RJ45 ports; LED diagnostics, LOGO! module						
LOGO! CSM 12/24	1	6GK7177-1MA20-0AA0		1	1 unit	5P1
External 12 V DC or 24 V DC power supply; for LOGO! ...0BA7/...0BA8						

For accessories, see page 10/34 onwards.

More information

Selection Tools:

To assist in selecting the right Industrial Ethernet switches as well as in the configuration of modular variants, the SIMATIC NET Selection Tool and the TIA Selection Tool are available.

SIMATIC NET Selection Tool, see

www.siemens.com/snst-standalone

TIA Selection Tool, see

www.siemens.com/tia-selection-tool

LOGO! Logic Modules

LOGO! Communication Modules

LOGO! CMR (mobile wireless communication)

Overview



LOGO! CMR

LOGO! CMR is suitable in combination with the LOGO! logic module as a low-cost remote signaling system for monitoring and controlling distributed plants and systems via text messages or email.

LOGO! CMR can send text messages or emails to predefined mobile network numbers and also receive text messages from predefined mobile network numbers.

Sending a text message/email can be initiated by events in the LOGO! basic module as well as by the two digital alarm inputs of the LOGO! CMR. The values in the LOGO! logic module can be directly influenced by receiving a text message.

The LOGO! CMR offers convenient commissioning and diagnostics via web-based management, via local and/or remote access.

The two digital outputs can also be connected remotely via incoming text messages/emails.

The LOGO! CMR determines the current position of the module using the GPS signal received via the GPS antenna. In addition, the LOGO! 8 logic module can also be synchronized by means of the time-of-day included in the GPS signal.

Further options for synchronizing the LOGO! BM with the current time-of-day are calculation of the time-of-day via an NTP server or from the data of the mobile wireless service provider.

Product versions

- LOGO! CMR2020 for use in GSM/GPRS mobile wireless networks
- LOGO! CMR2040 for use in LTE mobile wireless networks

Information regarding compatibility:

LOGO! CMR2020 and LOGO! CMR2040 can be used with LOGO! ...0BA8.

Caution! Observance of national mobile wireless approvals is mandatory:

- DE: www.siemens.de/mobilfunkzulassungen
- EN: www.siemens.com/mobilenetwork-approvals

Benefits

- Low-cost alarm signaling system – low investment and operating outlay for the monitoring and control of small systems via text message and/or email
- Reduction of travel/maintenance costs thanks to remote access via OpenVPN and HTTP for configuring the LOGO! CMR or LOGO! 8 logic module
- Easy-to-use thanks to intuitive text messaging syntax with alias text messaging function or assignment and use of symbolic names
- Simple configuration process via Web Based Management without the need for special knowledge of radio communications
- Internationally deployable thanks to communication via GSM, UMTS, and LTE networks
- Time synchronization of the LOGO! 8 logic module using the time determined from the GPS signal, an NTP server or the time from the mobile radio provider
- Harmonizes with LOGO! 8 series with regard to functioning, design and structure
- Fast installation thanks to standard rail mounting

Application

In industrial environments

- Simple remote diagnostics and remote control tasks in LOGO! applications in the plant and machine environment, e.g. gate controls, ventilation systems, industrial water pumps, automatic dry feeders in agriculture
- Simple building automation including building equipment, e.g. for HVAC (Heating, Ventilation and Air Conditioning), pump controller
- Remote control and monitoring of, e.g. level, pressure, temperature, flow, and valve control in the water/wastewater industry
- Position monitoring in the logistics industry, e.g. for vehicles, refrigeration transporters, containers
- Simplest possible metering and energy management systems in distributed buildings controlled with LOGO!
- Design of systems for monitoring and controlling simple telecontrol stations
- Remote connection of distributed local controllers via LOGO!

- Remote control and monitoring of low-end machine controls (usually discrete logic)

In non-industrial environments


- Remote control and monitoring of automation tasks in domestic building and installation systems, e.g.
 - Stairway lighting
 - External lighting
 - Awnings, shutters
 - Shop window lighting
- Remote control of HVAC in dwellings, greenhouses, etc.

LOGO! Logic Modules

LOGO! Communication Modules

LOGO! CMR (mobile wireless communication)

Selection and ordering data

Version	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU			
LOGO! CMR Communication Module Radio						
Communication modules for connecting LOGO! ...0BA8 to a GSM/GPRS or LTE network; 1 x RJ45 port for Industrial Ethernet connection; 2 x digital input; 2 x digital output; read/write access to LOGO! variables; sending/receiving text messages; GPS position detection; time-of-day synchronization/forwarding with real-time clock; configuration and diagnostics via WEB interface; observe national approval!						
LOGO! CMR2020 For connecting LOGO! ...0BA8 to GSM/GPRS networks	1	6GK7142-7BX00-0AX0		1	1 unit	5P1
LOGO! CMR2040 For connecting LOGO! ...0BA8 to LTE network	5	6GK7142-7EX00-0AX0		1	1 unit	5P1

For accessories, [see page 10/34 onwards](#).

More information

Selection Tools

To assist in selecting the right Industrial Ethernet switches as well as in the configuration of the LOGO! logic module, the TIA Selection Tool is available.

TIA Selection Tool, [see](#)
www.siemens.com/tia-selection-tool

LOGO! Logic Modules

Accessories

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Accessories for LOGO! 8						
LOGO! TDE text display 6-line text display, can be connected to all LOGO! 8 versions with and without display, with 2 Ethernet interfaces; including installation accessories <u>Note:</u> Requires additional 12 V DC power supply or 24 V AC/DC power supply.	1	6ED1055-4MH08-0BA0		1	1 unit	200
LOGO! Software						
LOGO!Soft Comfort V8 For programming on the PC in LAD/FBD; runs on Windows 8, 7, XP, Linux and Mac OSX; on DVD	1	6ED1058-0BA08-0YA1		1	1 unit	200
LOGO! 8 Starter Kits In TANOS box, with LOGO! 8, LOGO!Soft Comfort V8, WinCC Basic, Ethernet cable						
LOGO! Starter Kit 12/24 RCE With LOGO! 12/24 RCE, power supply, screwdriver, in Systainer	30	6ED1057-3BA01-0AA8		1	1 unit	2SP
LOGO! Starter Kit 230 RCE With LOGO! 230 RCE, power supply, screwdriver, in Systainer	30	6ED1057-3BA03-0AA8		1	1 unit	2SP
LOGO! Starter Kit 12/24 RCEO With LOGO! 12/24 RCEO, LOGO! TD, power supply, screwdriver, in Systainer	30	6ED1057-3BA11-0AA8		1	1 unit	2SP
LOGO! 8 KP300 Basic Starter Kit With LOGO! 12/24 RCE, LOGO! Power 24 V 1.3 A, KP300 Basic mono PN	1	6AV2132-0HA00-0AA1		1	1 unit	2SP
LOGO! 8 KP400 Basic Starter Kit With LOGO! 12/24 RCE, LOGO! Power 24 V 1.3 A, KTP400 Basic	1	6AV2132-0KA00-0AA1		1	1 unit	2SP
LOGO! 8 KTP700 Basic Starter Kit With LOGO! 12/24 RCE, LOGO! Power 24 V 1.3 A, KTP700 Basic	1	6AV2132-3GB00-0AA1		1	1 unit	2SP
Front panel assembly kits						
Front panel assembly kits • Width: 4 MW, with pushbuttons • Width: 8 MW, with pushbuttons	22 22	6AG1057-1AA00-0AA3 6AG1057-1AA00-0AA2		1 1	1 unit 1 unit	470 470
Accessories for LOGO! CSM unmanaged						
SIMATIC NET cables						
IE TP Cord RJ45/RJ45 TP cable 4 x 2 with 2 RJ45 connectors • 0.5 m • 1 m • 2 m • 6 m • 10 m	1 1 1 1 1	6XV1870-3QE50 6XV1870-3QH10 6XV1870-3QH20 6XV1870-3QH60 6XV1870-3QN10		1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit	5K1 5K1 5K1 5K1 5K1
IE FC Outlet RJ45 For connection of Industrial Ethernet FC cables and TP cords; scaled pricing from 10 and 50 units	1	6GK1901-1FC00-0AA0		1	1 unit	5K1

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Accessories for LOGO! CMR						
Mobile wireless antennas						
ANT794-4MR Resistant in the indoor and outdoor areas; 5 m connection cable permanently connected to the antenna; SMA connector, including mounting bracket, screws, plugs	1	6NH9860-1AA00		1	1 unit	5T1
ANT896-4MA Rod antenna for mounting directly on the device; SMA male connector	1	6GK5896-4MA00-0AA3		1	1 unit	5M2
ANT896-4ME Cylindrical antenna for detached mounting, e.g. on a control cabinet; N-Connect female connector	1	6GK5896-4ME00-0AA0		1	1 unit	5M2
GPS antennas						
ANT895-6ML GPS/Glonass antenna for detached mounting in the indoor and outdoor areas, magnetic holder or screw holder, cable 30 cm with N-Connect female connector	1	6GK5895-6ML00-0AA0		1	1 unit	5M2
Antenna adapter cables						
N-Connect/SMA male/male flexible connection cable, pre-assembled connecting cable; suitable from 0 ... 6 GHz, IP68						
• 0.3 m	1	6XV1875-5LE30		1	1 unit	5M2
• 1 m	1	6XV1875-5LH10		1	1 unit	5M2
• 2 m	1	6XV1875-5LH20		1	1 unit	5M2
• 5 m	1	6XV1875-5LH50		1	1 unit	5M2
IWLAN RCoax/antenna N-Connect male/male flexible connection cables						
Flexible connection cable for connecting an RCoax cable or an antenna to a SCALANCE W-700 access point with N-Connect terminals; assembled with two connectors N-Connect male; suitable from 0 ... 6 GHz, IP68						
• 1 m	1	6XV1875-5AH10		1	1 unit	5W3
• 2 m	1	6XV1875-5AH20		1	1 unit	5W3
• 5 m	1	6XV1875-5AH50		1	1 unit	5W3
• 10 m	1	6XV1875-5AN10		1	1 unit	5W3
Control cabinet bushing IWLAN RCOAX N-Connect/N-Connect female/female panel feedthrough; cabinet bushing for panel thicknesses up to 4.5 mm; 2.4 GHz and 5 GHz, suitable from 0 ... 6 GHz, IP67	1	6GK5798-2PP00-2AA6		1	1 unit	5W3
LP798-2N lightning protector Lightning protector with N/N female/female connector for the antennas ANT 790, IP67 (-40 ... +85 °C), frequency range: 0 ... 6 GHz	1	6GK5798-2LP00-2AA6		1	1 unit	5W3
Patch cables						
IE TP Cord RJ45/RJ45						
TP cable 4 x 2 with 2 RJ45 connectors						
• 0.5 m	1	6XV1870-3QE50		1	1 unit	5K1
• 1 m	1	6XV1870-3QH10		1	1 unit	5K1
• 2 m	1	6XV1870-3QH20		1	1 unit	5K1
• 6 m	1	6XV1870-3QH60		1	1 unit	5K1
• 10 m	1	6XV1870-3QN10		1	1 unit	5K1
IE FC Outlet RJ45 For connection of Industrial Ethernet FC cables and TP cords; scaled pricing from 10 and 50 units	1	6GK1901-1FC00-0AA0		1	1 unit	5K1
Stainless steel enclosure in IP68 degree of protection NEW	1	6NH3112-3BA00-1XX1		1	1 unit	5T1
Stainless steel enclosure in IP68 degree of protection; suitable for SIMATIC RTU3030C; temperature range -60 ... +135 °C; matte surface; cover with Pin Torx screws and padlock; 7 cable openings and opening for mobile radio antenna prepared Please order cable glands and sealing plugs separately in the necessary quantity.						
Aluminum enclosure in IP68 degree of protection NEW	1	6NH3112-3BA00-1XX3		1	1 unit	5T1
Aluminum enclosure in IP68 degree of protection; suitable for SIMATIC RTU3030C; temperature range -40 ... +80 °C; cover with Pin Torx screws; 7 cable openings and opening for mobile radio antenna prepared Please order cable glands and sealing plugs separately in the necessary quantity.						
Cable gland PG16 F for IP68 enclosure NEW	1	6NH3112-3BA00-1XX4		1	1 unit	5T1
Cable gland, M16, IP68, -40 ... +100 °C, nickel-plated brass, suitable for enclosures with article numbers 6NH3112-3BA00-1XX1 and 6NH3112-3BA00-1XX3 Pack quantity = 2 units						
M16 sealing plugs for IP68 enclosure NEW	1	6NH3112-3BA00-1XX5		1	1 unit	5T1
Sealing plug, M16, IP68, -40 to +100 °C, nickel-plated brass, suitable for enclosures with article numbers 6NH3112-3BA00-1XX1 and 6NH3112-3BA00-1XX3 pack quantity = 2 units						

LOGO! Logic Modules

LOGO!Contact

Overview



LOGO!Contact

Switching module for switching resistive loads and motors directly


Application

LOGO!Contact is a switching module for direct switching of resistive loads (up to 20 A) and motors (up to 4 kW). LOGO!Contact operates hum-free without noise pollution.

LOGO!Contact is universally applicable:

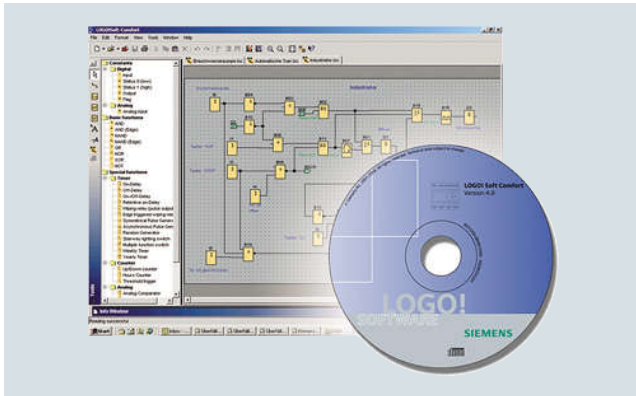
- Buildings/electrical installations
- Industry and commerce

Selection and ordering data

Version	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU			
LOGO!Contact						
Switching module for direct switching of resistive loads up to 20 A and motors up to 4 kW						
Switching voltage:						
• 24 V		1	6ED1057-4CA00-0AA0	1	1 unit	200
• 230 V		1	6ED1057-4EA00-0AA0	1	1 unit	200

For accessories, see page 10/34 onwards.

Overview



LOGO!Soft Comfort

- The user-friendly software for switching program generation on the PC for single mode and network mode
- Switching program generation for function diagrams (FBD) or contact diagrams (LAD)
- Additional testing, simulation, online testing and archiving of the switching programs
- Professional documentation with the help of various comment and print functions

The connection between LOGO! and the PC is made with the LOGO! PC cable (serial interface) or the LOGO! USB PC cable (USB interface).

With LOGO! 0BA7 and LOGO! 8, the connection is made via the integrated Ethernet interface.

Minimum system requirements

Windows XP (32-bit), 7 (32/64-bit) or 8 (32/64-bit)

- PC Pentium IV
- 150 MB free on hard disk
- 256 MB RAM
- SVGA graphics card with minimum resolution of 800 x 600 (256 colors)
- DVD ROM

Mac OS X

- Mac OS X 10.4

Linux

- Tested with SUSE Linux 11.3 SP2, Kernel 3.0.76
- Runs on all Linux distributions on which Java 2 runs.
- For hardware requirements, [please consult your Linux distribution](#).

Application

LOGO!Soft Comfort is the multilingual software for switching program generation with LOGO! on the PC. LOGO!Soft Comfort can be used to program all devices of the LOGO! family.

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
LOGO!Soft Comfort						
LOGO!Soft Comfort V8	1	6ED1058-0BA08-0YA1		1	1 unit	200
For programming on the PC in LAD/FBD; runs on Windows 8, 7, XP, Linux and Mac OSX; on DVD						

Relays

Timing Relays

General data

Overview



7PV15, SIRIUS 3RP25 and SIRIUS 3RP20 timing relays

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3RP

Electronic timing relays are used in control, starting, and protective circuits for all switching operations involving time delays.

Their fully developed concept and space-saving, compact design make the SIRIUS 3RP timing relays ideal timer modules for control cabinet, switchgear and control manufacturers in the industry.

With their narrow design, the 7PV15 timing relays are ideal in particular for use in heating, ventilation and air-conditioning systems and in compressors. All 7PV15 timing relays in this enclosure version are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60175. The enclosure complies with DIN 43880.

The SIRIUS 3RA28 function modules enable the assembly of starters and contactor assemblies for direct-on-line and wye-delta starting. They include the key control functions required for the particular feeder, e.g. timing and electrical interlocking. The function modules that function as timing relays are mounted quickly and simply on SIRIUS contactors – without any great wiring effort.

The SIRIUS 3RA28 solid-state time-delay auxiliary switches which can be mounted onto contactors are designed for contactor coil voltages in the range from 24 to 240 V AC/DC (wide voltage range). Auxiliary switches for control and alarm signals are used specially for switching the smallest signals for electronics applications. They are used, for example, for allowing a pump or fan to run on, or for the delayed activation of a gate drive.

Simply by being plugged in place, the SIRIUS 3RT19 timing relays enable different functionalities required for the assembly of starters to be realized in the feeder. At the same time the timing relays for mounting onto contactors reduce the wiring work required within the feeder and save space in the control cabinet.

Device series

SIRIUS timing relays for standard rail mounting

- SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm, see page 10/39
- SIRIUS 3RP20 timing relays, 45 mm, see page 10/51
- 7PV15 timing relays, 17.5 mm, see page 10/57

SIRIUS timing relays for mounting onto contactors

- SIRIUS 3RA28 solid-state time-delay auxiliary switch blocks for mounting onto 3RT2 contactors and 3RH2 contactor relays, see page 3/101
- SIRIUS 3RA28 function modules for mounting onto 3RT2 contactors and 3RH2 contactor relays, see page 3/106
- SIRIUS 3RT19 timing relays for mounting onto 3RT1 contactors, see page 3/102

Benefits

- The right design for every application
- Clear-cut basic range with five basic units in the case of the 7PV15 timing relays, and up to seven basic units in the case of the 3RP timing relays
- Considerable logistical advantages thanks to versions with wide voltage and wide time setting range
- No tools required for assembly or disassembly on standard mounting rails
- Cadmium-free relay contacts
- Recyclable, halogen-free enclosure
- Optimum price/performance ratio

- Versions with logical separation
- Low variance: One design for distribution boards and for control cabinets
- Compliance with EMC requirements for buildings
- Environmentally friendly laser inscription instead of printing containing solvents
- Versions as snap-on modules for reducing wiring and saving space in the control cabinet
- Versions with screw terminals or alternatively with spring-type terminals

Application

Timing relays with ON-delay

- Interference pulse suppression (gating of interference pulses)
- Gradual startup of motors so as not to overload the power supply

Timing relays with OFF-delay

- Generation of overtravel functions following removal of voltage
- Gradual, delayed shutdown, e.g. of motors or fans, to allow a plant to be shut down selectively

Clock-pulse relay

- Flashing, asymmetrical

Wye-delta timing relays

- Switching over motors from Wye to delta with a dead interval of 50 ms to prevent phase-to-phase short circuits

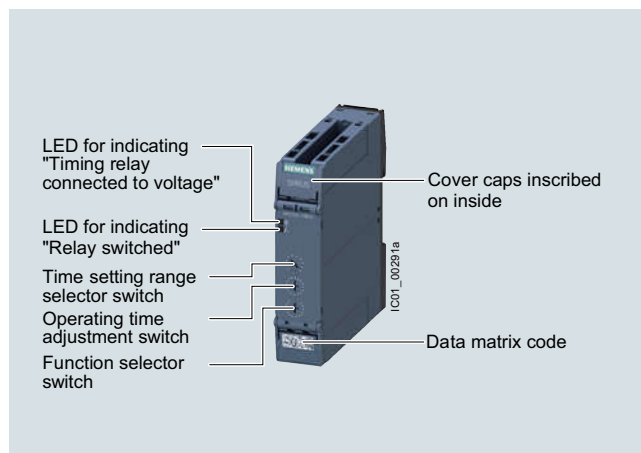
Multifunctional timing relays

- Maximum flexibility, with a device for every application
- Available with relay and semiconductor output
- Versions for railway applications for more exacting requirements (e.g. temperature range, vibration/shock resistance and EMC)

Watchdog function

- Monitoring of cyclic events

Overview



SIRIUS 3RP25 timing relays

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3RP25

For the conversion tool, e.g. from 3RP15 to 3RP25, see www.siemens.com/sirius/conversion-tool

Electronic timing relays for general use in control systems and mechanical engineering with:

- 1 or 2 CO, 1 NO (semiconductor) or 3 NO
- Monofunction or multifunction
- Combination voltage or wide voltage range
- Single or selectable time setting ranges
- Switch position indication and voltage indication by LED

Article No. scheme

Product versions		Article number					
Timing relays		3RP25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Product function/ time setting ranges	Multifunction	0 5					7 time ranges 0.05 s ... 100 h
	ON-delay	1 1					1 time range 0.5 ... 10 s
		1 2					1 time range 1 ... 3 s
		1 3					1 time range 5 ... 100 s
		2 5					7 time ranges 0.05 s ... 100 h
		2 7					4 time ranges 0.05 s ... 240 s
	OFF-delay with control signal	3 5					7 time ranges 0.05 s ... 100 h
	OFF-delay without control signal, non-volatile, passing make contact	4 0					7 time ranges 0.05 s ... 600 s
	Clock-pulse relay, flashing, asymmetrical	5 5					7 time ranges 0.05 s ... 100 h
	Wye-delta function with coasting function (idling)	6 0					Wye-delta 1 ... 20 s, coasting time (idling) 600 s
Connection type	Screw terminals					1	
	Spring-type terminals (push-in)					2	
Contacts	1 CO					A	
	2 CO					B	
	Semiconductors (transistor NPN)					C	
	Semiconductors (thyristor), two-wire					E	
	1 NO + 1 NO (SD)					N	
	2 CO positively driven					R	
	3 NO					S	
Control supply voltage	24 V AC/DC					B 3	
	200 ... 240 V/380 ... 440 V AC					M 2	
	400 ... 440 V AC					T 2	
	12 ... 240 V AC/DC or					W 3	
	24 ... 240 V AC/DC (3RP2505-.RW30)						
Example		3RP25	0 5	-	1	A B 3	0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Relays

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

3RP2505 multifunctional timing relays

Two setting options for implementing the multifunctions (A-M):



- ① Determination of 13 functions by the setting A to M, with 1 CO, 1 NO, 2 CO that switch in parallel.
- ② Extended function variance by selecting the time range and determining, whether 2 CO switch in parallel or whether 1 CO switches with delay + 1 CO switches immediately (1 CO + 1 CO)

Setting the functions on the device

The functions of the 3RP2505 multifunctional timing relays can be set by means of the function selector switch. Whether both CO contacts are switched in parallel or one CO contact with a delay and one instantaneously and the choice of time setting range are set by means of the time setting range selector switch. The exact operating time can be adjusted with the operating time switch.

Overview of functions

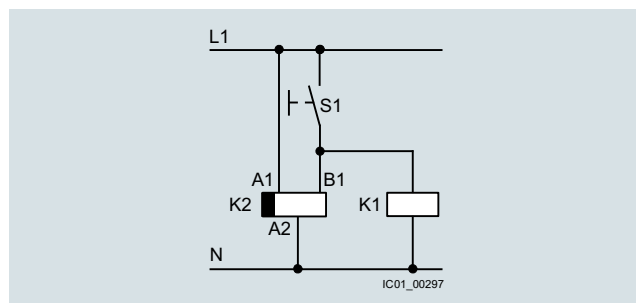
Identification letter	13 functions	27 functions
	1 CO contact (1 CO), 1 NO contact (1 NO) semiconductor, 2 CO contacts switched in parallel (2 CO) or 2 CO contacts positively driven and switched in parallel with delay (2 CO)	13 functions (A - M) 2 CO contacts switched in parallel (2 CO) + 13 functions (A - M) 1 delayed CO contact + 1 instantaneous CO contact (1 CO + 1 CO) and wye-delta function
A	ON-delay	ON-delay and instantaneous contact
B	OFF-delay with control signal	OFF-delay with control signal and instantaneous contact
C	ON-delay/OFF-delay with control signal	ON-delay/OFF-delay with control signal and instantaneous contact
D	Flashing, symmetrical, starting with interval	Flashing, symmetrical, starting with interval and instantaneous contact
E	Passing make contact, interval relay	Passing make contact, interval relay and instantaneous contact
F	Retriggerable interval relay with deactivated control signal (passing break contact with control signal)	Retriggerable interval relay with deactivated control signal (passing break contact with control signal) and instantaneous contact
G	Passing make contact, with control signal, not retriggerable (pulse-forming with control signal)	Passing make contact, with control signal, not retriggerable, (pulse-forming with control signal) and instantaneous contact
H	Additive ON-delay, instantaneous OFF with control signal	Additive ON-delay, instantaneous OFF with control signal and instantaneous contact
I	Additive ON-delay with control signal	Additive ON-delay with control signal and instantaneous contact
J	Flashing, symmetrical, starting with pulse	Flashing, symmetrical, starting with pulse and instantaneous contact
K	Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay)	Pulse-delayed (fixed pulse (at 1 s) and settable pulse delay) and instantaneous contact
L	Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay)	Pulse-delayed with control signal (fixed pulse (at 1 s) and settable pulse delay) and instantaneous contact
M	Retriggerable interval relay with activated control signal (watchdog)	Retriggerable interval relay with activated control signal and instantaneous contact (watchdog)
--	--	Wye-delta function

With a set of foil labels the timing relay can be legibly marked with the functions which can be selected on the timing relay. This is supplied together with the multifunctional timing relay.

The same potential must be applied to terminals A. and B.

Note:

The activation of loads parallel to the start input is permissible when using AC/DC control voltage.



Diagram

Benefits

- Easy stock keeping and logistics thanks to low variance of devices
- Reduced space requirement in the control cabinet thanks to variants in width 17.5 mm and 22 mm
- Consistent for all functions thanks to wide voltage range from 12 to 240 V AC/DC
- Up to 27 functions according to IEC 61812 in the multifunctional timing relay with wide voltage range
- Multifunctional timing relay with semiconductor output for high switching frequencies, bounce-free and wear-free switching

Standards and approvals

- IEC 60721-3-3 "Classification of environmental conditions"
- IEC 61812-1/DIN VDE 0435 Part 2021 "Specified time relays for industrial use"
- IEC 61000-6-2, IEC 61000-6-3 and IEC 61000-6-4 "Electromagnetic compatibility"
- IEC 60947-5-1 "Low-voltage switchgear and controlgear – Electromechanical control circuit devices"

Application

Timing relays are used in control, starting, and protective circuits for all switching operations involving time delays. They guarantee a high level of functionality and a high repeat accuracy of timer settings.

Enclosure version

All timing relays are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60715 or for screw fixing.

Relays

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

Technical specifications

More information

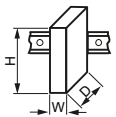
Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/16354/td>

Manual, see <https://support.industry.siemens.com/cs/ww/en/view/103532830>



Internal circuit diagrams, see [CAX Download Manager](https://support.industry.siemens.com/my/ww/en/CAXOnline#CAXOnline)

<https://support.industry.siemens.com/my/ww/en/CAXOnline#CAXOnline>

FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16354/faq>

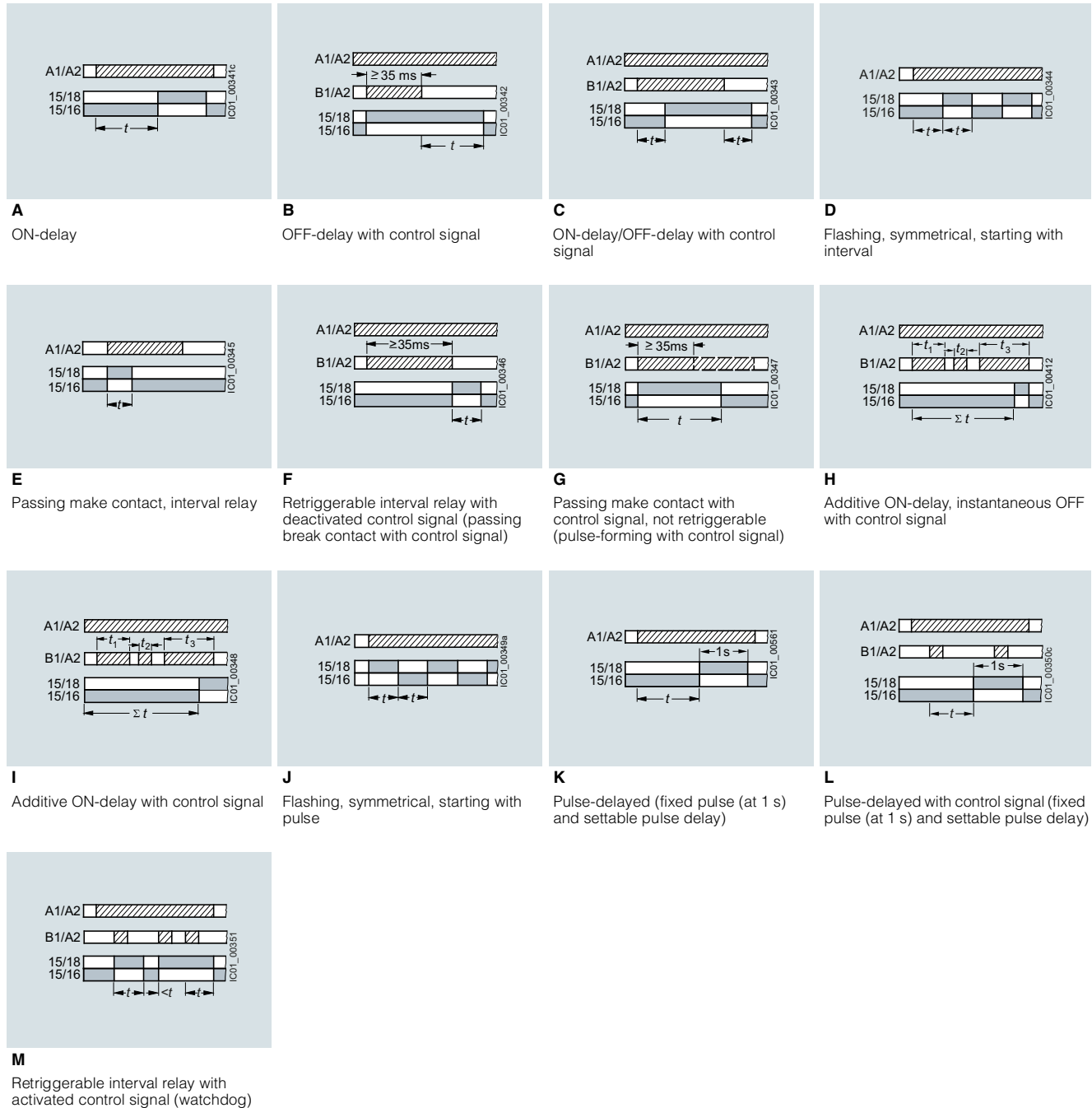
Article number		3RP2505-A, 3RP2505-C, 3RP251., 3RP2525-A, 3RP2527, 3RP253., 3RP255.	3RP2505-B, 3RP2505-R, 3RP2525-B, 3RP254., 3RP256., 3RP257.
Width x height x depth		mm 17.5 x 100 x 90	22.5 x 100 x 90

Article number		3RP25...-AB30, 3RP25...-AW30, 3RP25...-BB30, 3RP25...-BW30, 3RP25...-NW30, 3RP25...-SW30	3RP25...-BT20, 3RP25...-NM20	3RP25...-CW30	3RP25...-EW30	3RP25...-RW30
General technical specifications:						
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3, rated value	V AC	300	500	300	--	300
Ambient temperature						
• During operation	°C	-25 ... +60				-40 ... +70
• During storage	°C	-40 ... +85				-40 ... +85
Operating range factor of the control supply voltage, rated value						
• At AC						
- At 50 Hz		0.85 ... 1.1	0.85 ... 1.1	0.85 ... 1.1	0.85 ... 1.1	0.7 ... 1.1
- At 60 Hz		0.85 ... 1.1	0.85 ... 1.1	0.85 ... 1.1	0.85 ... 1.1	0.7 ... 1.1
• At DC		0.85 ... 1.1	--	0.85 ... 1.1	0.85 ... 1.1	0.7 ... 1.1
Switching capacity current with inductive load	A	0.01 ... 3	0.01 ... 3	0.01 ... 1	0.01 ... 0.6	0.01 ... 3
Operational current of the auxiliary contacts						
• At AC-15						
- At 24 V	A	3	3	1	--	3
- At 250 V	A	3	3	1	--	3
- At 400 V	A	--	3	--	--	--
• At DC-12						
- At 24 V	A	--	--	1	--	--
- At 125 V	A	--	--	1	--	--
- At 250 V	A	--	--	1	--	--
• At DC-13						
- At 24 V	A	1	1	--	--	1
- At 125 V	A	0.2	0.2	--	--	0.2
- At 250 V	A	0.1	0.1	--	--	0.1
Thermal current	A	5	5	1	0.6	5
Mechanical endurance (operating cycles)		10 000 000				
Electrical endurance (operating cycles) for AC-15 at 230 V		100 000		300 000	100 000	

Article number		3RP25...-1...0	3RP25...-2...0
Type of electrical connection for auxiliary and control circuits		 Screw terminals	 Spring-type terminals (push-in)
Design of thread of connection screw		M3	--
Tightening torque	Nm	0.6 ... 0.8	--
Type of connectable conductor cross-sections			
• Solid		1x (0.5 ... 4 mm²), 2 x (0.5 ... 2.5 mm²)	1x (0.5 ... 4 mm²)
• Finely stranded with end sleeve		1x (0.5 ... 4 mm²), 2 x (0.5 ... 1.5 mm²)	1x (0.5 ... 2.5 mm²)
• For AWG cables			
- Solid		1x (20 ... 12), 2 x (20 ... 14)	1x (20 ... 12)
- Stranded		1x (20 ... 12), 2 x (20 ... 14)	1x (20 ... 12)

3RP25 function diagrams

Multifunction 3RP2505-.A, 1 CO, 13 functions and 3RP2505-.C, 1 NO (semiconductor), 13 functions

Legend

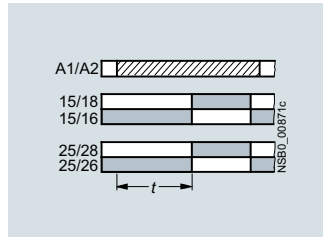
- A ... M** Identification letters
- Timing relay energized
- Contact closed
- Contact open

Relays

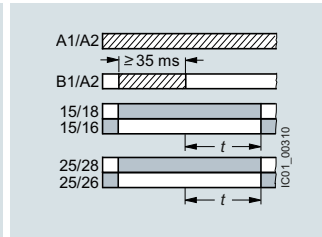
Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

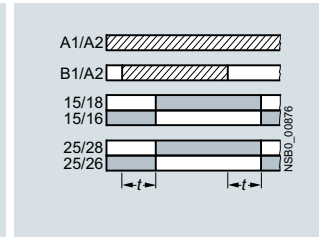
Multifunction 3RP2505-.R, 13 functions, 2 CO positively driven and switched in parallel with delay



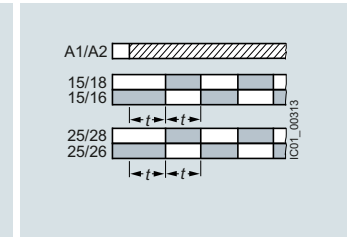
A
ON-delay



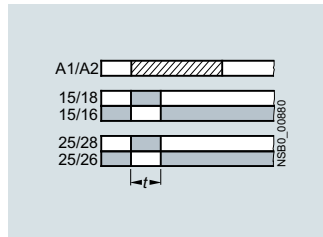
B
OFF-delay with control signal



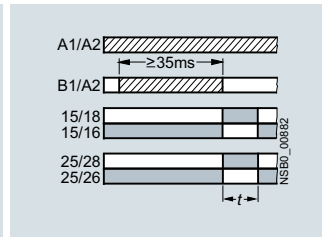
C
ON-delay/OFF-delay with control signal



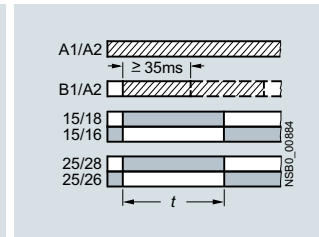
D
Flashing, symmetrical, starting with interval



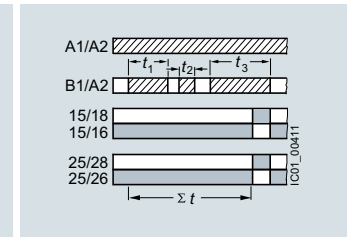
E
Passing make contact, interval relay



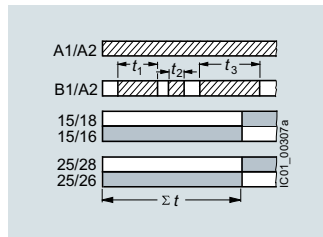
F
Retriggerable interval relay with deactivated control signal (passing break contact with control signal)



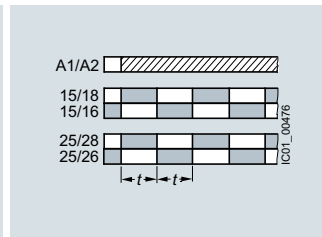
G
Passing make contact with control signal, not retriggerable (pulse-forming with control signal)



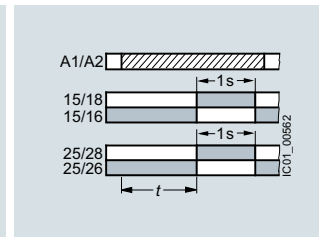
H
Additive ON-delay, instantaneous OFF with control signal



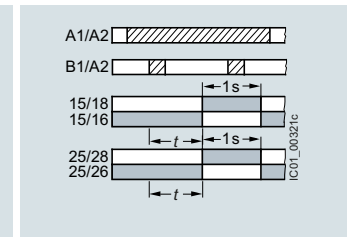
I
Additive ON-delay with control signal



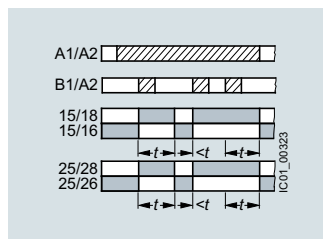
J
Flashing, symmetrical, starting with pulse



K
Pulse-delayed (fixed pulse at 1 s and settable pulse delay)



L
Pulse-delayed with control signal (fixed pulse at 1 s and settable pulse delay)



M
Retriggerable interval relay with activated control signal (watchdog)

Legend

A ... M Identification letters

▨ Timing relay energized

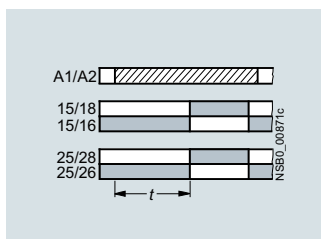
■ Contact closed

□ Contact open

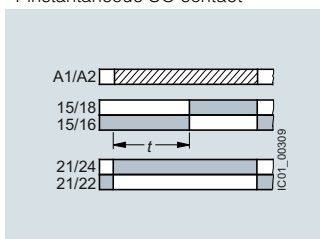
Multifunction 3RP2505-.B, 27 functions, 2 CO

A

2 CO switched in parallel



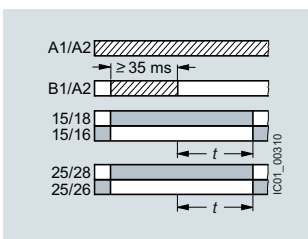
ON-delay

1 delayed CO contact +
1 instantaneous CO contact

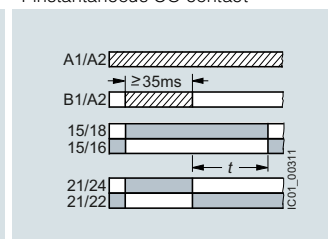
ON-delay and instantaneous contact

B

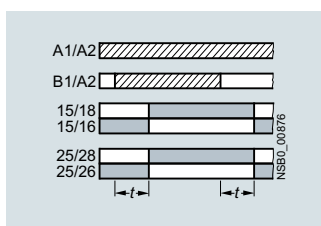
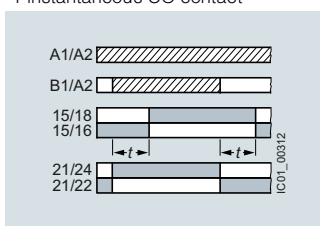
2 CO switched in parallel



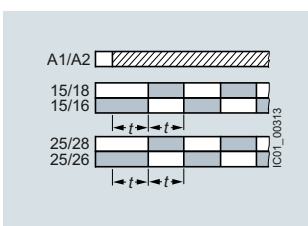
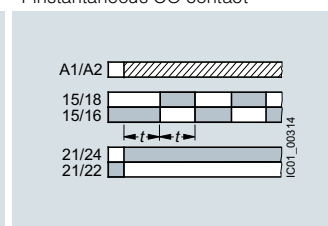
OFF-delay with control signal

1 delayed CO contact +
1 instantaneous CO contactOFF-delay with control signal and
instantaneous contact**C**

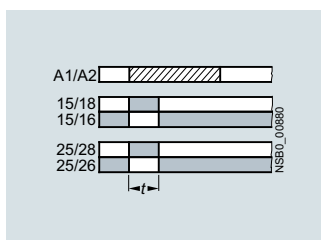
2 CO switched in parallel

ON-delay/OFF-delay with control
signal1 delayed CO contact +
1 instantaneous CO contactON-delay/OFF-delay with control
signal and instantaneous contact**D**

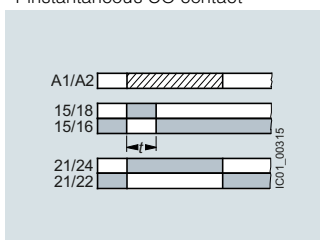
2 CO switched in parallel

Flashing, symmetrical, starting with
interval1 delayed CO contact +
1 instantaneous CO contactFlashing, symmetrical, starting with
interval and instantaneous contact**E**

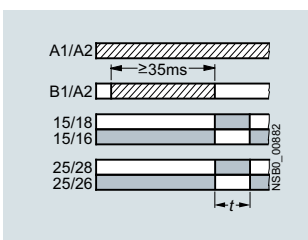
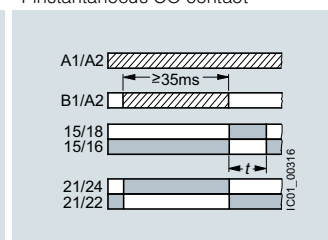
2 CO switched in parallel



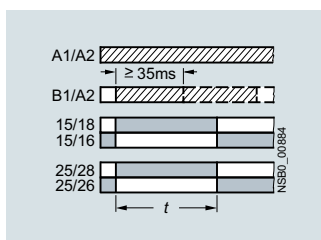
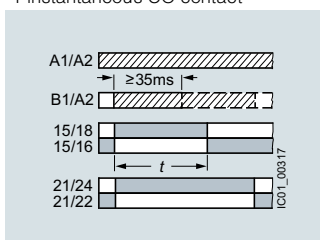
Passing make contact, interval relay

1 delayed CO contact +
1 instantaneous CO contactPassing make contact, interval relay
and instantaneous contact**F**

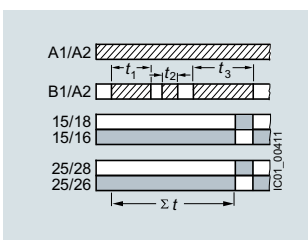
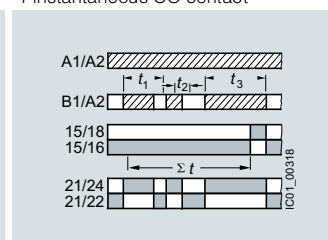
2 CO switched in parallel

Retriggerable interval relay with
deactivated control signal (passing
break contact with control signal)1 delayed CO contact +
1 instantaneous CO contactRetriggerable interval relay with
deactivated control signal (passing
break contact with control signal)
and instantaneous contact**G**

2 CO switched in parallel

Passing make contact with
control signal, not retriggerable
(pulse-forming with control signal)1 delayed CO contact +
1 instantaneous CO contactPassing make contact with
control signal, not retriggerable
(pulse-forming with control signal)
and instantaneous contact**H**

2 CO switched in parallel

Additive ON-delay, instantaneous
OFF with control signal1 delayed CO contact +
1 instantaneous CO contactAdditive ON-delay, instantaneous OFF
with control signal and instantaneous
contact

Legend

- A ... H** Identification letters
- Timing relay energized
- Contact closed
- Contact open

Relays

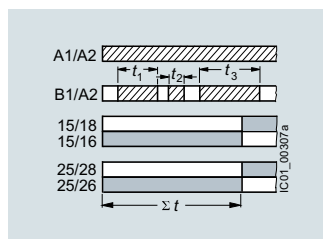
Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

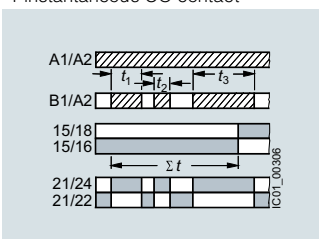
Multifunction 3RP2505-.B, 27 functions, 2 CO (continued)

I

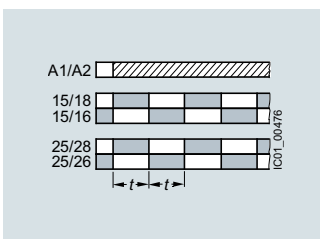
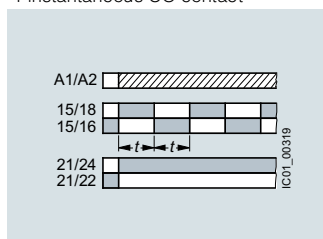
2 CO switched in parallel



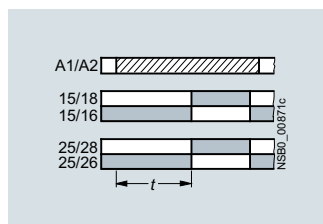
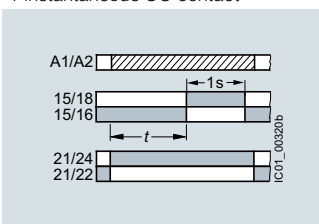
Additive ON-delay with control signal

1 delayed CO contact +
1 instantaneous CO contactAdditive ON-delay with control signal
and instantaneous contact**J**

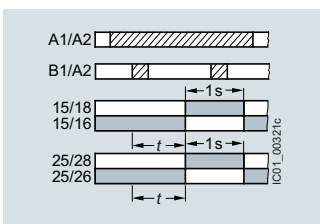
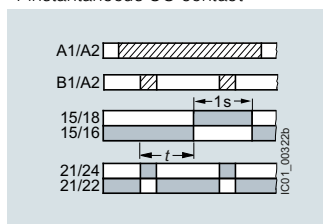
2 CO switched in parallel

Flashing, symmetrical, starting with
pulse1 delayed CO contact +
1 instantaneous CO contactFlashing, symmetrical, starting with
pulse and instantaneous contact**K**

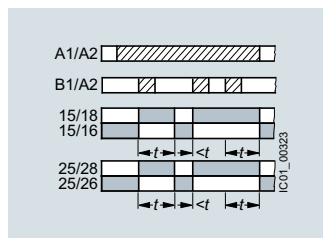
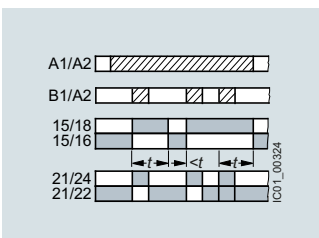
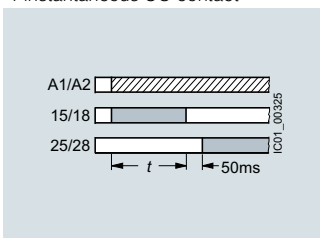
2 CO switched in parallel

Pulse-delayed (fixed pulse at 1 s
and settable pulse delay)1 delayed CO contact +
1 instantaneous CO contactPulse-delayed (fixed pulse at 1 s
and settable pulse delay) and
instantaneous contact**L**

2 CO switched in parallel

Pulse-delayed with control signal
(fixed pulse at 1 s and settable pulse
delay)1 delayed CO contact +
1 instantaneous CO contactPulse-delayed with control signal (fixed
pulse at 1 s and settable pulse delay)
and instantaneous contact**M**

2 CO switched in parallel

Retriggerable interval relay with
activated control signal (watchdog)1 delayed CO contact +
1 instantaneous CO contactRetriggerable interval relay with
activated control signal and
instantaneous contact (watchdog)**YΔ**2 CO contacts switched in parallel or
1 delayed CO contact +
1 instantaneous CO contact

Wye-delta function

Legend

I ... M Identification letters

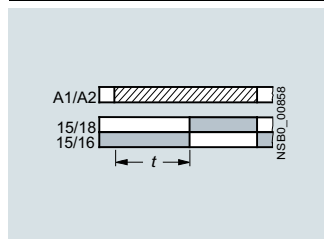
▨ Timing relay energized

■ Contact closed

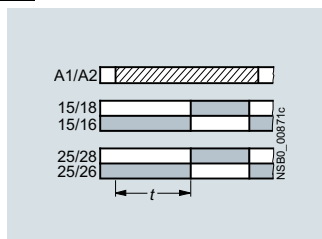
□ Contact open

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

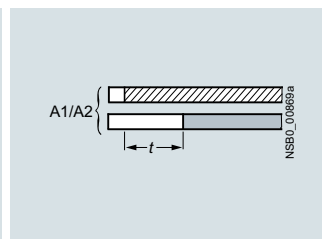
Monofunctions 3RP251. to 3RP257. ¹⁾



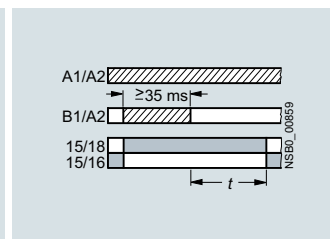
3RP251..AW30, 1 CO, ON-delay



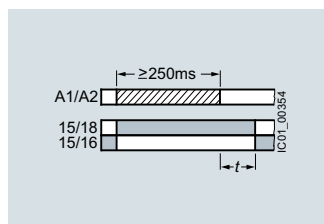
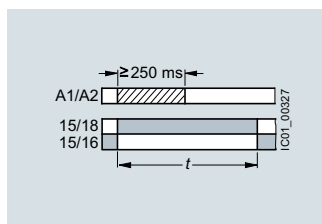
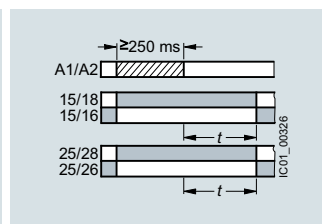
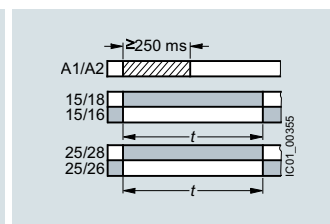
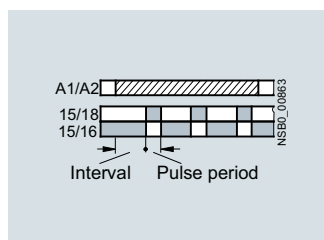
3RP2525..W30, 2 CO, ON-delay



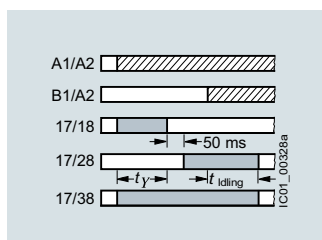
3RP2527..EW30, 1 NO (semiconductor), ON-delay



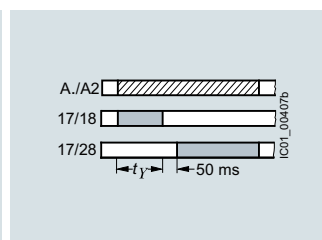
3RP2535..AW30, 1 CO, OFF-delay with control signal

3RP2540..A.30, 1 CO, OFF-delay (N)¹⁾3RP2540..A.30, 1 CO, positive passing make contact (O)¹⁾3RP2540..B.30, 2 CO, OFF-delay (N)¹⁾3RP2540..B.30, 2 CO, positive passing make contact (O)¹⁾

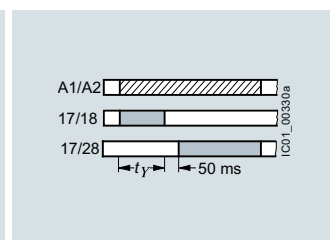
3RP2555..AW30, 1 CO, flashing, asymmetrical, starting with interval (clock-pulse relay)



3RP2560..SW30, 3 NO, wye-delta function with overtravel function (idling)



3RP257..NM20, 2 NO, wye-delta function



3RP257..NM30, 2 NO, wye-delta function

Legend

- Timing relay energized
- Contact closed
- Contact open

¹⁾ 3RP2540 has a double function:
Function N = OFF-delay
Function O = Positive passing make contact

Relays

Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

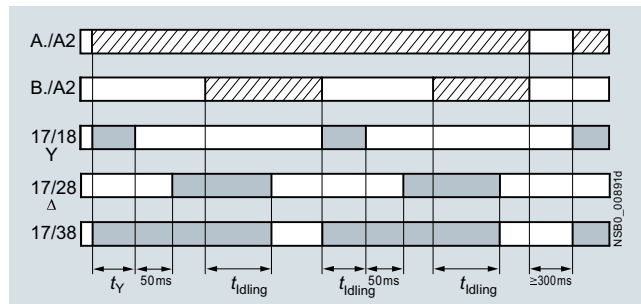
Possibilities of operation of the 3RP2560-.SW30 timing relay

Operation 1: Start contact B./A2 is open when control supply voltage A./A2 is applied

The control supply voltage is applied to A./A2 and there is no control signal on B./A2. This starts the $\Upsilon\Delta$ timing. The idling time (coasting time) is started by applying a control signal to B./A2. When the set time t_{Idling} (30 ... 600 s) has elapsed, the output relays (17/38 and 17/28) are reset. If the control signal on B./A2 is switched off (minimum OFF period 270 ms), a new timing is started.

Note:

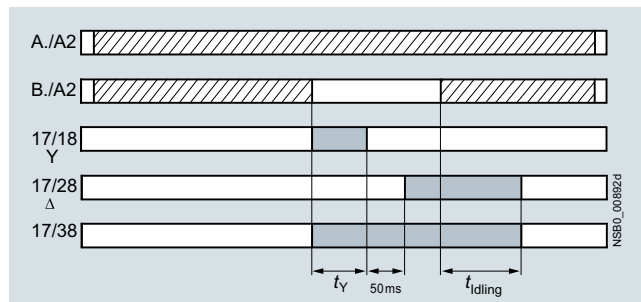
Observe response time (dead time) of 400 ms on energizing control supply voltage until contacts 17/18 and 17/38 close.



Operation 1

Operation 2: Start contact B./A2 is closed when control supply voltage A./A2 is applied

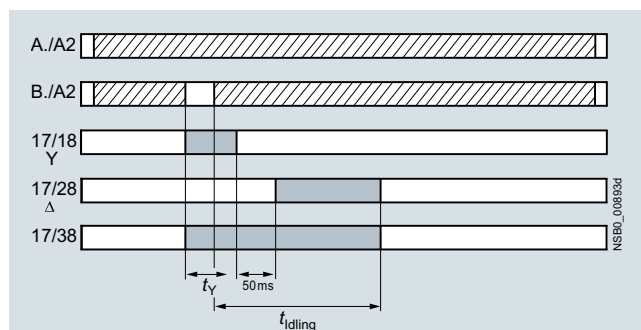
If the control signal B./A2 is already present when the control supply voltage A./A2 is applied, **no** timing is started. The timing is only started when the control signal B./A2 is switched off.



Operation 2

Operation 3: Start contact B./A2 closes while star time is running

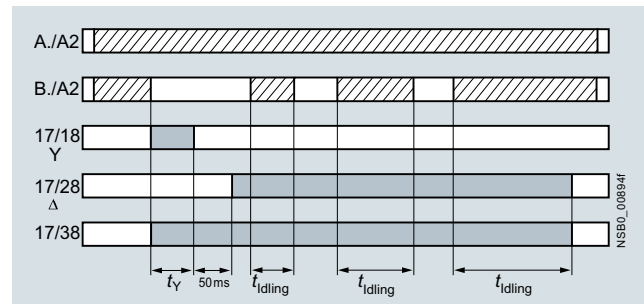
If the control signal B./A2 is applied again during the star time, the idling time starts and the timing is terminated normally.



Operation 3

Operation 4: Start contact B./A2 opens while delta time is running and is applied again

If the control signal on B./A2 is applied and switched off again during the delta time, although the idling time has not yet elapsed, the idling time (coasting time) is reset to zero. If the control signal is re-applied to B./A2, the idling time is restarted.



Operation 4

Legend

- Timing relay energized
- Contact closed
- Contact open

t_Y = Star time 1 ... 20 s

t_{Idling} = Idling time (coasting time) 30 ... 600 s

Note:

The following applies to all operations: The pressure switch controls the timing via B./A2.

Application example based on standard operation (operation 1):
For example, use of 3RP2560 for compressor control

Frequent starting of compressors strains the network, the machine, and the increased costs for the operator. The new timing relay prevents frequent starting at times when there is high demand for compressed air. A special control circuit prevents the compressor from being switched off immediately when the required air pressure in the tank has been reached. Instead, the valve in the intake tube is closed and the compressor runs in "Idling" mode, i.e. in no-load operation for a specific time which can be set from 30 ... 600 s.

If the pressure falls within this time, the motor does not have to be restarted again, but can return to nominal load operation from no-load operation.


If the pressure does not fall within this idling time, the motor is switched off.

The pressure switch controls the timing via B./A2.

The control supply voltage is applied to A./A2 and the start contact B./A2 is open, i.e. there is no control signal on B./A2 when the control supply voltage is applied. The pressure switch signals "too little pressure in system" and starts the timing by way of terminal B./A2. The compressor is started, enters $\Upsilon\Delta$ operation, and fills the pressure tank.

When the pressure switch signals "sufficient pressure", the control signal B./A2 is applied, the idling time (coasting time) is started, and the compressor enters no-load operation for the set period of time from 30 ... 600 s. The compressor is then switched off. The compressor is only restarted if the pressure switch responds again (low pressure).

Selection and ordering data

													
3RP2505-2AB30		3RP2505-2BB30		3RP2525-2AW30		3RP2540-2AW30		3RP2555-2AW30		3RP2576-2NW30			
Number of NO contacts		Number of CO contacts		Semi-conductor output	Adjustable time	Control supply voltage		SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Instantaneous switching	Delayed switching	Instantaneous switching	Delayed switching			At 50/60 Hz AC	At DC						
						V	V						
13 functions													
0	0	0	1	No	0.05 s ... 100 h	24 12 ... 240	24 12 ... 240	▶	3RP2505-□AB30 3RP2505-□AW30		1 1	1 unit 1 unit	41H 41H
0	1	0	0	Yes	0.05 s ... 100 h	12 ... 240	12 ... 240	2	3RP2505-□CW30		1	1 unit	41H
13 functions, suitable for railway applications													
0	0	0	2 ¹⁾	No	0.05 s ... 100 h	24 ... 240	24 ... 240	▶	3RP2505-□RW30		1	1 unit	41H
27 functions													
0	0	0	2 ²⁾	No	0.05 s ... 100 h	24 400 ... 440 12 ... 240	24 -- 12 ... 240	▶▶▶	3RP2505-□BB30 3RP2505-□BT20 3RP2505-□BW30		1 1 1	1 unit 1 unit 1 unit	41H 41H 41H
ON-delay													
0	0	0	1	No	0.5 ... 10 s 1 ... 30 s 5 ... 100 s 0.05 s ... 100 h	12 ... 240 12 ... 240 12 ... 240 12 ... 240	12 ... 240 12 ... 240 12 ... 240 12 ... 240	▶▶▶▶	3RP2511-□AW30 3RP2512-□AW30 3RP2513-□AW30 3RP2525-□AW30		1 1 1 1	1 unit 1 unit 1 unit 1 unit	41H 41H 41H 41H
0	0	0	2	No	0.05 s ... 100 h	24 12 ... 240	24 12 ... 240	2▶	3RP2525-□BB30 3RP2525-□BW30		1 1	1 unit 1 unit	41H 41H
0	1	0	0	Yes	0.05 s ... 240 s	12 ... 240	12 ... 240	2	3RP2527-□EW30		1	1 unit	41H
OFF-delay with control signal													
0	0	0	1	No	0.05 s ... 100 h	12 ... 240	12 ... 240	▶	3RP2535-□AW30		1	1 unit	41H
OFF-delay without control signal, non-volatile, passing make contact													
0	0	0	1	No	0.05 s ... 600 s	24 12 ... 240	24 12 ... 240	2▶	3RP2540-□AB30 3RP2540-□AW30		1 1	1 unit 1 unit	41H 41H
0	0	0	2	No	0.05 s ... 600 s	24 12 ... 240	24 12 ... 240	2▶	3RP2540-□BB30 3RP2540-□BW30		1 1	1 unit 1 unit	41H 41H
Clock-pulse relay, flashing, asymmetrical													
0	0	0	1	No	0.05 s ... 100 h	12 ... 240	12 ... 240	▶	3RP2555-□AW30		1	1 unit	41H
Wye-delta function with coasting function (idling)													
1	2	0	0	No	1 ... 20 s	12 ... 240	12 ... 240	2	3RP2560-□SW30		1	1 unit	41H
Wye-delta function													
1	1	0	0	No	1 ... 20 s	380 ... 440 ³⁾ 12 ... 240	-- 12 ... 240	2▶	3RP2574-□NM20 3RP2574-□NW30		1 1	1 unit 1 unit	41H 41H
1	1	0	0	No	3 ... 60 s	380 ... 440 ³⁾ 12 ... 240	-- 12 ... 240	2▶	3RP2576-□NM20 3RP2576-□NW30		1 1	1 unit 1 unit	41H 41H

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

¹⁾ Positively-driven contacts.

²⁾ Optionally 1 CO delayed + 1 CO instantaneous.

³⁾ With 3RP2574-NM20 and 3RP2576-NM20, connection of 200 ... 240 V AC, 50/60 Hz control voltage is also possible.

Notes:

For accessories, see page 10/50.

In the case of 3RP2505, the functions can be adjusted by means of function selector switches on the device. With a set of foil labels the timing relay can be legibly marked with the functions which can be selected on the timing relay. This is included in the scope of supply. The same potential must be applied to terminals A. and B.

For functions, see the overview of functions on page 10/40.

Relays











Timing Relays

SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm

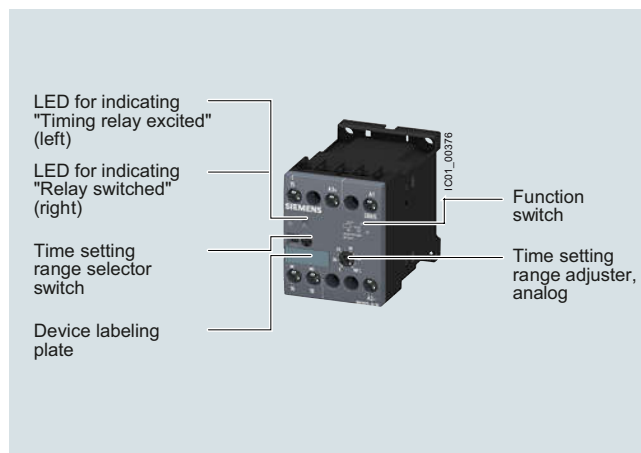
Accessories

More information

You can find information on configuring and dimensioning the accessories in the manual, see <https://support.industry.siemens.com/cs/ww/en/view/103532830>

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Accessories for enclosures						
 3ZY1321-2AA00	Sealing covers					
	• 17.5 mm	2	3ZY1321-1AA00	1	5 units	41L
	• 22.5 mm	2	3ZY1321-2AA00	1	5 units	41L
 3ZY1311-0AA00	Push-in lugs For wall mounting	2	3ZY1311-0AA00	1	10 units	41L
 3ZY1440-1AA00	Coding pins For removable terminals of SIRIUS devices in the industrial standard mounting rail enclosure; they enable the mechanical coding of terminals	2	3ZY1440-1AA00	1	12 units	41L
 3ZY1450-1AB00	Hinged cover NEW Replacement cover, without terminal labeling, titanium gray	2	3ZY1450-1AA00	1	5 units	41H
	• 17.5 mm wide	2	3ZY1450-1AB00	1	5 units	41H
	• 22.5 mm wide	2				
Terminals for SIRIUS devices in the industrial standard mounting rail enclosure						
 3ZY1122-1BA00	Removable terminals		Screw terminals 			
	• 2-pole, 1 x 4 mm ²	2	3ZY1122-1BA00	1	6 units	41L
 3ZY1122-2BA00			Spring-type terminals (push-in) 			
	• 2-pole, 1 x 4 mm ²	2	3ZY1122-2BA00	1	6 units	41L
Tools for opening spring-type terminals						
 3RA2908-1A	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated	2	Spring-type terminals (push-in) 			
			3RA2908-1A	1	1 unit	41B

Overview



SIRIUS 3RP20 timing relays

SIRIUS 3RP20 electronic timing relays for use in control systems and mechanical engineering with:

- 1 or 2 CO contacts
- Multifunction or monofunction
- Wide voltage range or combination voltage
- Single or selectable time setting ranges
- Switch position indication and voltage indication by LED

Standards

The timing relays comply with:

- IEC 60721-3-3 "Classification of environmental conditions"
- IEC 61812-1 "Specified time relays for industrial use"
- IEC 61000-6-2 and IEC 61000-6-4 "Electromagnetic compatibility"
- IEC 60947-5-1 "Low-voltage switchgear and controlgear – Electromechanical control circuit devices"
- IEC 60947-1, Appendix N "Protective separation"

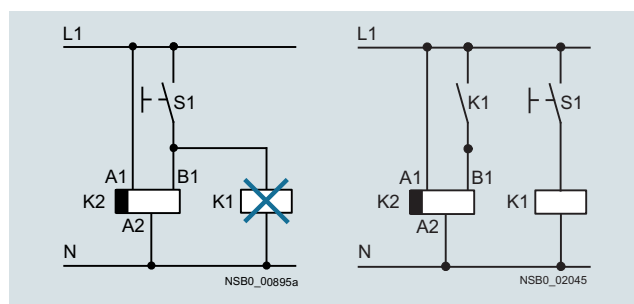
Multifunction

The functions of the 3RP2005 multifunctional timing relays can be set by means of the function selector switch. Insert labels can be used to adjust different functions of the timing relay clearly and unmistakably. The corresponding labels can be ordered as an accessory. The same potential must be applied to terminals A. and B.

For functions, see 3RP2901 label set, page 10/56.

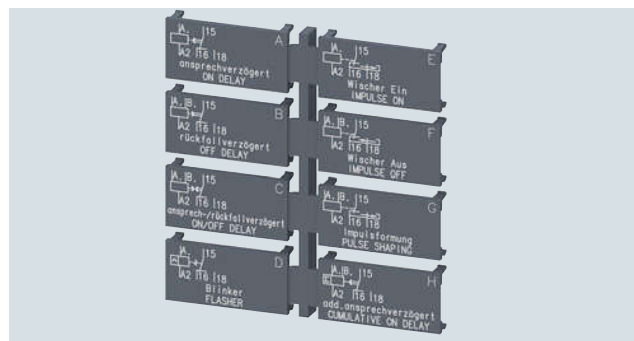
Note:

The activation of loads parallel to the start input is not permissible when using AC control voltage.



Diagrams

Accessories



Label set for marking the multifunctional relay

Article No. scheme

Product versions		Article number			
SIRIUS timing relays, 45 mm enclosure		3RP20	<input type="checkbox"/>	<input type="checkbox"/>	3 0
Product function/ time setting ranges	Multifunction	0 5	<input type="checkbox"/>	<input type="checkbox"/>	15 time ranges 0.05 s... 100 h
	ON-delay	2 5	<input type="checkbox"/>	<input type="checkbox"/>	15 time ranges 0.05 s... 100 h
Connection type	Screw terminals	1	<input type="checkbox"/>	<input type="checkbox"/>	
	Spring-type terminals	2	<input type="checkbox"/>	<input type="checkbox"/>	
Contacts	1 CO	A	<input type="checkbox"/>	<input type="checkbox"/>	
	2 CO	B	<input type="checkbox"/>	<input type="checkbox"/>	
Control supply voltage	24 V AC/DC/100 ... 127 V AC	Q	<input type="checkbox"/>	<input type="checkbox"/>	Combination voltage
	24 V AC/DC/200 ... 240 V AC	P	<input type="checkbox"/>	<input type="checkbox"/>	Combination voltage
	24 ... 240 V AC/DC	W	<input type="checkbox"/>	<input type="checkbox"/>	Wide voltage range
Example		3RP20 0 5 - 1 A P 3 0			

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Relays

Timing Relays

SIRIUS 3RP20 timing relays, 45 mm

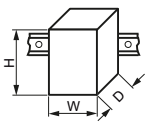


Benefits

- Suitable for 3RT miniature contactors
- Uniform design
- Ideal for small distance between standard mounting rails and/or for low mounting depth, e.g. in control boxes
- Labels are used on the multifunctional timing relay to document the function that has been set

Application

Timing relays are used in control, starting, and protective circuits for all switching operations involving time delays. They guarantee a high level of functionality and a high repeat accuracy of timer settings.

Technical specifications

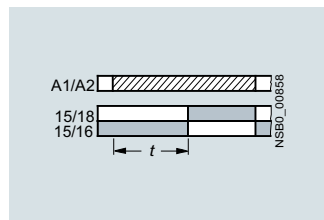
More information		
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16356/td Operating instructions, see https://support.industry.siemens.com/cs/ww/en/view/11647144		Internal circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/11647144 FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16356/faq
Type		3RP2005, 3RP2025
Dimensions (W x H x D)	mm	45 x 57 x 73
		
Rated insulation voltage Pollution degree 3 Overvoltage category III	V AC	300
Permissible ambient temperature • During operation • During storage	°C °C	-25 ... +60 -40 ... +85
Operating range of excitation¹⁾		0.85 ... 1.1 x U_N at AC; 0.8 ... 1.25 x U_N at DC; 0.95 ... 1.05 times the rated frequency
Mechanical endurance	Operating cycles	10 x 10 ⁶
Electrical endurance at I_e	Operating cycles	1 x 10 ⁵
Connection type		 Screw terminals
• Terminal screw • Solid • Finely stranded with end sleeve • Stranded • AWG cables • Tightening torque	mm ² mm ² mm ² AWG AWG Nm	M3 (for standard screwdriver, size 2 and Pozidriv 2) 2 x (0.5 ... 1.5) ²⁾ , 2 x (0.75 ... 2.5) ²⁾ 2 x (0.5 ... 1.5) ²⁾ , 2 x (0.75 ... 2.5) ²⁾ 2 x (0.5 ... 1.5) ²⁾ , 2 x (0.75 ... 2.5) ²⁾ 2 x (18 ... 14) 0.8 ... 1.2
Connection type		 Spring-type terminals
• Solid • Finely stranded with end sleeve • Finely stranded without end sleeve • AWG cables, solid or stranded • Max. external diameter of the conductor insulation	mm ² mm ² mm ² AWG mm	2 x (0.25 ... 2.5) 2 x (0.25 ... 1.5) 2 x (0.25 ... 2.5) 2 x (24 ... 14) 3.6

¹⁾ If nothing else is stated.

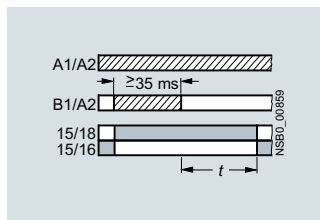
²⁾ If two different conductor cross-sections are connected to one clamping point, both cross-sections must lie in one of the ranges specified.

3RP20 function diagrams and 3RP2901 label set

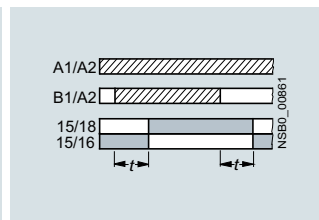
1 CO contact



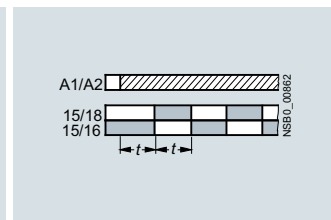
A
3RP2005-.A, 3RP2025
ON-delay



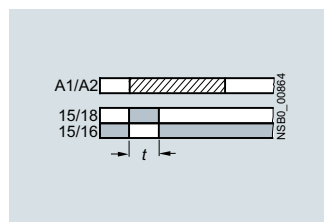
B¹)
3RP2005-.A
OFF-delay with control signal



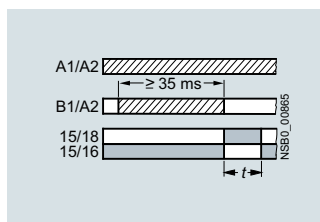
C¹)
3RP2005-.A
ON and OFF-delay
with control signal ($t = t_{on} = t_{off}$)



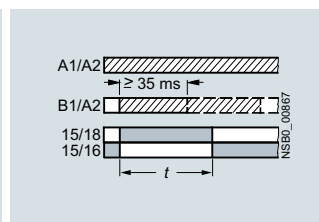
D
3RP2005-.A
Flashing, starting with interval
(pulse/interval 1:1)



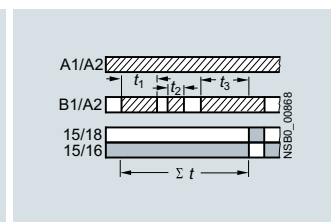
E
3RP2005-.A
Passing make contact



F¹)
3RP2005-.A
Passing break contact with control
signal



G¹)
3RP2005-.A
Pulse-forming with control signal
(pulse generation at the output does
not depend on duration of energizing)



H¹)
3RP2005-.A
Additive ON-delay with control signal

Legend

A ... H Identification letters for 3RP2005

Timing relay energized

Contact closed

Contact open

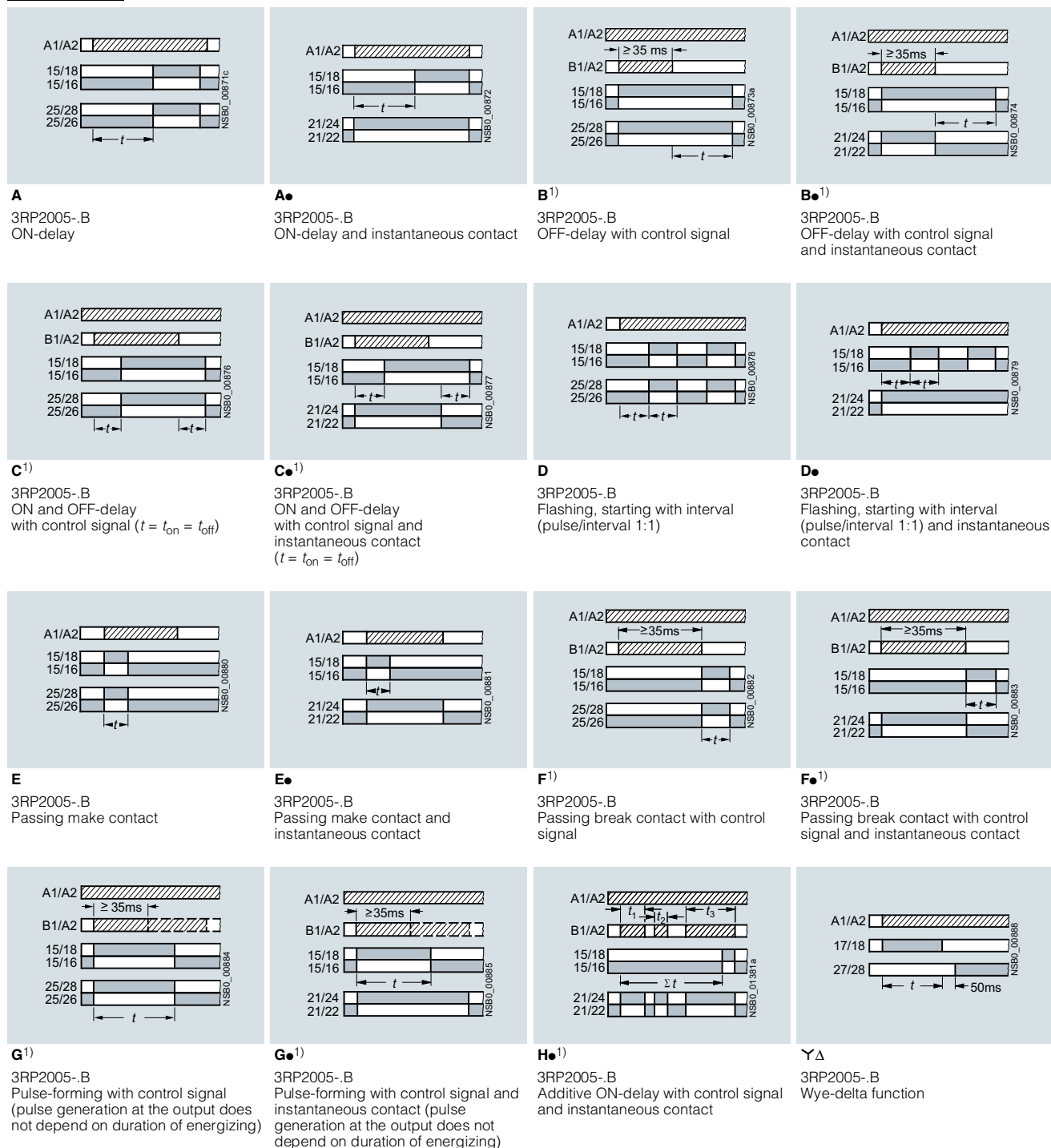
¹) Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to G, G● and H●, which are not retriggerable.

Relays

Timing Relays

SIRIUS 3RP20 timing relays, 45 mm

2 CO contacts



Legend

A ... H Identification letters for 3RP2005

▨ Timing relay energized

■ Contact closed

□ Contact open

¹⁾ Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to G, G● and H●, which are not retriggerable.

Selection and ordering data

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H



3RP2005-1AP30



3RP2005-1BW30



3RP2005-2AP30



3RP2025-2BW30

Version	Time setting range t	Rated control supply voltage U_s		SD	Screw terminals		SD	Spring-type terminals	
		50/60 Hz AC	DC		Article No.	Price per PU		Article No.	Price per PU
		V	V	d					
3RP2005 timing relays, multifunction, 15 time setting ranges									
The functions can be adjusted by means of rotary switches. Insert labels can be used to adjust different functions of the 3RP2005 timing relay clearly and unmistakably. The corresponding labels can be ordered as an accessory. The same potential must be applied to terminals A. and B. For functions, see 3RP2901 label set, page 10/56.									
With LED and 1 CO contact ¹⁾ , 8 functions	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s 1.5 ... 30 s	24/100 ... 127 24/200 ... 240	24 24	▶ ▶	3RP2005-1AQ30 3RP2005-1AP30	2 ▶		3RP2005-2AQ30 3RP2005-2AP30	
With LED and 2 CO contacts, 16 functions	0.05 ... 1 min 5 ... 100 s 0.15 ... 3 min 0.5 ... 10 min 1.5 ... 30 min 0.05 ... 1 h 5 ... 100 min 0.15 ... 3 h 0.5 ... 10 h 1.5 ... 30 h 5 ... 100 h ∞ ²⁾	24 ... 240 ³⁾	24 ... 240 ⁴⁾	▶	3RP2005-1BW30	2		3RP2005-2BW30	
3RP2025. timing relays, ON-delay, 15 time setting ranges									
With LED and 1 CO contact ¹⁾	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s 1.5 ... 30 s 0.05 ... 1 min 5 ... 100 s 0.15 ... 3 min 0.5 ... 10 min 1.5 ... 30 min 0.05 ... 1 h 5 ... 100 min 0.15 ... 3 h 0.5 ... 10 h 1.5 ... 30 h 5 ... 100 h ∞ ²⁾	24/100 ... 127 24/200 ... 240	24 24	▶ ▶	3RP2025-1AQ30 3RP2025-1AP30	5 ▶		3RP2025-2AQ30 3RP2025-2AP30	

For accessories, see page 10/56.

¹⁾ Units with protective separation.

²⁾ With ∞ switch position no timing. For test purposes (ON/OFF function) on site. Relay is constantly on when activated, or relay remains constantly off when activated. Depending on which function is set.

³⁾ Operating range 0.8 to 1.1 × U_s .

⁴⁾ Operating range 0.7 to 1.1 × U_s .

Relays

Timing Relays

SIRIUS 3RP20 timing relays, 45 mm

Accessories

Version	Function	Identifi- cation letter	Use	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
---------	----------	-------------------------------	-----	----	-------------	-----------------	-------------------------	-----	----

Label sets for 3RP20

Accessories for 3RP20 (not included in the scope of supply).
The label set can be used to label timing relays with the set function
in English and German.



3RP2901-0A

- | | | | |
|--|--|---|-----------------------------|
| 1 label set
(1 unit)
with
8 functions | • ON-delay | A | For
devices
with 1 CO |
| | • OFF-delay with control signal | B | |
| | • ON-delay and OFF-delay with control signal | C | |
| | • Flashing, starting with interval | D | |
| | • Passing make contact | E | |
| | • Passing break contact with control signal | F | |
| | • Pulse-forming with control signal | G | |
| | • Additive ON-delay with control signal | H | |

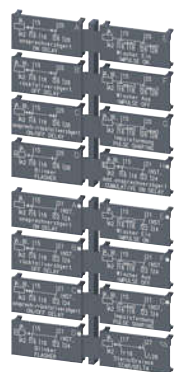
10

3RP2901-0A

1

5 units

41H



3RP2901-0B

- | | | | |
|---|--|----|-----------------------------|
| 1 label set
(1 unit)
with 16
functions | • ON-delay | A | For
devices
with 2 CO |
| | • OFF-delay with control signal | B | |
| | • ON-delay and OFF-delay with control signal | C | |
| | • Flashing, starting with interval | D | |
| | • Passing make contact | E | |
| | • Passing break contact with control signal | F | |
| | • Pulse-forming with control signal | G | |
| | • ON-delay and instantaneous contact | A• | |
| | • OFF-delay with control signal and instantaneous contact | B• | |
| | • ON-delay and OFF-delay with control signal and instantaneous contact | C• | |
| | • Flashing, starting with interval, and instantaneous contact | D• | |
| | • Passing make contact and instantaneous contact | E• | |
| | • Passing break contact with control signal and instantaneous contact | F• | |
| | • Pulse-forming with control signal and instantaneous contact | G• | |
| | • Additive ON-delay with control signal and instantaneous contact | H• | |
| | • Wye-delta function | YΔ | |

10

3RP2901-0B

1

5 units

41H

Blank inscription labels for 3RP20

Blank inscription labels,
20 mm x 7 mm, pastel turquoise¹⁾

For 3RP20 20

3RT1900-1SB20

100 340 units

41B

¹⁾ PC labeling system for individual inscription
of unit labeling plates available from:
Conta-Clip Verbindungstechnik GmbH,
see page 16/16.

Overview



7PV15 timing relay

Electronic timing relays for general use and in control systems, mechanical engineering and infrastructure with:

- 1 or 2 CO contacts
- Multifunction or monofunction
- Wide voltage range or combination voltage
- Single or selectable time setting ranges
- Switch position indication and voltage indication by LED

Standards

The timing relays comply with:

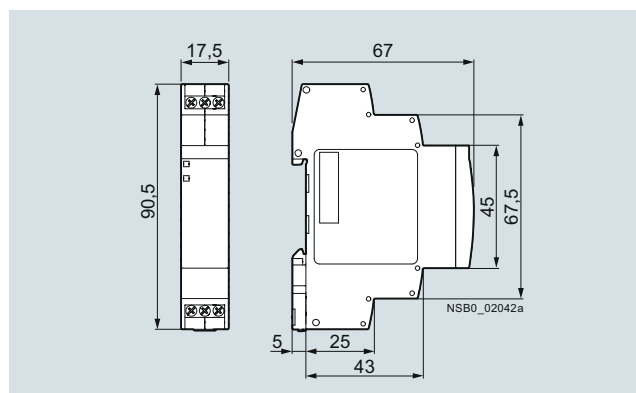
- IEC 60721-3-3 "Classification of environmental conditions"
- IEC 61812-1 "Specified time relays for industrial use"
- IEC 61000-6-2 and IEC 61000-6-4 "Electromagnetic compatibility"
- IEC 60947-5-1 "Low-voltage switchgear and controlgear – Electromechanical control circuit devices"
- DIN 43880 "Built-in equipment for electrical installations; overall dimensions and related mounting dimensions"

Multifunction

The functions of the 7PV1508-1A multifunctional timing relay can be set by means of rotary switches. The identification letters A to G are printed on the front alongside the rotary selector switch of the unit. The related function can be found in the form of a bar graph on the side of the device.

Enclosure version

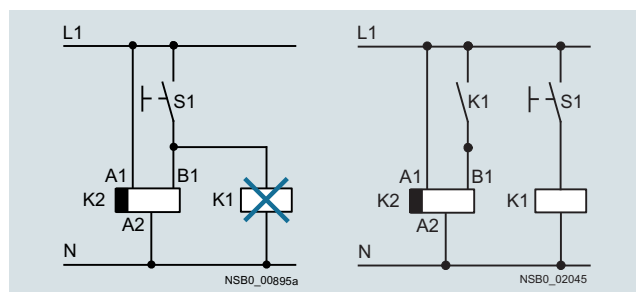
All timing relays are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60715. The enclosure complies with DIN 43880, 1 MW.



Dimensions

Note:

The activation of loads parallel to the start input is not permissible when using AC control voltage.



Diagrams

Relays

Timing Relays

7PV15 timing relays, 17.5 mm

Article No. scheme

Product versions		Article number	
Timing relays in industrial enclosure, 17.5 mm		7PV15	□ □ - 1 □ □ 3 0
Product function/ time setting ranges	Multifunction	0 8	7 time ranges 0.05 s ... 100 h
	ON-delay	1 1	1 time range 0.05 ... 1 s
		1 2	1 time range 0.5 ... 10 s
		1 3	1 time range 5 ... 100 s
		1 8	7 time ranges 0.05 s ... 100 h
	OFF-delay with control signal	3 8	7 time ranges 0.05 s ... 100 h
	OFF-delay without control signal	4 0	7 time ranges 0.05 s ... 100 s
	Clock-pulse relay	5 8	7 time ranges 0.05 s ... 100 h
	Wye-delta function	7 8	7 time ranges 0.05 s ... 100 h
Contacts	e.g. A = 1 CO contact		□
Control supply voltage	e.g. W = 12 ... 240 V AC/DC		□ Combination voltage
Example		7PV15 0 8 - 1 A W 3 0	

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.


Benefits

- Wide voltage range 12 to 240 V AC/DC
- High switching capacity, e.g. AC-15 at 230 V, 3 A
- Combination voltage, e.g. 24 V AC/DC and 200 to 240 V AC
- Changes to the time setting range during operation
- Changes to the function in the de-energized state
- High level of functionality and a high repeat accuracy of timer settings
- Integrated surge suppressor
- Function charts printed on the side of the device for reliable device adjustment

Application

Timing relays are used in control, starting and protective circuits for all switching operations involving time delays, e.g. in functional buildings, airports, building industry, etc.

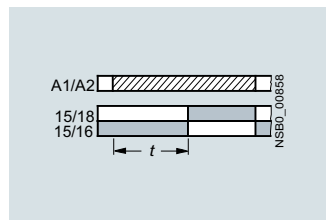
Technical specifications

More information		
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16358/td		Operating instructions and internal circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/35210295
Type		7PV15
Rated insulation voltage	V AC	300
Pollution degree 2, overvoltage category III		
Permissible ambient temperature		
• During operation	°C	-25 ... +55
• During storage	°C	-40 ... +70
Operating range of excitation¹⁾		0.85 ... 1.1 x U_N at V AC/DC, 50/60 Hz 0.8 ... 1.25 x U_N at 24 V DC; 0.95 ... 1.05 times the rated frequency
Rated operational current I_e		
• AC-15 at 24 ... 240 V, 50 Hz	A	3
• DC-13 at		
- 24 V	A	1
- 125 V	A	0.2
Uninterrupted thermal current I_{th}	A	5
Mechanical endurance	Operating cycles	1×10^7
Electrical endurance at I_e	Operating cycles	1×10^5
Connection type		 Screw terminals
• Terminal screw		M3 (for standard screwdriver, size 2 and Pozidriv 2)
• Solid	mm ²	1 x (0.2 ... 2.5)
• Finely stranded with end sleeve	mm ²	1 x (0.25 ... 1.5)
• Finely stranded without end sleeve	mm ²	1 x (0.2 ... 1.5)
• AWG cables, solid or stranded	AWG	1 x (24 ... 14)
• Tightening torque	Nm	0.4 ... 0.5

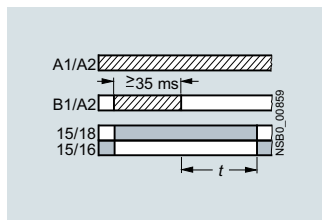
¹⁾ If nothing else is stated.

7PV15 function diagrams

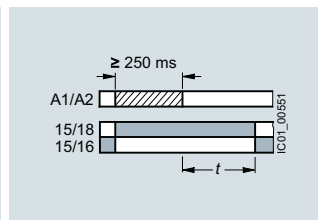
1 CO contact



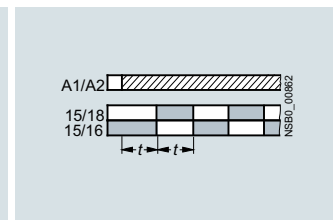
A
7PV1508-1A, 7PV1511, 7PV1512,
7PV1513, 7PV1518
ON-delay



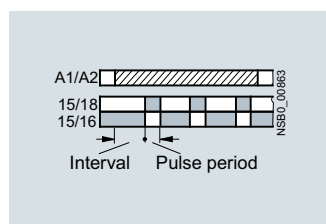
B¹)
7PV1508-1A, 7PV1538
OFF-delay with control signal



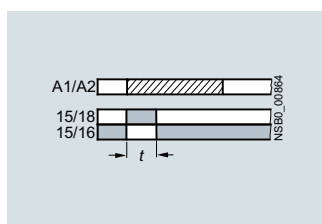
--
7PV1540
OFF-delay without control signal



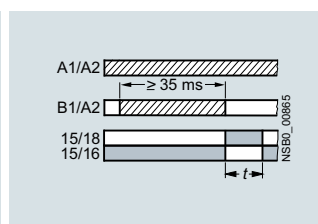
C
7PV1508-1A
Flashing, starting with interval
(pulse/interval 1:1)



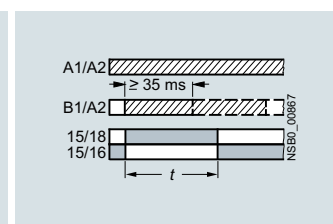
--
7PV1558
Clock-pulse, starting with interval
(dead period, pulse time, and time
setting ranges each separately
adjustable)



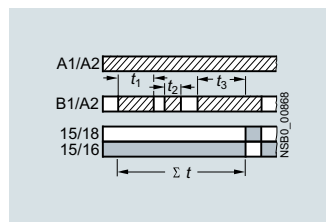
D
7PV1508-1A
Passing make contact



E¹)
7PV1508-1A
Passing break contact with control
signal



F¹)
7PV1508-1A
Pulse-forming with control signal
(pulse generation at the output
does not depend on duration of energizing)



G¹)
7PV1508-1A
Additive ON-delay with control signal

Legend

A ... G Identification letters for 7PV1508

▨ Timing relay energized

■ Contact closed

□ Contact open

¹) Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to E, F and G, which are not retriggerable.

Note:

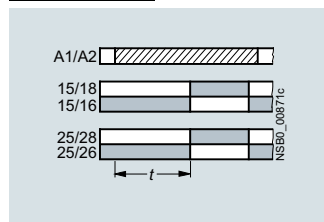
With the 7PV1508-1A multifunctional timing relay the identification letters A to G are printed on the front alongside the rotary selector switch of the unit. The related function can be found in the form of a bar graph on the side of the device.

Relays

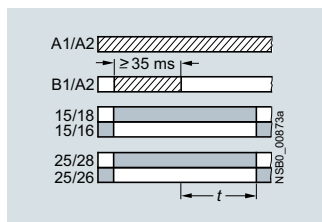
Timing Relays

7PV15 timing relays, 17.5 mm

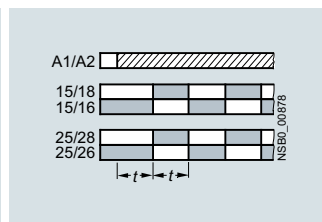
2 CO contacts



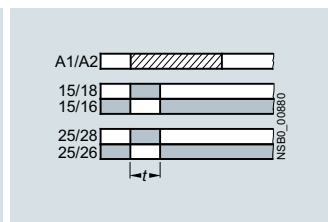
A
7PV1508-1B
ON-delay



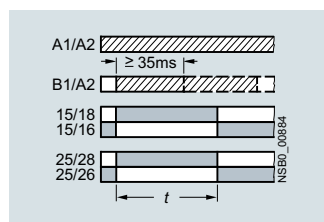
B¹⁾
7PV1508-1B
OFF-delay with control signal



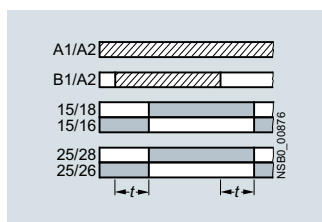
C
7PV1508-1B
Flashing, starting with interval
(pulse/interval 1:1)



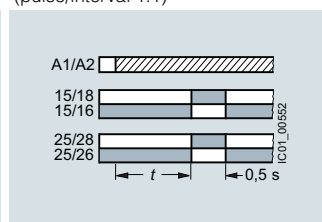
D
7PV1508-1B
Passing make contact



F¹⁾
7PV1508-1B
Pulse-forming with control signal
(pulse generation at the output does
not depend on duration of energizing)

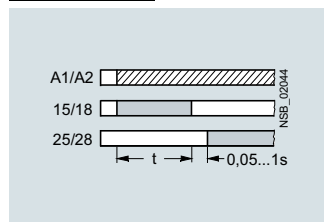


H¹⁾
7PV1508-1B
ON-delay and OFF-delay with control
signal



I
7PV1508-1B
Fixed pulse after ON-delay

2 NO contacts



--
7PV1578
Wye-delta function²⁾

Legend

A ... D, F, H, I Identification letters for 7PV1508

▨ Timing relay energized

■ Contact closed

□ Contact open

¹⁾ Note on function with start contact: A new control signal at terminal B, after the operating time has started, resets the operating time to zero (retriggerable). This does not apply to E, F and G, which are not retriggerable.

²⁾ With 7PV1578 the contacts 16 and 26 are not needed for the wye-delta function.

Note:

With the 7PV1508-1B multifunctional timing relay the identification letters A to D, F, H, I are printed on the front alongside the rotary selector switch of the unit. The related function can be found in the form of a bar graph on the side of the device.

Selection and ordering data


7PV1508-1AW30



7PV1512-1AP30



7PV1518-1AW30



7PV1538-1AW30



7PV1540-1AW30



7PV1558-1AW30



7PV1578-1BW30

Version	Time setting range t adjustable by rotary switch to	Rated control supply voltage U_s	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
		50/60 Hz AC V	DC V	Article No.	Price per PU		

7PV1508 timing relays, multifunction, 7 time setting ranges

The functions can be adjusted by means of rotary switches. The same potential must be applied to terminals A. and B.

With LED and 1 CO contact, 7 functions	0.05 ... 1 s 0.5 ... 10 s 5 ... 100 s	12 ... 240	12 ... 240	▶	7PV1508-1AW30	1	1 unit	41H
With LED and 2 CO contacts, 7 functions	30 s ... 10 min 3 min ... 1 h 30 min ... 10 h 5 ... 100 h	12 ... 240	12 ... 240	▶	7PV1508-1BW30	1	1 unit	41H

7PV151. timing relays, ON-delay, 1 time setting range

With LED and 1 CO contact	0.05 ... 1 s	24/200 ... 240	24	▶	7PV1511-1AP30	1	1 unit	41H
	0.5 ... 10 s	24/100 ... 127	24	▶	7PV1512-1AQ30	1	1 unit	41H
		24/200 ... 240	24	▶	7PV1512-1AP30	1	1 unit	41H
	5 ... 100 s	24/100 ... 127	24	▶	7PV1513-1AQ30	1	1 unit	41H
		24/200 ... 240	24	▶	7PV1513-1AP30	1	1 unit	41H

7PV1518 timing relays, ON-delay, 7 time setting ranges

With LED and 1 CO contact	0.05 ... 1 s	12 ... 240	12 ... 240	▶	7PV1518-1AW30	1	1 unit	41H
	0.5 ... 10 s	90 ... 127	90 ... 127	▶	7PV1518-1AJ30	1	1 unit	41H
	5 ... 100 s	180 ... 240	180 ... 240	▶	7PV1518-1AN30	1	1 unit	41H
	30 s ... 10 min 3 min ... 1 h 30 min ... 10 h 5 ... 100 h							

7PV1538 timing relays, OFF-delay, with control signal, 7 time setting ranges

With LED and 1 CO contact	0.05 ... 1 s	12 ... 240	12 ... 240	▶	7PV1538-1AW30	1	1 unit	41H
	0.5 ... 10 s							
	5 ... 100 s							
	30 s ... 10 min 3 min ... 1 h 30 min ... 10 h 5 ... 100 h							

7PV1540 timing relays, OFF-delay, without control signal, 7 time setting ranges

With LED and 1 CO contact	0.05 ... 1 s	12 ... 240	12 ... 240	▶	7PV1540-1AW30	1	1 unit	41H
	0.15 ... 3 s							
	0.3 ... 6 s							
	0.5 ... 10 s							
	1.5 ... 30 s							
	3 ... 60 s							
	5 ... 100 s							

7PV1558 timing relays, clock-pulse relay, 7 time setting ranges

With LED and 1 CO contact	0.05 ... 1 s	12 ... 240	12 ... 240	▶	7PV1558-1AW30	1	1 unit	41H
	0.5 ... 10 s							
	5 ... 100 s							
	30 s ... 10 min 3 min ... 1 h 30 min ... 10 h 5 ... 100 h							

7PV1578 timing relays, wye-delta function, 7 time setting ranges

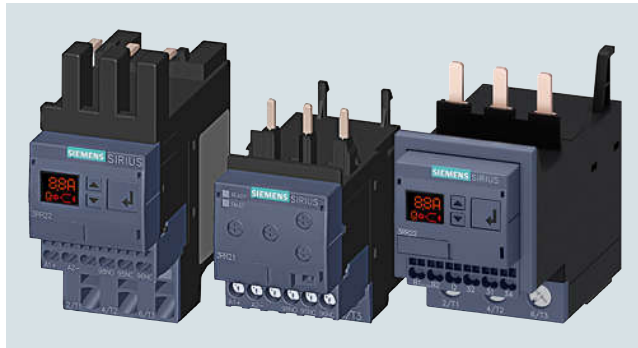
With LED and 2 NO contacts, dead interval 0.05 ... 1 s adjustable	0.05 ... 1 s	12 ... 240	12 ... 240	▶	7PV1578-1BW30	1	1 unit	41H
	0.5 ... 10 s							
	5 ... 100 s							
	30 s ... 10 min 3 min ... 1 h 30 min ... 10 h 5 ... 100 h							

Relays

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring

Overview



SIRIUS 3RR2242, 3RR2142, 3RR2243 current monitoring relays

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3RR21

The SIRIUS 3RR2 current monitoring relays are suitable for load monitoring of motors or other loads. In two or three phases they monitor the rms value of AC currents for overshooting or under-shooting of set threshold values.

Whereas apparent current monitoring is used above all in connection with the rated torque or in case of overload, the active current monitoring option can be used to observe and evaluate the load factor over a motor's entire torque range.

The 3RR2 current monitoring relays can be integrated directly in the feeder by mounting onto the 3RT2 contactor; separate wiring of the main circuit is therefore superfluous. No separate transformers are required.

For a line-oriented configuration or simultaneous use of an overload relay, terminal supports for stand-alone installation are available for separate standard rail mounting.

Versions

Basic versions

The basic versions with two-phase apparent current monitoring, a CO contact output and analog adjustability provide a high level of monitoring reliability especially in the rated and overload range.

Standard versions

The standard versions monitor the current in three phases with selectable active current monitoring. They have additional diagnostics options such as residual-current monitoring and phase sequence monitoring, and they are also suitable for monitoring motors below the rated torque. These devices have an additional independent semiconductor output, an actual value indicator, and are digitally adjustable.

Both versions are available optionally with screw or spring-type terminals, in each case for sizes S00 and S0. With variants of size S2 the main current paths always have screw terminals; the control current side can have screw or spring-type terminals.

Note:

In addition to the features of the standard versions, the 3RR24 monitoring relays for mounting onto 3RT2 contactors for IO-Link also offer the possibility of transmitting the measured values and diagnostics data to a controller via an IO-Link. Furthermore, the devices can be parameterized on the devices themselves or via IO-Link.

For more information, see [page 10/70 onwards](#).

3RR21 and 3RR22 overview table

		3RR21	3RR22	Benefits
General data				
Sizes Dimensions in mm (W x H x D) • Screw terminals		S00, S0, S2	S00, S0, S2	<ul style="list-style-type: none"> Are coordinated with the dimensions, connections and technical characteristics of the other devices in the SIRIUS modular system (contactors, soft starters, etc.) Permit the mounting of slim-line and compact load feeders in widths of 45 mm (S00 and S0) and 55 mm (S2) Simplify configuration
		S00: 45 x 79 x 80, S0: 45 x 87 x 91, S2: 55 x 99 x 112	S00: 45 x 79 x 80, S0: 45 x 87 x 91, S2: 55 x 99 x 112	
• Spring-type terminals		S00: 45 x 90 x 80, S0: 45 x 109 x 92, S2: 55 x 99 x 112	S00: 45 x 90 x 80, S0: 45 x 109 x 92, S2: 55 x 99 x 112	
Current range		S00: 1.6 ... 16 A S0: 4 ... 40 A S2: 8 ... 80 A	S00: 1.6 ... 16 A S0: 4 ... 40 A S2: 8 ... 80 A	<ul style="list-style-type: none"> Is adapted to the other devices in the SIRIUS modular system Just a single version per size with a wide setting range enables easy configuration
Permissible ambient temperature				
During operation		-25 ... +60 °C	-25 ... +60 °C	<ul style="list-style-type: none"> Suitable for applications in the control cabinet, worldwide

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring



Features	3RR21	3RR22	Benefits
Monitoring functions			
Current overshoot	✓ (Two-phase)	✓ (Three-phase)	<ul style="list-style-type: none"> Provides optimum inverse-time delayed protection of loads against excessive temperature rises due to overload Enables detection of filter blockages or pumping against closed gate valves Enables drawing conclusions about wear, poor lubrication or other maintenance-relevant phenomena
Current undershoot	✓ (Two-phase)	✓ (Three-phase)	<ul style="list-style-type: none"> Enables detection of overload due to a slipping or torn belt Guarantees protection of pumps against dry running Facilitates monitoring of the functions of resistive loads such as heaters Permits energy savings through monitoring of no-load operation
Apparent current monitoring	✓	✓ (Selectable)	<ul style="list-style-type: none"> Precision current monitoring especially in a motor's rated and upper torque range
Active current monitoring	--	✓ (Selectable)	<ul style="list-style-type: none"> Optimum current monitoring over a motor's entire torque range through the patented combination of power factor and apparent current monitoring
Range monitoring	✓ (Two-phase)	✓ (Three-phase)	<ul style="list-style-type: none"> Simultaneous monitoring of current overshoot and undershoot with a single device
Phase failure, open circuit	✓ (Two-phase)	✓ (Three-phase)	<ul style="list-style-type: none"> Minimizes heating of three-phase motors during phase failure through immediate disconnection Prevents operation of hoisting equipment with reduced load carrying capacity
Phase sequence monitoring	--	✓ (Selectable)	<ul style="list-style-type: none"> Prevents starting of motors, pumps or compressors in the wrong direction of rotation
Internal ground-fault detection (residual-current monitoring)	--	✓ (Selectable)	<ul style="list-style-type: none"> Provides optimum protection of loads against high-resistance short circuits or ground faults due to moisture, condensed water, damage to the insulation material, etc. Eliminates the need for additional special equipment and thus space in the control cabinet Reduces wiring overhead and costs
Blocking current monitoring	--	✓ (Selectable)	<ul style="list-style-type: none"> Minimizes heating of three-phase motors when blocked during operation through immediate disconnection Minimizes mechanical loading of the system by acting as an electronic shear pin
Features			
RESET function	✓	✓	<ul style="list-style-type: none"> Allows manual or automatic resetting of the relay Resetting directly on the device or by switching the control supply voltage off and on (remote RESET)
ON-delay time	0 ... 60 s	0 ... 99 s	<ul style="list-style-type: none"> Enables motor starting without evaluation of the starting current Can be used for monitoring motors with lengthy start up
Tripping delay time	0 ... 30 s	0 ... 30 s	<ul style="list-style-type: none"> Permits brief threshold value violations during operation Prevents frequent warnings and disconnections with currents near the threshold values
Operating and indicating elements	LEDs and rotary potentiometers	Displays and buttons	<ul style="list-style-type: none"> For setting the threshold values and delay times and for fast and targeted diagnostics For selectable functions Displays for permanent display of measured values
Integrated contacts	1 CO contact	1 CO contact, 1 semiconductor output	<ul style="list-style-type: none"> Enable disconnection of the system or process when there is an irregularity Can be used to output signals

✓ Available

-- Not available

Relays

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring



Features	3RR21	3RR22	Benefits
Design of load feeders			
Short-circuit strength up to 100 kA at 690 V (in conjunction with the corresponding fuses or the corresponding motor starter protector)	✓	✓	<ul style="list-style-type: none"> Provides optimum protection of the loads and operating personnel in the event of short circuits due to insulation faults or faulty switching operations
Electrical and mechanical matching to 3RT2 contactors	✓	✓	<ul style="list-style-type: none"> Simplifies configuration Reduces wiring overhead and costs Enables stand-alone installation as well as space-saving direct mounting
Spring-type terminals for main circuit (with S00, S0) and auxiliary circuits	✓ (optional)	✓ (optional)	<ul style="list-style-type: none"> Enables fast connections Permits vibration-resistant connections Enables maintenance-free connections
Other features			
Suitable for single- and three-phase loads	✓	✓	<ul style="list-style-type: none"> Enables the monitoring of single-phase systems through parallel infeed at the contactor or looping the current through the three phase connections
Wide setting ranges	✓	✓	<ul style="list-style-type: none"> Reduce the number of variants Minimize the configuration overhead and costs Minimize storage overhead, storage costs, tied-up capital
Wide-voltage supply range	✓ (optional)	✓ (optional)	<ul style="list-style-type: none"> Reduces the number of versions Minimizes the configuring overhead and costs Minimizes storage overhead, storage costs, tied-up capital

✓ Available

Possible combinations of 3RR21/3RR22 monitoring relays with 3RT2 contactors

Monitoring relays	Current range	Contactors (type, size, rating)		
		3RT201 S00 3/4/5.5/7.5 kW	3RT202 S0 5.5/7.5/11/15/18.5 kW	3RT203 S2 18.5/22/30/37 kW
Type	A			
3RR2.41				
3RR2141	1.6 ... 16	✓	With stand-alone installation support	With stand-alone installation support
3RR2241	1.6 ... 16	✓	With stand-alone installation support	With stand-alone installation support
3RR2.42				
3RR2142	4 ... 40	With stand-alone installation support	✓	With stand-alone installation support
3RR2242	4 ... 40	With stand-alone installation support	✓	With stand-alone installation support
3RR2.43				
3RR2143	8 ... 80	With stand-alone installation support	With stand-alone installation support	✓
3RR2243	8 ... 80	With stand-alone installation support	With stand-alone installation support	✓

✓ Available

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring

Article No. scheme

Product versions		Article number									
Monitoring relays		3RR2	□	4	□	–	□	□	□	3	0
Type of setting	Analogically adjustable, two-phase	1									
	Digitally adjustable, three-phase	2									
Size	S00		1								
	S0		2								
	S2		3								
Connection type	Screw terminals						1				
	Spring-type terminals						2				
Number and type of outputs	1 CO contact							A			
	1 CO contact + 1 semiconductor							F			
Rated control supply voltage	24 V AC/DC								A		
	24 ... 240 V AC/DC								W		
Example		3RR2	1	4	1	–	1	A	A	3	0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Benefits

- Can be mounted directly on 3RT2 contactors and 3RA23 reversing contactor assemblies, in other words, there is no need for additional wiring in the main circuit
- Optimally coordinated with the technical characteristics of the 3RT2 contactors
- No separate current transformer required
- Versions with wide voltage supply range
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Display of ACTUAL value and status messages
- All versions with removable control current terminals
- All versions with screw terminals or spring-type terminals
- Simple determination of the threshold values through direct reference to actually measured values for setpoint loading
- Range monitoring and selectable active current measurement mean that only one device for monitoring a motor is required along the entire torque curve
- In addition to current monitoring it is also possible to monitor for broken cables, phase failure, phase sequence, residual current and motor blocking

Application

- Monitoring for current overshoot and undershoot
- Monitoring of broken conductors
- Monitoring of no-load operation and load shedding, e.g. in the event of a torn V-belt or no-load operation of a pump
- Monitoring of overload, e.g. on conveyor belts or cranes due to an excessive load
- Monitoring the functionality of electrical loads such as heaters
- Monitoring of wrong phase sequence on mobile equipment such as compressors or cranes
- Monitoring of high-impedance faults to ground, e.g. caused by damaged insulation or moisture

Relays

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring

Technical specifications

More information

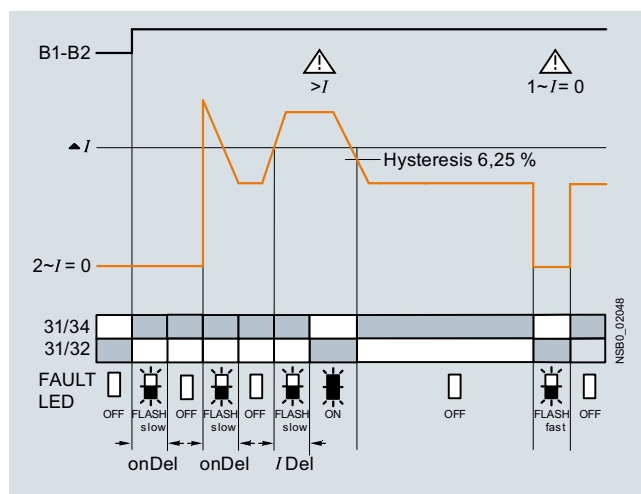
Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16205/td>
 Configuration Manual "Load Feeders – SIRIUS Modular System", see
<https://support.industry.siemens.com/cs/ww/en/view/39714188>

System Manual "SIRIUS – System Overview", see
<https://support.industry.siemens.com/cs/ww/en/view/60311318>
 Manual, see <https://support.industry.siemens.com/cs/ww/en/view/54397927>
 FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16205/faq>

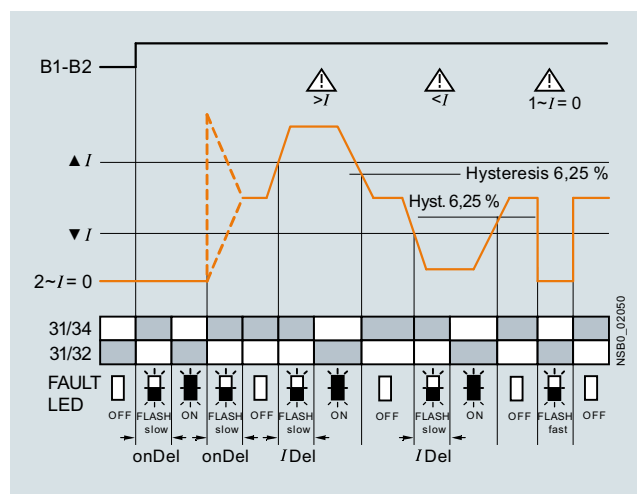
Function diagrams of 3RR214.-A.30 basic versions, analogically adjustable

Closed-circuit principle upon application of the control supply voltage

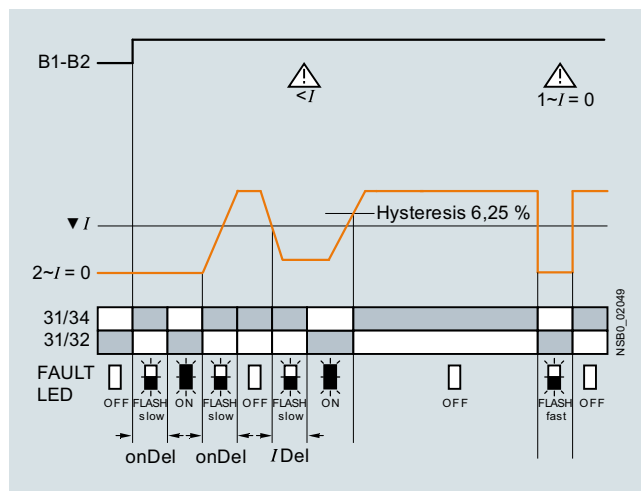
Current overshoot



Range monitoring



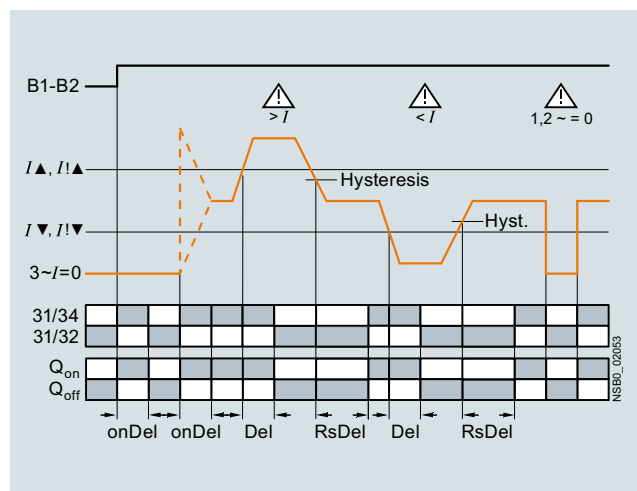
Current undershoot



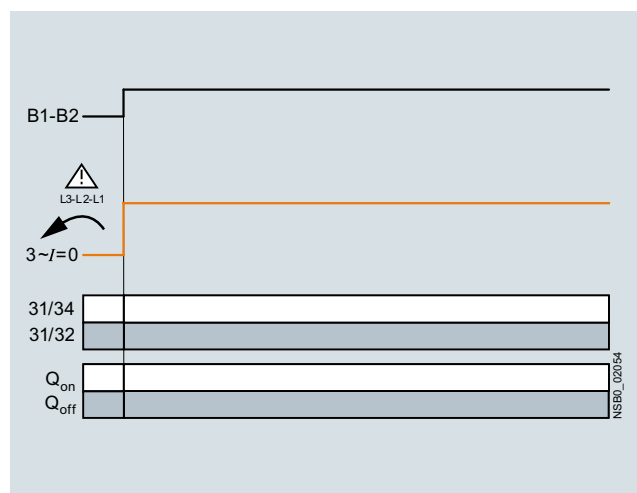
Current and active current monitoring

With the closed-circuit principle selected upon application of the control supply voltage

Range monitoring



Phase sequence monitoring



Relays

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring

Selection and ordering data



3RR2141-1AW30



3RR2142-1AW30



3RR2241-1FW30



3RR2242-2FW30



3RR2141-2AA30



3RR2243-2FW30

Size	Measuring range	Hysteresis	Supply voltage U_s	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
A	A	A	V	d					
Basic versions									
<ul style="list-style-type: none">• Analogically adjustable• Closed-circuit principle• 1 CO contact• Two-phase current monitoring• Apparent current monitoring• Start-up delay 0 ... 60 s• Tripping delay 0 ... 30 s									
S00	1.6 ... 16	6.25% of threshold value	24 AC/DC 24 ... 240 AC/DC	2	3RR2141-□AA30 3RR2141-□AW30		1 1	1 unit 1 unit	41H
				2					41H
S0	4 ... 40	6.25% of threshold value	24 AC/DC 24 ... 240 AC/DC	2	3RR2142-□AA30 3RR2142-□AW30		1 1	1 unit 1 unit	41H
				2					41H
S2	8 ... 80	6.25% of threshold value	24 AC/DC 24 ... 240 AC/DC	2	3RR2143-□AA30 3RR2143-□AW30		1 1	1 unit 1 unit	41H
				2					41H
Standard versions									
<ul style="list-style-type: none">• Digitally adjustable• LC display• Open- or closed-circuit principle• 1 CO, 1 semiconductor output• Three-phase current monitoring• Active current or apparent current monitoring• Phase sequence monitoring• Residual-current monitoring• Blocking current monitoring• Reclosing delay time 0 ... 300 min• Start-up delay 0 ... 99 s• Separate settings for warning and alarm thresholds• Tripping delay 0 ... 30 s									
S00	1.6 ... 16	0.1 ... 3	24 AC/DC 24 ... 240 AC/DC	2	3RR2241-□FA30 3RR2241-□FW30		1 1	1 unit 1 unit	41H
				2					41H
S0	4 ... 40	0.1 ... 8	24 AC/DC 24 ... 240 AC/DC	2	3RR2242-□FA30 3RR2242-□FW30		1 1	1 unit 1 unit	41H
				2					41H
S2	8 ... 80	0.2 ... 16	24 AC/DC 24 ... 240 AC/DC	2	3RR2243-□FA30 3RR2243-□FW30		1 1	1 unit 1 unit	41H
				2					41H

Type of electrical connection


- Screw terminals
- Spring-type terminals

1
2

SIRIUS 3RR21, 3RR22 Monitoring Relays for Mounting onto 3RT2 Contactors

Current and active current monitoring

Accessories

Use	Version	Size	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d				
Terminal supports for stand-alone installation ¹⁾								
 3RU2916-3AA01	For 3RR21, 3RR22	For separate mounting of the overload relays or monitoring relays; screw and snap-on mounting onto TH 35 standard mounting rail according to IEC 60715		Screw terminals 				
		• Screw connection	S00	▶	3RU2916-3AA01	1	1 unit	41F
			S0	▶	3RU2926-3AA01	1	1 unit	41F
 3RU2936-3AA01		S2	▶	3RU2936-3AA01	1	1 unit	41F	
 3RU2926-3AC01		• Spring-type connection	S00	▶	Spring-type terminals 			
			S0	▶	3RU2916-3AC01	1	1 unit	41F
					3RU2926-3AC01	1	1 unit	41F
Blank labels								
 3RT2900-1SB20	For 3RR21, 3RR22	Unit labeling plates²⁾ For SIRIUS devices, 20 mm x 7 mm, titanium gray		20	3RT2900-1SB20	100	340 units	41B
Sealable covers								
 3RR2940	For 3RR21, 3RR22	Sealable covers For securing against unintentional or unauthorized adjustment of settings		2	3RR2940	1	5 units	41H
Tools for opening spring-type terminals								
 3RA2908-1A	For auxiliary circuit connections	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated		2	Spring-type terminals 			
					3RA2908-1A	1	1 unit	41B

¹⁾ The accessories are exactly the same as the accessories for the 3RU21 thermal overload relay and the 3RB3 electronic overload relay, see page 7/96 onwards.

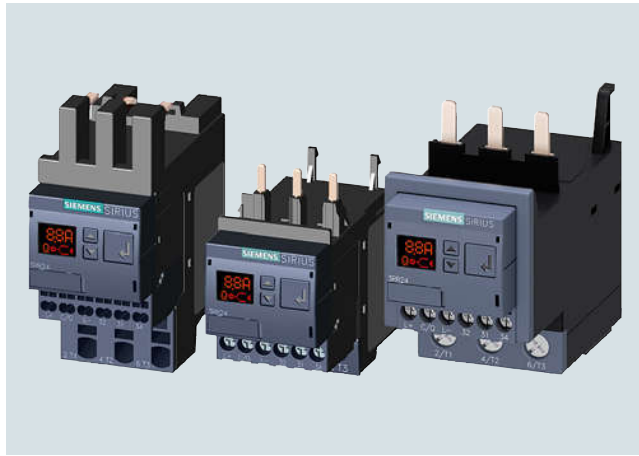
²⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

Relays

SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring

Overview



SIRIUS 3RR2441, 3RR2442 and 3RR2443 current monitoring relays

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3RR24

The SIRIUS 3RR24 current monitoring relays for IO-Link are suitable for the load monitoring of motors or other loads. In three phases they monitor the rms value of AC currents for overshooting or undershooting of set threshold values.

Whereas apparent current monitoring is used above all in connection with the rated torque or in case of overload, the active current monitoring option, which is also selectable, can be used to observe and evaluate the load factor over a motor's entire torque range.

The 3RR24 current monitoring relays for IO-Link can be integrated directly in the feeder by mounting onto the 3RT2 contactor; separate wiring of the main circuit is therefore superfluous. No separate transformers are required.

For a line-oriented configuration or simultaneous use of an overload relay, terminal supports for stand-alone installation are available for separate standard rail mounting.

The SIRIUS 3RR24 current monitoring relays for IO-Link also offer many other options based upon the monitoring functions of the conventional SIRIUS 3RR2 monitoring relays:

- Measured value transmission to a controller, including resolution and unit, may be parameterizable as to which value is cyclically transmitted
- Transmission of alarm flags to a controller
- Full diagnosis capability by inquiry as to the cause of the fault in the diagnosis data record
- Remote parameterization is also possible, in addition to or instead of local parameterization

- Rapid parameterization of the same devices by duplication of the parameterization in the controller
- Parameter transmission through upload to a controller by IO-Link call or by parameter server (if IO-Link master from IO-Link Specification V1.1 and higher is used)
- Consistent central data storage in the event of parameter change locally or via a controller
- Automatic reparameterizing when devices are exchanged
- Blocking of local parameterization via IO-Link possible
- Faults are saved in parameterizable and non-volatile fashion to prevent an automatic start-up after voltage failure and make sure diagnosis data is not lost
- Integration into the automation level provides the option of parameterizing the monitoring relays at any time via a display unit, or displaying the measured values in a control room or locally at the machine/control cabinet

Even without communication via IO-Link the devices continue to function fully autonomously:

- Parameterization can take place locally at the device, independently of a controller.
- In the event of failure or before the controller becomes available the monitoring relays work as long as the control supply voltage (24 V DC) is present.
- If the monitoring relays are operated without the controller, the 3RR24 monitoring relays for IO-Link have, thanks to the integrated SIO mode, an additional semiconductor output, which switches when the adjustable warning threshold is exceeded.

Thanks to the combination of autonomous monitoring relay function and integrated IO-Link communication, redundant sensors and/or analog signal converters – which previously took over the transmission of measured values to a controller, leading to considerable extra cost and wiring overhead – are no longer needed.

Because the output relays are still present, the monitoring relays increase the functional reliability of the system, since only the controller can fulfill the control tasks if the current measured values are available, whereas the output relays can also be used for the disconnection of the system if limit values that cannot be reached during operation are exceeded.

For more information on the IO-Link communication system, see [page 2/97 onwards](#).

Notes on security

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens products and solutions represent only one component of such a concept.

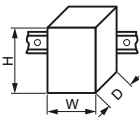
For more information on Industrial Security, see www.siemens.com/industrialsecurity.

SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring

3RR24 overview table



Features	3RR24	Benefits
General data		
Sizes Dimensions in mm (W x H x D) • Screw terminals • Spring-type terminals	 S00, S0, S2 S00: 45 x 79 x 80, S0: 45 x 87 x 91, S2: 55 x 99 x 112 S00: 45 x 90 x 80, S0: 45 x 109 x 92, S2: 55 x 99 x 112	<ul style="list-style-type: none"> • Are coordinated with the dimensions, connections and technical characteristics of the other devices in the SIRIUS modular system (contactors, soft starters, etc.) • Permit the mounting of slim-line and compact load feeders in widths of 45 mm (S00 and S0) and 55 mm (S2) • Simplify configuration
Current range	S00: 1.6 ... 16 A S0: 4 ... 40 A S2: 8 ... 80 A	<ul style="list-style-type: none"> • Is adapted to the other devices in the SIRIUS modular system • Just a single version per size with a wide setting range enables easy configuration
Permissible ambient temperature		
During operation	-25 ... +60 °C	<ul style="list-style-type: none"> • Suitable for applications in the control cabinet, worldwide
Monitoring functions		
Current overshoot	✓ (Three-phase)	<ul style="list-style-type: none"> • Provides optimum inverse-time delayed protection of loads against excessive temperature rises due to overload • Enables detection of filter blockages or pumping against closed gate valves • Enables drawing conclusions about wear, poor lubrication or other maintenance-relevant phenomena
Current undershoot	✓ (Three-phase)	<ul style="list-style-type: none"> • Enables detection of overload due to a slipping or torn belt • Guarantees protection of pumps against dry running • Facilitates monitoring of the functions of resistive loads such as heaters • Permits energy savings through monitoring of no-load operation
Apparent current monitoring	✓ (Selectable)	<ul style="list-style-type: none"> • Precision current monitoring especially in a motor's rated and upper torque range
Active current monitoring	✓ (Selectable)	<ul style="list-style-type: none"> • Optimum current monitoring over a motor's entire torque range through the patented combination of power factor and apparent current monitoring
Range monitoring	✓ (Three-phase)	<ul style="list-style-type: none"> • Simultaneous monitoring of current overshoot and undershoot with a single device
Phase failure, open circuit	✓ (Three-phase)	<ul style="list-style-type: none"> • Minimizes heating of three-phase motors during phase failure through immediate disconnection • Prevents operation of hoisting equipment with reduced load carrying capacity
Phase sequence monitoring	✓ (Selectable)	<ul style="list-style-type: none"> • Prevents starting of motors, pumps or compressors in the wrong direction of rotation
Internal ground-fault detection (residual-current monitoring)	✓ (Selectable)	<ul style="list-style-type: none"> • Provides optimum protection of loads against high-resistance short circuits or ground faults due to moisture, condensed water, damage to the insulation material, etc. • Eliminates the need for additional special equipment • Saves space in the control cabinet • Reduces wiring overhead and costs
Blocking current monitoring	✓ (Selectable)	<ul style="list-style-type: none"> • Minimizes heating of three-phase motors when blocked during operation through immediate disconnection • Minimizes mechanical loading of the system by acting as an electronic shear pin
Operating hours counter	✓	<ul style="list-style-type: none"> • Gives the time during which there was a measurable current in at least 2 current paths • As an indicator for upcoming maintenance or replacement of machine and system components
Operating cycles counter	✓	<ul style="list-style-type: none"> • Is incremented by one each time a breaking operation is detected, in other words a transition from three-phase current flow to no measurable current flow • As an indicator for upcoming maintenance or replacement of contact blocks

✓ Available

Relays

SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring



Features	3RR24	Benefits
Features		
RESET function	✓	<ul style="list-style-type: none"> Allows manual or automatic resetting of the relay Resetting directly on the device, by switching the control supply voltage off and on or via IO-Link (remote RESET)
ON-delay time	0 ... 999.9 s	<ul style="list-style-type: none"> Enables motor starting without evaluation of the starting current Can be used for monitoring motors with lengthy start up
Tripping delay time	0 ... 999.9 s	<ul style="list-style-type: none"> Permits brief threshold value violations during operation Prevents frequent warnings and disconnections with currents near the threshold values
Operating and indicating elements	Displays and buttons	<ul style="list-style-type: none"> For setting the threshold values and delay times For selectable functions For quick and selective diagnostics Displays for permanent display of measured values
Integrated contacts	1 CO contact, 1 semiconductor output (in SIO mode)	<ul style="list-style-type: none"> Enable disconnection of the system or process when there is an irregularity Can be used to output signals
Design of load feeders		
Short-circuit strength up to 100 kA at 690 V (in conjunction with the corresponding fuses or the corresponding motor starter protector)	✓	<ul style="list-style-type: none"> Provides optimum protection of the loads and operating personnel in the event of short circuits due to insulation faults or faulty switching operations
Electrical and mechanical matching to 3RT2 contactors	✓	<ul style="list-style-type: none"> Simplifies configuration Reduces wiring overhead and costs Enables stand-alone installation as well as space-saving direct mounting
Spring-type terminals for main circuit (with S00, S0) and auxiliary circuits	✓ (optional)	<ul style="list-style-type: none"> Enables fast connections Permits vibration-resistant connections Enables maintenance-free connections
Other features		
Suitable for single- and three-phase loads	✓	<ul style="list-style-type: none"> Enables the monitoring of single-phase systems through parallel infeed at the contactor or looping the current through the three phase connections
Wide setting ranges	✓	<ul style="list-style-type: none"> Reduce the number of variants Minimize the configuration overhead and costs Minimize storage overhead, storage costs, tied-up capital
Power supply	24 V DC	<ul style="list-style-type: none"> Direct via IO-Link master or via an external auxiliary voltage independent of the IO-Link Minimizes the configuring overhead and costs

✓ Available

Possible ways of combining the 3RR24 monitoring relay with the 3RT2 contactor for IO-Link

Monitoring relays	Current range	Contactors (type, size, rating)		
		3RT201 S00 3/4/5.5/7.5 kW	3RT202 S0 5.5/7.5/11/15/18.5 kW	3RT203 S2 18.5/22/30/37 kW
Type	A			
3RR2441	1.6 ... 16	✓	With stand-alone installation support	With stand-alone installation support
3RR2442	4 ... 40	With stand-alone installation support	✓	With stand-alone installation support
3RR2443	8 ... 80	With stand-alone installation support	With stand-alone installation support	✓

✓ Available

Notes:

Devices required for the communication via IO-Link:

- Any controller that supports the IO-Link (e.g. ET 200SP with CPU or S7-1200); [see Catalog ST 70](#).
- IO-Link master (e.g. CM 4xIO-Link for SIMATIC ET 200SP, [see page 2/105](#) or SM 1278 for S7-1200, [see page 2/104](#)).

Each monitoring relay requires an IO-Link channel.

SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring

Article No. scheme

Product versions		Article number									
3RR24 monitoring relay, digitally adjustable with IO-Link		3RR2	4	4	<input type="checkbox"/>	–	<input type="checkbox"/>	A	A	4	0
Size	S00				1						
	S0				2						
	S2				3						
Connection type	Screw terminals						1				
	Spring-type terminals						2				
Example		3RR2	4	4	1	–	1	A	A	4	0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Benefits

- Can be mounted directly on 3RT2 contactors and 3RA23 reversing contactor assemblies, in other words, there is no need for additional wiring in the main circuit
- Optimally coordinated with the technical characteristics of the 3RT2 contactors
- No separate current transformer required
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Display of ACTUAL value and status messages
- All versions with removable control current terminals
- All versions with screw or spring-type terminals
- Simple determination of the threshold values through direct reference to actually measured values for setpoint loading
- Range monitoring and selectable active current measurement mean that only one device for monitoring a motor is required along the entire torque curve
- In addition to current monitoring it is also possible to monitor for current unbalance, broken cables, phase failure, phase sequence, residual current and motor blocking
- Integrated counter for operating cycles and operating hours to support requirements-based maintenance of the monitored machine or application
- Simple cyclical transmission of the current measured values, relay switching states and events to a controller
- Remote parameterization
- Automatic reparameterizing when devices are exchanged
- Simple duplication of identical or similar parameterizations
- Reduction of control current wiring
- Elimination of testing costs and wiring errors
- Reduction of configuration overhead
- Integration in TIA means clear diagnostics if a fault occurs
- Cost saving and space saving in control cabinet due to the elimination of AI and IO modules as well as analog signal converters and duplicated sensors

Application

- Monitoring for current overshoot and undershoot
- Monitoring of broken conductors
- Monitoring of no-load operation and load shedding, e.g. in the event of a torn V-belt or no-load operation of a pump
- Monitoring of overload, e.g. on pumps due to a dirty filter system
- Monitoring the functionality of electrical loads such as heaters
- Monitoring of wrong phase sequence on mobile equipment such as compressors or cranes
- Monitoring of high-impedance faults to ground, e.g. caused by damaged insulation or moisture

The use of SIRIUS monitoring relays for IO-Link is particularly recommended for machines and plants in which these relays, in addition to their monitoring function, are to be connected to the automation level for the rapid, simple and fault-free provision of the current measured values and/or for remote parameterization.

The monitoring relays can either relieve the controller of monitoring tasks or, as a second monitoring entity in parallel to and independent of the controller, increase the reliability in the process or in the system. In addition, the elimination of AI and IO modules allows the width of the controller to be reduced despite significantly expanded functionality.

Relays

SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring

Technical specifications

More information

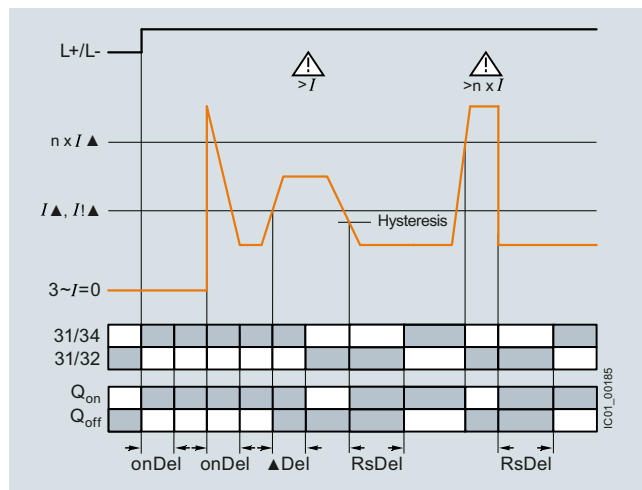
Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16206/td>
 Configuration Manual "Load Feeders – SIRIUS Modular System", see
<https://support.industry.siemens.com/cs/ww/en/view/39714188>

System Manual "SIRIUS – System Overview", see
<https://support.industry.siemens.com/cs/ww/en/view/60311318>
 Manual, see <https://support.industry.siemens.com/cs/ww/en/view/54375430>
 FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16206/faq>

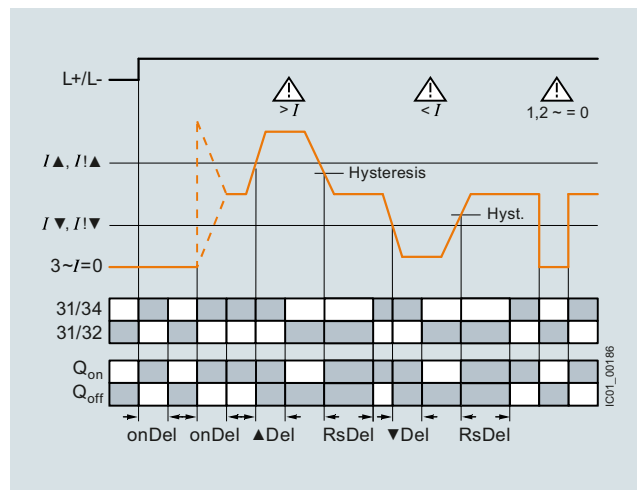
Function diagrams of 3RR24 for IO-Link, digitally adjustable

With the closed-circuit principle selected upon application of the control supply voltage

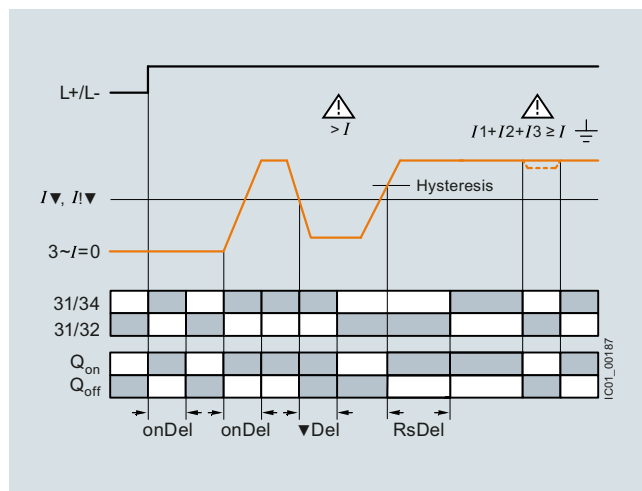
Current overshoot



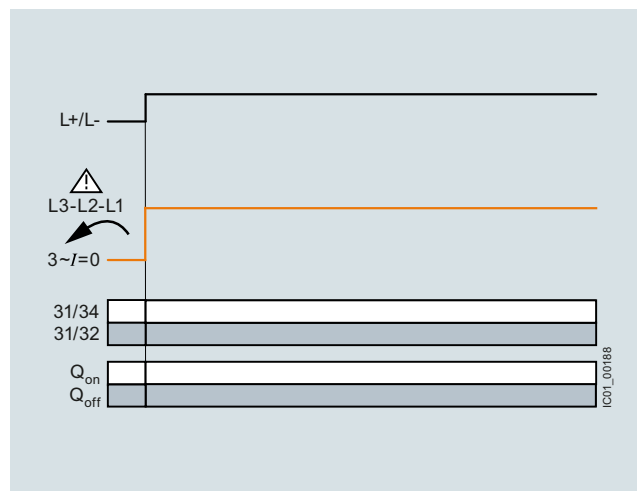
Range monitoring



Current undershoot with residual-current monitoring



Phase sequence monitoring



SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring

Selection and ordering data

SIRIUS 3RR24 current monitoring relays for IO-Link



3RR2441-1AA40



3RR2442-1AA40



3RR2441-2AA40



3RR2442-2AA40



3RR2443-1AA40



3RR2443-2AA40

Size	Measuring range	Hysteresis	Supply voltage U_s	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
A	A	A	V	d					
<ul style="list-style-type: none"> Digitally adjustable LC display Open- or closed-circuit principle 1 CO contact 1 semiconductor output (in SIO mode) Three-phase current monitoring Active current or apparent current monitoring Current unbalance monitoring Phase sequence monitoring Residual-current monitoring Blocking current monitoring Operating hours counter Operating cycles counter Reclosing delay time 0 ... 300 min Start-up delay 0 ... 999.9 s Tripping delay 0 ... 999.9 s Separate settings for warning and alarm thresholds Auto or Manual RESET 									
S00	1.6 ... 16	0.1 ... 3	24 DC	2	3RR2441-□AA40		1	1 unit	41H
S0	4 ... 40	0.1 ... 8	24 DC	2	3RR2442-□AA40		1	1 unit	41H
S2	8 ... 80	0.2 ... 16	24 DC	2	3RR2443-□AA40		1	1 unit	41H

Type of electrical connection

- Screw terminals
- Spring-type terminals






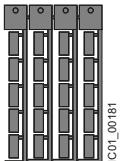



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Relays

SIRIUS 3RR24 Monitoring Relays for Mounting onto 3RT2 Contactors for IO-Link

Current and active current monitoring

Accessories

Use	Version	Size	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Terminal supports for stand-alone installation ¹⁾								
 3RU2916-3AA01	For 3RR24	For separate mounting of the overload relays or monitoring relays; screw and snap-on mounting onto TH 35 standard mounting rail according to IEC 60715		Screw terminals 				
		• Screw connection	S00	▶	3RU2916-3AA01	1	1 unit	41F
			S0	▶	3RU2926-3AA01	1	1 unit	41F
 3RU2936-3AA01		S2	▶	3RU2936-3AA01	1	1 unit	41F	
 3RU2926-3AC01	• Spring-type connection	S00	▶	Spring-type terminals 				
		S0	▶	3RU2916-3AC01	1	1 unit	41F	
				3RU2926-3AC01	1	1 unit	41F	
Blank labels								
 3RT2900-1SB20	For 3RR24	Unit labeling plates ²⁾ For SIRIUS devices 20 mm x 7 mm, titanium gray		20	3RT2900-1SB20	100	340 units	41B
Sealable covers								
 3RR2940	For 3RR24	Sealable covers For securing against unintentional or unauthorized adjustment of settings		2	3RR2940	1	5 units	41H
Tools for opening spring-type terminals								
 3RA2908-1A	For auxiliary circuit connections	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated		2	Spring-type terminals 	1	1 unit	41B

¹⁾ The accessories are exactly the same as the accessories for the 3RU21 thermal overload relay and the 3RB3 electronic overload relay, see page 7/96 onwards.

²⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

Overview



SIRIUS 3UG4 monitoring relay

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3UG45

For the conversion tool, e.g. from 3UG3 to 3UG4, see www.siemens.com/sirius/conversion-tool

The field-proven SIRIUS monitoring relays for electrical and mechanical variables enable constant monitoring of all important characteristic quantities that provide information about the functional capability of a plant. Both sudden disturbances and gradual changes, which may indicate the need for maintenance, are detected. Thanks to their relay outputs, the monitoring relays permit direct disconnection of the affected system components as well as alerting (e.g. by switching a warning lamp).

Thanks to adjustable delay times the monitoring relays can respond very flexibly to brief faults such as voltage dips or load changes. This avoids unnecessary alarms and disconnections while enhancing plant availability.

The individual 3UG4 monitoring relays offer the following functions in various combinations:

- Undershooting and/or overshooting of liquid levels
- Phase sequence
- Phase failure, neutral conductor failure
- Phase asymmetry
- Undershooting and/or overshooting of limit values for voltage
- Undershooting and/or overshooting of limit values for current
- Undershooting and/or overshooting of limit values for power factor
- Monitoring of the active current or the apparent current
- Monitoring of the residual current
- Monitoring of the insulation resistance
- Undershooting and/or overshooting of limit values for speed

Article No. scheme

Product versions		Article number									
Monitoring relays		3UG4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Type of setting	e. g. 5 = analogically adjustable		<input type="checkbox"/>								
Functions	e. g. 11 = line monitoring		<input type="checkbox"/>	<input type="checkbox"/>							
Connection type	Screw terminals						1				
	Spring-type terminals						2				
Contacts	e. g. A = 1 CO contact							<input type="checkbox"/>			
Supply voltage	e. g. N2 = 160 ... 260 V AC								<input type="checkbox"/>	<input type="checkbox"/>	
Example		3UG4	5	1	1	-	1	A	N	2	0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

General data

Benefits

- Customary screw and spring-type terminals for quick and reliable wiring
- Fast commissioning thanks to menu-guided parameterization and actual value display for limit value determination
- Reduced space requirement in the control cabinet thanks to a consistent width of 22.5 mm
- Parameterizable monitoring functions, delay times, RESET response, etc.
- Reduced stockkeeping thanks to minimized variance and large measuring ranges
- Wide-voltage power supply units for global applicability
- Device replacement without renewed wiring thanks to removable terminals
- Reliable system diagnostics thanks to actual value display and connectable fault memory
- Rapid diagnostics thanks to unambiguous error messages on the display

Application

The SIRIUS 3UG4 monitoring relays monitor the most diverse electrical and mechanical quantities in the feeder, and provide reliable protection against damage in the plant. For this purpose, they offer freely parameterizable limit values and diverse options for adapting to the respective task, and in the event of a fault, they provide clear diagnostics information.

The digitally adjustable products also display the current measured values direct on the device. This not only facilitates the display of valuable plant status information during operation, it also enables adjustment of the monitored limit values in accordance with the actual conditions.

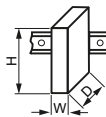


The positive result: More selective avoidance of production faults – sustained increases in availability and productivity.

The 3UG4 monitoring relays are available for the following applications:

- Line and single-phase voltage monitoring
- Single-phase current monitoring or power factor and active current monitoring
- Residual-current monitoring
- Insulation monitoring
- Level monitoring
- Speed monitoring

Technical specifications

More information	
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16367/td	FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16367/faq
Manual and internal circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/54397927	

Type	3UG		
General data			
Dimensions (W x H x D)			
• For 2 terminal blocks			
- Screw terminals		mm	22.5 x 83 x 91
- Spring-type terminals		mm	22.5 x 84 x 91
• For 3 terminal blocks			
- Screw terminals		mm	22.5 x 92 x 91
- Spring-type terminals		mm	22.5 x 94 x 91
• For 4 terminal blocks			
- Screw terminals	mm	22.5 x 103 x 91	
- Spring-type terminals	mm	22.5 x 103 x 91	
Permissible ambient temperature			
• During operation	°C	-25 ... +60	
Connection type		 Screw terminals	
• Terminal screw		M3 (for standard screwdriver, size 2 and Pozidriv 2)	
• Solid	mm ²	1 x (0.5 ... 4)/2 x (0.5 ... 2.5)	
• Finely stranded with end sleeve	mm ²	1 x (0.5 ... 2.5)/2 x (0.5 ... 1.5)	
• AWG cables, solid or stranded	AWG	2 x (20 ... 14)	
Connection type		 Spring-type terminals	
• Solid	mm ²	2 x (0.25 ... 1.5)	
• Finely stranded, with end sleeve acc. to DIN 46228	mm ²	2 x (0.25 ... 1.5)	
• Finely stranded	mm ²	2 x (0.25 ... 1.5)	
• AWG cables, solid or stranded	AWG	2 x (24 ... 16)	

Overview



SIRIUS 3UG4615 monitoring relay

Electronic line monitoring relays provide maximum protection for mobile machines and plants or for unstable networks. Network and voltage faults can thus be detected early and rectified before far greater damage ensues.

Depending on the version, the relays monitor phase sequence, phase failure with and without N conductor monitoring, phase asymmetry, undervoltage or overvoltage.

Phase asymmetry is evaluated as the difference between the greatest and the smallest phase voltage relative to the greatest phase voltage. Undervoltage or overvoltage exists when at least one phase voltage deviates by 20% from the set rated system voltage or the directly set limit values are overshoot or undershot. The rms value of the voltage is measured.

With the 3UG4617 or 3UG4618 relay, a wrong direction of rotation can also be corrected automatically.

Benefits

- Can be used without auxiliary voltage in any network from 160 to 630 V AC worldwide thanks to wide voltage range
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Width 22.5 mm
- Permanent display of actual value and line fault type on the digital versions
- Automatic correction of the direction of rotation by distinguishing between power system faults and wrong phase sequence
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

The relays are used above all for mobile equipment, e.g. air conditioning compressors, refrigerating containers, building site compressors and cranes.

Function	Application
Phase sequence	<ul style="list-style-type: none"> • Direction of rotation of the drive
Phase failure	<ul style="list-style-type: none"> • A fuse has tripped • Failure of the control supply voltage • Broken cable
Phase asymmetry	<ul style="list-style-type: none"> • Overheating of the motor due to asymmetrical voltage • Detection of asymmetrically loaded networks
Undervoltage	<ul style="list-style-type: none"> • Increased current on a motor with corresponding overheating • Unintentional resetting of a device • Network collapse, particularly with battery power
Overvoltage	<ul style="list-style-type: none"> • Protection of a plant against destruction due to overvoltage

Technical specifications

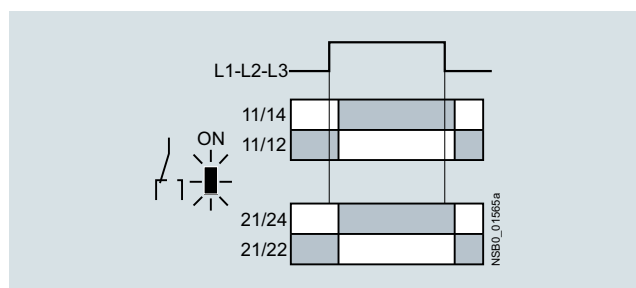
3UG4511 monitoring relays

The 3UG4511 phase sequenced relay monitors the phase sequence in a three-phase network. No adjustments are required for operation. The device has an internal power supply and works using the closed-circuit principle. If the phase sequence at the terminals L1-L2-L3 is correct, the output relay picks up after the delay time has elapsed and the LED is lit. If the phase sequence is wrong, the output relay remains in its rest position.

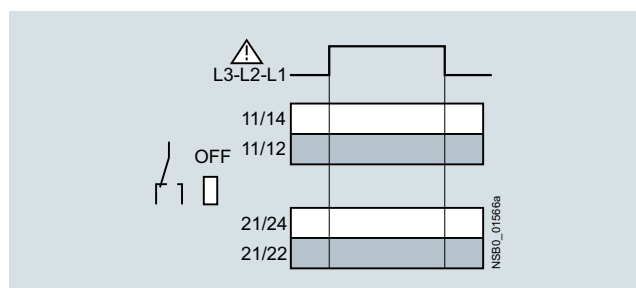
Note:

When one phase fails, connected loads (motor windings, lamps, transformers, coils, etc.) create a feedback voltage at the terminal of the failed phase due to the network coupling. Because the 3UG4511 relays are not resistant to voltage feedback, such a phase failure is not detected. Should this be required, then the 3UG4512 monitoring relay must be used.

Correct phase sequence



Wrong phase sequence



Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Line monitoring

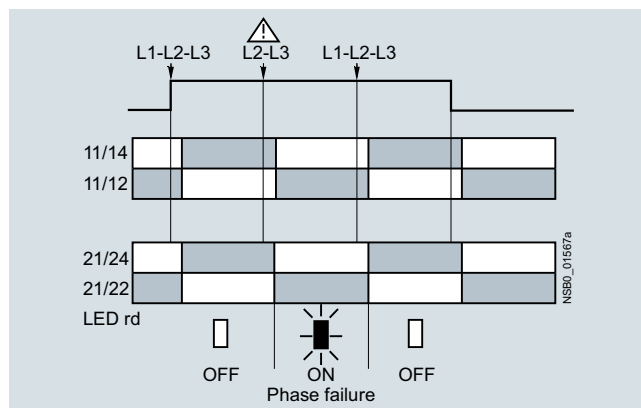
3UG4512 monitoring relays

The 3UG4512 line monitoring relay monitors three-phase networks with regard to phase sequence, phase failure and phase unbalance of 10%. Thanks to a special measuring method, a phase failure is reliably detected in spite of the wide voltage range from 160 to 690 V AC and feedback through the load of up to 90%. The device has an internal power supply and works using the closed-circuit principle. No adjustments are required. If the line voltage is switched on, the green LED will light up. If the phase sequence at the terminals L1-L2-L3 is correct, the output relay picks up. If the phase sequence is wrong, the red LED flashes and the output relay remains in its rest position. If a phase fails, the red LED is permanently lit and the output relay drops.

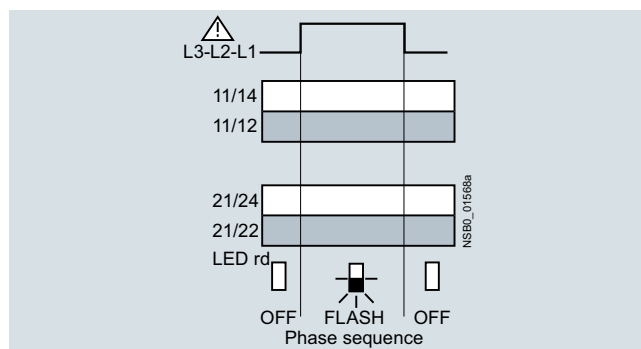
Note:

The red LED is a fault diagnostic indicator and does not show the current relay status. The 3UG4512 monitoring relay is suitable for line frequencies of 50/60 Hz.

Phase failure



Wrong phase sequence



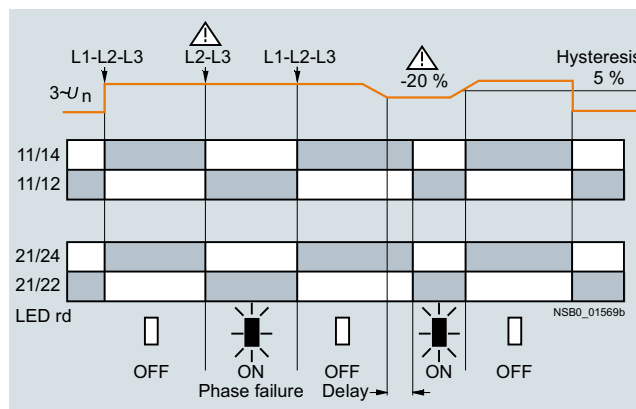
3UG4513 monitoring relays

The 3UG4513 line monitoring relay monitors three-phase networks with regard to phase sequence, phase failure, phase asymmetry and undervoltage of 20%. The device has an internal power supply and works using the closed-circuit principle. The hysteresis is 5%. The integrated response delay time T is adjustable from 0 to 20 s and responds to undervoltage. If the direction is incorrect, the device switches off immediately. Thanks to a special measuring method, a phase failure is reliably detected in spite of the wide voltage range from 160 to 690 V and feedback through the load of up to 80%. If the line voltage is switched on, the green LED will light up. If the phase sequence at the terminals L1-L2-L3 is correct, the output relay picks up. If the phase sequence is wrong, the red LED flashes and the output relay remains in its rest position. If a phase fails, the red LED is permanently lit and the output relay drops.

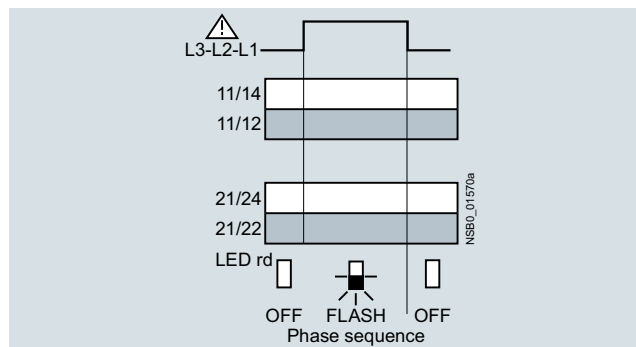
Note:

The red LED is a fault diagnostic indicator and does not show the current relay status. The 3UG4513 monitoring relay is suitable for line frequencies of 50/60 Hz.

Phase failure and undervoltage



Wrong phase sequence



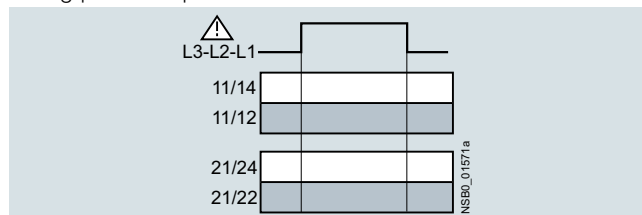
3UG4614 monitoring relays

The 3UG4614 line monitoring relay has a wide voltage range input and an internal power supply. The device is equipped with a display and is parameterized using three buttons. The unit monitors three-phase networks with regard to phase asymmetry from 5 to 20%, phase failure, undervoltage and phase sequence. The hysteresis is adjustable from 1 to 20 V. In addition the device has a response delay and ON-delay from 0 to 20 s in each case. The integrated response delay time responds to phase asymmetry and undervoltage. If the direction is incorrect, the device switches off immediately. Thanks to a special measuring method, a phase failure is reliably detected in spite of the wide voltage range from 160 to 690 V and feedback through the load of up to 80%.

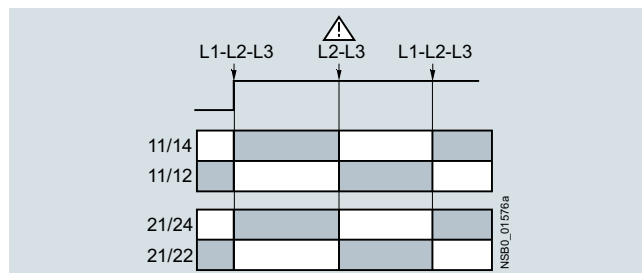
The 3UG4614 monitoring relay can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET.

With the closed-circuit principle selected

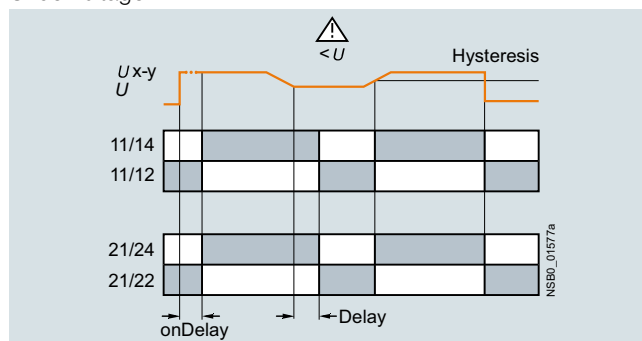
Wrong phase sequence



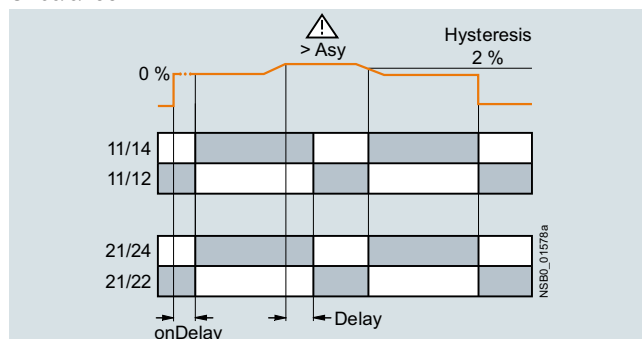
Phase failure



Undervoltage



Unbalance

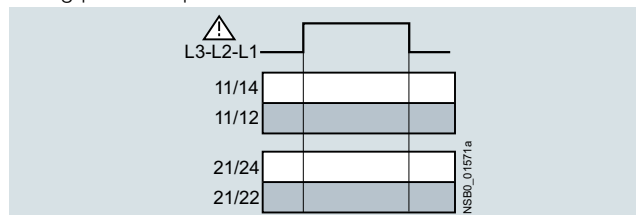
**3UG4615/3UG4616 monitoring relays**

The 3UG4615/3UG4616 line monitoring relay has a wide voltage range input and an internal power supply. The device is equipped with a display and is parameterized using three buttons. The 3UG4615 device monitors three-phase networks with regard to phase failure, undervoltage, overvoltage and phase sequence. The 3UG4616 monitoring relay monitors the neutral conductor as well. The hysteresis is adjustable from 1 to 20 V. In addition the device has two separately adjustable delay times for overvoltage and undervoltage from 0 to 20 s in each case. If the direction of rotation is incorrect, the device switches off immediately. Thanks to a special measuring method, a phase failure is reliably detected in spite of the wide voltage range from 160 to 690 V and feedback through the load of up to 80%.

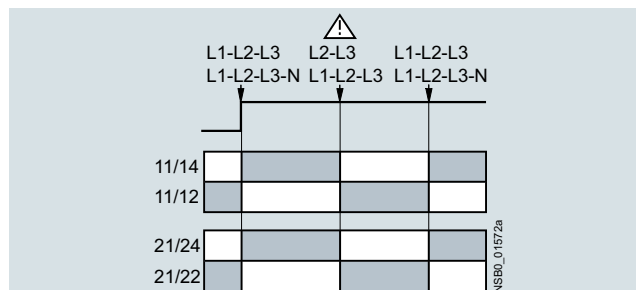
The 3UG4615/3UG4616 monitoring relay can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET.

With the closed-circuit principle selected

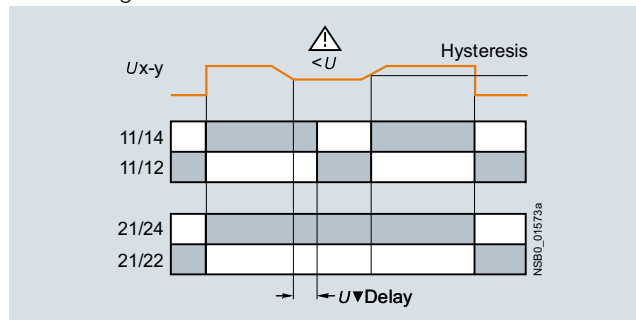
Wrong phase sequence



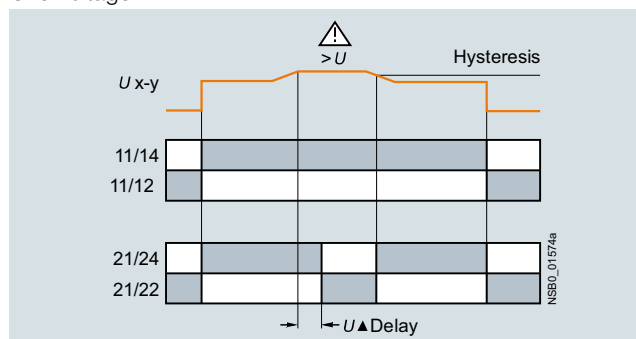
Phase failure



Undervoltage



Overvoltage



Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

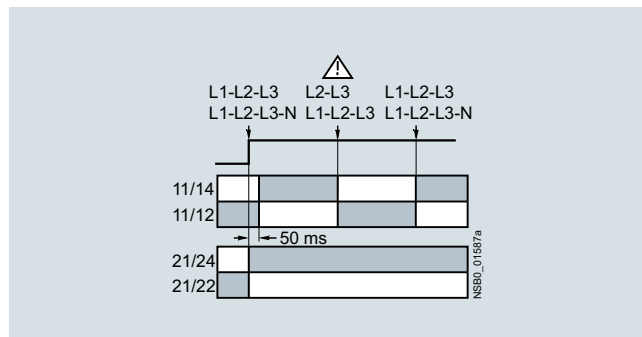
Line monitoring

3UG4617/3UG4618 monitoring relays

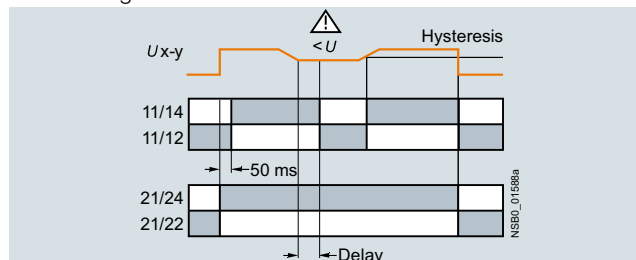
The 3UG4617/3UG4618 line monitoring relay has an internal power supply and can automatically correct a wrong direction of rotation. Thanks to a special measuring method, a phase failure is reliably detected in spite of the wide voltage range from 160 to 690 V AC and feedback through the load of up to 80%. The device is equipped with a display and is parameterized using three buttons. The 3UG4617 line monitoring relay unit monitors three-phase networks with regard to phase sequence, phase failure, phase unbalance, undervoltage and overvoltage. The 3UG4618 monitoring relay monitors the neutral conductor as well. The hysteresis is adjustable from 1 to 20 V. In addition the device has delay times from 0 to 20 s in each case for overvoltage, undervoltage, phase failure and phase unbalance. The 3UG4617/3UG4618 monitoring relay can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET. The one changeover contact is used for warning or disconnection in the event of power system faults (voltage, asymmetry), the other responds only to a wrong phase sequence. In conjunction with a contactor reversing assembly it is thus possible to change the direction automatically.

With the closed-circuit principle selected

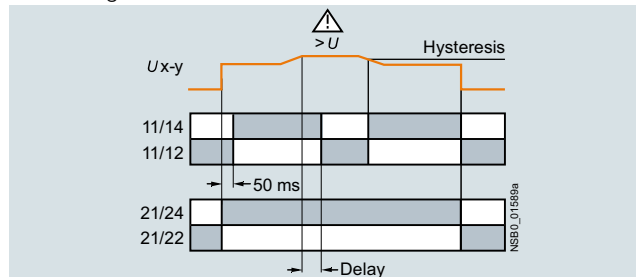
Phase failure



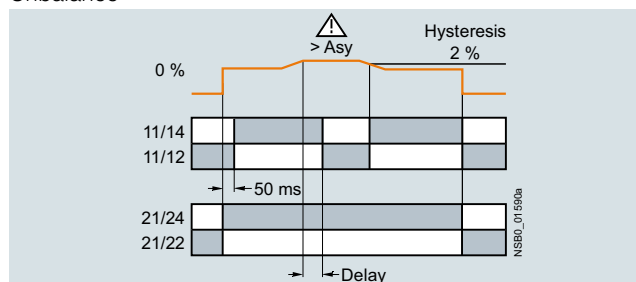
Undervoltage



Overvoltage



Unbalance



Type	3UG4511 ... 3UG4513, 3UG4614 ... 3UG4618	
General data		
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to VDE 0110	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Control circuit		
Load capacity of the output relay • Thermal current I_{th}	A	5
Rated operational current I_e at • AC-15/24 ... 400 V • DC-13/24 V • DC-13/125 V • DC-13/250 V	A A A A	3 1 0.2 0.1
Minimum contact load at 17 V DC	mA	5
Electrical endurance AC-15	Million oper- ating cycles	0.1
Mechanical endurance	Million oper- ating cycles	10

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Line monitoring

Selection and ordering data

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H



3UG4511-1AP20



3UG4615-1CR20



3UG4616-1CR20



3UG4617-1CR20





3UG4618-1CR20



3UG4511-2BP20



3UG4512-2BR20

Adjustable hysteresis	Under-voltage detection	Over-voltage detection	Stabilization time adjustable stDEL	Tripping delay time adjustable Del	Version of auxiliary contacts	Measurable line voltage ¹⁾	SD	Screw terminals		SD	Spring-type terminals	
			s	s	CO contact	V	d	Article No.	Price per PU	d	Article No.	Price per PU

Monitoring of phase sequence

Auto RESET

--	--	--	--	--	1	160 ... 260 AC	2	3UG4511-1AN20	2	3UG4511-2AN20
					2		2	3UG4511-1BN20	2	3UG4511-2BN20
					1	320 ... 500 AC	2	3UG4511-1AP20	2	3UG4511-2AP20
					2		2	3UG4511-1BP20	2	3UG4511-2BP20
					1	420 ... 690 AC	2	3UG4511-1AQ20	5	3UG4511-2AQ20
					2		2	3UG4511-1BQ20	5	3UG4511-2BQ20

Monitoring of phase sequence, phase failure and phase unbalance

Auto RESET, closed-circuit principle, unbalance threshold permanently 10%

--	--	--	--	--	1	160 ... 690 AC	2	3UG4512-1AR20	2	3UG4512-2AR20
					2		2	3UG4512-1BR20	2	3UG4512-2BR20

Monitoring of phase sequence, phase failure, unbalance and undervoltage

Analogically adjustable, Auto RESET, closed-circuit principle, asymmetry and undervoltage threshold permanently 20%

5% of set value	✓	--	--	0.1 ... 20	2	160 ... 690 AC	2	3UG4513-1BR20	2	3UG4513-2BR20
-----------------	---	----	----	------------	---	----------------	---	---------------	---	---------------

Digitally adjustable, Auto RESET or Manual RESET, open-circuit or closed-circuit principle, asymmetry threshold 0 or 5 ... 20%

adjustable	✓	--	--	0.1 ... 20	0.1 ... 20	2	160 ... 690 AC	2	3UG4614-1BR20	2	3UG4614-2BR20
------------	---	----	----	------------	------------	---	----------------	---	---------------	---	---------------

Monitoring of phase sequence, phase failure, overvoltage and undervoltage

Digitally adjustable, Auto RESET or Manual RESET, open-circuit or closed-circuit principle

adjustable	✓	✓	--	0.1 ... 20 ²⁾	2 ²⁾	160 ... 690 AC	2	3UG4615-1CR20	2	3UG4615-2CR20
------------	---	---	----	--------------------------	-----------------	----------------	---	---------------	---	---------------

Monitoring of phase sequence, phase and N conductor failure, overvoltage and undervoltage

Digitally adjustable, Auto RESET or Manual RESET, open-circuit or closed-circuit principle

adjustable	✓	✓	--	0.1 ... 20 ²⁾	2 ²⁾	90 ... 400 AC against N	2	3UG4616-1CR20	2	3UG4616-2CR20
------------	---	---	----	--------------------------	-----------------	-------------------------	---	---------------	---	---------------

Automatic correction of the direction of rotation in case of wrong phase sequence, phase failure, unbalance, overvoltage and undervoltage

Digitally adjustable, Auto RESET or Manual RESET, open-circuit or closed-circuit principle, asymmetry threshold 0 or 5 ... 20%

adjustable	✓	✓	--	0.1 ... 20	2 ³⁾	160 ... 690 AC	2	3UG4617-1CR20	2	3UG4617-2CR20
------------	---	---	----	------------	-----------------	----------------	---	---------------	---	---------------

Automatic correction of the direction of rotation in case of wrong phase sequence, phase and N conductor failure, phase unbalance, overvoltage and undervoltage

Digitally adjustable, Auto RESET or Manual RESET, open-circuit or closed-circuit principle, asymmetry threshold 0 or 5 ... 20%

adjustable	✓	✓	--	0.1 ... 20	2 ³⁾	90 ... 400 AC against N	2	3UG4618-1CR20	2	3UG4618-2CR20
------------	---	---	----	------------	-----------------	-------------------------	---	---------------	---	---------------

✓ Function available

-- Function not available

For accessories, see page 10/108.

¹⁾ Absolute limit values.²⁾ 1 CO contact each and one tripping delay time each for U_{min} and U_{max} .³⁾ 1 CO contact each for power system fault and phase sequence correction.

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Voltage monitoring

Overview



SIRIUS 3UG4631 monitoring relay

The relays monitor single-phase AC voltages (rms value) and DC voltages against the set threshold value for overshoot and undershoot. The devices differ with regard to their power supply (internal or external).

Benefits

- Versions with wide voltage supply range
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Width 22.5 mm
- Display of ACTUAL value and status messages
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Protection of a plant against destruction due to overvoltage
- Switch-on of a plant at a defined voltage and higher
- Protection from undervoltage due to overloaded control supply voltages, particularly with battery power
- Threshold switch for analog signals from 0.1 to 10 V

Technical specifications

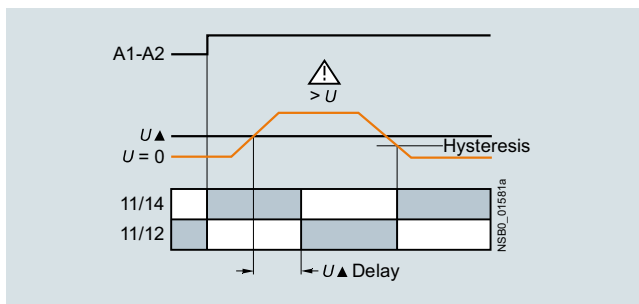
3UG4631/3UG4632 monitoring relays

The 3UG4631/3UG4632 voltage monitoring relay is supplied with an auxiliary voltage of 24 V AC/DC or 24 to 240 V AC/DC and performs overshoot, undershoot or range monitoring of the voltage depending on parameterization. The device is equipped with a display and is parameterized using three buttons.

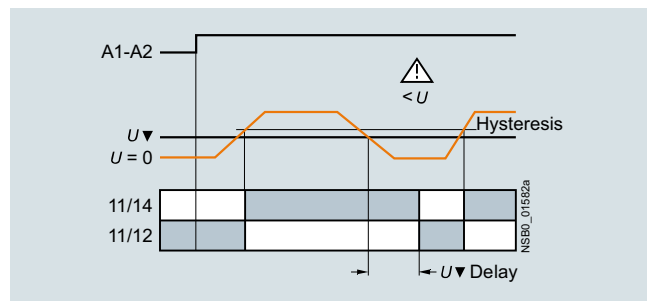
The measuring range extends from 0.1 to 60 V or 10 to 600 V AC/DC. The threshold values for overshoot or undershoot can be freely configured within this range. If one of these threshold values is reached, the output relay responds according to the set principle of operation as soon as the delay time has elapsed. This delay time U_{Del} can be set from 0.1 to 20 s. The hysteresis can be set from 0.1 to 30 V or 0.1 to 300 V. The device can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET. One output changeover contact is available as signaling contact.

With the closed-circuit principle selected

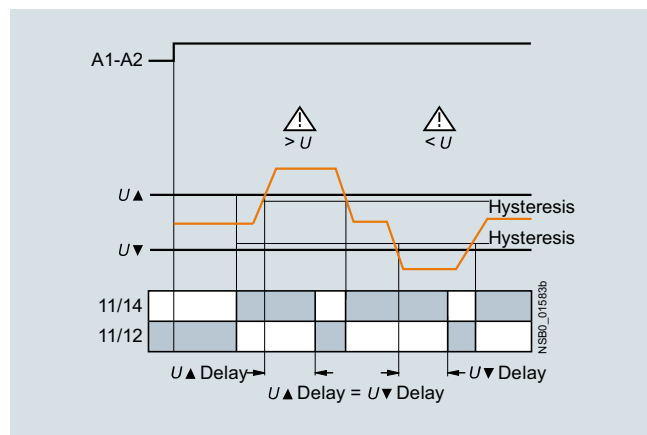
Overvoltage



Undervoltage



Range monitoring



3UG4633 monitoring relay

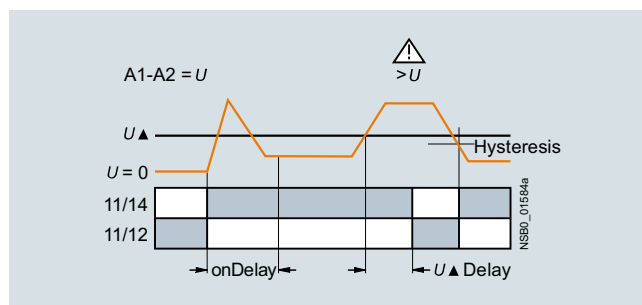
The 3UG4633 voltage monitoring relay has an internal power supply and performs overshoot, undershoot or range monitoring of the voltage depending on parameterization. The device is equipped with a display and is parameterized using three buttons.

The operating and measuring range extends from 17 to 275 V AC/DC. The threshold values for overshoot or undershoot can be freely configured within this range. If one of these threshold values is reached, the output relay responds according to the set principle of operation as soon as the tripping delay time has elapsed. This delay time U_{Del} can also be adjusted, just like the ON-delay time on_{Del} , from 0.1 to 20 s.

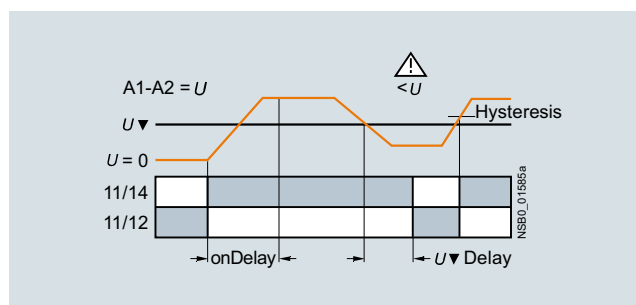
The hysteresis is adjustable from 0.1 to 150 V. The device can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET. One output changeover contact is available as signaling contact.

With the closed-circuit principle selected

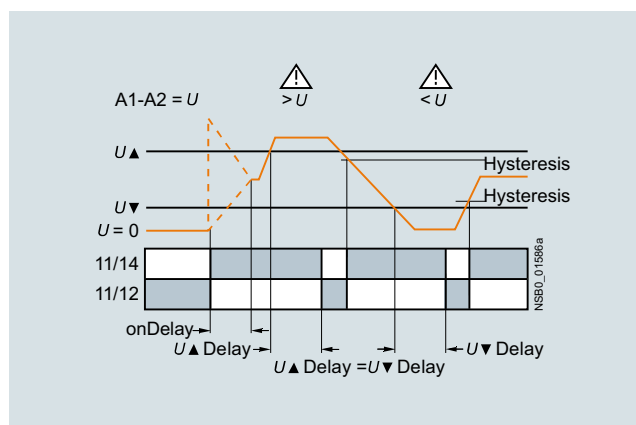
Overvoltage



Undervoltage



Range monitoring



Type		3UG4631	3UG4632	3UG4633
General data				
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to VDE 0110	V	690		
Rated impulse withstand voltage U_{imp}	kV	6		
Measuring circuit				
Permissible measuring range single-phase AC/DC voltage	V	0.1 ... 68	10 ... 650	17 ... 275
Measuring frequency	Hz	40 ... 500		
Setting range single-phase voltage	V	0.1 ... 60	10 ... 600	17 ... 275
Control circuit				
Load capacity of the output relay				
• Thermal current I_{th}	A	5		
Rated operational current I_e at				
• AC-15/24 ... 400 V	A	3		
• DC-13/24 V	A	1		
• DC-13/125 V	A	0.2		
• DC-13/250 V	A	0.1		
Minimum contact load at 17 V DC	mA	5		

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Voltage monitoring

Selection and ordering data

- Digitally adjustable, with illuminated LCD
- Auto or Manual RESET
- Open- or closed-circuit principle
- 1 CO contact



PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H



3UG4631-1AA30



3UG4633-2AL30

Measuring range	Adjustable hysteresis	Rated control supply voltage U_s	SD	Screw terminals 		SD	Spring-type terminals 	
V	V	V	d	Article No.	Price per PU	d	Article No.	Price per PU
Internal power supply without auxiliary voltage, separately adjustable ON-delay and tripping delay 0.1 ... 20 s								
17 ... 275 AC/DC	0.1 ... 150	17 ... 275 AC/DC ¹⁾	2	3UG4633-1AL30	2		3UG4633-2AL30	
Externally supplied with auxiliary voltage, tripping delay adjustable 0.1 ... 20 s								
0.1 ... 60 AC/DC	0.1 ... 30	24 AC/DC	2	3UG4631-1AA30	2		3UG4631-2AA30	
10 ... 600 AC/DC	0.1 ... 300		2	3UG4632-1AA30	2		3UG4632-2AA30	
0.1 ... 60 AC/DC	0.1 ... 30	24 ... 240 AC/DC	2	3UG4631-1AW30	2		3UG4631-2AW30	
10 ... 600 AC/DC	0.1 ... 300		2	3UG4632-1AW30	2		3UG4632-2AW30	

¹⁾ Absolute limit values.

For accessories, see page 10/108.

Overview



SIRIUS 3UG4622 monitoring relay

The relays monitor single-phase AC currents (rms value) and DC currents against the set threshold value for overshoot and undershoot. They differ with regard to their measuring ranges and control supply voltage types.

Benefits

- Versions with wide voltage supply range
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Width 22.5 mm
- Display of ACTUAL value and status messages
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Overcurrent and undercurrent monitoring
- Monitoring the functionality of electrical loads
- Open-circuit monitoring
- Threshold switch for analog signals from 4 to 20 mA

Technical specifications

3UG4621/3UG4622 monitoring relays

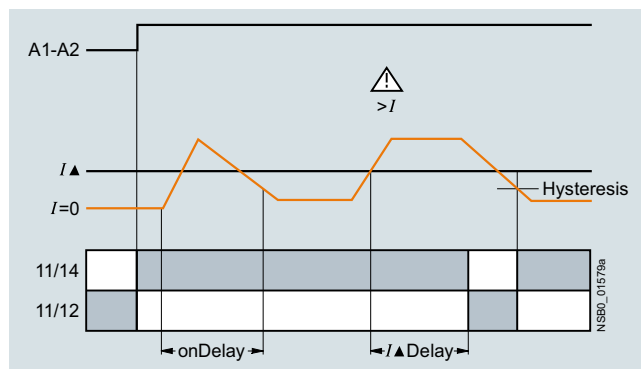
The 3UG4621 or 3UG4622 current monitoring relay is supplied with an auxiliary voltage of 24 V AC/DC or 24 to 240 V AC/DC and performs overshoot, undershoot or range monitoring of the current depending on parameterization. The device is equipped with a display and is parameterized using three buttons.

The measuring range extends from 3 to 500 mA or 0.05 to 10 A. The rms value of the current is measured. The threshold values for overshoot or undershoot can be freely configured within this range. If one of these threshold values is reached, the output relay responds according to the set principle of operation as soon as the tripping delay time I_{Del} has elapsed. This time and the ON-delay time on_{Del} are adjustable from 0.1 to 20 s.

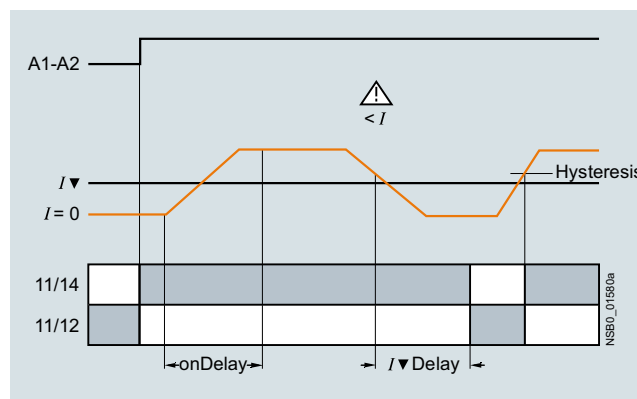
The hysteresis is adjustable from 0.1 to 250 mA or 0.01 to 5 A. The device can be operated with Manual or Auto RESET and on the basis of either the open-circuit or closed-circuit principle. You can decide here whether the output relay is to respond when the supply voltage $U_s = ON$ is applied, or not until the lower measuring range limit of the measuring current ($I > 3 \text{ mA}/50 \text{ mA}$) is reached. One output changeover contact is available as signaling contact.

With the closed-circuit principle selected upon application of the control supply voltage

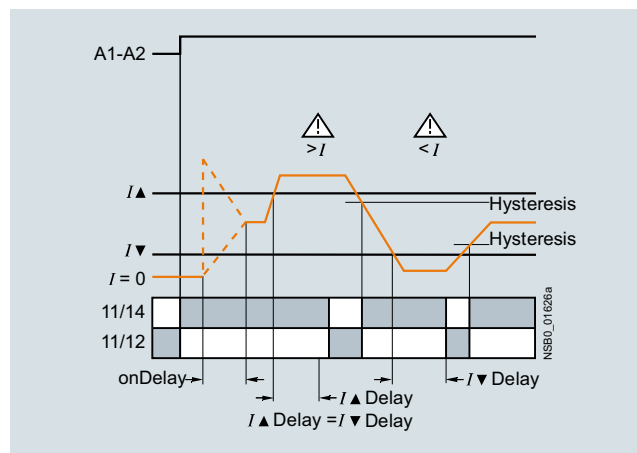
Current overshoot



Current undershoot



Range monitoring



Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Current monitoring

Type		3UG4621-AA	3UG4621-AW	3UG4622-AA	3UG4622-AW
General data					
Rated insulation voltage U_i Pollution degree 3; overvoltage category III according to VDE 0110	V	690			
Rated impulse withstand voltage U_{imp}	kV	6			
Measuring circuit					
Measuring range for single-phase AC/DC current	A	0.003 ... 0.6		0.05 ... 15	
Measuring frequency	Hz	40 ... 500			
Setting range for single-phase current	A	0.003 ... 0.5		0.05 ... 10	
Load supply voltage	V	24	Max. 300 ¹⁾ Max. 500 ²⁾	24	Max. 300 ¹⁾ Max. 500 ²⁾
Control circuit					
Load capacity of the output relay					
• Thermal current I_{th}	A	5			
Rated operational current I_e at					
• AC-15/24 ... 400 V	A	3			
• DC-13/24 V	A	1			
• DC-13/125 V	A	0.2			
• DC-13/250 V	A	0.1			
Minimum contact load at 17 V DC	mA	5			

¹⁾ With protective separation.

²⁾ With simple separation.

Selection and ordering data

- Digitally adjustable, with illuminated LCD
- Auto or Manual RESET
- Open- or closed-circuit principle
- 1 CO contact



PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



3UG4621-1AA30



3UG4622-2AW30

Measuring range	Adjustable hysteresis	Rated control supply voltage U_s	SD	Screw terminals 	SD	Spring-type terminals 	
		V	d	Article No.	Price per PU	Article No.	Price per PU
Monitoring of undercurrent and overcurrent, start up delay and tripping delay times can be adjusted separately 0.1 ... 20 s							
3 ... 500 mA AC/DC	0.1 ... 250 mA	24 AC/DC ¹⁾	2	3UG4621-1AA30	2	3UG4621-2AA30	
0.05 ... 10 A AC/DC	0.01 ... 5 A		2	3UG4622-1AA30	2	3UG4622-2AA30	
3 ... 500 mA AC/DC	0.1 ... 250 mA	24 ... 240 AC/DC ²⁾	2	3UG4621-1AW30	2	3UG4621-2AW30	
0.05 ... 10 A AC/DC	0.01 ... 5 A		2	3UG4622-1AW30	2	3UG4622-2AW30	

¹⁾ No electrical separation. Load supply voltage 24 V.

²⁾ Electrical separation between control circuit and measuring circuit.
Load supply voltage for protective separation max. 300 V, for simple separation max. 500 V.

For accessories, see page 10/108.

For AC currents $I > 10$ A it is possible to use 4NC current transformers as an accessory, see Catalog LV 10.

Overview



SIRIUS 3UG4641 monitoring relay

The 3UG4641 power factor and active current monitoring device enables the load monitoring of motors.

Whereas power factor (p.f.) monitoring is used above all for monitoring no-load operation, the active current monitoring option can be used to observe and evaluate the load factor over the entire torque range.

Benefits

- Can be used worldwide thanks to wide voltage range from 90 to 690 V (absolute limit values)
- Monitoring of even small single-phase motors with a no-load supply current below 0.5 A
- Simple determination of threshold values by the direct collection of measured variables on motor loading
- Range monitoring and active current measurement enable detection of cable breaks between control cabinets and motors, as well as phase failures
- Power factor (p.f.) or I_{res} (active current) can be selected as the measurement principle
- Width 22.5 mm
- All versions with removable terminals

Application

- No-load monitoring and load shedding, such as in the event of a V-belt tear
- Underload monitoring in the low-end performance range, e.g. in the event of pump no-load operation
- Monitoring of overload, e.g. due to a dirty filter system
- Simple power factor monitoring in power systems for control of compensation equipment
- Broken cable between control cabinet and motor

Technical specifications

3UG4641 monitoring relay

The 3UG4641 monitoring relay is self-powered and serves the single-phase monitoring of the power factor or performs overshoot, undershoot or range monitoring of the active current depending on how it is parameterized. The load to be monitored is connected upstream of the IN terminal. The load current flows through the terminals IN and Ly/N. The setting range for the power factor is 0.1 to 0.99 and for the active current I_{res} it is 0.2 to 10 A. If the control supply voltage is switched on and no load current flows, the display will show $I < 0.2$ and a symbol for overrange, underrange or range monitoring. If the motor is now switched on and the current exceeds 0.2 A, the set ON-delay time begins. During this time, if the set limit values are undershot or exceeded, this does not lead to a relay reaction of the changeover contact. If the operational flowing active current and/or the power factor value falls below or exceeds the respective set threshold value, the spike delay begins. When this time has expired, the relay changes its switch position. The relevant measured variables for overshooting and undershooting in the display flash. If monitoring for active current undershoot is switched off ($I_{res} \nabla = \text{OFF}$), and if the load current undershoots the lower measuring range threshold (0.2 A), the CO contacts remain unchanged. If a threshold value is set for the monitoring of active current undershooting, then undershooting of the measuring range threshold (0.2 A) will result in a response of the CO contacts.

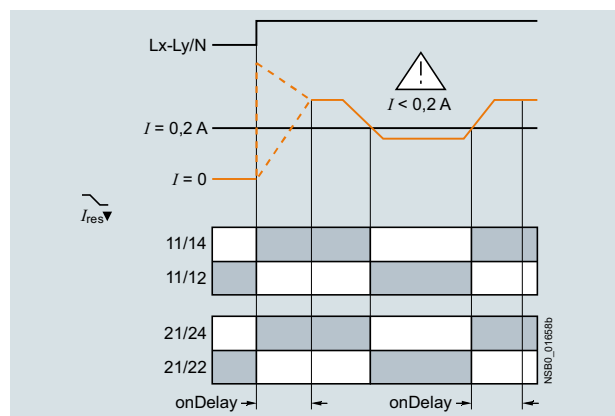
The relay operates either according to the open-circuit or closed-circuit principle. If the device is set to Auto RESET (Memory = No), depending on the set principle of operation, the switching relay returns to its initial state and the flashing ends when the hysteresis threshold is reached.

If Manual RESET is selected in the menu (Memory = Yes), the switching relay remains in its current switching state and the current measured value and the symbol for undershooting and overshooting continue to flash, even when the measured variable reaches a permissible value again. This stored fault status can be reset by simultaneously pressing the UP \blacktriangle and DOWN \blacktriangledown keys for 2 seconds, or by switching the supply voltage off and back on again.

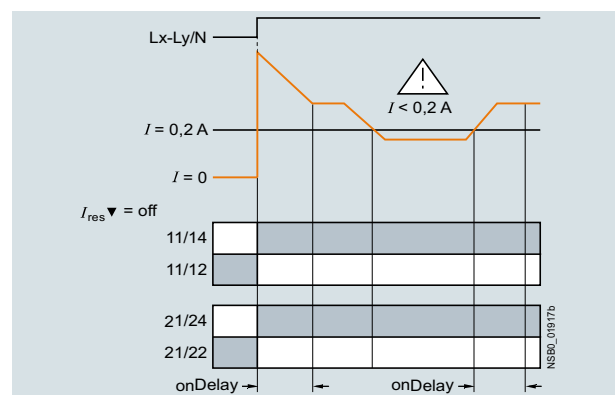
With the closed-circuit principle selected

Response in the event of undershooting the measuring range limit

- With activated monitoring of $I_{res} \nabla$



- With deactivated monitoring of active current undershooting

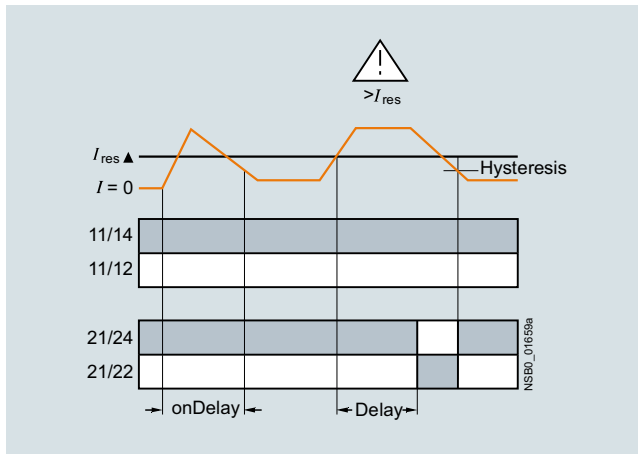


Relays

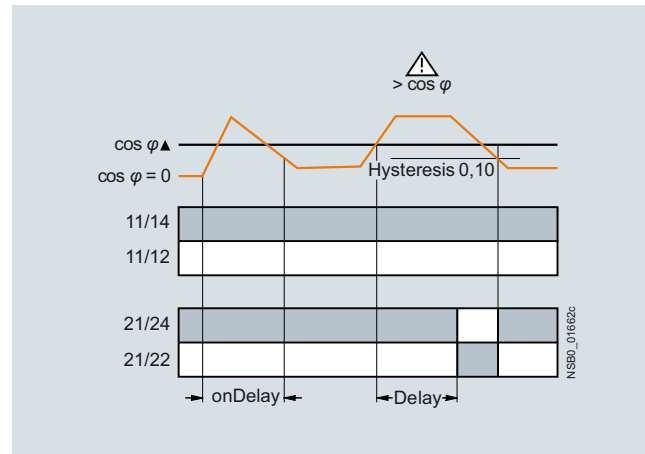
SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Power factor and active current monitoring

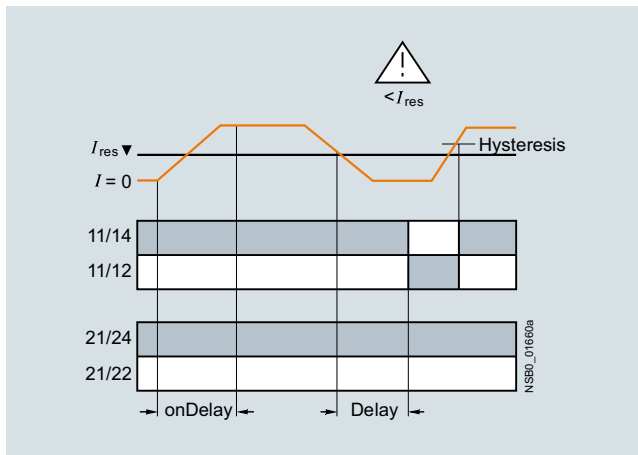
Overshooting of active current



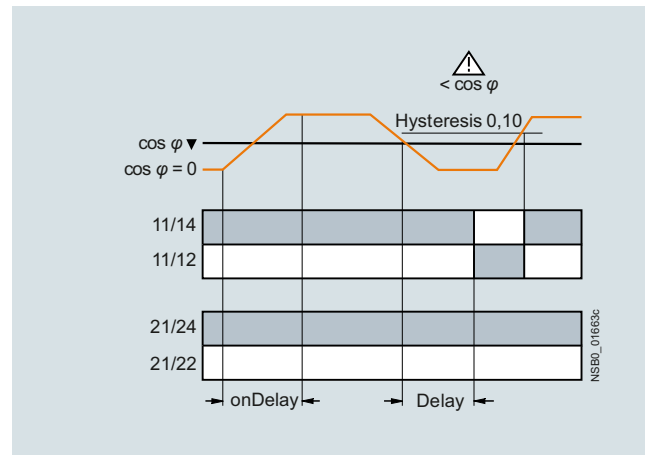
Overshooting of power factor



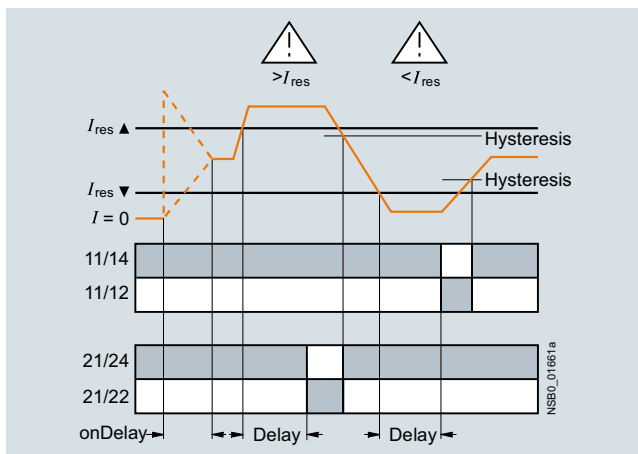
Undershooting of active current



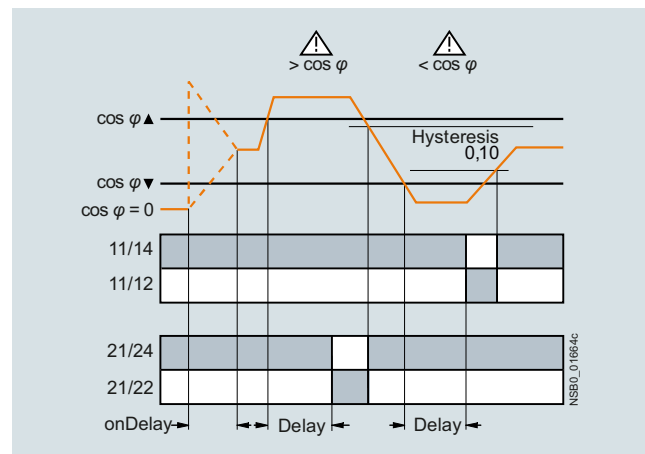
Undershooting of power factor



Range monitoring of active current



Range monitoring of power factor



SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation



Power factor and active current monitoring

Type	3UG4641	
General data		
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to VDE 0110	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Control circuit		
Number of CO contacts for auxiliary contacts		2
Load capacity of the output relay • Thermal current I_{th}	A	5
Rated operational current I_e at • AC-15/24 ... 400 V • DC-13/24 V • DC-13/125 V • DC-13/250 V	A A A A	3 1 0.2 0.1
Minimum contact load at 17 V DC	mA	5

Selection and ordering data

- For monitoring the power factor and the active current I_{res} (p.f. $\times I$)
- Suitable for single- and three-phase currents
- Digitally adjustable, with illuminated LCD
- Overshoot, undershoot or range monitoring adjustable
- Upper and lower threshold value can be adjusted separately
- Permanent display of actual value and tripping state
- 1 changeover contact each for undershoot/overshoot

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H

Measuring range		Adjustable hysteresis		ON-delay time adjustable onDel	Tripping delay time adjustable $I\blacktriangle\text{Del}/I\blacktriangledown\text{Del}, \varphi\blacktriangle\text{Del}/\varphi\blacktriangledown\text{Del}$	Rated control supply voltage U_s ¹⁾ 50/60 Hz AC	SD	Screw terminals 	SD	Spring-type terminals 		
For power factor	For active current I_{res}	For power factor	For active current I_{res}									
P.f.	A	P.f.	A	s	s	V	d	Article No.	Price per PU	d	Article No.	Price per PU
0.10 ... 0.99	0.2 ... 10.0	0.1	0.1 ... 2.0	0 ... 99	0.1 ... 20.0	90 ... 690	2	3UG4641-1CS20		2	3UG4641-2CS20	

¹⁾ Absolute limit values.

For accessories, see page 10/108.

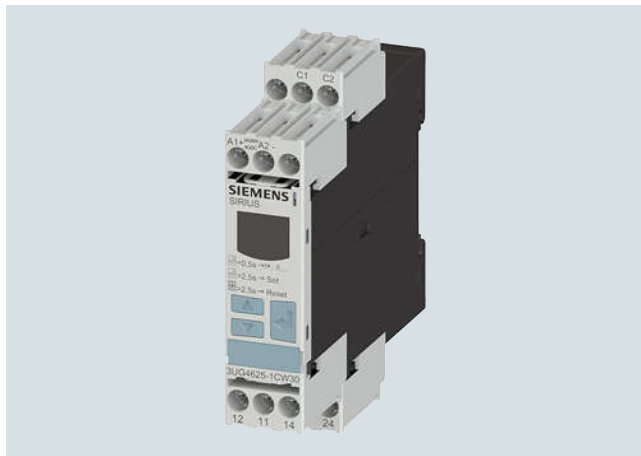
For AC active currents $I_{res} > 10$ A it is possible to use 4NC current transformers as an accessory, see Catalog LV 10.

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Residual-Current Monitoring

Residual-current monitoring relays

Overview



SIRIUS 3UG4625 monitoring relay

The 3UG4625 residual-current monitoring relays are used in conjunction with the 3UL23 residual-current transformers for monitoring plants in which higher residual currents are increasingly expected due to ambient conditions. Monitoring encompasses pure AC residual currents or AC residual currents with a pulsating DC fault current component (transformer type A in accordance with DIN VDE 0100-530/IEC TR 60755).

Benefits

- Worldwide use thanks to wide voltage range from 24 to 240 V AC/DC
- High measuring accuracy of $\pm 7.5\%$
- Permanent self-monitoring
- Variable threshold values for warning and disconnection
- Freely configurable delay times and RESET response
- Permanent display of the actual value and fault diagnostics via the display
- High level of flexibility and space saving through installation of the transformer inside or outside the control cabinet
- Width 22.5 mm
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

Monitoring of plants in which residual currents can occur, e.g. due to dust deposits or moisture, porous cables and leads, or capacitive residual currents.

Technical specifications

3UG4625 monitoring relays

The main conductor, and any neutral conductor to which a load is connected, are routed through the opening of the annular ring core of a residual-current transformer. A secondary winding is placed around this annular ring core to which the monitoring relay is connected.

If operation of a plant is fault-free, the sum of the inflowing and outward currents equals zero. No current is then induced in the secondary winding of the residual-current transformer.

However, if an insulation fault occurs downstream of the residual-current-operated circuit breaker, the sum of the inflowing currents is greater than that of the outward currents. The differential current – i.e. the residual current – induces a secondary current in the secondary winding of the transformer. This current is evaluated in the monitoring relay and is used on the one hand to display the actual residual current and on the other, to switch the relay if the set warning or tripping threshold is overshoot.

If the measured residual current exceeds the set warning value, the associated changeover contact instantly changes the switching state and an indication appears on the display.

If the measured residual current exceeds the set tripping value, the set delay time begins and the associated relay symbol flashes. On expiry of this time, the associated changeover contact changes the switching state.

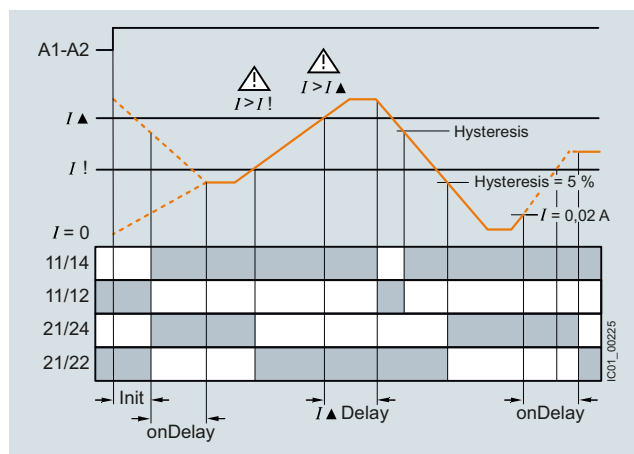
ON-delay time for motor start

To be able to start a drive when a residual current is detected, the output relays switch to the OK state for an adjustable ON-delay time depending on the selected open-circuit principle or closed-circuit principle.

The changeover contacts do not react if the set threshold values are overshoot during this period.

With the closed-circuit principle selected

Residual-current monitoring with Auto RESET (Memory = no)



If the device is set to Auto RESET, the relay switches back to the OK state for the tripping value once the value falls below the set hysteresis threshold and the display stops flashing.

The associated relay changes its switching state if the value falls below the fixed hysteresis value of 5% of the set warning value.

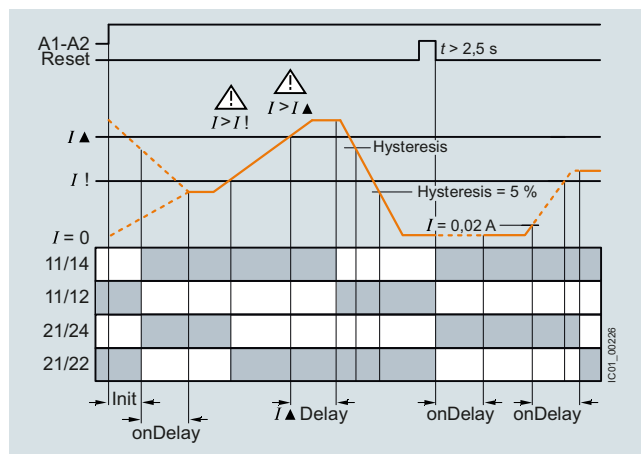
Any overshoots are therefore not stored.

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Residual-Current Monitoring

Residual-current monitoring relays

Residual-current monitoring with Manual RESET (Memory = yes)



If Manual RESET is selected in the menu, the output relays remain in their current switching state and the current measured value and the symbol for overshooting continue to flash, even when the measured residual current returns to a permissible value. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ keys for > 2 seconds, or by switching the supply voltage off and back on again.

Note:

Do not ground the neutral conductor downstream of the residual-current transformer as otherwise residual-current monitoring functions can no longer be ensured.

Type	3UG4625-1CW30, 3UG4625-2CW30	
General data		
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3, rated value	V	300
Impulse withstand voltage, rated value U_{imp}	kV	4
Control circuit		
Number of CO contacts for auxiliary contacts		2
Thermal current of the non-solid-state contact blocks, maximum	A	5
Current carrying capacity of the output relay		
• At AC-15 at 250 V at 50/60 Hz	A	3
• At DC-13		
- At 24 V	A	1
- At 125 V	A	0.2
- At 250 V	A	0.1
Operational current at 17 V, minimum	mA	5

Selection and ordering data

- For monitoring residual currents from 0.03 to 40 A, from 16 to 400 Hz
- For 3UL23 residual-current transformers with feed-through opening from 35 to 210 mm
- Permanent self-monitoring
- Certified in accordance with IEC 60947, functionality corresponds to IEC 62020
- Digitally adjustable, with illuminated LCD

- Permanent display of actual value and tripping state
- Separately adjustable limit value and warning threshold
- 1 changeover contact each for warning threshold and tripping threshold



PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



3UG4625-1CW30



3UG4625-2CW30

Measur-able current	Adjustable response value current	Switching hysteresis	Adjustable ON-delay time	Control supply voltage			SD	Screw terminals		SD	Spring-type terminals	
				Article No.	Price per PU	Article No.		Price per PU				
A	A	%	s	V	V	V	d			d		
0.01 ... 43	0.03 ... 40	0 ... 50	0 ... 20	24 ... 240	24 ... 240	24 ... 240	2	3UG4625-1CW30		2	3UG4625-2CW30	

For accessories, see page 10/108.

For the 3UL23 residual-current transformers, see page 10/94.

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Residual-Current Monitoring

3UL23 residual-current transformers

Overview



SIRIUS 3UL23 residual-current transformer

The 3UL23 residual-current transformers detect residual currents in machines and plants. They are suitable for pure AC residual currents or AC residual currents with a pulsating DC fault current component (transformer type A in accordance with DIN VDE 0100-530/IEC TR 60755).


Together with the 3UG4625, 3UG4825 residual-current monitoring relays for IO-Link or the SIMOCODE 3UF motor management and control device they enable residual-current and ground-fault monitoring.

The 3UL2302-1A and 3UL2303-1A residual-current transformers with a feed-through opening from 35 to 55 mm can be mounted in conjunction with the 3UL2900 accessories on a TH 35 standard mounting rail according to IEC 60715.

Selection and ordering data

Diameter of the bushing opening	Connectable cross-section of the connecting terminal	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
mm	mm ²	d	Article No.	Price per PU		
Residual-current transformers (essential accessories for 3UG4625, 3UG4825)						
35	2.5	2	3UL2302-1A	1	1 unit	41H
55	2.5	2	3UL2303-1A	1	1 unit	41H
80	2.5	2	3UL2304-1A	1	1 unit	41H
110	2.5	2	3UL2305-1A	1	1 unit	41H
140	2.5	2	3UL2306-1A	1	1 unit	41H
210	4	2	3UL2307-1A	1	1 unit	41H

Accessories

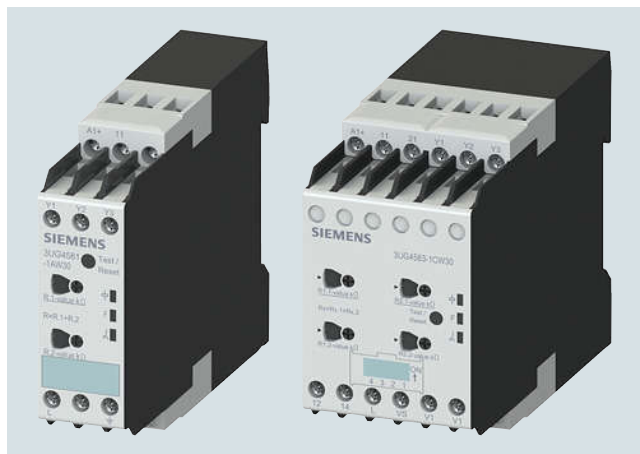
Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Adapters						
	Adapters For mounting onto standard rail for 3UL23 to diameter 55 mm	2	3UL2900	1	2 units	41H

3UL2900

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring

General data

Overview



SIRIUS 3UG458. insulation monitor

Insulation monitoring relays are used for monitoring the insulation resistance between ungrounded single- or three-phase AC supplies and a protective conductor.

Ungrounded, i.e. isolated networks (IT networks) are always used where high demands are placed on the reliability of the power supply, e.g. emergency lighting systems. IT systems are supplied via an isolating transformer or by power supply sources such as batteries or a generator. While an initial insulation fault between a phase conductor and the ground effectively grounds the conductor, as a result no circuit has been closed, so it is possible to continue work in safety (single-fault safety). However, the fault must be rectified as quickly as possible before a second insulation fault occurs (e.g. according to DIN VDE 0100-410). For this purpose insulation monitoring relays are used, which constantly measure the resistance to ground of the phase conductor and the neutral conductor, reporting a fault immediately if insulation resistance falls below the set value so that either a controlled shutdown can be performed or the fault can be rectified without interrupting the power supply.

Two device series

- 3UG4581 insulation monitoring relays for ungrounded AC networks
- 3UG4582 and 3UG4583 insulation monitoring relays for ungrounded DC and AC networks

Benefits

- Devices for AC and DC systems
- All devices have a wide control supply voltage range
- Direct connection to networks with mains voltages of up to 690 V AC and 1 000 V DC by means of a voltage reducer module
- For AC supply systems: Frequency range 15 to 400 Hz
- Monitoring of broken conductors
- Monitoring of setting errors
- Safety in use thanks to integrated system test after startup
- Option of resetting and testing (by means of button on front or using control contact)
- New predictive measurement principle allows very fast response times

Application

IT networks are used, for example:

- In emergency power supplies
- In safety lighting systems
- In industrial production facilities with high availability requirements (chemical industry, automobile manufacturing, printing plants)
- In shipping and railways
- For mobile generators (aircraft)
- For renewable energies, such as wind energy and photovoltaic power plants
- In the mining industry

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring

General data

Technical specifications

More information

For manuals, see
 • <https://support.industry.siemens.com/cs/ww/en/view/54382552>
 • <https://support.industry.siemens.com/cs/ww/en/view/54382528>

Type	3UG4581-1AW30	3UG4582-1AW30	3UG4583-1CW30
General data			
Setting range for the setpoint response values • 1 ... 100 kΩ • 2 ... 200 kΩ	✓ --	✓ --	✓ ✓
Rated voltage of the network being monitored • 0 ... 250 V AC • 0 ... 440 V AC • 0 ... 690 V AC • 0 ... 300 V DC • 0 ... 600 V DC • 0 ... 1 000 V DC	-- ✓ -- -- -- -- --	✓ -- -- ✓ -- -- --	-- ✓ ✓ ¹⁾ -- ✓ ¹⁾ ✓ ¹⁾ ✓ ¹⁾
Max. leakage capacitance of the system • 10 μF • 20 μF	✓ --	✓ --	-- ✓
Output contacts • 1 CO • 2 CO or 1 CO + 1 CO, adjustable	✓ --	✓ --	-- ✓
Number of limit values • 1 • 1 or 2, adjustable	✓ --	✓ --	-- ✓
Principle of operation	Closed-circuit principle	Closed-circuit principle	Open-circuit/closed-circuit principle, adjustable
Rated control supply voltage • 24 ... 240 V AC/DC	✓	✓	✓
Rated frequency • 15 ... 400 Hz • 50/60 Hz	-- ✓	✓ --	✓ --
Auto or Manual RESET	✓ Adjustable	✓ Adjustable	✓ Adjustable
Remote RESET	✓ Via control input	✓ Via control input	✓ Via control input
Non-volatile error memory	--	--	✓ Adjustable
Broken wire detection	--	--	✓ Adjustable
Replacement for			
Rated control supply voltage U_s	Voltage range of the network being monitored		
3UG3081-1AK20 110 ... 130/220 ... 240 V AC/DC	3 x 230/400 V AC	✓	--
3UG3081-1AW30 24 ... 240 V AC/DC	3 x 230/400 V AC	✓	--
3UG3082-1AW30 24 ... 240 V AC/DC	24 ... 240 V DC	--	✓

✓ Available

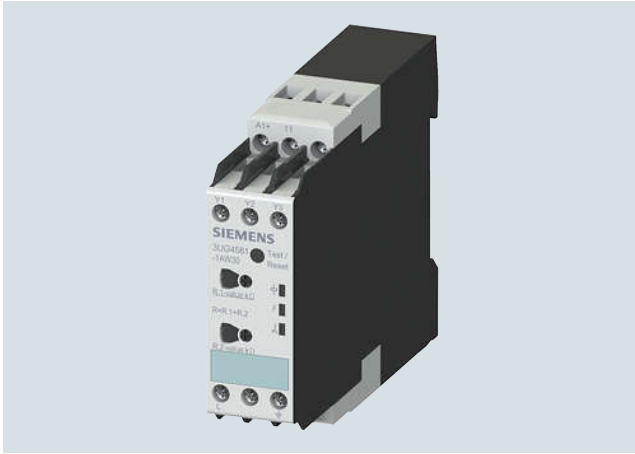
-- Not available

¹⁾ With voltage reducer module.

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring

For ungrounded AC networks

Overview



SIRIUS 3UG4581 insulation monitor

The 3UG4581 insulation monitoring relays are used to monitor insulation resistance according to IEC 61557-8 in ungrounded AC networks with rated voltages of up to 400 V.

These devices can monitor control circuits (single-phase) and main circuits (three-phase).

They measure insulation resistances between system cables and system ground. If the value falls below the threshold value, the output relays are switched to fault status.

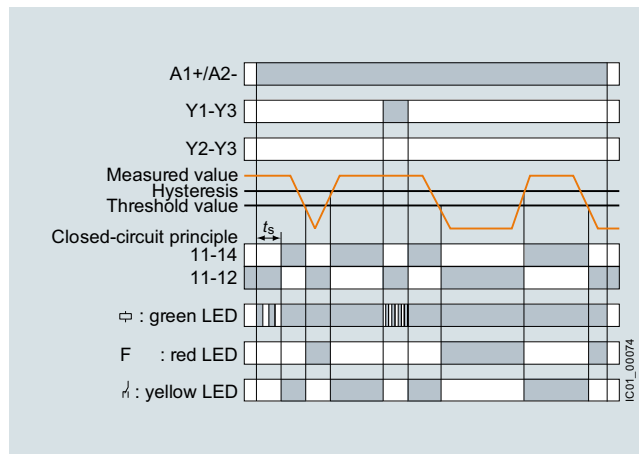
In the case of 3UG4581 a higher-level DC measuring signal is used. The higher-level DC measuring signal and the resulting current are used to determine the value of the insulation resistance of the network which is to be measured.

Technical specifications

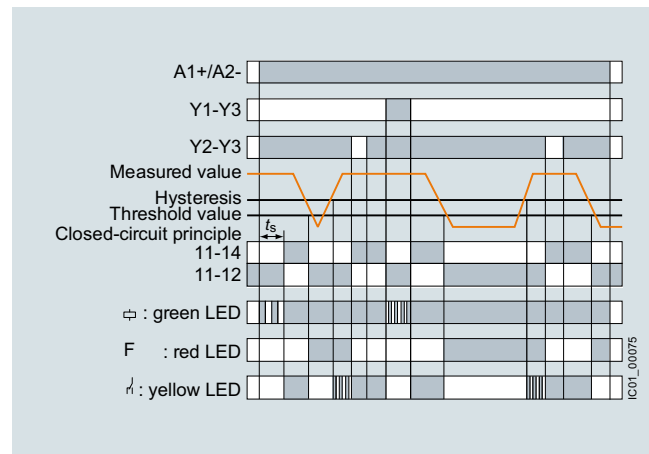
3UG4581 monitoring relay

With the closed-circuit principle selected

Insulation resistance monitoring without fault storage, with Auto RESET



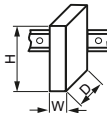

Insulation resistance monitoring with fault storage and Manual RESET



Relays


SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring

For ungrounded AC networks

Type	3UG4581		
Dimensions (W x H x D)		mm	22.5 x 100 x 100
Connection type		 Screw terminals	
<ul style="list-style-type: none">• Solid• Finely stranded with end sleeve• AWG cables, solid or stranded	mm ² mm ² AWG	2 x (0.5 ... 4) 2 x (0.75 ... 2.5) 2 x (20 ... 14)	
General data			
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to IEC 60664	V	400 supply circuit/measuring circuit 300 supply circuit/output circuit	
Rated impulse withstand voltage U_{imp}	kV	6	
Rated control supply voltage	V	24 ... 240 AC/DC	
Rated frequency	Hz	15 ... 400	
Measuring circuit			
Rated line voltage of the network being monitored	V	0 ... 400	
Rated frequency of the network being monitored	Hz	50 ... 60	
Setting range for insulation resistance	kΩ	1 ... 100	
Control circuit			
Load capacity of the output relay <ul style="list-style-type: none">• Thermal current I_{th}	A	4	
Rated operational current I_e at <ul style="list-style-type: none">• AC-15/24 ... 400 V• DC-13/24 V	A A	3 2	
Minimum contact load at 24 V DC	mA	10	

Selection and ordering data

- Auto or Manual RESET
- Closed-circuit principle
- 1 CO contact
- Fault memory adjustable using control input (Y2-Y3)
- Reset by means of button on front or using control input (Y2-Y3)
- Test by means of button on front or using control input (Y1-Y3)

Rated line voltage U_n	Measuring range U_e	Rated control supply voltage U_s	System leakage capacitance	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
V AC	k Ω	V	μ F	d	Article No.	Price per PU		

Insulation monitors for ungrounded AC networks

0 ... 400	1 ... 100	24 ... 240 AC/DC	Max. 10	5	3UG4581-1AW30	1	1 unit	41H
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3UG4581-1AW30

For accessories, see page 10/108.

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring

For ungrounded DC and AC networks

Overview



SIRIUS 3UG4582 and 3UG4583 insulation monitors

The 3UG4582 and 3UG4583 insulation monitoring relays are used to monitor insulation resistance in ungrounded IT AC or DC networks according to IEC 61557-8.

They measure insulation resistances between system cables and system ground. If the value falls below the threshold value, the output relays are switched to fault status. With these devices, which are suitable for both AC and DC networks, a pulsed test signal is fed into the network to be monitored and the isolation resistance is determined.

The pulsed test signal changes its form according to insulation resistance and network loss capacitance. The changed form is used to predict the changed insulation resistance.

If the predicted insulation resistance matches the insulation resistance calculated in the next measurement cycle, and is lower than the threshold value, the output relays are activated or deactivated, depending on the device configuration. This measurement principle is also suitable for identifying symmetrical insulation faults.

3UG4983 voltage reducer module

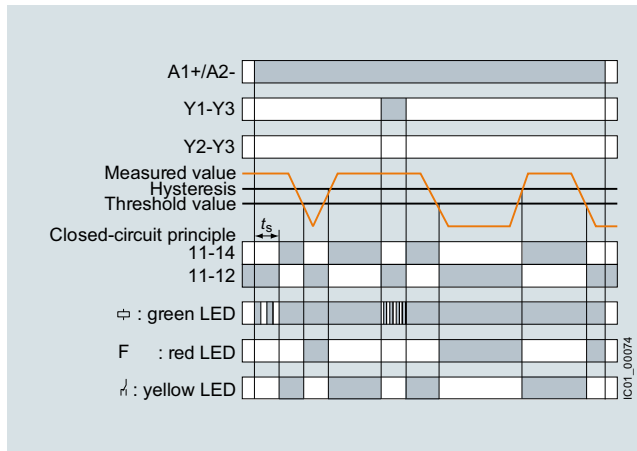
The 3UG4983 passive voltage reducer module can be used to allow the 3UG4583 insulation monitoring relay to be used for insulation monitoring of IT networks with rated voltages of up to 690 V AC and 1 000 V DC.

Technical specifications

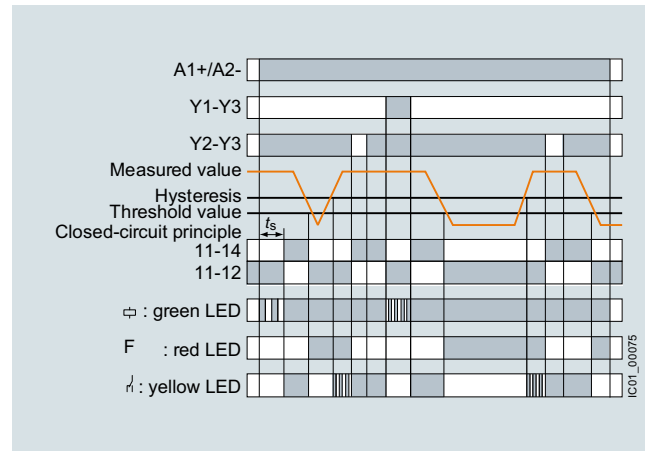
3UG4582 monitoring relays

With the closed-circuit principle selected

Insulation resistance monitoring without fault storage, with Auto RESET



Insulation resistance monitoring with fault storage and Manual RESET



Relays

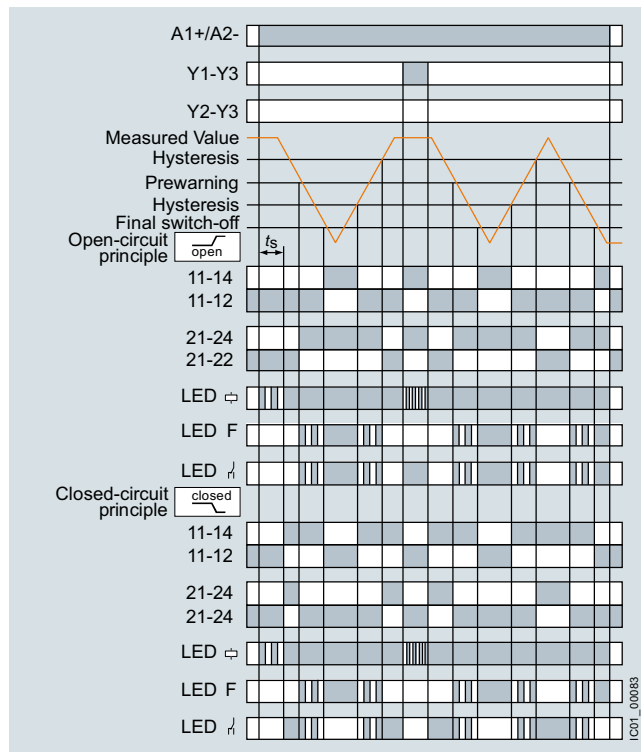
SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring

For ungrounded DC and AC networks

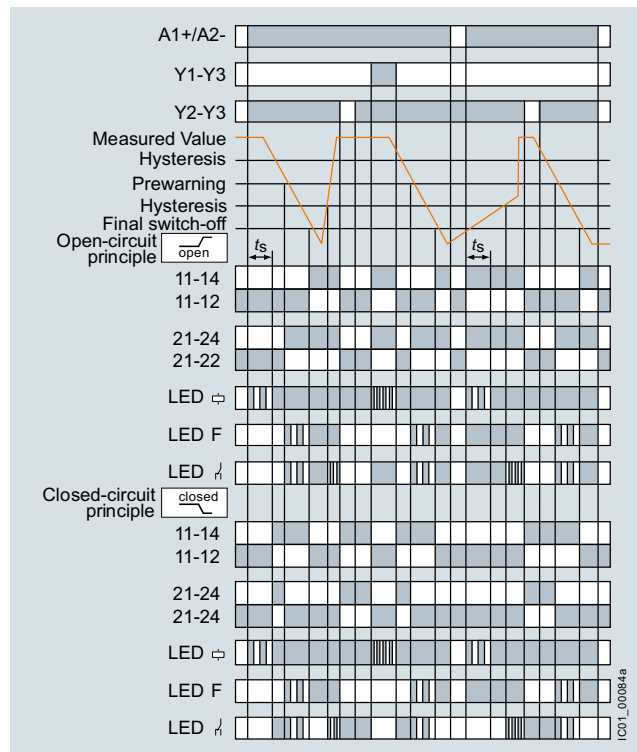
3UG4583 monitoring relays

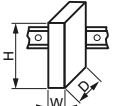

With the closed-circuit principle selected

Insulation resistance monitoring without fault storage and
with Auto RESET



Insulation resistance monitoring with fault storage and
Manual RESET



Type		3UG4582	3UG4583
Dimensions (W x H x D)	 mm	22.5 x 100 x 100	45 x 100 x 100
Connection type		 Screw terminals	
<ul style="list-style-type: none">• Solid• Finely stranded with end sleeve• AWG cables, solid or stranded	<div>mm²</div> <div>mm²</div> <div>AWG</div>	<div>2 x (0.5 ... 4)</div> <div>2 x (0.75 ... 2.5)</div> <div>2 x (20 ... 14)</div>	
General data			
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to IEC 60664	V	400 supply circuit/measuring circuit, 300 supply circuit/output circuit	400 supply circuit/measuring circuit 300 supply circuit/output circuit, 300 output circuit 1/output circuit 2
Rated impulse withstand voltage U_{imp}	kV	6	
Rated control supply voltage	V AC/DC	24 ... 240	
Rated frequency	Hz	15 ... 400	
Measuring circuit			
Rated line voltage of the network being monitored	<div>V</div> <div>V</div>	<div>0 ... 250 AC,</div> <div>0 ... 300 DC</div>	<div>0 ... 300 AC, 0 ... 690 AC with 3UG49 83</div> <div>0 ... 600 DC, 0 ... 1 000 DC with 3UG49 83</div>
Rated frequency of the network being monitored	Hz	DC or 15 ... 400	
Setting range for insulation resistance	kΩ	1 ... 100	<div>1 ... 100,</div> <div>2 ... 200 for 2nd limit value (disconnectable)</div>
Control circuit			
Number of CO contacts for auxiliary contacts		1	2 or 1 + 1, adjustable
Load capacity of the output relay • Thermal current I_{th}	A	4	
Rated operational current I_e at • AC-15/24 ... 400 V • DC-13/24 V	<div>A</div> <div>A</div>	<div>3</div> <div>2</div>	
Minimum contact load at 24 V DC	mA	10	

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation Insulation Monitoring





For ungrounded DC and AC networks

Selection and ordering data

- Auto or Manual RESET
- Rated control supply voltage U_s 24 ... 240 V AC/DC
- 3UG4582: Closed-circuit principle
- 3UG4583: Open-circuit or closed-circuit principle, adjustable
- 1 or 2 CO contacts
- Fault memory adjustable using control input (Y2-Y3)
- Reset by means of button on front or using control input (Y2-Y3)
- Test by means of button on front or using control input (Y1-Y3)
- 3UG4583: Non-volatile fault storage can be configured
- 3UG4583: 2 separate limit values (e.g. for warning and disconnection) or 2 CO contacts for one limit value (e.g. for a local alarm and signaling to the PLC via separate circuits) can be configured

Note:

With the 3UG4983-1A coupling unit, connection to networks with voltages of up to 690 V AC and 1 000 V DC is possible, [see below](#).

	Rated line voltage U_n	System leakage capacitance	Output relays	Measuring range U_e	Broken wire detection in the measuring range	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
	V	μF		k Ω		d	Article No.	Price per PU		
3UG4582 insulation monitors										
 3UG4582-1AW30	0 ... 250 AC, 0 ... 300 DC	Max. 10	1 CO	1 ... 100	✓	5	3UG4582-1AW30		1	1 unit 41H
3UG4583 insulation monitors										
 3UG4583-1CW30	0 ... 400 AC, 0 ... 600 DC ¹⁾	Max. 20	2 CO or 1 CO + 1 C O, adjustable	1 ... 100, 2 ... 200 for 2nd limit value, adjustable	✓ Adjustable	5	3UG4583-1CW30		1	1 unit 41H
Voltage reducer module for 3UG4583										
 3UG4983-1A ✓ Available	For extending the network voltage range to max. 690 V AC and 1 000 V DC					5	3UG4983-1A		1	1 unit 41H

¹⁾ With 3UG4983-1A voltage reducer module suitable also for the insulation monitoring of IT networks of up to 690 V AC and 1 000 V DC.

For accessories, [see page 10/108](#).

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Level monitoring

Overview



SIRIUS 3UG4501 monitoring relay

The 3UG4501 level monitoring relay is used in combination with 2- or 3-pole sensors to monitor the levels of conductive liquids.

Benefits

- Can be used worldwide thanks to wide voltage range from 24 to 240 V (absolute limit values)
- Individually shortenable 2- and 3-pole wire electrodes for easy mounting from above/below
- Bow electrodes for installation from the side, for larger filling levels and minimum space requirements
- Can be flexibly adapted to different conductive liquids through analog setting of the sensitivity from 2 to 200 k Ω
- Compensation for wave movements through tripping delay times from 0.1 to 10 s
- Upstream or downstream function selectable
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Single-point and two-point level monitoring
- Overflow protection
- Dry run protection
- Leak monitoring

Technical specifications

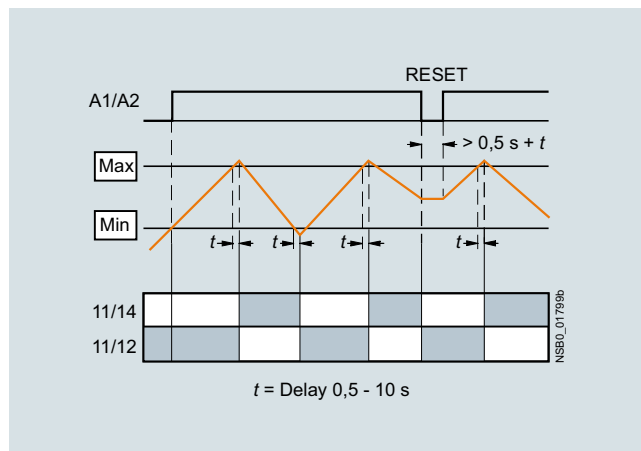
3UG4501 monitoring relays

The principle of operation of the 3UG4501 level monitoring relay is based on measuring the electrical resistance of the liquid between two immersion sensors and a reference terminal. If the measured value is lower than the sensitivity set at the front, the output relay changes its switching state. In order to preclude active current undershooting of the liquid, the sensors are supplied with alternating current.

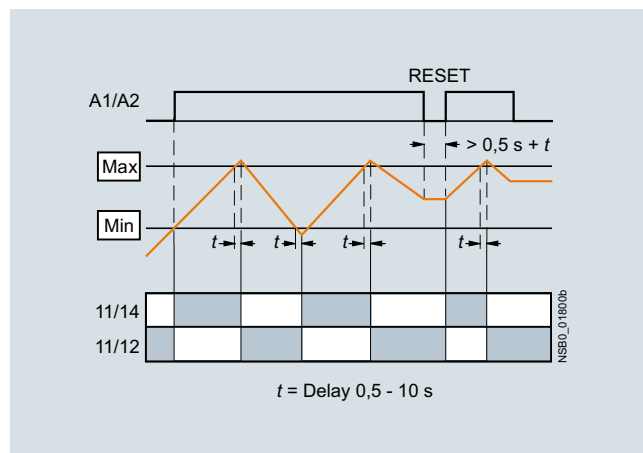
Two-point control

The output relay changes its switching state as soon as the liquid level reaches the maximum sensor, while the minimum sensor is submerged. The relay returns to its original switching state as soon as the minimum sensor no longer has contact with the liquid.

OVER, two-point control



UNDER, two-point control



Note:

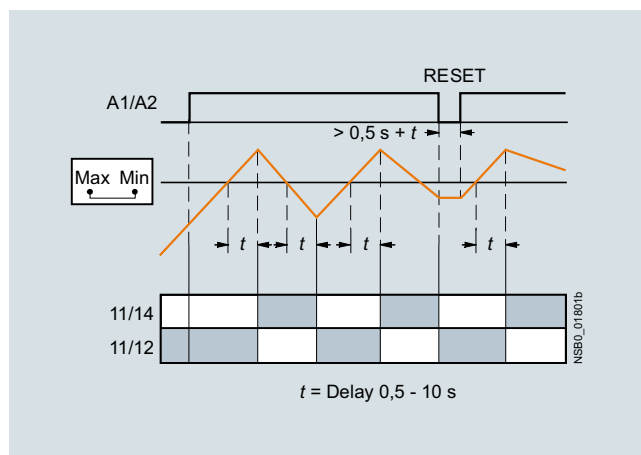
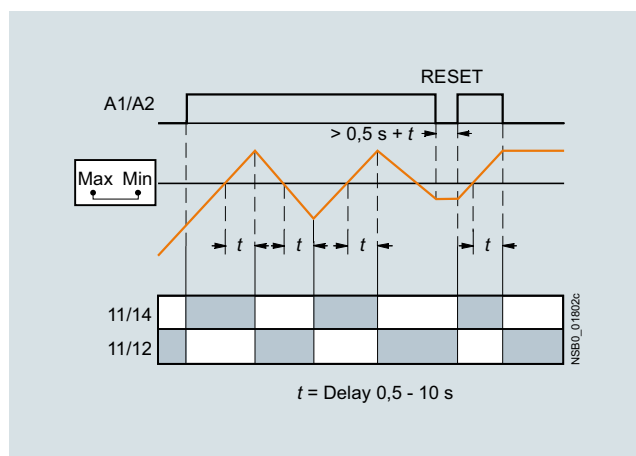
It is also possible to connect other resistance sensors to the Min and Max terminals in the range 2 to 200 k Ω , e.g. photoresistors, temperature sensors, encoders based on resistance, etc. The monitoring relay can therefore also be used for other applications as well as for monitoring the levels of liquids.

Single-point control

If only one level is being controlled, the terminals for Min and Max on the monitoring relay are bridged. The output relay changes its switching state as soon as the liquid level is reached and returns to its original switching state once the sensor no longer has contact with the liquid.

In order to prevent premature tripping of the switching function caused by wave motion or frothing, even though the set level has not been reached, it is possible to delay this function by 0.5 to 10 s.

For safe resetting, the control supply voltage must be interrupted for at least the set delay time of +0.5 s.

OVER, single-point controlUNDER, single-point control

Type	3UG4501	
General data		
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to VDE 0110	V	300
Rated impulse withstand voltage U_{imp}	kV	4
Measuring circuit		
Electrode current, max. (typ. 70 Hz)	mA	1
Electrode voltage, max. (typ. 70 Hz)	V	15
Sensor feeder cable	m	Max. 100
Conductor capacitance of sensor cable ¹⁾	nF	Max. 10
Control circuit		
Load capacity of the output relay		
Thermal current I_{th}	A	5
Rated operational current I_e at • AC-15/24 ... 400 V • DC-13/24 V • DC-13/125 V • DC-13/250 V	A A A A	3 1 0.2 0.1
Minimum contact load at 17 V DC	mA	5

¹⁾ The sensor cable does not necessarily have to be shielded, but we do not recommend installing this cable parallel to the power supply lines. It is also possible to use a shielded cable, whereby the shield has to be connected to the M terminal.



Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Level monitoring

Selection and ordering data

- For level monitoring of electrically conductive liquids
 - Control principle: inlet or sequence control adjustable per rotary switch
 - Single-point and two-point control possible
 - Analogically adjustable sensitivity (specific resistance of the liquid)
 - Analogically adjustable tripping delay time
 - 1 yellow LED for displaying the relay state
 - 1 green LED for displaying the applied control supply voltage
 - 1 CO contact
- PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H

Sensitivity	Tripping delay time	Rated control supply voltage U_s	SD	Screw terminals		SD	Spring-type terminals	
kΩ	s	V AC/DC	d	Article No.	Price per PU	d	Article No.	Price per PU
2 ... 200	0.5 ... 10	24 ¹⁾	2	3UG4501-1AA30		2	3UG4501-2AA30	
		24 ... 240	2	3UG4501-1AW30		2	3UG4501-2AW30	

¹⁾ The rated control supply voltage and the measuring circuit are not electrically separated.

For accessories, see page 10/108.

Note:

Level monitoring sensors are available from various providers. We recommend sensors made by Jacob GmbH (see "External partners", page 16/16). The previous 3UG3 level sensors are also available from here.

Overview



SIRIUS 3UG4651 monitoring relay

The 3UG4651 monitoring relay is used in combination with a sensor to monitor motor drives for overspeed and/or underspeed.

Furthermore, the monitoring relay is ideal for all functions where a continuous pulse signal needs to be monitored (e.g. belt travel monitoring, completeness monitoring, passing monitoring, clock-time monitoring).

Benefits

- Can be used worldwide thanks to wide voltage range from 24 to 240 V (absolute limit values)
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Permanent display of actual value and fault type
- Use of up to 10 sensors per rotation for extremely slowly rotating motors
- 2- or 3-wire sensors and sensors with a mechanical switching output or semiconductor output can be connected
- Auxiliary voltage for sensor integrated
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Slip or tear of a belt drive
- Overload monitoring
- Transport monitoring for completeness

Technical specifications

3UG4651 monitoring relay

The speed monitoring relay operates according to the principle of period duration measurement.

In the monitoring relay, the time between two successive rising edges of the pulse encoder is measured and compared to the minimum and/or maximum permissible period duration calculated from the set limit values for the speed.

Thus, the period duration measurement recognizes any deviation in speed after just two pulses, even at very low speeds or in the case of extended pulse gaps.

By using up to ten pulse encoders evenly distributed around the circumference, it is possible to shorten the period duration, and in turn the response time. By taking into account the number of sensors in the monitoring relay, the speed continues to be indicated in rpm.

ON-delay time for motor start

To be able to start a motor drive, and depending on whether the open-circuit or closed-circuit principle is selected, the output relay switches to the GO state during the ON-delay time, even if the speed is still below the set value.

The ON-delay time is started by either switching on the auxiliary voltage or, if the auxiliary voltage is already applied, by actuating the respective NC contact (e.g. auxiliary contact).

Speed monitoring with Auto RESET (Memory = no)

If the device is set to Auto RESET, the output relay switches to the GO state, once the adjustable hysteresis threshold is reached in the range of 0.1 to 99.9 rpm and the flashing stops. Any overshoots or undershoots are therefore not stored.

Speed monitoring with Manual RESET (Memory = yes)

If Manual RESET is selected in the menu, the output relay remains in its current switching state and the current measured value and the symbol for overshooting/undershooting continue to flash, even when the speed returns to a permissible value. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ buttons for > 2 s, by connecting the RESET device terminal to 24 V DC or by switching the control supply voltage off and back on again.

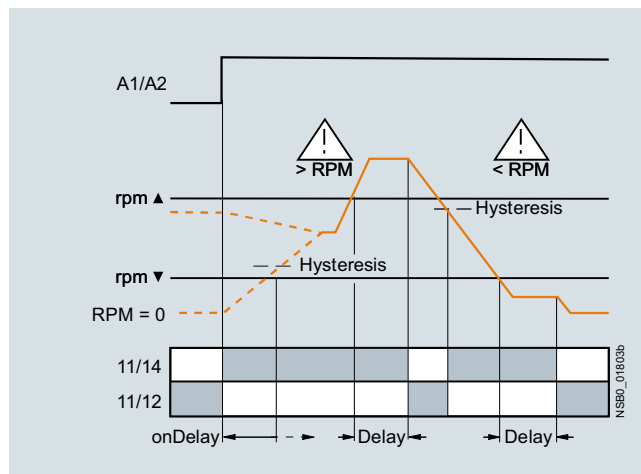
Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

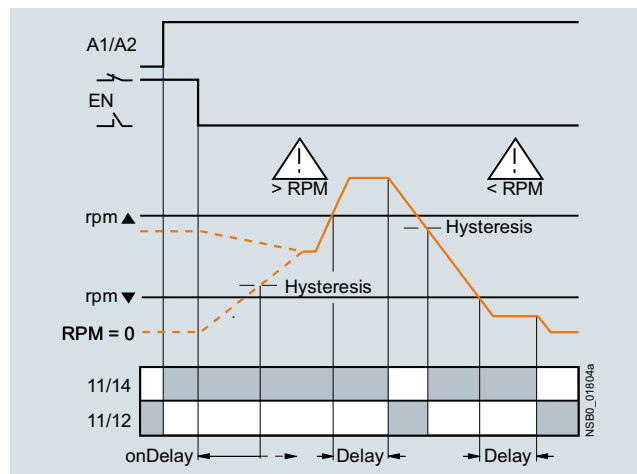
Speed monitoring

With the closed-circuit principle selected

Range monitoring without enable input



Range monitoring with enable input





Type	3UG4651	
General data		
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III acc. to VDE 0110	V	300
Rated impulse withstand voltage U_{imp}	kV	4
Measuring circuit		
Sensor supply • For 3-wire sensor (24 V/0 V) • For 2-wire NAMUR sensor (8V2)	mA mA	Max. 50 Max. 8.2
Signal input • IN1 • IN2	kΩ kΩ	16, 3-wire sensor, pnp operation 1, floating contact, 2-wire NAMUR sensor
Voltage level • For level 1 at IN1 • For level 0 at IN1	V V	4.5 ... 30 0 ... 1
Current level • For level 1 at IN2 • For level 0 at IN2	mA mA	> 2.1 < 1.2
Minimum pulse duration of signal	ms	5
Minimum interval between 2 pulses	ms	5
Control circuit		
Number of CO contacts for auxiliary contacts		1
Load capacity of the output relay Thermal current I_{th}	A	5
Rated operational current I_e at • AC-15/24 ... 400 V • DC-13/24 V • DC-13/125 V • DC-13/250 V	A A A A	3 1 0.2 0.1
Minimum contact load at 17 V DC	mA	5

Selection and ordering data

- For speed monitoring in revolutions per minute (rpm)
- Two- or three-wire sensor with mechanical or electronic switching output can be connected
- Two-wire NAMUR sensor can be connected
- Sensor supply 24 V DC/50 mA integrated
- Input frequency 0.1 to 2 200 pulses per minute (0.0017 to 36.7 Hz)
- With or without enable signal for the drive to be monitored
- Digitally adjustable, with illuminated LCD
- Overshoot, undershoot or range monitoring adjustable
- Number of pulses per revolution can be adjusted
- Upper and lower threshold value can be adjusted separately
- Auto, Manual or remote RESET options after tripping
- Permanent display of actual value and tripping state
- 1 CO contact

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H

Measuring range	Hysteresis	ON-delay time	Tripping delay time	Pulses per revolution	Rated control supply voltage U_s AC/DC	SD	Screw terminals		SD	Spring-type terminals	
rpm	rpm	s	s		V	d	Article No.	Price per PU	d	Article No.	Price per PU
0.1 ... 2 200	OFF 0.1 ... 99.9	0 ... 900	0.1 ... 99.9	1 ... 10	24 ¹⁾	2	3UG4651-1AA30		2	3UG4651-2AA30	
					24 ... 240	2	3UG4651-1AW30		2	3UG4651-2AW30	

¹⁾ The rated control supply voltage and the measuring circuit are not electrically separated.

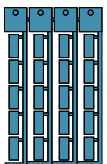




For accessories, see [page 10/108](#).

Relays

SIRIUS 3UG45, 3UG46 Monitoring Relays for Stand-Alone Installation

Accessories

Selection and ordering data

Use	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Blank labels							
 3RT1900-1SB20	For 3UG4	Unit labeling plates For SIRIUS devices 20 mm x 7 mm, pastel turquoise ¹⁾	20	3RT1900-1SB20	100	340 units	41B
	For 3UG4	Adhesive labels for SIRIUS devices					
		• 19 mm x 6 mm, pastel turquoise	15	3RT1900-1SB60	100	3 060 units	41B
		• 19 mm x 6 mm, zinc yellow	15	3RT1900-1SD60	100	3 060 units	41B
Push-in lugs and covers							
 3RP1903	For 3UG4	Push-in lugs For screw fixing, 2 units are required for each device	5	3RP1903	1	10 units	41H
	For 3UG4	Sealable covers For securing against unauthorized adjustment of setting knobs	5	3RP1902	1	5 units	41H
Covers for insulation monitoring relays							
 3UG4981-0C	For 3UG4581 and 3UG4582	Sealable, transparent covers	5	3UG4981-0C	1	1 unit	41H
	For 3UG4583		5	3UG4983-0C	1	1 unit	41H
Tools for opening spring-type terminals							
 3RA2908-1A	For auxiliary circuit connections	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated	2	3RA2908-1A	1	1 unit	41B
				Spring-type terminals 			

¹⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

Note:

For products for mechanical bearing monitoring, e.g. condition monitoring systems, see www.siemens.com/siplus-cms.

Overview



SIRIUS 3UG48 monitoring relays

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3UG48

For the conversion tool, e.g. from 3UG3 to 3UG4, see www.siemens.com/sirius/conversion-tool

The SIRIUS 3UG4 monitoring relays for electronic and mechanical variables monitor all important characteristics that allow conclusions to be drawn about the functionality of a plant. Both sudden disturbances and gradual changes, which may indicate the need for maintenance, are detected.

Thanks to their relay outputs, the monitoring relays permit direct disconnection of the affected system components and alerting, e.g. by the triggering of a warning light. Thanks to adjustable delay times the 3UG4 monitoring relays can respond very flexibly to brief faults such as voltage dips or load changes and can thus avoid unnecessary alarms and disconnections and increase system availability.

3UG48 monitoring relays for IO-Link

The SIRIUS 3UG48 monitoring relays for IO-Link also offer many other options based upon the monitoring functions of the tried-and-tested SIRIUS 3UG4 monitoring relays:

- Measured value transmission to a controller, including resolution and unit, may be parameterizable as to which value is cyclically transmitted
- Transmission of alarm flags to a controller
- Full diagnosis capability by inquiry as to the cause of the fault in the diagnosis data record
- Remote parameterization is also possible, in addition to or instead of local parameterization
- Rapid parameterization of the same devices by duplication of the parameterization in the controller
- Parameter transmission through uploading to a controller by IO-Link call or by parameter server (if IO-Link master from IO-Link Specification V1.1 and higher is used)
- Consistent central data storage in the event of parameter change locally or via a controller
- Automatic reparameterizing when devices are exchanged
- Blocking of local parameterization via IO-Link possible
- Faults are saved in parameterizable and non-volatile fashion to prevent an automatic start up after voltage failure and to make sure diagnostics data is not lost
- Integration into the automation level provides the option of parameterizing the monitoring relays at any time via a display unit, or displaying the measured values in a control room or locally at the machine/control cabinet

Even without communication via IO-Link the devices continue to function fully autonomously:

- Parameterization can take place locally at the device, independently of a controller.
- In the event of failure or before the controller becomes available the monitoring relays work as long as the control supply voltage (24 V DC) is present.
- If the monitoring relays are operated without the controller, the 3UG48 monitoring relays have, thanks to the integrated SIO mode, an additional semiconductor output, which switches when the adjustable warning threshold is exceeded.

Thanks to the combination of autonomous monitoring relay function and integrated IO-Link communication, redundant sensors and/or analog signal converters – which previously took over the transmission of measured values to a controller, leading to considerable extra cost and wiring overhead – are no longer needed.

Because the output relays are still present, the monitoring relays increase the functional reliability of the system, since only the controller can fulfill the control tasks if the current measured values are available, whereas the output relays can also be used for the disconnection of the system if limit values that cannot be reached during operation are exceeded.

The individual 3UG48 monitoring relays for IO-Link offer the following functions in different combinations:

- Phase sequence
- Phase failure, neutral conductor failure
- Phase asymmetry
- Undershooting and/or overshooting of limit values for voltage
- Undershooting and/or overshooting of limit values for current
- Undershooting and/or overshooting of power factor limit values
- Monitoring of the active current or the apparent current
- Monitoring of the residual current
- Undershooting and/or overshooting of limit values for speed

Note:

For more information on the IO-Link bus system, see [page 2/97 onwards](#).

Notes on security

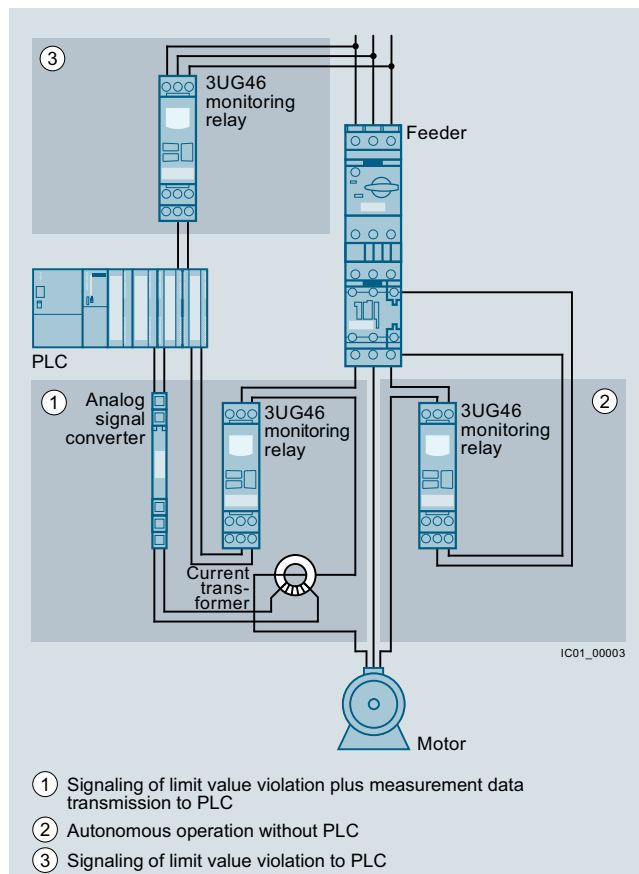
In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens products and solutions represent only one component of such a concept.

For more information on Industrial Security, see www.siemens.com/industrialsecurity.

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

General data



Use of conventional monitoring relays

Notes:

Devices required for the communication via IO-Link:

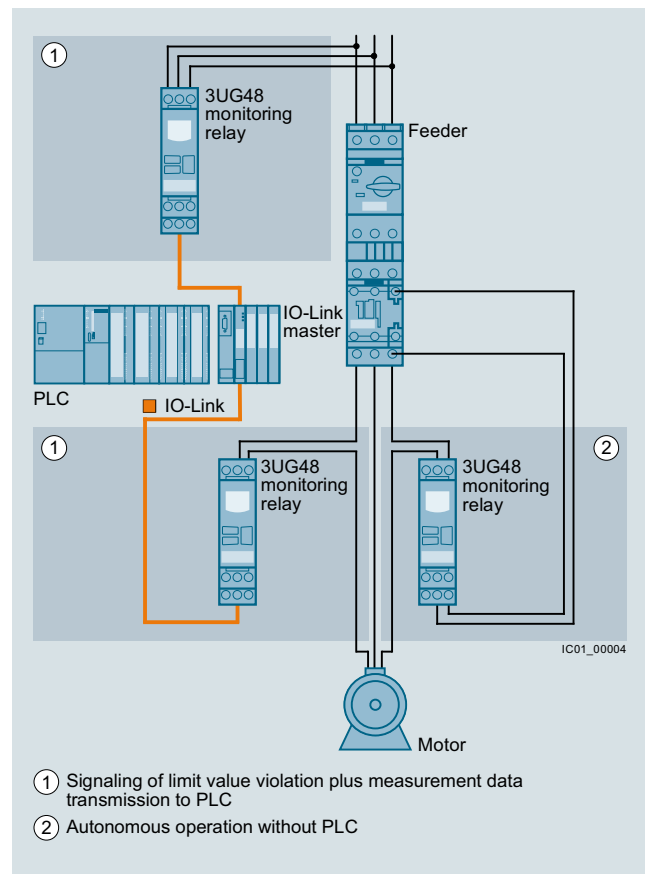
- Any controller that supports IO-Link (e.g. ET 200SP with CPU or S7-1200), [see Catalog ST 70](#).
- IO-Link master (e.g. CM 4xIO-Link for SIMATIC ET 200SP, [see page 2/105](#) or SM 1278 for S7-1200, [see page 2/104](#)).

Article No. scheme

Product versions		Article number	
3UG4 monitoring relay with IO-Link		3UG4	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0
Type of setting	e.g. 8 = analogically adjustable	<input type="checkbox"/>	
Functions	e.g. 15 = line monitoring	<input type="checkbox"/> <input type="checkbox"/>	
Connection type	Screw terminals		1
	Spring-type terminals (push-in)		2
Contacts	e.g. A = 1 CO contact	<input type="checkbox"/>	
Supply voltage	e.g. A4 = 160 ... 690 V AC		<input type="checkbox"/> <input type="checkbox"/>
Example		3UG4	8 1 5 - 1 A A 4 0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.



Monitoring relays for IO-Link

Each monitoring relay requires an IO-Link channel.

Benefits

- Simple cyclical transmission of the current measured values, relay switching states and events to a controller
- Remote parameterization
- Automatic reparameterizing when devices are exchanged
- Simple duplication of identical or similar parameterizations
- Reduction of control current wiring
- Elimination of testing costs and wiring errors
- Reduction of configuration overhead
- Integration in TIA means clear diagnostics if a fault occurs
- Cost saving and space saving in control cabinet due to the elimination of AI and IO modules as well as analog signal converters and duplicated sensors

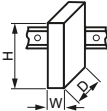
Application

The use of SIRIUS monitoring relays for IO-Link is particularly recommended for machines and plants in which these relays, in addition to their monitoring function, are to be connected to the automation level for the rapid, simple and fault-free provision of the current measured values and/or for remote parameterization.

The monitoring relays can either relieve the controller of monitoring tasks or, as a second monitoring entity in parallel to and independent of the controller, increase the reliability in the process or in the system. In addition, the elimination of AI and IO modules allows the width of the controller to be reduced despite significantly expanded functionality.

Technical specifications

More information		
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16368/td	FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16368/faq	
Manual and internal circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/54375430		

Type	3UG48		
General technical specifications			
Dimensions (W x H x D)		mm	22.5 x 92 x 91
• For 3 terminal blocks		mm	22.5 x 94 x 91
- Screw terminals			
- Spring-type terminals			
• For 4 terminal blocks		mm	22.5 x 103 x 91
- Screw terminals	mm	22.5 x 103 x 91	
- Spring-type terminals			
Permissible ambient temperature			
• During operation	°C	-25 ... +60	
Connection type		Screw terminals	
• Terminal screw		M3 (for standard screwdriver, size 2 and Pozidriv 2)	
• Solid	mm ²	1 x (0.5 ... 4), 2 x (0.5 ... 2.5)	
• Finely stranded with end sleeve	mm ²	1 x (0.5 ... 2.5), 2 x (0.5 ... 1.5)	
• AWG cables, solid or stranded	AWG	2 x (20 ... 14)	
• Tightening torque	Nm	0.8 ... 1.2	
Connection type		Spring-type terminals	
• Solid	mm ²	2 x (0.25 ... 1.5)	
• Finely stranded, with end sleeve acc. to DIN 46228	mm ²	2 x (0.25 ... 1.5)	
• Finely stranded	mm ²	2 x (0.25 ... 1.5)	
• AWG cables, solid or stranded	AWG	2 x (24 ... 16)	

Relays
SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Line monitoring

Overview



SIRIUS 3UG4815 monitoring relay

Solid-state line monitoring relays provide maximum protection for mobile machines, plants and hoisting equipment or for unstable networks. Network and voltage faults can thus be detected early and rectified before far greater damage ensues.

The line monitoring relays with IO-Link monitor phase sequence, phase failure (with or without N conductor monitoring), phase asymmetry and undervoltage and/or overvoltage.

Phase asymmetry is evaluated as the difference between the greatest and the smallest phase voltage relative to the greatest phase voltage. Undervoltage or overvoltage exist if the set limit values for at least one phase voltage are overshoot or undershot. The rms value of the voltage is measured.

Benefits

- Can be used in any network from 160 to 630 V AC worldwide thanks to wide voltage range
- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Width 22.5 mm
- Display and transmission of actual value and network fault type to controller
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

The relays are used above all for mobile equipment, e.g. air conditioning compressors, refrigerating containers, building site compressors and cranes.

Function	Application
Phase sequence	<ul style="list-style-type: none">• Direction of rotation of the drive
Phase failure	<ul style="list-style-type: none">• A fuse has tripped• Failure of the control supply voltage• Broken cable
Phase asymmetry	<ul style="list-style-type: none">• Overheating of the motor due to asymmetrical voltage• Detection of asymmetrically loaded networks
Undervoltage	<ul style="list-style-type: none">• Increased current on a motor with corresponding overheating• Unintentional resetting of a device• Network collapse, particularly with battery power
Overvoltage	<ul style="list-style-type: none">• Protection of a plant against destruction due to overvoltage

Technical specifications

3UG4815/3UG4816 monitoring relays

The 3UG4815 and 3UG4816 line monitoring relays have a wide voltage range input and are supplied with power through IO-Link or from an external 24 V DC source.

The device is equipped with a display and is parameterized using three buttons. The 3UG4815 monitoring relay monitors three-phase networks with regard to phase sequence, phase failure, phase asymmetry, undervoltage and overvoltage. The 3UG4816 monitoring relay monitors the neutral conductor as well. The hysteresis is adjustable from 1 to 20 V.

The device has two separately adjustable delay times for overvoltage and undervoltage and for line stabilization. If the direction of rotation is incorrect or a phase fails, the device switches off immediately. Thanks to a special measuring method, a phase failure is reliably detected in spite of the wide voltage range from and potentially high feedback through the load.

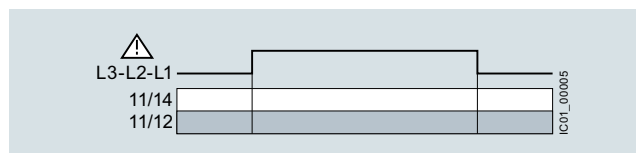
The 3UG4815 and 3UG4816 monitoring relays can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET.

If Manual RESET is selected in the menu (Memory = Yes), the switching relay remains in its current switching state and the current measured value and the symbol for undershooting and overshooting continue to flash, even when the measured variable reaches a permissible value again. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ keys for 2.5 s.

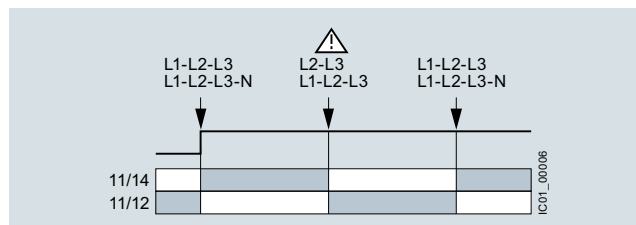
With Manual RESET through IO-Link it is possible in addition to set whether error signals are to be deleted when the control supply voltage is switched off and on (as remote RESET) or whether the signals are to be permanently saved even in a voltage failure, with confirmation possible only through local RESET or via IO-Link.

With the closed-circuit principle selected

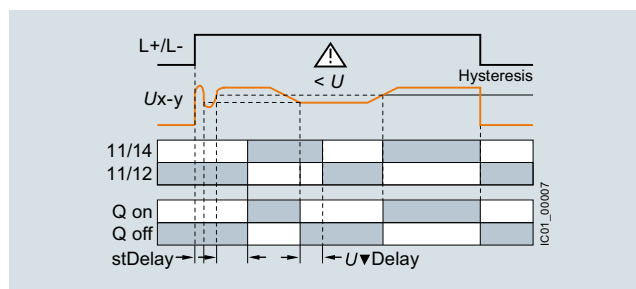
Wrong phase sequence



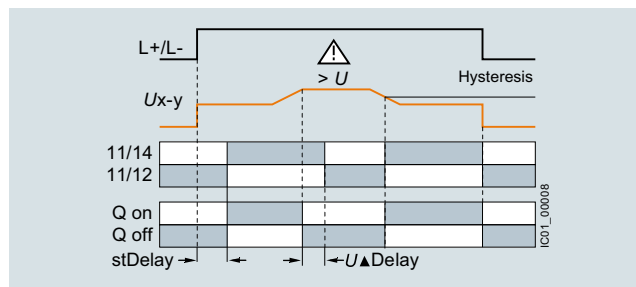
Phase failure



Undervoltage



Overvoltage



Type	3UG4815, 3UG4816	
General technical specifications		
Rated insulation voltage U_i Pollution degree 2 Overvoltage category III acc. to VDE 0110	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Control circuit		
Load capacity of the output relay		
• Thermal current I_{th}	A	5
Rated operational current I_e at		
• AC-15/24 ... 400 V	A	3
• DC-13 at		
- 24 V	A	1
- 125 V	A	0.2
- 250 V	A	0.1
Minimum contact load at 17 V DC	mA	5
Electrical endurance AC-15	Million operating cycles	0.1
Mechanical endurance	Million operating cycles	10

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Line monitoring

Selection and ordering data

- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Auto or Manual RESET
- Open- or closed-circuit principle
- 1 CO contact, 1 semiconductor output (in SIO mode)

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H



3UG4815-1AA40





3UG4816-1AA40



3UG4815-2AA40



3UG4816-2AA40

Adjust-able hys-teresis	Under-voltage detection	Over-voltage detection	Stabilization time adjustable stDEL	Tripping delay time adjustable Del	Version of auxiliary contacts	Measurable line volt-age ¹⁾	SD	Screw terminals		SD	Spring-type terminals	
V			s	s		V AC	d	Article No.	Price per PU	d	Article No.	Price per PU
Monitoring of phase sequence, phase failure, phase asymmetry, overvoltage and undervoltage												
1 ... 20	✓	✓	0.1 ... 999.9	0.1 ... 999.9	1 CO + 1 Q ²⁾	160 ... 690	2	3UG4815-1AA40		2	3UG4815-2AA40	
Monitoring of phase sequence, phase and N conductor failure, phase asymmetry, overvoltage and undervoltage												
1 ... 20	✓	✓	0.1 ... 999.9	0.1 ... 999.9	1 CO + 1 Q ²⁾	90 ... 400 to N	2	3UG4816-1AA40		2	3UG4816-2AA40	

✓ Function available

¹⁾ Absolute limit values.

²⁾ In SIO mode.

For accessories, see page 10/131.

Overview



SIRIUS 3UG4832 monitoring relays

The relays monitor single-phase AC voltages (rms value) and DC voltages against the set limit value for overshoot and undershoot.

Benefits

- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Width 22.5 mm
- Display and transmission of actual value and status messages to controller
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Protection of a plant against destruction due to overvoltage
- Switch-on of a plant at a defined voltage and higher
- Protection from undervoltage due to overloaded control supply voltages, particularly with battery power

Technical specifications

3UG4832 monitoring relays

The 3UG4832 voltage monitoring relays are supplied with power through IO-Link or with an external auxiliary voltage of 24 V DC and perform overshoot, undershoot or range monitoring of the voltage depending on parameterization. The devices are equipped with a display and are parameterized by means of three buttons or through IO-Link.

The measuring range extends from 10 to 600 V AC/DC. The limit values for overshoot or undershoot can be freely configured within this range. If one of these limit values is reached, the output relay responds according to the set principle of operation as soon as the delay time has elapsed. This tripping delay time $U\blacktriangle Del/U\blacktriangledown Del$ can be set from 0 to 999.9 s, as can the ON-delay time onDel. The hysteresis is adjustable from 0.1 to 300 V.

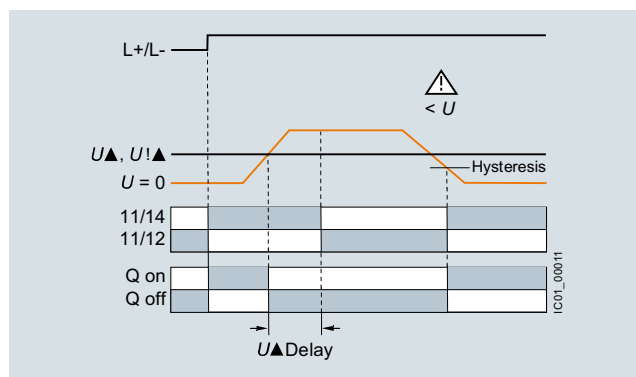
The device can be operated on the basis of either the open-circuit or closed-circuit principle and with Manual or Auto RESET. One output changeover contact is available as a signaling contact, and a semiconductor output is available in addition in SIO mode.

If Manual RESET is selected in the menu (Memory = Yes), the switching relay remains in its current switching state and the current measured value and the symbol for undershooting and overshooting continue to flash, even when the measured variable reaches a permissible value again. This stored fault status can be reset by simultaneously pressing the UP \blacktriangle and DOWN \blacktriangledown keys for 2.5 s.

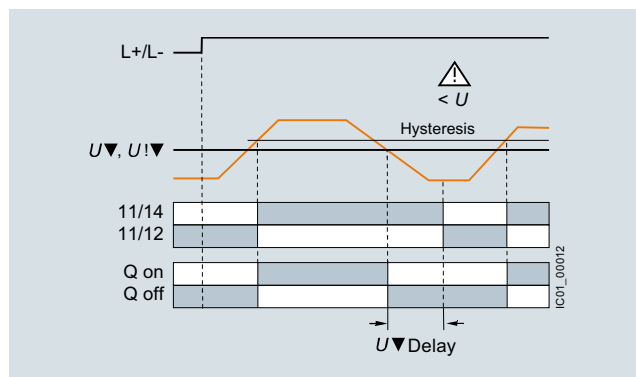
With Manual RESET through IO-Link it is possible in addition to set whether error signals are to be deleted when the control supply voltage is switched off and on (as remote RESET) or whether the signals are to be permanently saved even in a voltage failure, with confirmation possible only through local RESET or via IO-Link.

With the closed-circuit principle selected

Overvoltage



Undervoltage



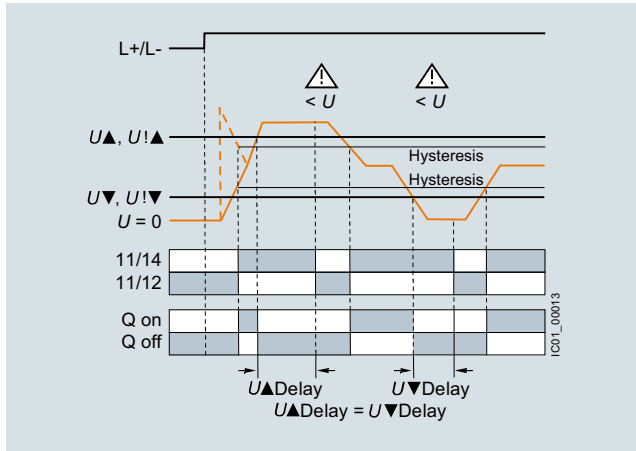
Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Voltage monitoring

With the closed-circuit principle selected

Range monitoring

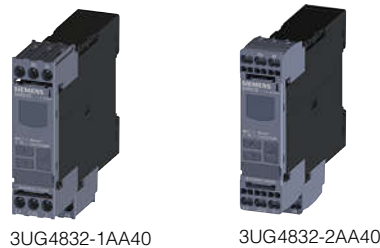




Type		3UG4832
General technical specifications		
Rated insulation voltage U_i	V	690
Pollution degree 2 Overvoltage category III acc. to VDE 0110		
Rated impulse withstand voltage U_{imp}	kV	6
Measuring circuit		
Permissible measuring range single-phase AC/DC voltage	V	10 ... 690
Measuring frequency	Hz	40 ... 500
Setting range single-phase voltage	V	10 ... 600
Control circuit		
Load capacity of the output relay		
• Thermal current I_{th}	A	5
Rated operational current I_e at		
• AC-15/24 ... 400 V	A	3
• DC-13 at		
- 24 V	A	1
- 125 V	A	0.2
- 250 V	A	0.1
Minimum contact load at 17 V DC	mA	5

Selection and ordering data

- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Auto or Manual RESET
- Open- or closed-circuit principle
- 1 CO contact, 1 semiconductor output (in SIO mode)

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



Measuring range	Adjustable hysteresis	ON-delay time adjustable onDel	Tripping delay time separately adjustable U▲Del/U▼Del	SD	Screw terminals 	SD	Spring-type terminals 
V AC/DC	V	s	s	d	Article No. Price per PU d		Article No. Price per PU
Monitoring of voltage for overshoot or undershoot							
10 ... 600	0.1 ... 300	0 ... 999.9	0 ... 999.9	2	3UG4832-1AA40	2	3UG4832-2AA40

For accessories, see page 10/131.

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Current monitoring

Overview



SIRIUS 3UG4822 monitoring relays

The relays monitor single-phase AC (rms value) and DC currents against the set limit value for overshoot and undershoot.

Benefits

- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Width 22.5 mm
- Display and transmission of actual value and status messages to controller
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Overcurrent and undercurrent monitoring
- Monitoring the functionality of electrical loads
- Monitoring for broken conductors

Technical specifications

3UG4822 monitoring relays

The 3UG4822 current monitoring relays are supplied with power through IO-Link or with an external voltage of 24 V DC and perform overshoot, undershoot or range monitoring of the current depending on the parameterization. The devices are equipped with a display and are parameterized using three buttons.

The measuring range extends from 0.05 to 10 A. For larger AC currents the measuring range can be extended by using commercially available current transformers. Using the adjustable transformer factor, the display of the measured primary currents up to 750 A instead of the secondary currents (max. 1 A or 5 A) is possible.

The rms value of the current is measured. The limit values for overshoot or undershoot can be freely configured within this range. If one of these limit values is reached, the output relay responds according to the set principle of operation as soon as the delay time $I\Delta$ Del/ $I\nabla$ Del has elapsed. This time and the ON-delay time onDel are adjustable from 0 to 999.9 s.

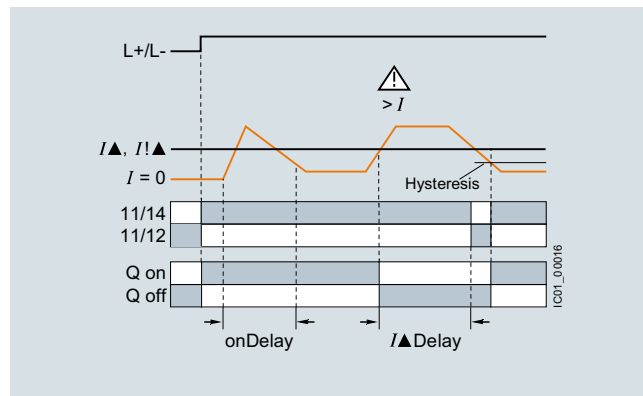
The hysteresis is adjustable from 0.01 to 5 A. The device can be operated with Manual or Auto RESET and on the basis of either the open-circuit or closed-circuit principle. You can decide here whether the output relay is to respond when the supply voltage $U_s = ON$ is applied, or not until the lower measuring range limit of the measuring current ($I > 50$ mA) is reached. One output changeover contact is available as a signaling contact, and a semiconductor output is available in addition in SIO mode.

If Manual RESET is selected in the menu (Memory = Yes), the switching relay remains in its current switching state and the current measured value and the symbol for undershooting and overshooting continue to flash, even when the measured variable reaches a permissible value again. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ keys for 2.5 s.

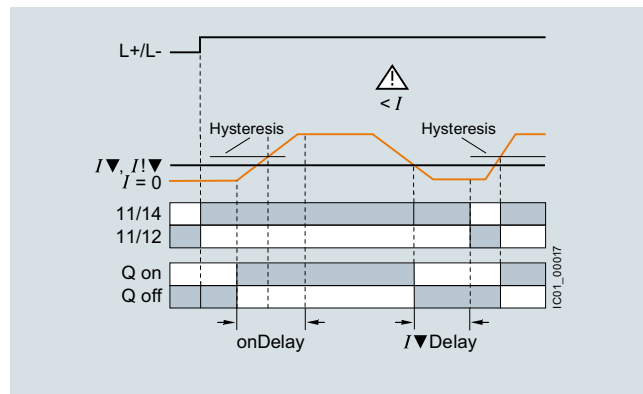
With Manual RESET through IO-Link it is possible in addition to set whether error signals are to be deleted when the control supply voltage is switched off and on (as remote RESET) or whether the signals are to be permanently saved even in a voltage failure, with confirmation possible only through local RESET or via IO-Link.

With the closed-circuit principle selected upon application of the control supply voltage

Current overshoot

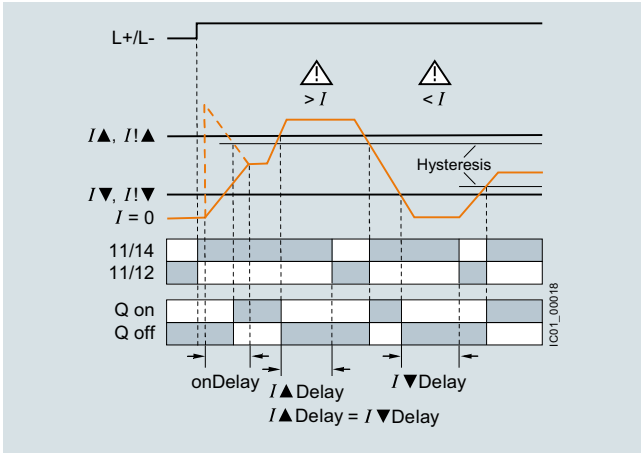


Current undershoot



With the closed-circuit principle selected
upon application of the control supply voltage

Range monitoring



Type	3UG4822	
General technical specifications		
Rated insulation voltage U_i Pollution degree 2 Overvoltage category III acc. to VDE 0110	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Measuring circuit		
Measuring range for single-phase AC/DC current	A	0.05 ... 15
Measuring frequency	Hz	40 ... 500
Setting range for single-phase current	A	0.05 ... 10
Load supply voltage	V	Max. 300 (with protective separation) Max. 500 (with simple separation)
Control circuit		
Load capacity of the output relay • Thermal current I_{th}	A	5
Rated operational current I_e at • AC-15/24 ... 400 V • DC-13 at - 24 V - 125 V - 250 V	A A A A	3 1 0.2 0.1
Minimum contact load at 17 V DC	mA	5

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Current monitoring

Selection and ordering data

- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Adjustable converter factor to display the measured primary current when an external current transformer is used
- Auto or Manual RESET
- Open- or closed-circuit principle
- 1 CO contact, 1 semiconductor output (in SIO mode)



PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H



3UG4822-1AA40



3UG4822-2AA40

Measuring range	Adjustable hysteresis	ON-delay time adjustable onDel	Tripping delay time separately adjustable ▲Del/▼Del	SD	Screw terminals		SD	Spring-type terminals	
A AC/DC	A	s	s	d	Article No.	Price per PU	d	Article No.	Price per PU
Monitoring of current for overshooting and undershooting									
0.05 ... 10	0.01 ... 5	0.1 ... 999.9	0.1 ... 999.9	2	3UG4822-1AA40		2	3UG4822-2AA40	

For accessories, [see page 10/131](#).

For AC currents $I > 10$ A it is possible to use commercially available current transformers, e.g. the Siemens 4NC current transformer, as accessories, [see Catalog LV 10](#).

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Power factor and active current monitoring

Overview



SIRIUS 3UG4841 monitoring relay

The 3UG4841 power factor and active current monitoring devices enable the load monitoring of motors.

Whereas power factor (p.f.) monitoring is used above all for monitoring no-load operation, the active current monitoring option can be used to observe and evaluate the load factor over the entire torque range.

Benefits

- Monitoring of even small single-phase motors with a no-load supply current below 0.5 A
- Simple determination of threshold values by the direct collection of measured variables on motor loading
- Range monitoring and active current measurement enable detection of cable breaks between control cabinets and motors, as well as phase failures
- Power factor (p.f.) and/or I_{res} (active current) can be selected as the measurement principle
- Width 22.5 mm
- Display and transmission of actual value and status messages to controller
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- No-load monitoring and load shedding, such as in the event of a V-belt tear
- Underload monitoring in the low-end performance range, e.g. in the event of pump no-load operation
- Monitoring of overload, e.g. due to a dirty filter system
- Power factor monitoring in networks for control of compensation equipment
- Broken cable between control cabinet and motor

Technical specifications

3UG4841 monitoring relays

The 3UG4841 monitoring relays are supplied with power through IO-Link or with an external auxiliary voltage of 24 V DC and are used for performing overshoot, undershoot or range monitoring of the power factor and/or the resulting active current, depending on parameterization. The load to be monitored is connected upstream of the IN terminal. The load current flows through the terminals IN and Ly/N. The setting range for the power factor is 0 to 0.99 and for the active current I_{res} it is 0.2 to 10 A. If the control supply voltage is switched on and no load current flows, the display will show $I < 0.2$ and a symbol for overrange, underrange or range monitoring. If the motor is now switched on and the current exceeds 0.2 A, the set ON-delay time onDel begins. During this time, if the set limit values are undershot or exceeded, this does not lead to a relay reaction of the changeover contact. If the operational flowing active current and/or the p.f. value falls below or exceeds the respective set threshold value, the tripping delay time begins. When this time has expired, the relay changes its switch position. The relevant measured variables for overshooting and undershooting in the display flash. If monitoring for active current undershoot is switched off ($I_{res} \nabla = \text{OFF}$), and if the load current undershoots the lower measuring range threshold (0.2 A), the CO contacts remain unchanged. If a threshold value is set for the monitoring of active current undershooting, then undershooting of the measuring range threshold (0.2 A) will result in a response of the CO contacts.

The relay operates either according to the open-circuit or closed-circuit principle.

If the device is set to Auto RESET (Memory = No), depending on the set principle of operation, the switching relay returns to its initial state and the flashing ends when the hysteresis threshold is reached.

If Manual RESET is selected in the menu (Memory = Yes), the switching relay remains in its current switching state and the current measured value and the symbol for undershooting and overshooting continue to flash, even when the measured variable reaches a permissible value again. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ keys for 2.5 s.

With Manual RESET through IO-Link it is possible in addition to set whether error signals are to be deleted when the control supply voltage is switched off and on (as remote RESET) or whether the signals are to be permanently saved even in a voltage failure, with confirmation possible only through local RESET or via IO-Link.

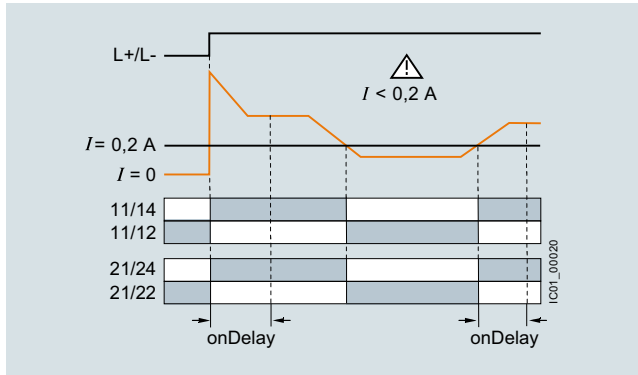
Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

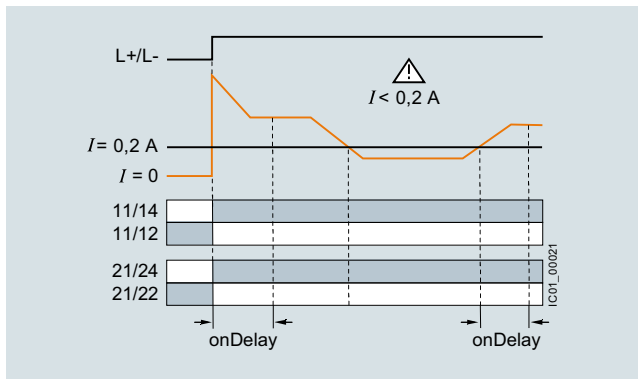
Power factor and active current monitoring

With the closed-circuit principle selected

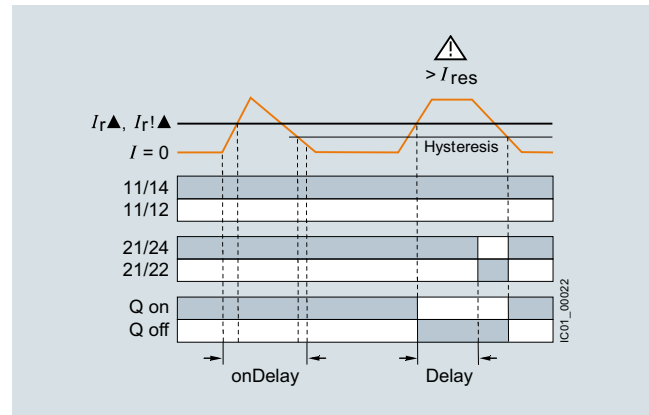
Response in the event of undershooting the measuring range limit with activated monitoring of I_{res} ▼



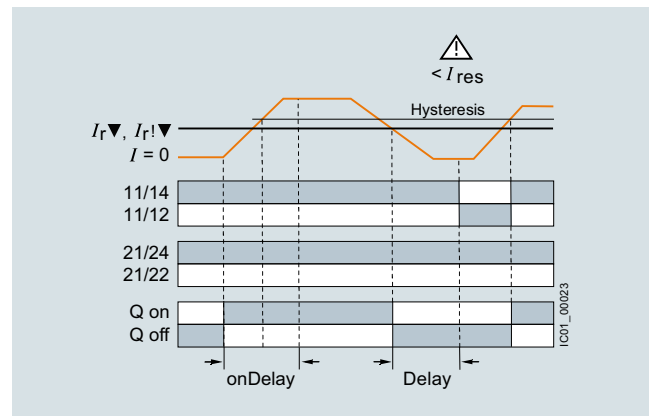
Response in the event of undershooting the measuring range limit with deactivated monitoring of active current undershooting



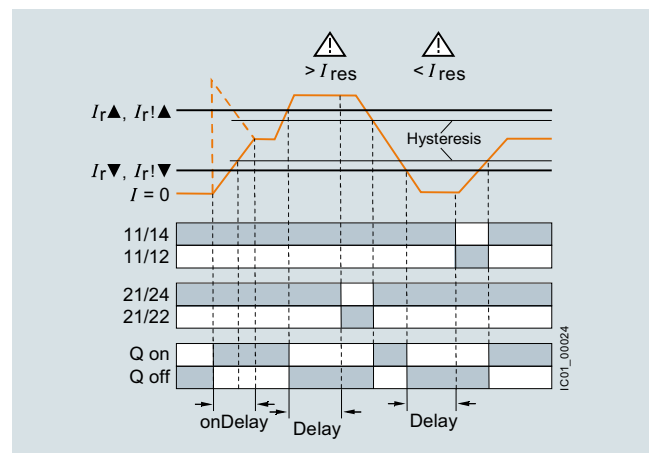
Overshooting of active current



Undershooting of active current

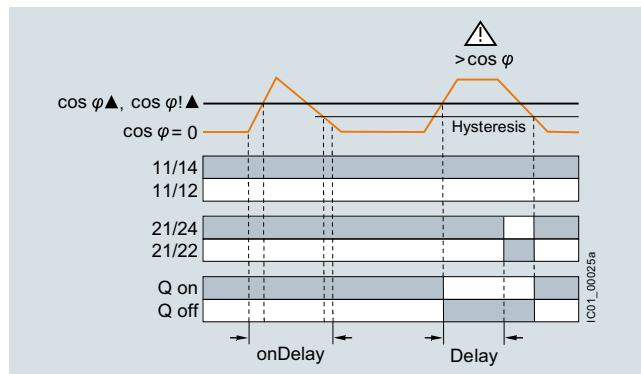


Range monitoring of active current

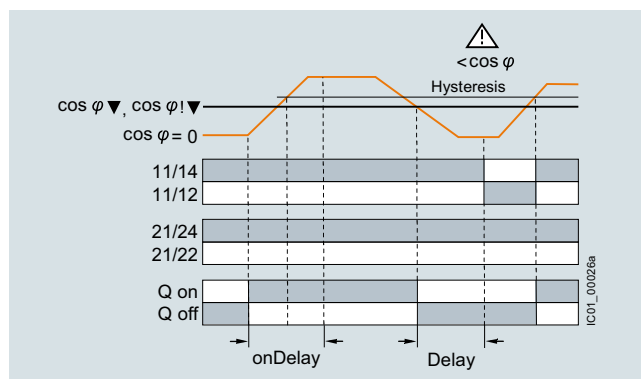


With the closed-circuit principle selected

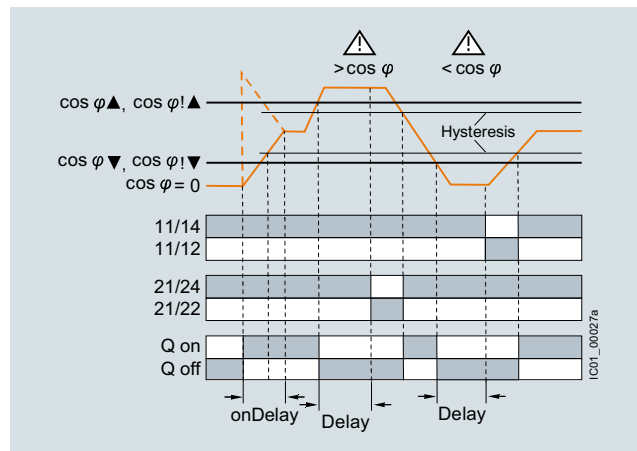
Overshooting of power factor



Undershooting of power factor



Range monitoring of power factor



Type	3UG4841	
General technical specifications		
Rated insulation voltage U_i Pollution degree 2 Overvoltage category III according to IEC 60664-1	V	690
Rated impulse withstand voltage U_{imp}	kV	6
Control circuit		
Number of CO contacts for auxiliary contacts		2
Load capacity of the output relay		
• Thermal current I_{th}	A	5
Rated operational current I_e at		
• AC-15/24 ... 400 V	A	3
• DC-13 at		
- 24 V	A	1
- 125 V	A	0.2
- 250 V	A	0.1
Minimum contact load at 17 V DC	mA	5

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Power factor and active current monitoring

Selection and ordering data

- For monitoring the power factor and the active current I_{res} (p.f. $\times I$)
- Suitable for single- and three-phase currents
- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Overshoot, undershoot or range monitoring adjustable
- Upper and lower limit values can be adjusted separately
- Permanent display of actual value and tripping state
- 1 CO contact each for undershoot and overshoot, 1 semiconductor output (in SIO mode)



PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



3UG4841-1CA40



3UG4841-2CA40

Measuring range		Voltage range of the measuring voltage ¹⁾	Hysteresis		ON-delay time adjustable onDel	Tripping delay time separately adjustable $U_{\blacktriangle Del}/U_{\blacktriangledown Del}$, $\varphi_{\blacktriangle Del}/\varphi_{\blacktriangledown Del}$	SD	Screw terminals 		SD	Spring-type terminals 	
For power factor	For active current I_{res}		Adjustable for power factor	Adjustable for active current I_{res}								
P.f.	A	V	P.f.	A	s	s	d	Article No.	Price per PU	d	Article No.	Price per PU
Monitoring of power factor and active current for overshooting or undershooting												
0.1 ... 0.99	0.2 ... 10	90 ... 690	0.1 ... 0.2	0.1 ... 3	0 ... 999.9	0 ... 999.9	2	3UG4841-1CA40		2	3UG4841-2CA40	

¹⁾ Absolute limit values.

For accessories, [see page 10/131](#).

For AC active currents $I_{res} > 10$ A it is possible to use commercially available current transformers, e.g. Siemens 4NC current transformers, as accessories, [see Catalog LV 10](#).

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link Residual-Current Monitoring

Residual-current monitoring relays

Overview



SIRIUS 3UG4825 monitoring relay

The 3UG4825 residual-current monitoring relays are used in conjunction with the 3UL23 residual-current transformers for monitoring plants in which higher residual currents are increasingly expected due to ambient conditions. Monitoring encompasses pure AC residual currents or AC residual currents with a pulsating DC fault current component (transformer type A in accordance with DIN VDE 0100-530/IEC TR 60755).

Benefits

- High measuring accuracy of $\pm 7.5\%$
- Permanent self-monitoring
- Parameterization of the devices locally or via IO-Link possible
- Variable threshold values for warning and disconnection
- Freely configurable delay times and RESET response
- Display and transmission of actual value and status messages to controller
- High level of flexibility and space saving through installation of the transformer inside or outside the control cabinet
- Width 22.5 mm
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

Monitoring of plants in which residual currents can occur, e.g. due to dust deposits or moisture, porous cables and leads, or capacitive residual currents.

Technical specifications

3UG4825 monitoring relays

The main conductor, and any neutral conductor to which a load is connected, are routed through the opening of the annular ring core of a residual-current transformer. A secondary winding is placed around this annular ring core to which the monitoring relay is connected.

If operation of a plant is fault-free, the sum of the inflowing and outward currents equals zero. No current is then induced in the secondary winding of the residual-current transformer.

However, if an insulation fault occurs downstream of the residual-current-operated circuit breaker, the sum of the inflowing currents is greater than that of the outward currents. The differential current – the residual current – induces a secondary current in the secondary winding of the transformer. This current is evaluated in the monitoring relay and is used on the one hand to display the actual residual current and on the other, to switch the relay if the set warning or tripping threshold is overshoot.

If the measured residual current exceeds the set warning value, the associated changeover contact instantly changes the switching state and an indication appears on the display.

If the measured residual current exceeds the set tripping value, the set delay time begins and the associated relay symbol flashes. On expiry of this time, the associated changeover contact changes the switching state.

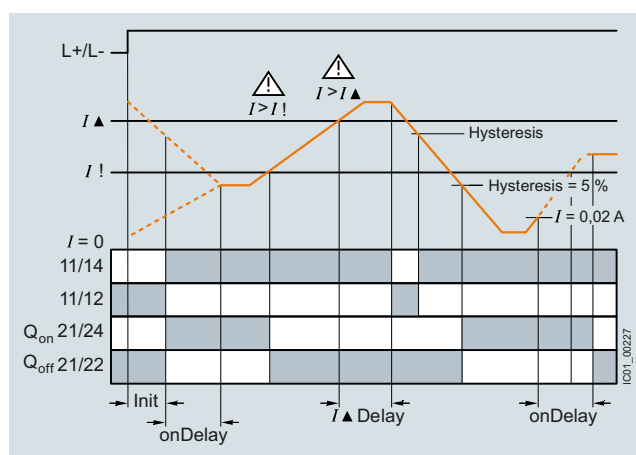
ON-delay time for motor start

To be able to start a drive when a residual current is detected, the output relays switch to the OK state for an adjustable ON-delay time depending on the selected open-circuit principle or closed-circuit principle.

The changeover contacts do not react if the set threshold values are overshoot during this period.

With the closed-circuit principle selected

Residual-current monitoring with Auto RESET (Memory = no)



If the device is set to Auto RESET, the relay switches back to the OK state for the tripping value once the value falls below the set hysteresis threshold and the display stops flashing.

The associated relay changes its switching state if the value falls below the fixed hysteresis value of 5% of the warning value.

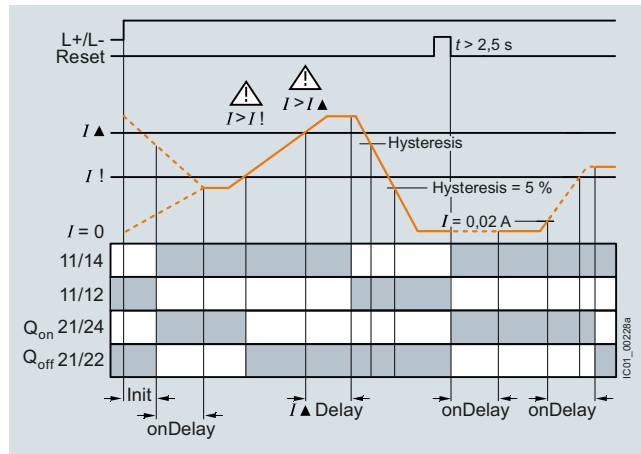
Any overshoots are therefore not stored.

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link Residual-Current Monitoring

Residual-current monitoring relays

Residual-current monitoring with Manual RESET (Memory = yes)



If Manual RESET is selected in the menu, the output relays remain in their current switching state and the current measured value and the symbol for overshooting continue to flash, even when the measured residual current returns to a permissible value. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ keys for > 2 seconds, or by switching the supply voltage off and back on again.

Note:

The neutral conductor must not be grounded downstream of the summation current transformer as this may impair the function of the residual-current monitoring device.

Type	3UG4825-1CA40, 3UG4825-2CA40	
General data		
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3 rated value	V	300
Impulse withstand voltage, rated value U_{imp}	kV	4
Control circuit		
Number of CO contacts for auxiliary contacts		2
Thermal current of the non-solid-state contact blocks, maximum	A	5
Current carrying capacity of the output relay		
• At AC-15 at 250 V at 50/60 Hz	A	3
• At DC-13		
- At 24 V	A	1
- At 125 V	A	0.2
- At 250 V	A	0.1
Operational current at 17 V, minimum	mA	5

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link
Residual-Current Monitoring

Residual-current monitoring relays

Selection and ordering data

- For monitoring residual currents from 0.03 to 40 A, from 16 to 400 Hz
 - For 3UL23 residual-current transformers with feed-through opening from 35 to 210 mm
 - Permanent self-monitoring
 - Certified in accordance with IEC 60947, functionality corresponds to IEC 62020
 - Digitally adjustable, with illuminated LCD
 - Permanent display of actual value and tripping state
 - Separately adjustable limit value and warning threshold
 - 1 changeover contact each for warning threshold and tripping threshold
- PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



3UG4825-1CA40



3UG4825-2CA40

Measurable current	Adjustable response value current	Switching hysteresis	Adjustable ON-delay time	Control supply voltage At DC rated value	SD	Screw terminals	SD	Spring-type terminals
A	A	%	s	V	d	Article No. Price per PU	d	Article No. Price per PU
0.01 ... 43	0.03 ... 40	0 ... 50	0 ... 999.9	24	2	3UG4825-1CA40	2	3UG4825-2CA40

For accessories, see page 10/131.
For 3UL23 residual-current transformers and accessories for 3UL23, see page 10/94.

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Speed monitoring

Overview



SIRIUS 3UG4851 monitoring relay

3UG4851 monitoring relays are used in combination with a sensor to monitor drives for overspeed and/or underspeed.

Furthermore, the monitoring relays are ideal for all functions where a continuous pulse signal needs to be monitored (e.g. belt travel monitoring, completeness monitoring, passing monitoring, clock-time monitoring).

Benefits

- Variably adjustable to overshoot, undershoot or range monitoring
- Freely configurable delay times and RESET response
- Display and transmission of actual value and fault type to controller
- Use of up to 10 sensors per rotation for extremely slowly rotating motors
- 2- or 3-wire sensors and sensors with a mechanical switching output or semiconductor output can be connected
- Auxiliary voltage for sensor integrated
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

- Slip or tear of a belt drive
- Overload monitoring
- Transport monitoring for completeness

Technical specifications

3UG4851 monitoring relays

The speed monitoring relay operates according to the principle of period duration measurement.

In the monitoring relay, the time between two successive rising edges of the pulse encoder is measured and compared to the minimum and/or maximum permissible period duration calculated from the set limit values for the speed.

Thus, the period duration measurement recognizes any deviation in speed after just two pulses, even at very low speeds or in the case of extended pulse gaps.

By using up to ten pulse encoders evenly distributed around the circumference, it is possible to shorten the period duration, and in turn the response time. By taking into account the number of sensors in the monitoring relay, the speed continues to be indicated in rpm.

ON-delay time for motor start

To be able to start a motor drive, and depending on whether the open-circuit or closed-circuit principle is selected, the output relay switches to the GO state during the ON-delay time, even if the speed is still below the set value.

The ON-delay time is started by either switching on the auxiliary voltage or, if the auxiliary voltage is already applied, by actuating the respective NC contact (e.g. auxiliary contact).

Speed monitoring with Auto RESET (Memory = no)

If the device is set to Auto RESET, the output relay switches to the GO state, once the adjustable hysteresis threshold is reached in the range of 1 to 99.9 rpm and the flashing stops. Any overshoots or undershoots are therefore not stored.

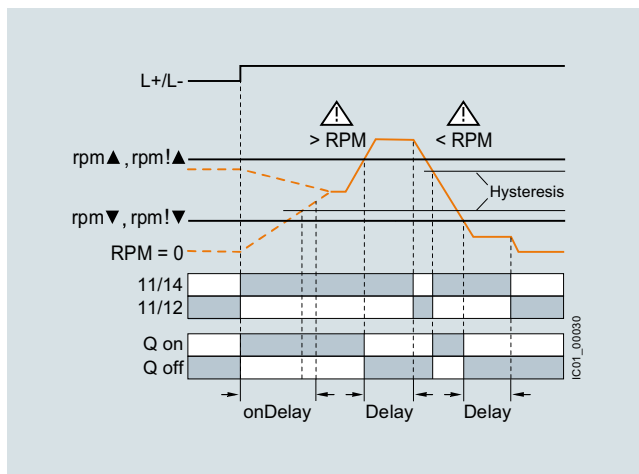
Speed monitoring with Manual RESET (Memory = yes)

If Manual RESET is selected in the menu, the output relay remains in its current switching state and the current measured value and the symbol for overshooting/undershooting continue to flash, even when the speed returns to a permissible value. This stored fault status can be reset by simultaneously pressing the UP▲ and DOWN▼ buttons for > 2.5 s or by connecting the RESET device terminal to 24 V DC.

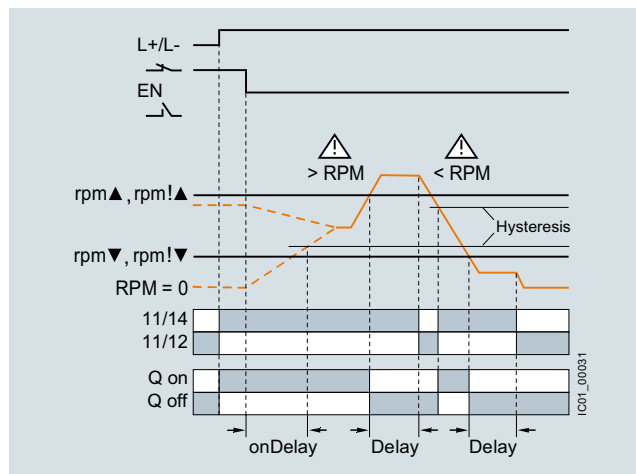
With Manual RESET through IO-Link it is possible in addition to set whether error signals are to be deleted when the control supply voltage is switched off and on (as remote RESET) or whether the signals are to be permanently saved even in a voltage failure, with confirmation possible only through local RESET or via IO-Link.

With the closed-circuit principle selected

Range monitoring without enable input



Range monitoring with enable input



Type	3UG4851	
General technical specifications		
Rated insulation voltage U_i Pollution degree 2 Overvoltage category III acc. to VDE 0110	V	300
Rated impulse withstand voltage U_{imp}	kV	4
Measuring circuit		
Sensor supply • For 3-wire sensor (24 V/0 V) • For 2-wire NAMUR sensor (8V2)	mA mA	Max. 50 Max. 8.2
Signal input • IN1 • IN2	kΩ kΩ	16, 3-wire sensor, pnp operation 1, floating contact, 2-wire NAMUR sensor
Voltage level • For level 1 at IN1 • For level 0 at IN1	V V	4.5 ... 30 0 ... 1
Current level • For level 1 at IN2 • For level 0 at IN2	mA mA	> 2.1 < 1.2
Minimum pulse duration of signal	ms	5
Minimum interval between 2 pulses	ms	5
Control circuit		
Number of CO contacts for auxiliary contacts		1
Load capacity of the output relay Thermal current I_{th}	A	5
Rated operational current I_e at • AC-15/24 ... 250 V • DC-13 at	A	3
- 24 V	A	1
- 125 V	A	0.2
- 250 V	A	0.1
Minimum contact load at 17 V DC	mA	5

Relays

SIRIUS 3UG48 Monitoring Relays for Stand-Alone Installation for IO-Link

Speed monitoring

Selection and ordering data

- For speed monitoring in revolutions per minute (rpm)
- Two- or three-wire sensor with mechanical or electronic switching output can be connected
- Two-wire NAMUR sensor can be connected
- Sensor supply 24 V DC/50 mA integrated
- Input frequency 0.1 to 2 200 pulses per minute (0.0017 to 36.7 Hz)
- With or without enable signal for the drive to be monitored
- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Overshoot, undershoot or range monitoring adjustable
- Number of pulses per revolution can be adjusted
- Upper and lower limit values can be adjusted separately
- Auto, Manual or remote RESET options after tripping
- Permanent display of actual value and tripping state
- 1 CO contact, 1 semiconductor output (in SIO mode)



PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H



3UG4851-1AA40

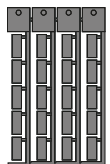





3UG4851-2AA40

Measuring range	Adjustable hysteresis	ON-delay time adjustable onDel	Tripping delay time separately adjustable rpm▲Del/ rpm▼Del	Pulses per revolution	SD	Screw terminals		SD	Spring-type terminals	
rpm	rpm	s	s		d	Article No.	Price per PU	d	Article No.	Price per PU
Speed monitoring for overshooting and undershooting										
0.1 ... 2 200	OFF 1 ... 99.9	0 ... 999.9	0 ... 999.9	1 ... 10	2	3UG4851-1AA40		2	3UG4851-2AA40	

For accessories, see page 10/131.

Selection and ordering data

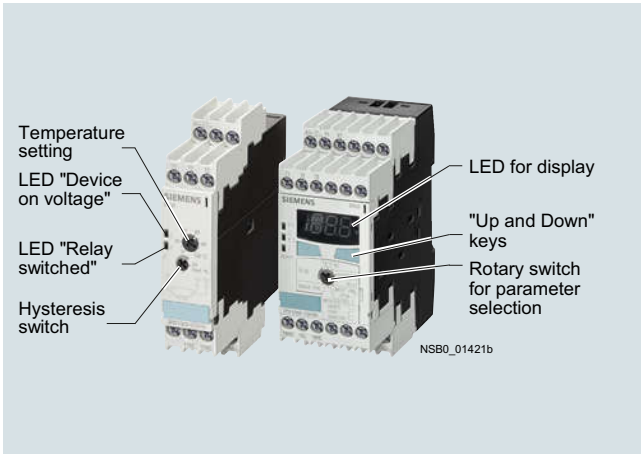
Use	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Blank labels							
 3RT2900-1SB20	For 3UG48	Unit labeling plates For SIRIUS devices 20 mm x 7 mm, titanium gray ¹⁾	20	3RT2900-1SB20	100	340 units	41B
	For 3UG48	Adhesive labels for SIRIUS devices					
		• 19 mm x 6 mm, pastel turquoise	15	3RT1900-1SB60	100	3 060 units	41B
		• 19 mm x 6 mm, zinc yellow	15	3RT1900-1SD60	100	3 060 units	41B
Push-in lugs and covers							
 3RP1903 3RP1902	For 3UG48	Push-in lugs For screw fixing, 2 units are required for each device	5	3RP1903	1	10 units	41H
	For 3UG48	Sealable covers For securing against unauthorized adjustment of setting knobs	5	3RP1902	1	5 units	41H
Tools for opening spring-type terminals							
 3RA2908-1A	For auxiliary circuit con- nections	Screwdrivers For all SIRIUS devices with spring-type terminals 3.0 mm x 0.5 mm, length approx. 200 mm, titanium gray/black, partially insulated	2	Spring-type terminals 			
				3RA2908-1A	1	1 unit	41B

¹⁾ PC labeling system for individual inscription
of unit labeling plates available from:
murrplastik Systemtechnik GmbH,
[see page 16/16](#).

Relays
SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

General data

Overview



SIRIUS 3RS temperature monitoring relays

More information

Homepage, see www.siemens.com/relays
Industry Mall, see www.siemens.com/product?3RS10

The 3RS10, 3RS11, 3RS20 and 3RS21 temperature monitoring relays can be used for measuring temperatures in solid, liquid and gas media. The temperatures are acquired by means of sensors in the medium, evaluated by the device and monitored for overshoot, undershoot or location within a specified range (window function).

The range comprises adjustable analog units with one or two threshold values, digital units for 1 sensor, which are also a good alternative to temperature controllers for the low-end range, and digital units for up to 3 sensors which have been optimized for monitoring large motors.

Article No. scheme

Product versions		Article number									
Temperature monitoring relays		3RS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Device type	e.g. 10 = analogically adjustable, 1 sensor		<input type="checkbox"/>	<input type="checkbox"/>							
Version and type of sensor	e.g. 00 = one threshold value, Pt100 sensor			<input type="checkbox"/>	<input type="checkbox"/>						
Connection type	Screw terminals							1			
	Spring-type terminals (push-in)							2			
Number and type of outputs	e.g. C = 1 NO + 1 NC								<input type="checkbox"/>		
Control supply voltage	e.g. D = 24 V AC/DC									<input type="checkbox"/>	
Measuring range	e.g. 0 = -50 ... +50 °C										<input type="checkbox"/>
Example		3RS	1	0	0	0	-	1	C	D	0 0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Technical specifications

More information

Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16369/td>

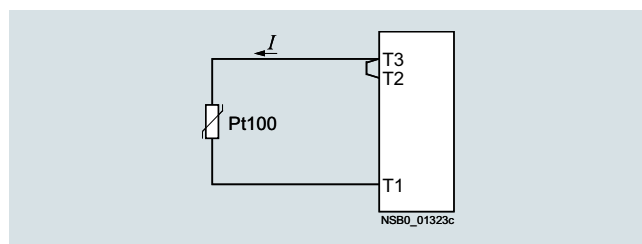
Manual and internal circuit diagrams, see
<https://support.industry.siemens.com/cs/ww/en/view/54999309>

FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16369/faq>

Connection of resistance-type thermometers

Two-wire measurement

When two-wire temperature sensors are used, the resistances of the sensor and wiring are added. The resulting systematic error must be taken into account when the signal evaluation unit is calibrated. A jumper must be clamped between terminals T2 and T3 for this purpose.



Wiring errors

The errors that are generated by the wiring comprise approximately 2.5 K/Ω. If the resistance of the cable is not known and cannot be measured, the wiring errors can also be estimated using the following table.

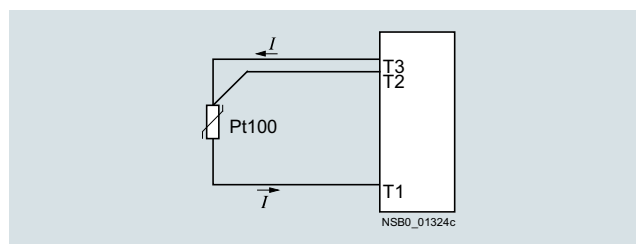
Temperature drift dependent on the length and cross-section of the cable with Pt100 sensors and an ambient temperature of 20 °C, in K:

Cable length in m	Cross-section mm ²			
	0.5	0.75	1	1.5
	Temperature drift in K:			
0	0	0	0	0
10	1.8	1.2	0.9	0.6
25	4.5	3.0	2.3	1.5
50	9.0	6.0	4.5	3.0
75	13.6	9.0	6.8	4.5
100	18.1	12.1	9.0	6.0
200	36.3	24.2	18.1	12.1
500	91.6	60.8	45.5	30.2

Example: On a Pt100 sensor with a cable length of 10 m and a conductor cross-section of 1 mm² the temperature drift equals 0.9 K.

Three-wire measurement

To minimize the effects of the line resistances, a three-wire circuit is often used. Using the additional cable, two measuring circuits can be formed of which one is used as a reference. The signal evaluation unit can then automatically calculate the line resistance and take it into account.



Connection of thermocouples

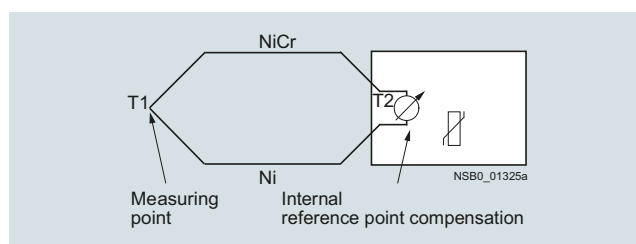
Based on the thermo-electrical effect, a differential temperature measurement will be performed between the measuring point and the signal evaluation unit.

This principle assumes that the signal evaluation unit knows the temperature at the clamping point (T2). For this reason, the 3RS11 temperature monitoring relay has an integral compensator that determines this comparison temperature and builds it into the result of the measurement. The thermal sensors and cables must be insulated therefore.

The absolute temperature is therefore calculated from the ambient temperature of the signal evaluation unit and the temperature difference measured by the thermocouple.

Temperature detection is therefore possible (T1) without needing to know the precise ambient temperature of the clamping point at the signal evaluation unit (T2).

The connecting cable is only permitted to be extended using connecting leads that are made from the same material as the thermocouple. If a different type of conductor is used, an error will result in the measurement.



For more information, see

- www.ephy-mess.com
- Page 16/16

Relays

SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

General data

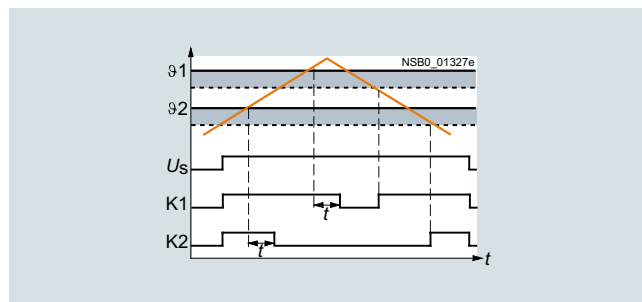
Principle of operation

Once the temperature has reached the set threshold value ϑ_1 , the output relay K1 changes its switching state as soon as the set time t has elapsed (K2 responds in the same manner to ϑ_2). The delay time can only be adjusted with digital units (on analog units $t = 0$).

The relays return to their original state as soon as the temperature reaches the set hysteresis value.

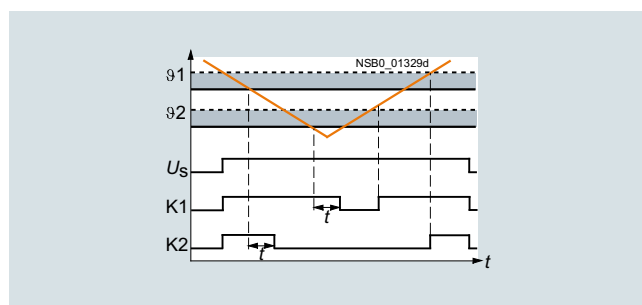
Temperature overshoot

Closed-circuit principle



Temperature undershoot

Closed-circuit principle

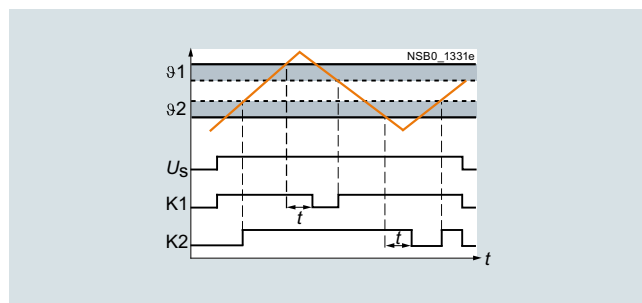


Range monitoring (digital units only)

Once the temperature has reached the upper threshold value ϑ_1 , the output relay K1 changes its switching state as soon as the set time t has elapsed. The relay returns to its original state as soon as the temperature reaches the set hysteresis value.

K2 responds in the same manner to the lower threshold value of ϑ_2 .

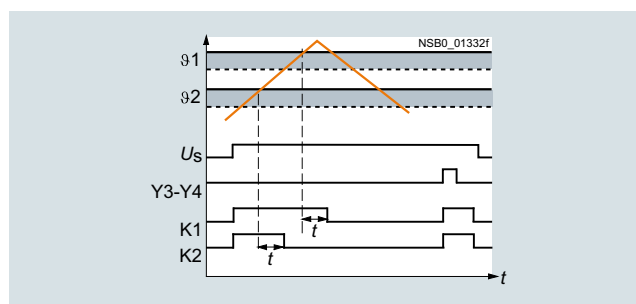
Closed-circuit principle



Principle of operation with memory function (3RS1042, 3RS1142) based on the example of temperature overshoot

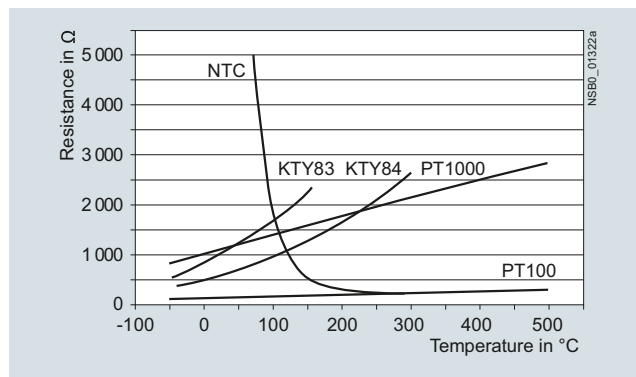
Once the temperature has reached the set threshold value ϑ_1 , the output relay K1 changes its switching state as soon as the set time t has elapsed (K2 responds in the same manner to ϑ_2). The relays only return to the original state when the temperature falls below the set hysteresis value and when terminals Y3-Y4 have been briefly jumpered.

Closed-circuit principle



Characteristic curves

For resistance sensors



The short-circuit and open-circuit detection as well as the measuring range is limited, depending on the sensor type.

Measuring ranges in $^{\circ}\text{C}$ for resistance sensors

Sensor type	Short circuit	Open circuit	3RS1040/ 3RS1041 Measuring range in $^{\circ}\text{C}$	3RS1042 Measuring range in $^{\circ}\text{C}$
Pt100	✓	✓	-50 ... +500	-50 ... +750
Pt1000	✓	✓	-50 ... +500	-50 ... +500
KTY83-110	✓	✓	-50 ... +175	-50 ... +175
KTY84	✓	✓	-40 ... +300	-40 ... +300
NTC ¹⁾	✓	--	80 ... 160	80 ... 160

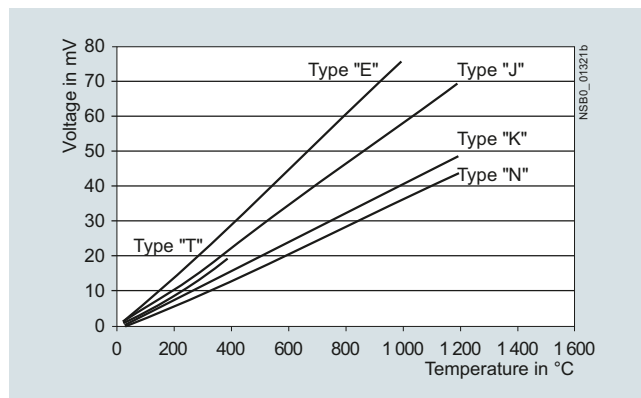
✓ Detection possible

-- Detection not possible

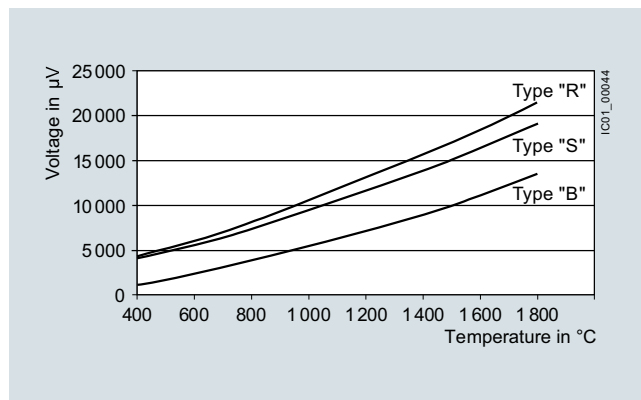
¹⁾ NTC type: B57227-K333-A1 (100 $^{\circ}\text{C}$: 1.8 k Ω ; 25 $^{\circ}\text{C}$: 32.762 k Ω).

Characteristic curves

For thermocouples



Characteristic curves for sensor types J, K, T, E, N



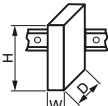
Characteristic curves for sensor types S, R and B

Measuring range in °C for thermocouples

Sensor type	Short circuit	Open circuit	3RS1140 Measuring range in °C	3RS1142 Measuring range in °C
J	--	✓	-99 ... +999	-99 ... +1 200
K	--	✓	-99 ... +999	-99 ... +1 350
T	--	✓	-99 ... +400	-99 ... +400
E	--	✓	-99 ... +999	-99 ... +999
N	--	✓	-99 ... +999	-99 ... +999
S	--	✓	--	0 ... 1 750
R	--	✓	--	0 ... 1 750
B	--	✓	--	400 ... 1 800

✓ Detection possible

-- Detection not possible

Type	3RS10, 3RS11 analog		3RS10, 3RS11, 3RS20, 3RS21 digital	
General technical specifications				
Dimensions (W x H x D)		mm	22.5 x 102 x 91	45 x 106 x 91
• Screw terminals		mm	22.5 x 103 x 91	45 x 108 x 91
• Spring-type terminals				
Permissible ambient temperature				
• During operation	°C	-25 ... +60		
Connection type		⊕ Screw terminals		
• Terminal screw		M3 (for standard screwdriver, size 2 and Pozidriv 2)		
• Solid	mm ²	1 x (0.5 ... 4)/2 x (0.5 ... 2.5)		
• Finely stranded with end sleeve	mm ²	1 x (0.5 ... 2.5)/2 x (0.5 ... 1.5)		
• AWG cables, solid or stranded	AWG	2 x (20 ... 14)		
Connection type		⊖ Spring-type terminals		
• Solid	mm ²	2 x (0.25 ... 1.5)		
• Finely stranded, with end sleeve acc. to DIN 46228	mm ²	2 x (0.25 ... 1.5)		
• Finely stranded	mm ²	2 x (0.25 ... 1.5)		
• AWG cables, solid or stranded	AWG	2 x (24 ... 16)		

Relays

SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Relays, analogically adjustable for 1 sensor

Overview



SIRIUS 3RS analog temperature monitoring relays for 1 sensor

The 3RS10, 3RS11 analog temperature monitoring relays can be used for measuring temperatures in solid, liquid and gas media. The temperature is detected by the sensors in the medium, evaluated by the device and monitored for overshoot or undershoot. When the threshold values are reached, the output relay switches on or off depending on the parameterization.

Benefits

- All devices except for 24 V AC/DC feature electrical separation
- Extremely easy operation using a rotary potentiometer
- Adjustable hysteresis
- Adjustable working principle for devices with 2 threshold values
- All versions with removable terminals
- All versions with screw terminals, many versions alternatively with spring-type terminals

Application

The analogically adjustable SIRIUS 3RS10, 3RS11 temperature monitoring relays can be used in almost any application in which temperature overshoot or undershoot is not permitted, e.g. in the monitoring of set temperature limits and the output of alarm messages for:

- Motor and system protection
- Control cabinet temperature monitoring
- Freeze monitoring
- Temperature limits for process variables e.g. in the packaging industry or electroplating
- Controlling equipment and machines such as heating, climate and ventilation systems, solar collectors, heat pumps or warm water supplies
- Motor, bearing and gear oil monitoring
- Monitoring of coolants

Technical specifications

Type		3RS1000, 3RS1010	3RS1100, 3RS1101	3RS1020, 3RS1030	3RS1120, 3RS1121
Auxiliary circuit					
Rated operational currents I_e					
• AC-15/24 ... 250 V	A	3			
• DC-13 at					
- 24 V	A	1			
- 125 V	A	0.2			
- 250 V	A	0.1			
Measuring accuracy at 20 °C ambient temperature (T20)		< ± 5% of full-scale value			
Reference point accuracy	K	--	< ± 5	--	< ± 5
Deviations due to ambient temperature		< 2	< 3	< 2	< 3
In % of the measuring range					
Hysteresis settings					
• For temperature 1	%	2 ... 20 from upper limit of scale			
• For temperature 2	%	5 from upper limit of scale			
Sensor circuit					
Typical sensor current					
• Pt100	mA	1	--	1	--
Open-circuit detection		No			
Short-circuit detection		No			
Three-wire conductor connection ¹⁾		Yes	--	Yes	--
Enclosure					
Rated insulation voltage U_i (pollution degree 3)	V	300			

¹⁾ Two-wire connection of resistance sensors with wire jumper between T2 and T3.







SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Relays, analogically adjustable for 1 sensor

Selection and ordering data

- For temperature monitoring with resistance sensors or thermocouples
- Temperature range -55 °C to +1 000 °C, depending on the sensor type
- Wide voltage range versions are electrically separated
- Analogically adjustable, setting accuracy $\pm 5\%$
- Versions with 2 separately adjustable threshold values and adjustable open/closed-circuit principle
- Hysteresis for threshold value 1 is adjustable (2 to 20%), hysteresis for threshold value 2 is non-adjustable (5%)
- 1 NC + 1 NO for versions with one threshold value
- 1 CO for threshold value 1 and 1 NO for threshold value 2

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H

Sensors		Function	Measuring range	Rated control supply voltage U_s 50/60 Hz AC	SD	Screw terminals		SD	Spring-type terminals	
			°C	V	d	Article No.	Price per PU	d	Article No.	Price per PU
Analogically adjustable, 1 threshold value, width 22.5 mm; closed-circuit principle; without memory; 1 NO + 1 NC										
	Pt100 (resistance sensor)	Overshoot	- 50 ... + 50	24 AC/DC 110/230 AC	10 10	3RS1000-1CD00 3RS1000-1CK00		10 10	3RS1000-2CD00 3RS1000-2CK00	
			0 ... + 100	24 AC/DC 110/230 AC	10 2	3RS1000-1CD10 3RS1000-1CK10		10 2	3RS1000-2CD10 3RS1000-2CK10	
			0 ... + 200	24 AC/DC 110/230 AC	10 2	3RS1000-1CD20 3RS1000-1CK20		10 10	3RS1000-2CD20 3RS1000-2CK20	
		Undershoot	- 50 ... + 50	24 AC/DC 110/230 AC	10 10	3RS1010-1CD00 3RS1010-1CK00			-- --	
			0 ... + 100	24 AC/DC 110/230 AC	10 10	3RS1010-1CD10 3RS1010-1CK10			-- --	
			0 ... + 200	24 AC/DC 110/230 AC	10 10	3RS1010-1CD20 3RS1010-1CK20			-- --	
	Type J (thermo-couple)	Overshoot	0 ... + 200	24 AC/DC 110/230 AC	10 10	3RS1100-1CD20 3RS1100-1CK20		10	3RS1100-2CD20 --	
			0 ... + 600	24 AC/DC 110/230 AC	10 10	3RS1100-1CD30 3RS1100-1CK30			-- --	
			Type K (thermo-couple)	Overshoot	0 ... + 200	24 AC/DC 110/230 AC	10 10	3RS1101-1CD20 3RS1101-1CK20		
	0 ... + 600	24 AC/DC 110/230 AC			10 10	3RS1101-1CD30 3RS1101-1CK30			-- --	
	+ 500 ... + 1 000	24 AC/DC 110/230 AC			10 10	3RS1101-1CD40 3RS1101-1CK40			-- --	
	Analogically adjustable for warning and disconnection (2 threshold values), 22.5 mm width; open/closed-circuit principle switchable; without memory; 1 NO + 1 CO									
	Pt100 (resistance sensor)	Overshoot	- 50 ... + 50	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1020-1DD00 3RS1020-1DW00			-- --	
			0 ... + 100	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1020-1DD10 3RS1020-1DW10			-- --	
			0 ... + 200	24 AC/DC 24 ... 240 AC/DC	10 2	3RS1020-1DD20 3RS1020-1DW20		10	3RS1020-2DW20	
		Undershoot	- 50 ... + 50	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1030-1DD00 3RS1030-1DW00			-- --	
			0 ... + 100	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1030-1DD10 3RS1030-1DW10			-- --	
			0 ... + 200	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1030-1DD20 3RS1030-1DW20		10	3RS1030-2DD20 --	
	Type J (thermo-couple)	Overshoot	0 ... + 200	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1120-1DD20 3RS1120-1DW20		10	3RS1120-2DD20 --	
			0 ... + 600	24 AC/DC 24 ... 240 AC/DC	10 10	3RS1120-1DD30 3RS1120-1DW30			-- --	
			Type K (thermo-couple)	Overshoot	0 ... + 200	24 ... 240 AC/DC	10	3RS1121-1DW20		
	0 ... + 600	24 ... 240 AC/DC			10	3RS1121-1DW30			--	
	+ 500 ... + 1 000	24 AC/DC			10	3RS1121-1DD40			--	

For accessories, see page 10/142.

Relays

SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Relays, digitally adjustable for 1 sensor

Overview



SIRIUS 3RS digital temperature monitoring relay for 1 sensor

The 3RS10, 3RS11, 3RS20 and 3RS21 temperature monitoring relays can be used for measuring temperatures in solid, liquid and gas media. The temperatures are acquired by means of sensors in the medium, evaluated by the device and monitored for overshoot, undershoot or location within a specified range (window function). The 3RS10 and 3RS11 units indicate the measured temperature in °C, the 3RS20 and 3RS21 units in °F.

The units are also an excellent alternative to temperature controllers in the low-end performance range (two- or three-point control).

Benefits

- Very simple operation without complicated menu selections
- Two- or three-point control can be parameterized quickly
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

The temperature monitoring relays can be used in almost any application in which temperature overshoot or undershoot is not permitted, e.g. in the monitoring of set temperature limits and the output of alarm messages for:

- Plant and environment protection
- Temperature limits for process variables e.g. in the packaging industry or electroplating
- Temperature limits for district heating plants
- Exhaust temperature monitoring
- Controlling equipment and machines such as heating, climate and ventilation systems, solar collectors, heat pumps or warm water supplies
- Motor, bearing and gear oil monitoring
- Monitoring of coolants

Technical specifications

Type		3RS1040, 3RS1042, 3RS2040	3RS1140, 3RS2140	3RS1142
Auxiliary circuit				
Rated operational currents I_e				
• AC-15/24 ... 250 V	A	3		
• DC-13 at:				
- 24 V	A	1		
- 125 V	A	0.2		
- 250 V	A	0.1		
Evaluation unit				
Measuring accuracy at 20 °C ambient temperature (T20)		< ± 2 K, ± 1 digit	< ± 5 K, ± 1 digit	< ± 7 K, ± 1 digit
Reference point accuracy		--	< ± 5 K	
Deviations due to ambient temperature In % of measuring range	%	0.05 °C per K deviation from T20		
Measuring cycle	ms	500		
Hysteresis settings for temperature	K	1 ... 99, for both values		
Adjustable delay time	s	0 ... 999		
Sensor circuit				
Typical sensor current				
• Pt100	mA	1	--	--
• Pt1000/KTY83/KTY84/NTC	mA	0.2	--	--
Open-circuit detection		Yes ¹⁾	Yes	Yes
Short-circuit detection		Yes	No	No
Three-wire conductor connection		Yes ²⁾	--	--
Enclosure				
Rated insulation voltage U_i (pollution degree 3)	V AC	300		

¹⁾ Not for NTC type B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

²⁾ Two-wire connection of resistance sensors with wire jumper between T2 and T3.



SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Relays, digitally adjustable for 1 sensor

Selection and ordering data

- For temperature monitoring with resistance sensors or thermocouples
- Temperature range dependent on sensor type
- Wide voltage range versions are electrically separated
- Non-volatile
- Short-circuit and open-circuit detection in sensor circuit
- Digitally adjustable, with illuminated LCD
- Overshoot, undershoot or range monitoring adjustable
- Exact sensor type can be set
- 2 separately adjustable threshold values
- 1 hysteresis applies to both thresholds (0 to 99 K)
- 1 delay time applies to both thresholds (0 to 999 s)
- Adjustable open/closed-circuit principle
- Adjustable Manual/remote RESET
- Permanent display of actual value in °C or °F and tripping state
- 1 CO contact each per threshold value
- 1 NO for sensor monitoring

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H

Sensors	Measuring range (measuring range limit depends on the sensor)	Rated control supply voltage U_s 50/60 Hz AC	SD	Screw terminals	SD	Spring-type terminals	
V				Article No.	Price per PU	Article No.	
d				Price per PU			
Temperature monitoring relay, digitally adjustable, 2 threshold values, width 45 mm, 1 CO + 1 CO + 1 NO, memory function possible with external jumper, device parameters are non-volatile							
	Pt100/1000; KTY83/84; NTC (resistance sensors) ¹⁾	- 50 ... + 500 °C	24 AC/DC	2	3RS1040-1GD50	2	3RS1040-2GD50
			24 ... 240 AC/DC	2	3RS1040-1GW50	2	3RS1040-2GW50
		- 58 ... + 932 °F	24 AC/DC	10	3RS2040-1GD50	10	3RS2040-2GD50
			24 ... 240 AC/DC	10	3RS2040-1GW50	10	3RS2040-2GW50
3RS1040-1GD50	TYPE J, K, T, E, N (thermocouple)	- 99 ... + 999 °C	24 AC/DC	2	3RS1140-1GD60	10	3RS1140-2GD60
			24 ... 240 AC/DC	2	3RS1140-1GW60	10	3RS1140-2GW60
		- 99 ... + 1 830 °F	24 AC/DC	10	3RS2140-1GD60	15	3RS2140-2GD60
			24 ... 240 AC/DC	10	3RS2140-1GW60	15	3RS2140-2GW60
3RS1040-2GW50	Temperature monitoring relay, digitally adjustable, 2 threshold values, width 45 mm, 1 CO + 1 CO + 1 NO, tripping state and device parameters are non-volatile						
	Pt100/1000; KTY83/84; NTC (resistance sensors) ¹⁾	- 50 ... + 750 °C	24 AC/DC	10	3RS1042-1GD70	10	3RS1042-2GD70
			24 ... 240 AC/DC	2	3RS1042-1GW70	10	3RS1042-2GW70
	TYPE J, K, T, E, N, R, S, B (thermocouple)	- 99 ... + 1 800 °C	24 AC/DC	10	3RS1142-1GD80	10	3RS1142-2GD80
			24 ... 240 AC/DC	2	3RS1142-1GW80	10	3RS1142-2GW80

¹⁾ NTC type: B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

For accessories, see page 10/142.

Relays

SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Relays, digitally adjustable for up to 3 sensors

Overview



SIRIUS 3RS digital temperature monitoring relay for up to 3 sensors

The 3RS10, 3RS20 temperature monitoring relays can be used for measuring temperatures in solid, liquid and gas media. The temperature is detected by the sensor in the medium, evaluated by the device and monitored for overshoot or undershoot or for staying within an operating range (window function). The 3RS10 units indicate the measured temperature in °C, the 3RS20 units in °F. The evaluation unit can evaluate up to 3 resistance sensors at the same time and is specially designed for monitoring motor windings and bearings.

Benefits

- Very simple operation without complicated menu selections
- Space-saving with 45 mm width
- Two- or three-point control can be parameterized quickly
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

The 3RS10, 3RS20 temperature monitoring relays can be used in almost any application in which several temperatures have to be monitored simultaneously for overshoot or undershoot or within a range.

Monitoring of set temperature limits and output of alarm messages for:

- Plant and environment protection
- Temperature limits for process variables e.g. in the packaging industry or electroplating
- Controlling equipment and machines such as heating, climate and ventilation systems, solar collectors, heat pumps or warm water supplies
- Motor, bearing and gear oil monitoring
- Monitoring of coolants

Technical specifications

Type		3RS1041, 3RS2041
Auxiliary circuit		
Rated operational currents I_e		
• AC-15/24 ... 250 V	A	3
• DC-13 at		
- 24 V	A	1
- 125 V	A	0.2
- 250 V	A	0.1
DIAZED fuse protection		
• Operational class gG	A	4
Evaluation unit		
Measuring accuracy at 20 °C ambient temperature (T20)		< ± 2 K, ± 1 digit
Deviations due to ambient temperature In % of measuring range		% 0.05 per K deviation from T20
Measuring cycle		ms 500
Hysteresis settings for temperature 1		1 ... 99 K, for both values
Adjustable delay time		s 0 ... 999
Sensor circuit		
Typical sensor current		
• Pt100	mA	1
• Pt1000/KTY83/KTY84/NTC	mA	0.2
Open-circuit detection		Yes ¹⁾
Short-circuit detection		Yes
Three-wire conductor connection		Yes ²⁾
Enclosure		
Rated insulation voltage U_i (pollution degree 3)		V AC 300

¹⁾ Not for NTC type B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

²⁾ Two-wire connection of resistance sensors with wire jumper between T2 and T3.

SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Relays, digitally adjustable for up to 3 sensors

Selection and ordering data

- For temperature monitoring of solids, liquids, and gases
- For two- and three-conductor resistance sensors or thermocouples
- Temperature range dependent on sensor type
 - for 3RS10: - 50 to + 500 °C
 - for 3RS20: - 58 to + 932 °F
- Wide voltage range versions are electrically separated
- Non-volatile
- Short-circuit and open-circuit detection in sensor circuit
- Digitally adjustable, with illuminated LCD
- Overshoot, undershoot or range monitoring adjustable
- Exact sensor type and number of sensors can be set
- 2 separately adjustable threshold values
- 1 hysteresis; applies to both thresholds (0 to 99 K)
- 1 delay time; applies to both thresholds (0 to 999 s)
- Adjustable open-/closed-circuit principle
- With connectable and disconnectable error memory
- Permanent display of actual value in °C or °F and tripping state
- 1 CO contact each per threshold value
- 1 NO for sensor monitoring

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41H

Sensors	Number of sensors	Measuring range (limit of measuring range dependent on sensor)	Rated control supply voltage U_s	SD	Screw terminals	SD	Spring-type terminals	
			V	d	Article No.	Price per PU	Article No.	Price per PU

Motor monitoring relays, digitally adjustable for up to 3 sensors, width 45 mm; 1 CO + 1 CO + 1 NO



3RS1041-1GW50

¹⁾ NTC type: B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

For accessories, see page 10/142.

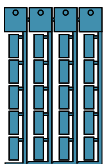




Pt100/1000;	1 ... 3	-50 ... +500 °C	24 ...240 AC/DC	2	3RS1041-1GW50	2	3RS1041-2GW50
KTY83/84;	sensors	-58 ... +932 °F	24 ...240 AC/DC	10	3RS2041-1GW50	15	3RS2041-2GW50
NTC (resistance sensors) ¹⁾							

Relays

SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 Temperature Monitoring Relays

Accessories

Selection and ordering data

Use	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Blank labels							
 3RT1900-1SB20	For 3RS10, 3RS11, 3RS20, 3RS21	Unit labeling plates For SIRIUS devices 20 mm x 7 mm, pastel turquoise ¹⁾	20	3RT1900-1SB20	100	340 units	41B
	For 3RS10, 3RS11, 3RS20, 3RS21	Adhesive labels for SIRIUS devices <ul style="list-style-type: none"> • 19 mm x 6 mm, pastel turquoise • 19 mm x 6 mm, zinc yellow 	15	3RT1900-1SB60	100	3 060 units	41B
			15	3RT1900-1SD60	100	3 060 units	41B
Push-in lugs and covers							
 3RP1903	For 3RS10, 3RS11, 3RS20, 3RS21	Push-in lugs For screw fixing, 2 units are required for each device	5	3RP1903	1	10 units	41H
 3RP1902	For 22.5 mm wide 3RS10, 3RS11, 3RS20, 3RS21	Sealable covers For securing against unauthorized adjustment of setting knobs	5	3RP1902	1	5 units	41H
Tools for opening spring-type terminals							
 3RA2908-1A	For auxiliary circuit connections	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated	2	Spring-type terminals  3RA2908-1A	1	1 unit	41B

¹⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

For matching sensors, see www.siemens.com/temperature.

Overview



SIRIUS 3RS14, 3RS15 temperature monitoring relay

More information

Homepage, see www.siemens.com/relaysIndustry Mall, see www.siemens.com/product?3RS14

The temperature monitoring relays for IO-Link are used to measure temperatures in solid, liquid and gas media.

The temperatures are acquired by means of sensors in the medium, evaluated by the device and monitored up to two limit values for overshooting or undershooting a working range (window function).

In addition to warnings and disconnection in case of temperature deviations, the devices can also be used as a temperature controller (one-point, two-point or three-point control).

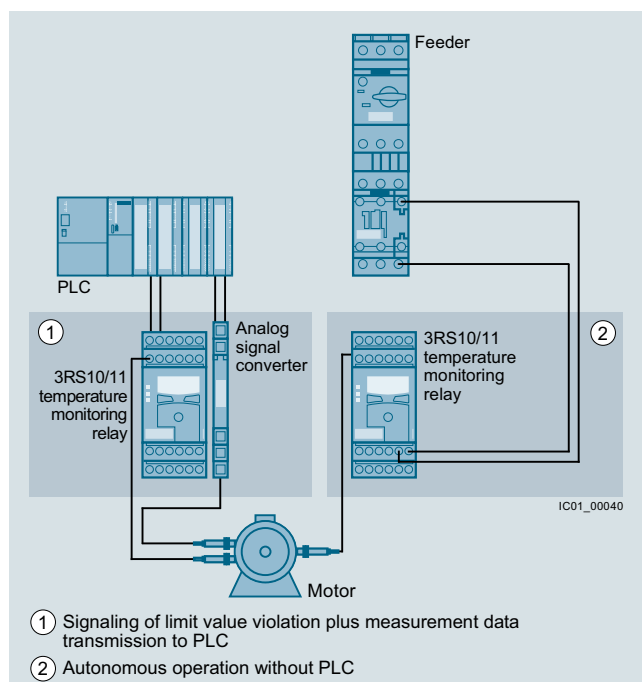
The devices differ from one another in terms of the type and number of connectable temperature sensors.

- 3RS14: Connection for resistance sensor
- 3RS15: Connection for thermocouples

Function	Temperature monitoring relays		
	3RS1440	3RS1441	3RS1540
Connectable sensor type			
Number of sensors monitored	1	3	1
Resistance sensor	✓	✓	--
Thermocouples	--	--	✓
Temperature monitoring			
Temperature monitoring – overshoot	✓	✓	✓
Temperature monitoring – undershoot	✓	✓	✓
Number of adjustable limit values	2	2	2

✓ Function supported

-- Function not supported



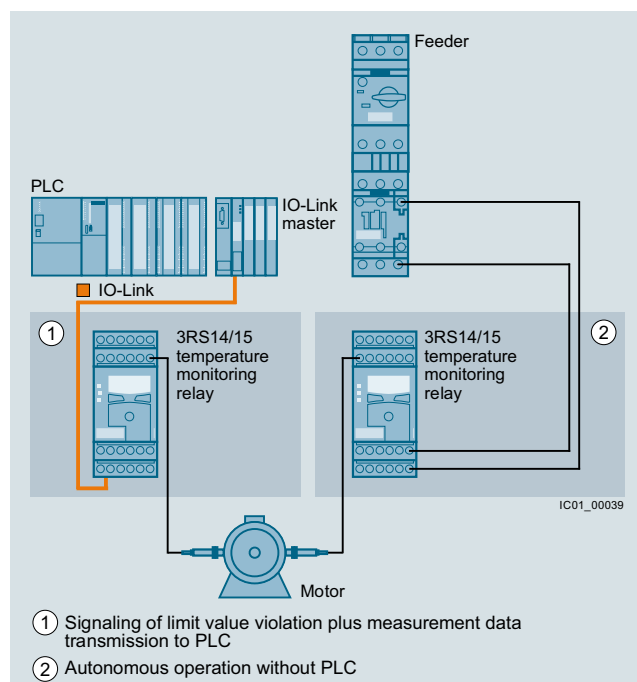
Conventional temperature monitoring relays

Notes:

Devices required for the communication via IO-Link:

- Any controller that supports IO-Link (e.g. ET 200SP with CPU or S7-1200), see [Catalog ST 70](#).
- IO-Link master (e.g. CM 4xIO-Link for SIMATIC ET 200SP, see [page 2/105](#) or SM 1278 for S7-1200, see [page 2/104](#)).

Each monitoring relay requires an IO-Link channel.



Temperature monitoring relays for IO-Link

Notes on security

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens products and solutions represent only one component of such a concept.

For more information on Industrial Security, see www.siemens.com/industrialsecurity.

Relays

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

General data

Article No. scheme

Product versions		Article number									
Temperature monitoring relays		3RS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
Device type	e.g. 14 = digitally adjustable, 1 sensor	<input type="checkbox"/>	<input type="checkbox"/>								
Version and type of sensor	e.g. 40 = one threshold value, Pt100/Pt1000, KTY83/KTY84, NTC		<input type="checkbox"/>	<input type="checkbox"/>							
Connection type	Screw terminals							1			
	Spring-type terminals (push-in)							2			
Number and type of outputs	e.g. H = 1 CO								<input type="checkbox"/>		
Control supply voltage	e.g. B = 24 V DC								<input type="checkbox"/>		
Measuring range	e.g. 5 = -50 ... +750 °C									<input type="checkbox"/>	
Example		3RS	1	4	4	0	-	1	H	B	5 0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Technical specifications

More information

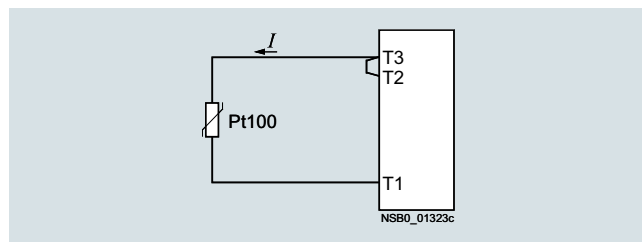
Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/16370/td>
Manual and internal circuit diagrams, see <https://support.industry.siemens.com/cs/ww/en/view/54375463>

FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/16370/faq>

Connection for resistance sensors

Two-wire measurement

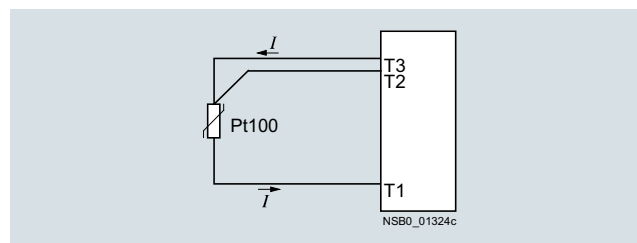
When two-wire temperature sensors are used, the resistances of the sensor and wiring are added. The resulting systematic error must be taken into account when the signal evaluation unit is calibrated. A jumper must be clamped between terminals T2 and T3 for this purpose.



Example: On a Pt100 sensor with a cable length of 10 m and a conductor cross-section of 1 mm² the temperature drift equals 0.9 K.

Three-wire measurement

To minimize the effects of the line resistances, a three-wire circuit is often used. Using the additional cable, two measuring circuits can be formed of which one is used as a reference. The signal evaluation unit can then automatically calculate the line resistance and take it into account.



Wiring errors

The errors that are generated by the wiring comprise approximately 2.5 K/Ω. If the resistance of the cable is not known and cannot be measured, the wiring errors can also be estimated using the following table.

Temperature drift dependent on the length and cross-section of the cable with Pt100 sensors and an ambient temperature of 20 °C, in K:

Cable length in m	Cross-section mm ²			
	0.5	0.75	1	1.5
Temperature drift in K:				
0	0	0	0	0
10	1.8	1.2	0.9	0.6
25	4.5	3.0	2.3	1.5
50	9.0	6.0	4.5	3.0
75	13.6	9.0	6.8	4.5
100	18.1	12.1	9.0	6.0
200	36.3	24.2	18.1	12.1
500	91.6	60.8	45.5	30.2

Connection of thermocouples

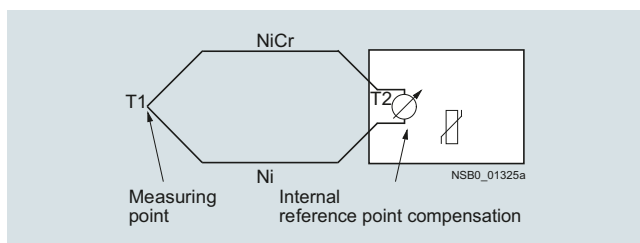
Based on the thermo-electrical effect, a differential temperature measurement will be performed between the measuring point and the signal evaluation unit.

This principle assumes that the signal evaluation unit knows the temperature at the clamping point (T2). For this reason, the 3RS15 temperature monitoring relay has an integral compensator that determines this comparison temperature and builds it into the result of the measurement. The thermal sensors and cables must be insulated therefore.

The absolute temperature is therefore calculated from the ambient temperature of the signal evaluation unit and the temperature difference measured by the thermocouple.

Temperature detection is therefore possible (T1) without needing to know the precise ambient temperature of the clamping point at the signal evaluation unit (T2).

The connecting cable is only permitted to be extended using connecting leads that are made from the same material as the thermocouple. If a different type of conductor is used, an error will result in the measurement.



For more information, see

- www.ephy-mess.com
- Page 16/16

Principle of operation

When the temperature has reached the set upper limit value ϑ_1 , the K1 output relay changes its switching state after the configured time t has expired. The delay time can be adjusted. The K2 output relay responds in the same manner to the lower limit value of ϑ_2 .

The output relays return immediately to their original state (the RESET response is configured at Auto RESET) once the temperature reaches the respective hysteresis value.

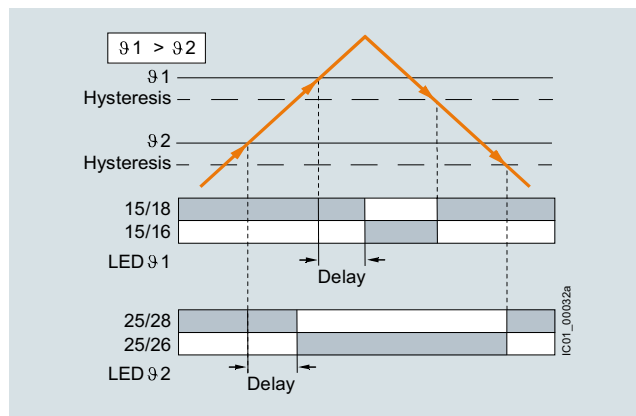
Both thresholds ϑ_1 and ϑ_2 can be parameterized for overshooting or undershooting. This makes it possible to use a limit value for issuing an alarm signal to announce that a limit value is about to be overshoot or undershot. The other limit value can be used for disconnection or to implement two-point or three-point control.

Note:

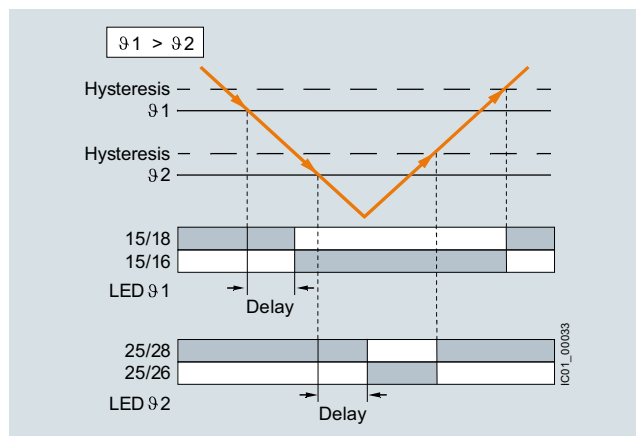
The "Temperature monitoring mode" parameter can be used to set the desired type of monitoring (monitoring for overshooting or undershooting or range monitoring).

With the closed-circuit principle selected

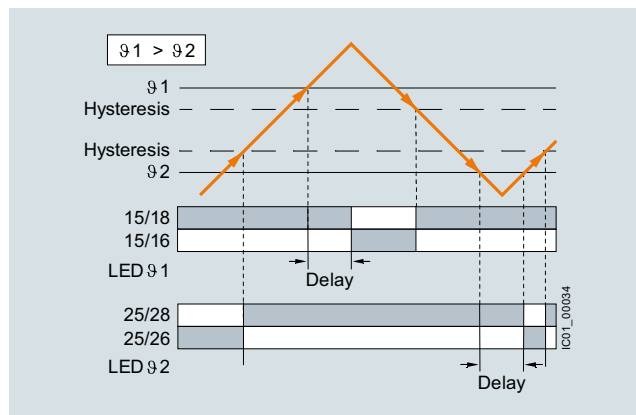
Temperature overshoot



Temperature undershoot



Range monitoring



Relays

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

General data

Memory function

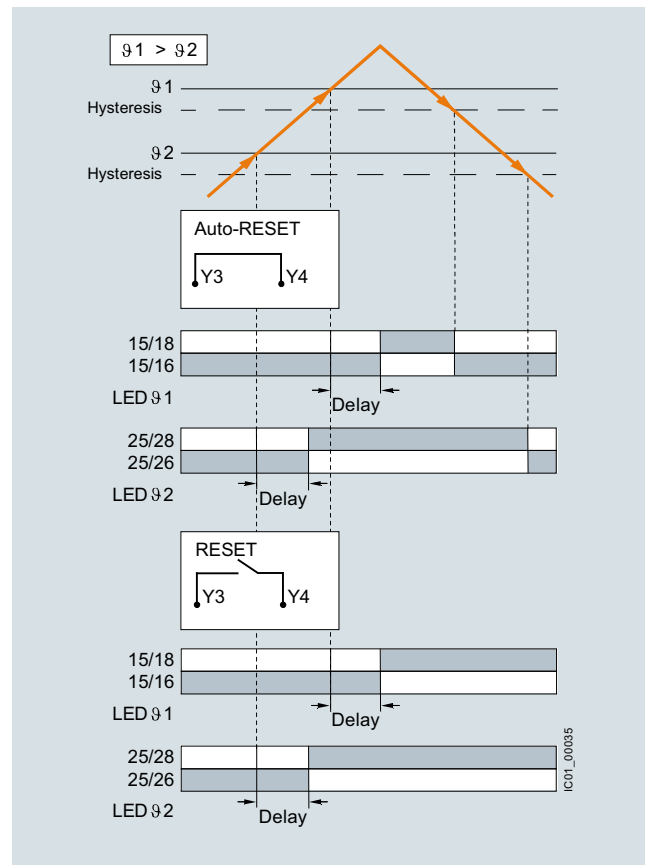
The digitally adjustable temperature monitoring relays for IO-Link have a memory function. The memory function is illustrated below by the example of a temperature overshoot.

When the temperature has reached the set limit value ϑ_1 , the output relay K1 changes its switching state after the configured time t has expired (output relay K2 responds to ϑ_2 in the same way).

The temperature monitoring relays for IO-Link respond as described below:

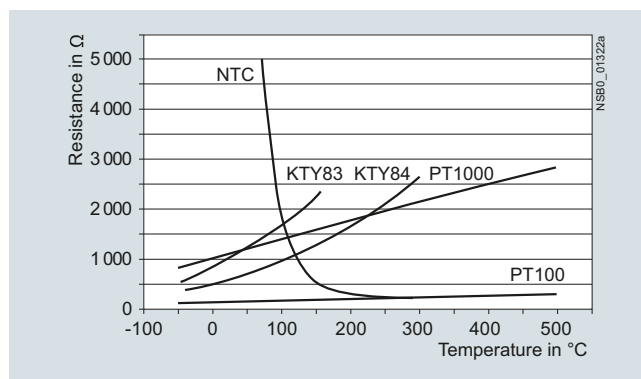
- With temperature monitoring relays for IO-Link the memory function is activated as standard (RESET). The output relays only return to the original state when the temperature falls below the set hysteresis value and when one of the following steps is performed:
 - Brief jumpering of the Y3/Y4 terminals
 - Set the rotary knob to "RUN" position and press the right-hand arrow key
 - Perform a RESET via IO-Link
- If the Y3/Y4 terminals are permanently jumpered, the memory function is deactivated (Auto RESET). The output relays return immediately to their original state once a previously occurred fault has been rectified and the temperature falls below the respective hysteresis value.

With the closed-circuit principle selected



Characteristic curves

For resistance sensors



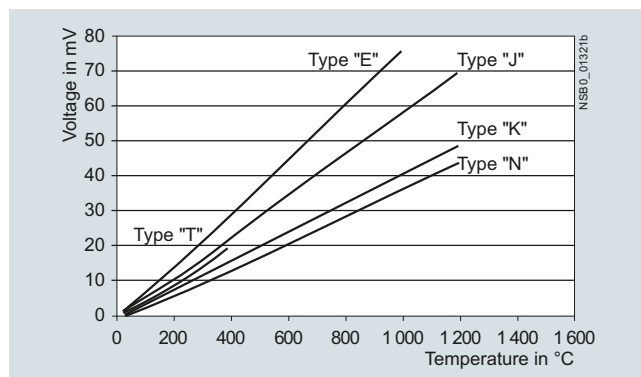
The short-circuit and open-circuit detection as well as the measuring range is limited, depending on the sensor type. Measuring ranges for resistance sensors

Sensor type	Short circuit	Open circuit	3RS1440, 3RS1441 Measuring range in °C	Measuring range in °F
Pt100	✓	✓	-50 ... +750	-58 ... +1 382
Pt1000	✓	✓	-50 ... +500	-58 ... +932
KTY83-110	✓	✓	-50 ... +175	-58 ... +347
KTY84	✓	✓	-40 ... +300	-40 ... +572
NTC ¹⁾	✓	--	+80 ... +160	+176 ... +320

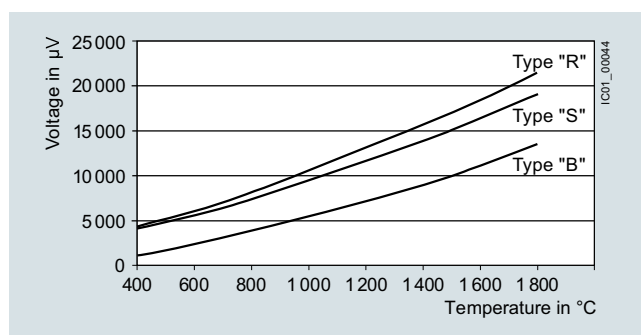
- ✓ Detection possible
- Detection not possible

¹⁾ NTC type: B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

For thermocouples



Characteristic curves for sensor types K, N, J, E and T



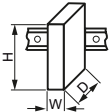


Characteristic curves for sensor types S, R and B

Measuring ranges for thermocouples

Sensor type	Short circuit	Open circuit	3RS1540 Measuring range in °C	Measuring range in °F
K	--	✓	-99 ... +1 350	-146.2 ... +2 462
N	--	✓	-99 ... +1 300	-146.2 ... +2 372
J	--	✓	-99 ... +1 200	-146.2 ... +2 192
E	--	✓	-99 ... +999	-146.2 ... +1 830.2
T	--	✓	-99 ... +400	-146.2 ... +752
S	--	✓	0 ... 1 750	32 ... 3 182
R	--	✓	0 ... 1 750	32 ... 3 182
B	--	✓	400 ... 1 800	752 ... 3 272

✓ Detection possible

-- Detection not possible

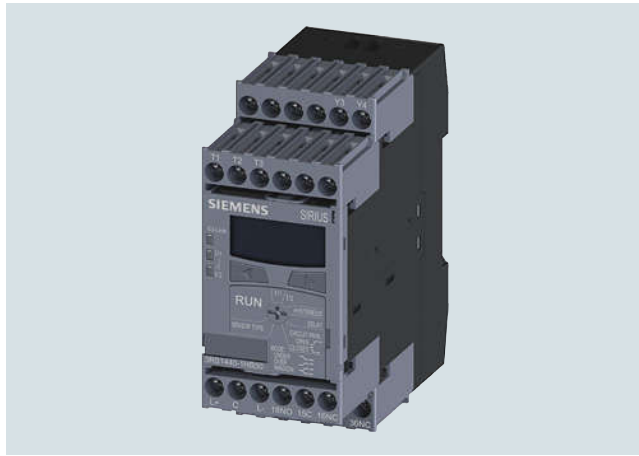
Type		3RS14, 3RS15	
General technical specifications			
Dimensions (W x H x D)			
• Screw terminals	mm	45 x 106 x 91	
• Spring-type terminals	mm	45 x 108 x 91	
			
Permissible ambient temperature		°C	-25 ... +60
• During operation			
Connection type		 Screw terminals	
• Terminal screw		M3 (for standard screwdriver, size 2 and Pozidriv 2)	
• Solid	mm ²	1 x (0.5 ... 4), 2 x (0.5 ... 2.5)	
• Finely stranded with end sleeve	mm ²	1 x (0.5 ... 2.5), 2 x (0.5 ... 1.5)	
• AWG cables, solid or stranded	AWG	2 x (20 ... 14)	
• Tightening torque	Nm	0.8 ... 1.2	
Connection type		 Spring-type terminals	
• Solid	mm ²	2 x (0.25 ... 1.5)	
• Finely stranded, with end sleeve acc. to DIN 46228	mm ²	2 x (0.25 ... 1.5)	
• Finely stranded	mm ²	2 x (0.25 ... 1.5)	
• AWG cables, solid or stranded	AWG	2 x (24 ... 16)	

Relays

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

Relays, digitally adjustable for 1 sensor

Overview



SIRIUS 3RS1440 digital monitoring relay for 1 sensor

The 3RS14 and 3RS15 temperature monitoring relays for IO-Link are used to measure temperatures in solid, liquid and gas media. The temperatures are acquired by means of sensors in the medium, evaluated by the device and monitored for overshooting or undershooting a working range (window function). The digital temperature monitoring relays have two separately adjustable limit values, are non-volatile and can be operated as desired using the open- or closed-circuit principle.

The devices differ in terms of the number of temperature sensors which can be evaluated. The 3RS1440 and 3RS1540 for IO-Link temperature monitoring relays can be digitally adjusted for one sensor and represent an alternative to temperature controllers in the low-end range (two-point or three-point control).

The devices with two-point control can, for example, be used as a thermostat. The devices with three-point control can, for example, independently switch between heating and cooling.

The 3RS1441 temperature monitoring relays for IO-Link can be digitally adjusted to evaluate up to three resistance sensors at one time. The devices were designed specifically for monitoring motor windings and positions.

The temperature monitoring relays are powered through the control supply voltages IO-Link (L+) and ground (L-) or via an external 24 V DC power supply.

Monitoring

When the temperature has reached the set limit value ϑ_1 , the output relay K1 changes its switching state after the configured time t has expired (output relay K2 responds to ϑ_2 in the same way). The delay time can be adjusted.

The output relays return immediately to their original state once the temperature reaches the respective hysteresis value.

When the temperature has reached the upper limit value ϑ_1 , the output relay K1 changes its switching state after the configured time t has expired. The output relay returns immediately to its original state once the temperature reaches the respective hysteresis value.

The K2 output relay responds in the same manner to the lower limit value of ϑ_2 . Both thresholds ϑ_1 and ϑ_2 can be parameterized for overshooting or undershooting. This makes it possible to use a limit value for issuing an alarm signal to announce that a limit value is about to be overshoot or undershot.

Note:

The "Temperature monitoring mode" parameter can be used to set the desired type of monitoring (monitoring for overshooting or undershooting or range monitoring).

Benefits

- Very simple operation without complicated menu selections
- Two- or three-point control can be parameterized quickly
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

The temperature monitoring relays can be used in almost any application in which temperature overshoot or undershoot is not permitted, e.g. in the monitoring of set temperature limits and the output of alarm messages for:

- Plant and environment protection
- Temperature limits for process variables e.g. in the packaging industry or electroplating
- Temperature limits for district heating plants
- Exhaust temperature monitoring
- Controlling equipment and machines such as heating, climate and ventilation systems, solar collectors, heat pumps or warm water supplies
- Motor, bearing and gear oil monitoring
- Monitoring of coolants

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

Relays, digitally adjustable for 1 sensor

Technical specifications

Type		3RS1440	3RS1540
Auxiliary circuit			
Rated operational currents I_e			
• AC-15/24 ... 250 V	A	3	
• DC-13 at			
- 24 V	A	1	
- 125 V	A	0.2	
- 250 V	A	0.1	
Evaluation unit			
Measuring accuracy at 20 °C ambient temperature (T20)		< ± 2 K, ± 1 digit	< ± 5 K, ± 1 digit
Reference point accuracy		--	< ± 5 K
Deviations due to ambient temperature In % of measuring range		%	0.05 °C per K deviation from T20
Measuring cycle		ms	500
Hysteresis settings for temperature		K	1 ... 99, for both values
Adjustable delay time		s	0 ... 999.9
Sensor circuit			
Typical sensor current			
• Pt100	mA	1	--
• Pt1000/KTY83/KTY84/NTC	mA	0.2	--
Open-circuit detection		✓ ¹⁾	✓
Short-circuit detection		✓	--
Three-wire conductor connection		✓ ²⁾	--
Enclosure			
Rated insulation voltage U_i Pollution degree 2		V AC	300

✓ Available

-- Not available

¹⁾ Not for NTC type B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).²⁾ Two-wire connection of resistance sensors with wire jumper between T2 and T3.

Relays

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

Relays, digitally adjustable for 1 sensor

Selection and ordering data

- To monitor temperatures with a resistance sensor or thermocouple
- Temperature range dependent on sensor type
- 99 to + 1 800 °C or - 146.2 to + 3 272 °F
- Short-circuit and open-circuit detection in sensor circuit
- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Overshoot, undershoot or range monitoring adjustable
- Exact sensor type can be set
- 2 limit values, can be adjusted separately
- Adjustable open-/closed-circuit principle
- Can be adjusted by Manual or remote RESET (via an external contact)
- Actual value, tripping state for control displayed and conveyed, adjustable in °C or °F
- 1 CO contact per limit value
- 1 CO contact for monitoring sensors and devices

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



3RS1440-1HB50



3RS1540-1HB80



3RS1440-2HB50



3RS1540-2HB80

Sensors	Measuring range (limit of measuring range dependent on sensor)	Adjustable hysteresis for $\varnothing 1$ and $\varnothing 2$	Tripping delay time adjustable for $\varnothing 1$ and $\varnothing 2$ DELAY	Supply voltage U_s	SD	Screw terminals	SD	Spring-type terminals
		K	s	V DC	d	Article No.	Price per PU	Article No.
Temperature monitoring relay, digitally adjustable for a sensor, non-volatile fault storage can be selected								
Pt100/Pt1000, KTY83/KTY84, NTC (resistance sensor) ¹⁾	- 50 ... + 750 °C or - 58 ... + 1 382 °F	0 ... 99	0 ... + 999.9	24	2	3RS1440-1HB50	2	3RS1440-2HB50
Type B, E, J, K, N, R, S, T (thermocouples)	- 99 ... + 1 800 °C or - 146.2 ... + 3 272 °F	0 ... 99	0 ... + 999.9	24	2	3RS1540-1HB80	2	3RS1540-2HB80

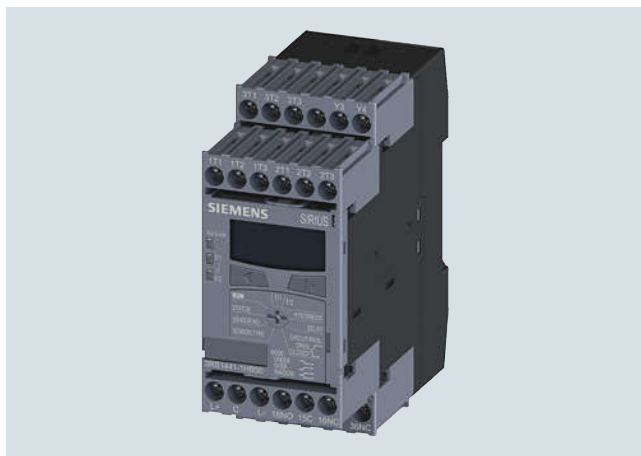
¹⁾ NTC type B57227-K333-A1 (100 °C: 1.8 k Ω ; 25 °C: 32.762 k Ω).

For accessories, see page 10/153.

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

Relays, digitally adjustable for up to 3 sensors

Overview



SIRIUS 3RS1441 digital temperature monitoring relay for up to 3 sensors

The 3RS14 temperature monitoring relays can be used to measure temperatures in solid, liquid and gas media. The temperatures are acquired by means of sensors in the medium, evaluated by the device and monitored for overshooting or undershooting a working range (window function).

The devices can be parameterized to indicate the measured temperature in °C or °F. The 3RS1441 evaluation unit can evaluate up to 3 resistance sensors at the same time.

Benefits

- Very simple operation without complicated menu selections
- Space-saving with 45 mm width
- Two- or three-point control can be parameterized quickly
- All versions with removable terminals
- All versions with screw or spring-type terminals

Application

The 3RS1441 temperature monitoring relays can be used almost anywhere where several temperatures must be monitored at one time for overshooting, undershooting or staying within a certain range.

Monitoring of set temperature limits and output of alarm messages for:

- Plant and environment protection
- Temperature limits for process variables e.g. in the packaging industry or electroplating
- Controlling equipment and machines such as heating, climate and ventilation systems, solar collectors, heat pumps or warm water supplies
- Motor, bearing and gear oil monitoring
- Monitoring of coolants

Technical specifications

Type	3RS1441	
Auxiliary circuit		
Rated operational currents I_e		
• AC-15/24 ... 250 V	A	3
• DC-13 at		
- 24 V	A	1
- 125 V	A	0.2
- 250 V	A	0.1
DIAZED fuse protection		
• Operational class gG	A	4
Evaluation unit		
Measuring accuracy at 20 °C ambient temperature (T20)		< ±2 K, ±1 digit
Deviations due to ambient temperature	%	0.05 per K deviation from T20
In % of measuring range		
Measuring cycle	ms	500
Hysteresis settings for temperature 1	K	1 ... 99, for both values
Adjustable delay time	s	0 ... 999.9
Sensor circuit		
Typical sensor current		
• Pt100	mA	1
• Pt1000/KTY83/KTY84/NTC	mA	0.2
Open-circuit detection		✓ ¹⁾
Short-circuit detection		✓
Three-wire conductor connection		✓ ²⁾
Enclosure		
Rated insulation voltage U_i	V AC	300
Pollution degree 2		

✓ Available

¹⁾ Not for NTC type B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

²⁾ Two-wire connection of resistance sensors with wire jumper between T2 and T3.

Relays

SIRIUS 3RS14, 3RS15 Temperature Monitoring Relays for IO-Link

Relays, digitally adjustable for up to 3 sensors

Selection and ordering data

- For temperature monitoring with up to 3 resistance sensors
- Temperature range dependent on sensor type
- 50 to + 750 °C or - 58 to + 1 382 °F
- Short-circuit and open-circuit detection in sensor circuit
- Adjustable via IO-Link and locally, with illuminated LCD
- Power supply with 24 V DC via IO-Link or external auxiliary voltage
- Overshoot, undershoot or range monitoring adjustable
- Exact sensor type and number of sensors can be set
- 2 limit values, can be adjusted separately
- Adjustable open-/closed-circuit principle
- Can be adjusted by manual or remote RESET (via an external contact)
- Actual value, tripping state for control displayed and conveyed, adjustable in °C or °F
- 1 CO contact per limit value
- 1 CO contact for monitoring sensors and devices



PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 41H



3RS1441-1HB50



3RS1441-2HB50

Sensors	Number of sensors that can be set	Measuring range (limit of measuring range dependent on sensor)	Adjustable hysteresis for ø1 and ø2	Tripping delay time adjustable for ø1 and ø2 DELAY	Supply voltage U_s	SD	Screw terminals 	SD	Spring-type terminals 
					K s V DC d		Article No. Price per PU d		Article No. Price per PU

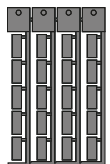



Temperature monitoring relay, digitally adjustable for up to 3 sensors, non-volatile fault storage can be selected

Pt100/Pt1000, KTY83/KTY84, NTC (resistance sensor) ¹⁾	1 ... 3 sensors	-50 ... +750 °C or -58 ... +1 382 °F	0 ... 99	0 ... 999.9	24	2	3RS1441-1HB50	2	3RS1441-2HB50
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¹⁾ NTC type: B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

For accessories, see page 10/153.

Selection and ordering data

Use	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Blank labels							
 3RT2900-1SB20	For 3RS14 and 3RS15	Unit labeling plates For SIRIUS devices 20 mm x 7 mm, titanium gray ¹⁾	20	3RT2900-1SB20	100	340 units	41B
	For 3RS14 and 3RS15	Adhesive labels for SIRIUS devices					
		• 19 mm x 6 mm, pastel turquoise	15	3RT1900-1SB60	100	3 060 units	41B
		• 19 mm x 6 mm, zinc yellow	15	3RT1900-1SD60	100	3 060 units	41B
Push-in lugs and covers							
 3RP1903	For 3RS14 and 3RS15	Push-in lugs For screw fixing, 2 units are required for each device	5	3RP1903	1	10 units	41H
Tools for opening spring-type terminals							
 3RA2908-1A	For auxiliary circuit connections	Screwdrivers For all SIRIUS devices with spring-type terminals 3.0 mm x 0.5 mm, length approx. 200 mm, titanium gray/black, partially insulated	2	Spring-type terminals 			
				3RA2908-1A	1	1 unit	41B

¹⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

For matching sensors, see www.siemens.com/temperature.

Relays

SIRIUS 3RN2 thermistor motor protection

Overview



SIRIUS 3RN2 thermistor motor protection

More information

Homepage, see www.siemens.com/relays

Industry Mall, see www.siemens.com/product?3RN2

For the conversion tool, e.g. from 3RN1 to 3RN2, see www.siemens.com/sirius/conversion-tool

Thermistor motor protection devices are used for direct monitoring of the motor winding temperature. For this purpose, the motors are equipped with temperature-dependent resistors (PTC) that are directly installed in the motor winding and abruptly change their resistance at their temperature limit.

Versions

SIRIUS 3RN2 thermistor motor protection relays are available in the following versions:

- 3RN2000 compact evaluation unit
- 3RN2010 compact/standard evaluation unit
- 3RN2012-BW31 bistable evaluation unit
- 3RN2011, 3RN2012-...30, 3RN2013 standard evaluation unit with ATEX approval
- 3RN2023 evaluation unit with ATEX approval and 2 sensor circuits for warning and disconnection

They comply with

- IEC 60947-8. Low-voltage switchgear and controlgear – Part 8: "Control units for built-in thermal protection (PTC) for rotating electrical machines"
- IEC 61000-6-2, IEC 61000-6-4. "Electromagnetic compatibility for industrial-process measurement and control equipment"

The 3RN2 thermistor motor protection relays with ATEX approval fulfill SIL1 in compliance with EN 50495.

The terminals of the auxiliary contacts are designated in accordance with EN 60947-1.

3RN2 evaluation units are suitable for snap-on mounting onto TH 35 standard mounting rails according to IEC 60715 or for screw fixing using an adapter (accessory).

Article No. scheme

Product versions		Article number					
Thermistor motor protection relay with PTC sensor, type A		3RN20					
Number and version of the sensor circuits	1 sensor circuit, supply voltage = root voltage	0					
	1 sensor circuit	1					
	2 sensor circuits for warning and disconnection	2					
RESET	Auto RESET	0					
	Manual RESET, with open-circuit and short-circuit detection	1					
	Manual/Auto/remote RESET, non-volatile, with open-circuit and short-circuit detection	2					
	Manual/Auto/remote RESET, non-volatile, with open-circuit and short-circuit detection, with protective separation	3					
Connection method	Screw terminals	1					
	Spring-type terminals (push-in)	2					
Auxiliary switches	1 CO	A					
	2 CO	B					
	1 NO + 1 NC	C					
	1 NO + 1 CO	D					
	2 CO, hard gold-plated	G					
Rated control supply voltage	24 V AC/DC	A 3					
	24 ... 240 V AC/DC	W 3					
Response to failure	Monostable	0					
	Bistable	1					
Example		3RN20	0	0	-	1	A A 3 0

Note:

The Article No. scheme is presented here merely for information purposes and for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

SIRIUS 3RN2 thermistor motor protection

Benefits

- Thanks to direct motor protection, overdimensioning of the motors is not necessary
- No settings on the device are necessary
- Semiconductor compatible output thanks to versions with hard gold-plated contacts
- Rapid error diagnosis thanks to versions that indicate open and short circuits in the sensor circuit
- All versions with removable terminals
- All versions with screw or spring-type terminals with push-in functionality

Application

Direct motor protection through temperature monitoring of the motor winding offers 100% motor protection even under the most difficult ambient conditions, without the need to make adjustments on the device. Versions with hard gold-plated contacts ensure, in addition, a high switching reliability that is even higher than an electronic control.

Direct motor protection

- At increased ambient temperatures
- When switching frequency is too high
- When start up and braking procedures are too long

ATEX approval for operation in hazardous areas

The SIRIUS 3RN2011, 3RN2012-...30, 3RN2013 and 3RN2023 thermistor motor protection relays for PTC sensors are certified according to ATEX Ex II (2) G and D for environments with explosive gas or dust loads.

Motor protection using current- and temperature-dependent protective devices

IEC 60204 stipulates that motors must be protected from overheating at a rating of 0.5 kW and higher. The protection can take the form of overload protection, overtemperature protection or current limiting.

For motors with frequent starting and braking and in environments where cooling may be impaired (e.g. by dust), it is recommended to use the overtemperature protection option in the form of a protective device coordinated with this mode of operation. A good choice in this case is the use of 3RN2 thermistor motor protection devices.

On rotor-critical motors, overtemperature detection in the stator windings can lead to delayed and hence inadequate protection. In this case the standards stipulate additional protection, e.g. by means of an overload relay.

This combination of thermistor motor protection and an overload relay is recommended for full motor protection in case of frequent starting and braking of motors, irregular intermittent duty or excessive switching frequency. To prevent premature tripping of the overload relay in such operating conditions, a higher setting than that normally required for the operational current is chosen. The overload relay then performs stall protection, and the 3RN2 thermistor motor protection relay monitors the temperature of the motor windings.

Application	Motor protection		
	Only current dependent, e.g. with overload relay	Temperature dependent only, e.g. with thermistor motor protection relay	Current and temperature dependent
Motor protection in case of			
Overloading in uninterrupted duty	✓	✓	✓
Long start up and braking operations	○	✓	✓
Irregular intermittent duty	○	✓	✓
Excessively high switching frequency	○	✓	✓
Single-phase operation and current unbalance	✓	✓	✓
Voltage and frequency fluctuations	✓	✓	✓
Stalling of the rotor	✓	✓	✓
Switching on a stalled rotor of a stator-critical motor	✓	✓	✓
Switching on a stalled rotor of a rotor-critical motor	✓	○	✓
Elevated ambient temperature	--	✓	✓
Impeded cooling	--	✓	✓

- ✓ Full protection
- Conditional protection
- No protection

Relays

SIRIUS 3RN2 thermistor motor protection

Technical specifications

More information

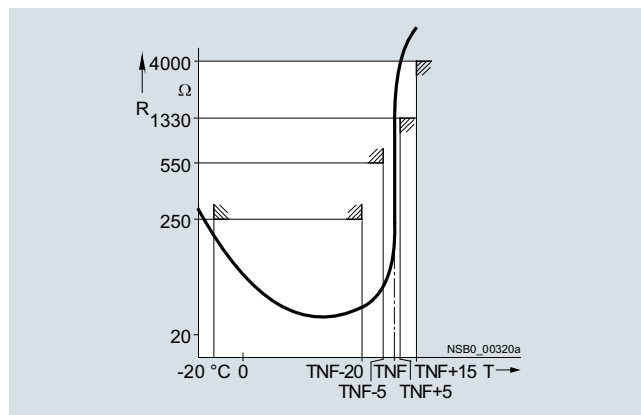
Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/24302/td>
Operating instructions and internal circuit diagrams, see <https://support.industry.siemens.com/cs/ww/en/ps/24302/man>

FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/24302/faq>
For more information on explosion protection (ATEX), see www.siemens.com/sirius/atex

Type A PTC temperature sensor

If a Type A temperature sensor is connected to a Type A evaluation unit, compliance with the operating temperatures is assured (on pick-up and reset) according to IEC 60947-8.

The characteristic curves of the Type A temperature sensors are described in IEC 60947-8, EN 44081 and EN 44082 standards.



Characteristic curve of the 3RN2 evaluation unit

Bimetallic switch

In some applications, bimetallic switches (e.g. Klixon, Thermo-click) are used as sensors instead of PTC temperature sensors. Bimetallic switches are temperature- and current-dependent NC contacts and are available for different temperature ranges. Because bimetallic switches have practically no resistance below their opening temperature, short-circuit detection is not possible when using bimetallic switches. A bimetallic switch can be used for versions 3RN2000 and 3RN2010 on the SIRIUS thermistor motor protection relay.

Note:

Never use bimetallic switches in applications subject to an explosion hazard! Because of their non-standardized tripping characteristic, bimetallic switches must not be used in applications where there is an explosion hazard. Use Type A PTC sensors instead!

Use in hazardous areas

Increased danger in hazardous areas means it is necessary to observe the following notes and standards carefully:

- EN 60079-14/VDE 0165-1 for electrical apparatus for explosive gas atmospheres
- EN 60079-17 Explosive atmospheres – Electrical installations inspection and maintenance
- EN 50495 Safety devices required for the safe functioning of equipment with respect to explosion risks

The following SIRIUS 3RN2 thermistor motor protection relays with short-circuit detection are approved for Equipment Group II, Category (2) in Area "G" (areas in which potentially explosive gas, vapor, mist, or air mixtures are present) and are additionally approved for Area "D" (areas containing combustible dust):

- 3RN2011
- 3RN2012-...30
- 3RN2013
- 3RN2023

PTB 15 ATEX 3011 ex II (2) G (Ex E) (EX d) (Ex px)

PTB 15 ATEX 3011 ex II (2) D (Ex T) (Ex p)

For 3RN2 thermistor motor protection relays, the EC type examination certificate is available for Group II, Category (2) G [Ex e] [Ex d] [Ex px] and D [Ex t] [Ex p]. The number is PTB 15 ATEX 3011.

SIRIUS 3RN2 thermistor motor protection relays are not intended for installation in hazardous areas. If they are installed in a potentially explosive atmosphere, the SIRIUS 3RN2 thermistor motor protection relays must be adapted to the applicable type of protection.

The machine or plant must shut down immediately if the SIRIUS 3RN2 thermistor motor protection relay is tripped, even if connected through a frequency converter. This must be implemented with circuitry.

SIRIUS 3RN2 thermistor motor protection relays with functional safety in accordance with EN 50495 are suitable for protecting explosion-proof motors/machines.

On evaluation units with a supply voltage of 24 V AC/DC, you must ensure electrical separation with a battery network or a power supply unit with electrical separation (e.g. isolating transformer) (does not apply to 3RN2013-BA30).

A SIRIUS 3RN2 thermistor motor protection relay set to "automatic RESET" mode will be reset automatically after the recovery time has elapsed, without the RESET button being pressed. An additional ON button has to be used to ensure that the motor does not start up automatically following tripping. "Automatic RESET" mode must not be used in applications where there is a risk of personal injury or damage to property if the motor restarts unexpectedly.

SIRIUS 3RN2 thermistor motor protection

⚠ NOTICE!

When used in a hazardous area, the thermistor motor protection relay must not be operated with automatic RESET (terminal Y1 and Y2 permanently jumpered).

A risk analysis must be performed for the complete plant or machine. If this analysis yields a lower hazard potential (Category 1), all SIRIUS 3RN2 thermistor motor protection relays can be used, provided the safety regulations are observed.

⚠ WARNING!

All work involved in connecting, commissioning and maintenance must be carried out by qualified, responsible personnel. Improper handling may result in serious personal injury and considerable damage to property.

Cable routing

The measuring circuit leads must be routed as separate control cables. It is not permitted to use cores from the supply line of the motor or any other main supply cables. If extreme inductive or capacitive interference is expected as a result of power lines routed in parallel, shielded control cables must be used.

Maximum length of sensor circuit cables for evaluation units without short-circuit detection in the sensor circuit:

Cable cross-section	3RN2000, 3RN2010
2.5 mm ²	2 x 2 800 m
1.5 mm ²	2 x 1 500 m
0.5 mm ²	2 x 500 m

Maximum length of sensor circuit cables for evaluation units with short-circuit detection ¹⁾

Cable cross-section	3RN2011, 3RN2012, 3RN2013, 3RN2023
2.5 mm ²	2 x 250 m
1.5 mm ²	2 x 150 m
0.5 mm ²	2 x 50 m

¹⁾ A short circuit in the sensor circuit will be detected up to this maximum cable length.

Principle of operation

SIRIUS 3RN2 thermistor motor protection relays are thermal protection devices that are suitable, in combination with Type A PTC thermistors, for monitoring temperatures of electrical drives, transformer windings, oils, bearings, air, etc.

The most frequent application is monitoring of three-phase motors in which the motor manufacturer has fitted a PTC sensor into every winding overhang and in which these PTC sensors are connected in series.

The SIRIUS 3RN2 thermistor motor protection relays operate in accordance with the closed-circuit principle and therefore monitor themselves for loss of supply voltage. The exceptions are the warning output on 3RN2023, which always works on the open-circuit principle and the bistable relays of the 3RN2012-BW31, which always retain the last switching state.

A micro-interruption in the power supply of less than 30 ms does not change the status of the output relays.

For devices with the "Manual RESET" function, the test function can be activated and a trip simulated by pressing the blue Test/RESET button for > 2 seconds.

The 3RN2011, 3RN2012, 3RN2013 and 3RN2023 devices are additionally equipped with open-circuit and short-circuit detection in the sensor circuit. The unit will trip in the event of a short circuit (resistance in sensor circuit < 10 Ω) or open circuit in the sensor circuit (dynamic open-circuit detection). Tripping as the result of a short circuit in the sensor circuit is indicated by a flickering red LED (TRIPPED). In the event of a short circuit in the sensor circuit for warning on the 3RN2023, the yellow warning LED (WARNING) flickers. The devices with dynamic open-circuit detection evaluate the rise time of the sensor circuit resistance. If the sensor circuit resistance rises from 3 300 Ω to 12 kΩ within 200 ms, the unit will not only trip, but also indicate the open circuit via a flashing red LED (TRIPPED). In the event of an open circuit in a sensor circuit, the yellow warning LED (WARNING) flashes for the 3RN2023.

All evaluation units (except for the 3RN2000 compact evaluation unit) feature electrical separation between the control circuit and the sensor circuit. The relay outputs are also electrically separated from all other circuits. The 3RN2013 and 3RN2023 evaluation units incorporate protective electrical separation between all circuits up to $U_i = 300$ V.

3RN2000 compact evaluation unit

The compact unit, which is only 17.5 mm wide, is equipped with a red LED (TRIPPED) for the tripped indicator and a changeover contact. After the unit has tripped, it is automatically reset once the thermistors have cooled down. The root of the changeover contact is connected to the control voltage (terminal 11 is connected to terminal A1). This unit is particularly suitable in circuits in which the control circuit and signaling circuit have the same potential, e.g. in local control boxes.

3RN2010, 3RN2011, 3RN2012 and 3RN2013 compact/standard evaluation units

The units are equipped with two LEDs (READY and TRIPPED) for an operating and tripped display and are available with either 1 NO + 1 NC contacts (3RN2010, overall width 17.5 mm) or with 2 CO contacts. Depending on the version, they are available with Auto RESET (3RN2010), Manual/remote RESET (3RN2011) or Manual/Auto and remote RESET (3RN2012 and 3RN2013). Remote RESET can be achieved by connecting an external pushbutton with a normally-open function to terminals Y1 and Y2. If terminals Y1 and Y2 are jumpered, the unit is automatically reset once the thermistors have cooled down (Auto RESET). 3RN2012 and 3RN2013 are non-volatile. This means a previous trip remains stored in the event of a control supply voltage failure – the thermistor motor protection relay remains in the safe state with an opened output relay until it is intentionally reset by pressing the TEST/RESET button of the unit or an external pushbutton.

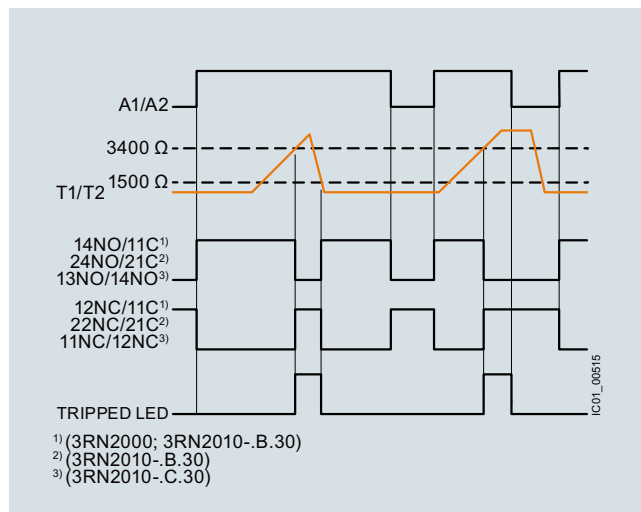
3RN2023 "warning and disconnection" evaluation units

Two sensor circuits can be connected to one 3RN2023 evaluation unit that act on two separate output relays with 1 NO contact for warning and 1 CO contact for disconnection. Thermistors with different rated response temperatures TNF are used to implement the "Warning" and "Disconnection" functions. When sensor circuit 2 for "Warning" responds, a yellow LED is lit and when the "Disconnection" circuit responds, a red LED is lit. The sensor circuits have a different reset response and operating behavior: The "Warning" thermistor sensor circuit 2 (terminals 2T1, T2) works only with Auto RESET and according to the open-circuit principle (output relay K2, NO contact). The "Disconnection" thermistor sensor circuit 1 (terminals 1T1, T2) can be changed from Manual RESET to Auto RESET by jumpering terminals Y1 and Y2. Remote RESET is implemented by connecting an external pushbutton with a normally-open function to these terminals.

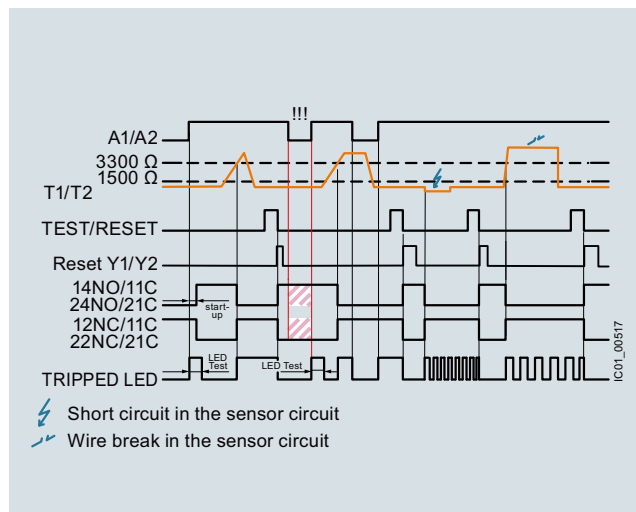
Relays

SIRIUS 3RN2 thermistor motor protection

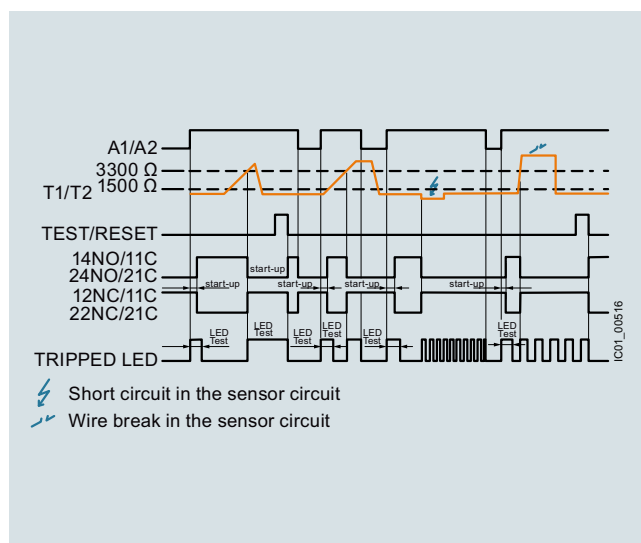
Function diagrams



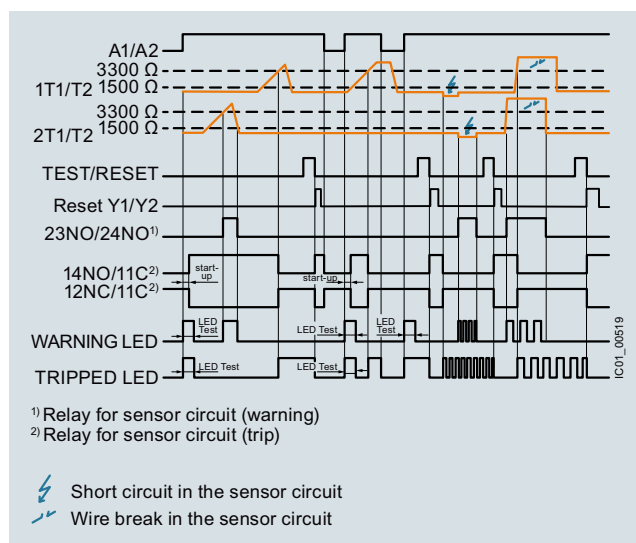
3RN2000, 3RN2010



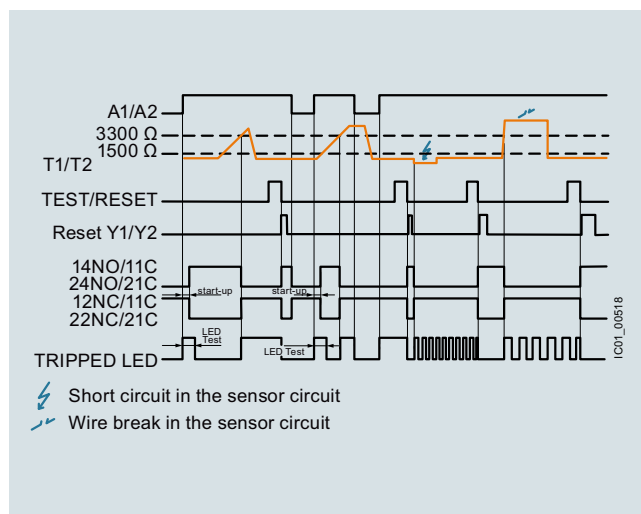
3RN2012-BW31: resetting via the TEST/RESET button or external pushbutton



3RN2011: resetting via external pushbutton or interruption of the supply voltage



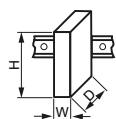
3RN2023: resetting via the TEST/RESET button or external pushbutton



3RN2012-.B.30, 3RN2013: resetting via the TEST/RESET button or external pushbutton

SIRIUS 3RN2 thermistor motor protection

Article number	3RN2000-A, 3RN2010-C	3RN201-B, 3RN2013-G, 3RN2023-D
Width x height x depth	17.5 x 100 x 90	22.5 x 100 x 90





Article number	3RN2000- .AA30	3RN2000- .AW30, 3RN2010- .BW30, 3RN2010- .CW30	3RN2010- .BA30, 3RN2010- .CA30	3RN2011- .BA30, 3RN2012- .BA30	3RN2011- .BW30, 3RN2012- .BW30	3RN2012- .BW31	3RN2013- .BA30	3RN2013- .BW30, 3RN2013- .GW30	3RN2023- .DW30
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General technical specifications:		
Type of electrical isolation	None	Isolated
Electrical endurance (operating cycles) for AC-15 at 230 V	100 000	
Mechanical endurance (operating cycles)	10 000 000	
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3 rated value	V	300
Impulse withstand voltage, rated value	kV	4
Minimum mains failure buffering time	ms	40
Pollution degree	3	
Degree of protection	IP20	
Shock resistance acc. to IEC 60068-2-27	11g/15 ms	
Vibration resistance acc. to IEC 60068-2-6	10 ... 55 Hz: 0.35 mm	
Type of mounting	For screw-fixing and snap-on mounting to 35 mm standard mounting rail	
• Mounting position	Any	
• Installation altitude at height above sea level, maximum	m	2 000
Ambient temperature during operation	°C	-25 ... +60
Relative humidity during operation, maximum	%	70
ATEX		
Ex device group and Ex category according to ATEX product directive 2014/34/EU	--	II 2G, II 2D
Safety device type according to IEC 61508-2	--	Type B
Safety integrity level (SIL) according to IEC 61508	--	SIL1
Performance level (PL) according to EN ISO 13849-1	--	c
T1 value for proof test interval or service duration according to IEC 61508	y	3
Measuring circuit:		
Number of measuring circuits	1	2
Relative measuring accuracy	%	9
Maximum number of sensors in series	6	
Cable length of sensor, maximum	m	2 800
Thermistor resistance response value	Ω	1 500 ... 1 650
Thermistor resistance return value	Ω	3 400 ... 3 600

Relays

SIRIUS 3RN2 thermistor motor protection

Article number		3RN2000- .AA30	3RN2000- .AW30, 3RN2010- .BW30, 3RN2010- .CW30	3RN2010- .BA30, 3RN2010- .CA30	3RN2011- .BA30, 3RN2012- .BA30	3RN2011- .BW30, 3RN2012- .BW30	3RN2012- .BW31	3RN2013- .BA30	3RN2013- .BW30, 3RN2013- .GW30	3RN2023- .DW30
Control circuit:										
Current carrying capacity of the output relay										
• At AC-15 at 250 V at 50/60 Hz	A	3								
• At DC-13 at 24 V	A	1								
• At DC-13 at 125 V	A	0.2								
• At DC-13 at 250 V	A	0.1								
Thermal current of the non-solid-state contact blocks, maximum	A	5								
Continuous current of the output relay's DIAZED fuse link	A	6								
Supply voltage:										
Control supply voltage										
• At AC										
- At 50 Hz rated value	V	24 ... 24	24 ... 240	24 ... 24		24 ... 240		24 ... 24	24 ... 240	
- At 60 Hz rated value	V	24 ... 24	24 ... 240	24 ... 24		24 ... 240		24 ... 24	24 ... 240	
• At DC, rated value	V	24 ... 24	24 ... 240	24 ... 24		24 ... 240		24 ... 24	24 ... 240	
Operating range factor of the control supply voltage, rated value										
• At AC at 50 Hz		0.85 ... 1.1								
• At AC at 60 Hz		0.85 ... 1.1								
• At DC		0.85 ... 1.1								

Article number		3RN20...-1	3RN20...-2
Type of electrical connection		 Screw terminals	 Spring-type terminals (push-in)
Tightening torque	Nm	0.6 ... 0.8	--
Type of connectable conductor cross-sections			
• Solid	mm ²	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)	1x (0.5 ... 4 mm ²)
• Finely stranded with end sleeve	mm ²	1x (0.5 ... 4 mm ²), 2x (0.5 ... 1.5 mm ²)	1x (0.5 ... 2.5 mm ²)
• For AWG cables			
- Solid	AWG	1x (20 ... 12), 2x (20 ... 14)	1x (20 ... 12)
- Stranded	AWG	--	1x (20 ... 12)

SIRIUS 3RN2 thermistor motor protection

Selection and ordering data



3RN2000-1AA30



3RN2010-1BA30



3RN2011-1BA30



3RN2012-1BW30



3RN2023-1DW30

Product function	Number of CO contacts for auxiliary contacts	Number of NO contacts for auxiliary contacts	Number of NC contacts for auxiliary contacts	Material of switching contacts	Control supply voltage At AC at 50 Hz rated value	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
					V	V	d				

Compact evaluation unit, suitable for bimetallic switch

Terminal A1 jumpered with root of changeover contact

Auto RESET	1	0	0	AgSnO2	24 ... 24	24 ... 24	2	3RN2000-□AA30	1	1 unit	41H
					24 ... 240	24 ... 240	2	3RN2000-□AW30	1	1 unit	41H
	0	1	1	AgSnO2	24 ... 24	24 ... 24	2	3RN2010-□CA30	1	1 unit	41H
					24 ... 240	24 ... 240	2	3RN2010-□CW30	1	1 unit	41H

Standard evaluation unit, suitable for bimetallic switch

Auto RESET	2	0	0	AgSnO2	24 ... 24	24 ... 24	2	3RN2010-□BA30	1	1 unit	41H
					24 ... 240	24 ... 240	2	3RN2010-□BW30	1	1 unit	41H

Bistable evaluation unit, open-circuit and short-circuit detection in the sensor circuit

Does not trigger in the event of control supply voltage failure

Auto RESET	2	0	0	AgSnO2	24 ... 240	24 ... 240	2	3RN2012-□BW31	1	1 unit	41H
Manual RESET											
External RESET											
Error memory											

Standard evaluation unit with ATEX approval, open-circuit and short-circuit detection in the sensor circuit¹⁾

Manual RESET	2	0	0	AgSnO2	24 ... 24	24 ... 24	2	3RN2011-□BA30	1	1 unit	41H
External RESET					24 ... 240	24 ... 240	2	3RN2011-□BW30	1	1 unit	41H

Non-volatile³⁾

Auto RESET	2	0	0	AgSnO2	24 ... 24	24 ... 24	2	3RN2012-□BA30	1	1 unit	41H
Manual RESET					24 ... 240	24 ... 240	2	3RN2012-□BW30	1	1 unit	41H
External RESET											
Error memory											

Protective separation, non-volatile²⁾³⁾

Auto RESET	2	0	0	AgSnO2	24 ... 24	24 ... 24	2	3RN2013-□BA30	1	1 unit	41H
Manual RESET					24 ... 240	24 ... 240	2	3RN2013-□BW30	1	1 unit	41H
External RESET											
Error memory				AgSnO2 Hard gold-plated	24 ... 240	24 ... 240	2	3RN2013-□GW30	1	1 unit	41H

Evaluation unit with ATEX approval and 2 sensor circuits for warning and disconnection, open-circuit and short-circuit detection in both sensor circuits

Protective separation, non-volatile²⁾³⁾

Auto RESET	1	1	0	AgSnO2	24 ... 240	24 ... 240	2	3RN2023-□DW30	1	1 unit	41H
Manual RESET											
External RESET											
Error memory											

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

¹⁾ For 3RN2011: The unit can be reset with the RESET button or by disconnecting the control supply voltage.









²⁾ Protective separation up to 300 V acc. to DIN/VDE 0160, IEC 60947-1.

³⁾ Protection against voltage failure or non-volatile fault storage means that previous tripping due to a fault remains stored even if the control supply voltage fails. The monitoring device is not reset if the voltage fails. With an active fault, meaning a fault which has not been manually confirmed, an automatic restart of the plant upon recovery of the power is prevented therefore and plant safety increased as the result.

Relays

SIRIUS 3RN2 thermistor motor protection

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG		
d								
Terminals for SIRIUS devices in the industrial standard mounting rail enclosure								
	Removable terminals		Screw terminals 		1	6 units	41L	
	• 2-pole, up to 1 x 4 mm² or 2 x 2.5 mm²	2	3ZY1122-1BA00					
	3ZY1122-1BA00	• 2-pole, up to 1 x 4 mm² or 2 x 1.5 mm²	2	Spring-type terminals (push-in) 		1	6 units	41L
		3ZY1122-2BA00						
Accessories for enclosures								
	Push-in lugs For wall mounting		2	3ZY1311-0AA00		1	10 units	41L
	Coding pins For removable terminals of SIRIUS devices in the industrial standard mounting rail enclosure; they enable the mechanical coding of terminals		2	3ZY1440-1AA00		1	12 units	41L
	Hinged cover NEW Replacement cover, without terminal labeling, titanium gray		2	3ZY1450-1AA00		1	5 units	41H
	• 17.5 mm wide	2		3ZY1450-1AB00		1	5 units	41H
	• 22.5 mm wide							
Tools for opening spring-type terminals								
	Screwdrivers For all SIRIUS devices with spring-type terminals		2	Spring-type terminals (push-in) 		1	1 unit	41B
	3.0 mm x 0.5 mm, length approx. 200 mm, titanium gray/black, partially insulated			3RA2908-1A				

Overview



SIRIUS 3RS70 signal converters

More information

Homepage, see www.siemens.com/relaysIndustry Mall, see www.siemens.com/product?3RS70For the conversion tool, e.g. from 3RS17 to 3RS70, see www.siemens.com/sirius/conversion-tool

Signal converters perform the coupling function for analog signals on both the input side and the output side. They are indispensable when processing analog values with electronic controls. Under harsh industrial conditions in particular, it is often necessary to transmit analog signals over long distances. Electrical separation is then needed as a result of the different power supplies. The resistance of the wiring causes potential differences and losses which must be prevented.

Electromagnetic disturbance and overvoltages can affect the signals on the input side in particular or even destroy the analog modules. All terminals of the 3RS70 signal converters are safe up to a voltage of 30 V DC and protected against switching poles. Short-circuit protection is an especially important function for the outputs.

The devices are EMC-tested according to

- IEC 61000-6-4 (generic standard for emitted interference)
- IEC 61000-6-2 (generic standard for interference immunity)

The analog signals comply with

- IEC 60381-1/2

Article No. scheme

Product versions		Article number	
Signal converters		3RS70 □ □ - □ □ □ 0 0	
Product function/type of input signal	Single-range converters, active	0 0	3-way separation, input 0 ... 10 V
		0 2	3-way separation, input 0 ... 20 mA,
		0 3	3-way separation, input 4 ... 20 mA,
	Switchable multi-range converters, active	0 5	3-way separation, 3 standard signals can be switched 0 ... 10 V, 0/4 ... 20 mA
	Switchable universal converters, active	0 6	3-way separation, 16 signals can be switched
	Single-range converters, passive	2 0	2-way separation, 4 ... 20 mA
	Switchable multi-range converters, active	2 5	3-way separation, with manual/automatic switch and setting potentiometer
Connection type	Screw terminals	1	
	Spring-type terminals (push-in)	2	
Type of output signal	0 ... 10 V	A	
	0 ... 20 mA	C	
	4 ... 20 mA	D	
	Loop power isolator 4 ... 20 mA	E	
	3 standard signals can be switched	F	
	4 frequencies can be switched	K	
Supply voltage	24 V AC/DC	E	
	None	T	
	24 ... 240 V AC/DC	W	
Example		3RS70 0 0 - 1 A E 0 0	

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Relays

Coupling Relays and Signal Converters/Interface Converters

SIRIUS 3RS70 signal converters

Benefits

- Narrow width
- Easy-to-set universal converters
- Converters with frequency output
- All ranges are fully calibrated
- Universal family of devices – the perfect solution for every application
- Integrated manual/automatic switch with a setpoint generator
- Outputs are short-circuit-proof
- Up to 30 V – protected against damage caused by wiring errors

Application

Signal converters are used in analog signal processing for

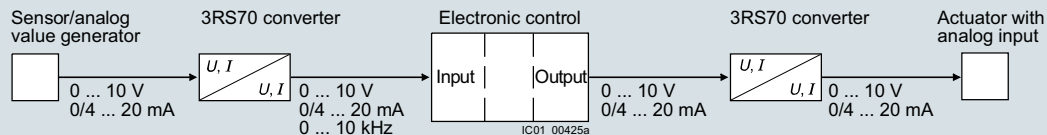
- Electrical separation
- Conversion of normalized and non-normalized signals
- Amplification and impedance adaptation
- Conversion to a frequency for processing by a digital input
- Overvoltage and EMC protection
- Short-circuit protection of the outputs

3RS7025 manual/automatic converter

For special applications in which analog signals have to be simulated, or during plant commissioning when the actual process value is not yet available, the 3RS7025 devices feature an adjustable potentiometer for manual setpoint selection and a manual/automatic switch.

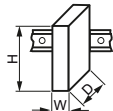
The potentiometer for the 3RS7025 devices is used to simulate analog output signals when the changeover switch is set to "Manual" and the control supply voltage is applied, without the need for an analog input signal. The scale ranges from 0 ... 100%.

Example: When it is set for an output of 4 ... 20 mA, the left stop on the potentiometer represents an output current of 4 mA and the right stop represents an output current of 20 mA. In the "Auto" switch position, the output signal follows the input signal proportionally regardless of the potentiometer setting.



Application example of analog signal processing

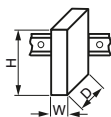
Technical specifications

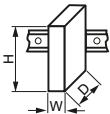
More information						
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16691/td			Circuit diagrams, see https://support.industry.siemens.com/cs/ww/en/view/109475738			
Operating instructions, see https://support.industry.siemens.com/cs/ww/en/view/109475738						
Article number		3RS7000-.AE00	3RS7002-.AE00, 3RS7003-.AE00	3RS7000-.CE00, 3RS7000-.DE00	3RS7002-.CE00, 3RS7002-.DE00, 3RS7003-.CE00, 3RS7003-.DE00	3RS7020-.ET00
Product designation Product version		Single-range converters, active				Single-range converters, passive
General data:						
Width x height x depth			mm	6.2 × 93 × 72.5		6.2 × 93 × 71
Ambient temperature						
• During operation		°C	-25 ... +60			
• During storage		°C	-40 ... +80			
Relative humidity during operation		%	10 ... 95			
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3 rated value		V	50			
Active power input		W	0.29			--
Degree of protection		IP20				
Input:						
Input voltage						
• Max.		V	30			
Input impedance						
• Of current input, maximum		Ω	--	100	--	100
• Of voltage input, minimum		kΩ	330	--	330	--
Output:						
Load						
• Maximum at current output		Ω	--	500		1 000
• Minimum at voltage output		kΩ	2	--		--
Relative measuring accuracy		%	0.1			
Short-circuit-proof		Yes				No



Relays

Coupling Relays and Signal Converters/Interface Converters

SIRIUS 3RS70 signal converters

Article number		3RS7005- .FE00	3RS7005- .KE00	3RS7005- .FW00	3RS7005- .KW00	3RS7025- .FE00	3RS7025- .FW00
Product designation Product version		Switchable multi-range converters, active				Switchable multi-range converters, active, with manual/automatic switch and setting potentiometer	
General data:							
Width x height x depth	 mm	6.2 × 93 × 72.5		17.5 × 93 × 72.5		17.5 × 93 × 75	
Ambient temperature							
• During operation	°C	-25 ... +60					
• During storage	°C	-40 ... +80					
Relative humidity during operation	%	10 ... 95					
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3 rated value	V	50		300		50	300
Active power input	W	0.29		0.5	0.34	0.5	
Degree of protection		IP20					
Input:							
Input voltage							
• Max.	V	30					
Input impedance							
• Of current input, maximum	Ω	100					
• Of voltage input, minimum	kΩ	330					
Output:							
Load							
• Maximum at current output	Ω	500	--	500	--	500	
• Minimum at voltage output	kΩ	2	--	2	--	2	
Relative measuring accuracy	%	0.1					
Short-circuit-proof		Yes					

Article number		3RS7006-.FE00		3RS7006-.FW00	
Product designation		Switchable universal converters,			
Product version		active			
General data:					
Width x height x depth			mm	17.5 × 93 × 72.5	
Ambient temperature					
• During operation		°C	-25 ... +60		
• During storage		°C	-40 ... +80		
Relative humidity during operation		%	10 ... 95		
Insulation voltage for overvoltage category III to IEC 60664 for pollution degree 3 rated value		V	50	300	
Active power input		W	0.5		
Degree of protection		IP20			
Input:					
Input voltage					
• Max.		V	30		
Input impedance					
• Of current input, maximum		Ω	100		
• Of voltage input, minimum		kΩ	330		
Output:					
Load					
• Maximum at current output		Ω	500		
• Minimum at voltage output		kΩ	2		
Relative measuring accuracy		%	0.1		
Short-circuit-proof		Yes			

Article number	3RS70...-1....	3RS70...-2....
Type of electrical connection	 Screw terminals	 Spring-type terminals (push-in)
Type of connectable conductor cross-sections		
• Solid	1x (0.25 ... 2.5 mm²)	1x (0.25 ... 2.5 mm²)
• Finely stranded		
- Without end sleeves	--	1x (0.25 ... 2.5 mm²)
- With end sleeves	1x (0.25 ... 1.5 mm²)	1x (0.25 ... 1.5 mm²)
• Solid for AWG cables	1x (20 ... 14)	1x (20 ... 14)

Relays

Coupling Relays and Signal Converters/Interface Converters

SIRIUS 3RS70 signal converters

Selection and ordering data

Signal type	Supply voltage	Width	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
At the input	At the output	mm	d					

Single-range converters

Passive

Type of electrical isolation, 2-way

4 ... 20 mA	4 ... 20 mA	--	6.2	2	3RS7020-□ET00	1	1 unit	41H
-------------	-------------	----	-----	---	----------------------	---	--------	-----

Single-range converters

Active

Type of electrical isolation, 3-way

0 ... 10 V	0 ... 10 V	24 V AC/DC	6.2	2	3RS7000-□AE00	1	1 unit	41H
0 ... 20 mA	0 ... 10 V	24 V AC/DC	6.2	2	3RS7002-□AE00	1	1 unit	41H
4 ... 20 mA	0 ... 10 V	24 V AC/DC	6.2	2	3RS7003-□AE00	1	1 unit	41H
0 ... 10 V	0 ... 20 mA	24 V AC/DC	6.2	2	3RS7000-□CE00	1	1 unit	41H
0 ... 20 mA	0 ... 20 mA	24 V AC/DC	6.2	2	3RS7002-□CE00	1	1 unit	41H
4 ... 20 mA	0 ... 20 mA	24 V AC/DC	6.2	2	3RS7003-□CE00	1	1 unit	41H
0 ... 10 V	4 ... 20 mA	24 V AC/DC	6.2	2	3RS7000-□DE00	1	1 unit	41H
0 ... 20 mA	4 ... 20 mA	24 V AC/DC	6.2	2	3RS7002-□DE00	1	1 unit	41H
4 ... 20 mA	4 ... 20 mA	24 V AC/DC	6.2	2	3RS7003-□DE00	1	1 unit	41H

3RS7000-1AE00

3RS7000-2AE00

Multi-range converters

Active, switchable

Type of electrical isolation, 3-way

0 ... 10 V,	0 ... 10 V,	24 V AC/DC	6.2	2	3RS7005-□FE00	1	1 unit	41H
0 ... 20 mA,	0 ... 20 mA,	24 ... 240 V AC/DC	17.5	2	3RS7005-□FW00	1	1 unit	41H
4 ... 20 mA	4 ... 20 mA							
	0 ... 50 Hz	24 V AC/DC	6.2	2	3RS7005-□KE00	1	1 unit	41H
	0 ... 100 Hz	24 ... 240 V AC/DC	17.5	2	3RS7005-□KW00	1	1 unit	41H
	0 ... 1 kHz							
	0 ... 10 kHz							

3RS7005-1FW00

Multi-range converters

Active, with manual/automatic switch and setting potentiometer

Type of electrical isolation, 3-way

0 ... 10 V,	0 ... 10 V,	24 V AC/DC	17.5	2	3RS7025-□FE00	1	1 unit	41H
0 ... 20 mA,	0 ... 20 mA,	24 ... 240 V AC/DC	17.5	2	3RS7025-□FW00	1	1 unit	41H
4 ... 20 mA	4 ... 20 mA							

Universal converters

Active, switchable

Type of electrical isolation, 3-way

0 ... 60 mV,	0 ... 10 V,	24 V AC/DC	17.5	2	3RS7006-□FE00	1	1 unit	41H
0 ... 100 mV,	0 ... 20 mA,	24 ... 240 V AC/DC	17.5	2	3RS7006-□FW00	1	1 unit	41H
0 ... 300 mV,	4 ... 20 mA							
0 ... 500 mV,								
0 ... 1 V,								
0 ... 2 V,								
0 ... 5 V,								
0 ... 10 V,								
0 ... 20 V,								
2 ... 10 V,								
0 ... 5 mA,								
0 ... 10 mA,								
0 ... 20 mA,								
4 ... 20 mA,								
-5 ... +5 mA,								
-20 ... +20 mA								





3RS7006-1FE00

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

1
2

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Galvanic isolation plates						
 3RQ3900-0A	2	3RQ3900-0A		1	10 units	41H
Galvanic isolation plates For electrical separation of different potentials when devices of different types are installed side by side						
Connecting combs						
 3RQ3901-0B	2	3RQ3901-0A		1	10 units	41H
Connecting combs For linking the same potentials, current carrying capacity for infeed max. 6 A						
• 2-pole	2	3RQ3901-0B		1	10 units	41H
• 4-pole	2	3RQ3901-0C		1	10 units	41H
• 8-pole	2	3RQ3901-0D		1	10 units	41H
• 16-pole	2					
Clip-on labels						
	2	3RQ3902-0A		100	2 000 units	41H
Clip-on labels For terminal marking and equipment labeling, white • 5 x 5 mm ¹⁾						
Tools for opening spring-type terminals						
 3RA2908-1A	2	Spring-type terminals (push-in)  3RA2908-1A		1	1 unit	41B
Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated						

¹⁾ PC labeling system for individual inscription
 of unit labeling plates available from:
 Conta-Clip Verbindungstechnik GmbH,
[see page 16/16](#).

Relays

Coupling Relays and Signal Converters/Interface Converters

Notes




clickable

Click on an article number in the catalog PDF to call it up in the Industry Mall and you will have access to all the required information.

Article No.

3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N



ICD1_00413

Or directly on the Internet, e.g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

	Price groups PG 4N1, 41B, 41H, 41L, 42B, 42C, 42F, 42J
11/2	Introduction
	Safety relays <u>SIRIUS 3SK safety relays</u>
11/12	General data Basic units
11/19	- SIRIUS 3SK1 Standard basic units
11/20	- SIRIUS 3SK1 Advanced basic units
11/21	- SIRIUS 3SK2 basic units Expansion units
11/22	- Output expansions
11/23	- Input expansions
11/24	Accessories NEW <u>SIRIUS 3TK28 safety relays</u>
11/27	With special functions
11/29	Accessories
	SIRIUS 3RK3 Modular Safety System
11/30	General data
11/38	3RK31 central units
11/39	3RK32, 3RK33 expansion modules
11/39	3RK35 interface modules
11/40	Accessories NEW

Note:
Conversion tool,
e.g. from 3TK28 to 3SK, [see
www.siemens.com/sirius/conversion-tool](http://www.siemens.com/sirius/conversion-tool)

Safety Technology

Introduction

Overview

Functional safety of machines and plants – Basic safety requirements in the manufacturing industry

In order to protect people and the environment in many industrial applications in the manufacturing and process industries, machines and plants must meet the fundamental safety requirements of the EU Directives, particularly the Machinery Directive. In addition to design solutions, automation systems and components are also expected to perform safety-related tasks. This means that the life and health of people and the physical integrity of capital goods and the environment depend on the proper operation of these systems and components, on "functional safety".

With the introduction of the uniform European Single Market, national standards and regulations affecting the technical realization of machines were consistently harmonized. This involved defining basic safety requirements which address, on the one hand, machine manufacturers in terms of the free movement of goods (Article 95) and, on the other hand, machine operators in terms of industrial safety (Article 137).

The EU directives:

- Define requirements which must be met by plants and their operating companies in order to protect the health of people and the quality of the environment
- Include standards for health & safety at work (minimum requirements)
- Define product requirements (e.g. for machines) to protect the health and safety of consumers
- Differentiate between the requirements which must be met by the implementation of products in order to ensure the free movement of goods and the requirements which must be met for the use of products

Objective of the standards

It is the objective of safety technology to minimize as far as possible the hazards from technical facilities for people and the environment while restricting no more than absolutely necessary the scope of industrial production, the use of machines or the production of chemical products.

Production automation is governed in particular by the following standards:

- IEC 61508 or IEC 62061 and
- EN ISO 13849-1

The IEC 62061 standard

The IEC 62061 standard "Safety of machines – Functional safety of electrical, electronic and programmable electronic control systems" defines comprehensive requirements. It includes recommendations for the development, integration and validation of safety-related electrical, electronic and programmable electronic control systems (SRECS) for machines. With the implementation of EN 62061, for the first time, one standard covers the entire safety chain, from the sensor to the actuator. The Safety Integrity Level, or SIL for short, is defined as the application parameter for this standard.

Requirements placed on the capacity of non-electrical – e.g. hydraulic, pneumatic, or electromechanical – safety-related control elements for machines are not specified by the standard.

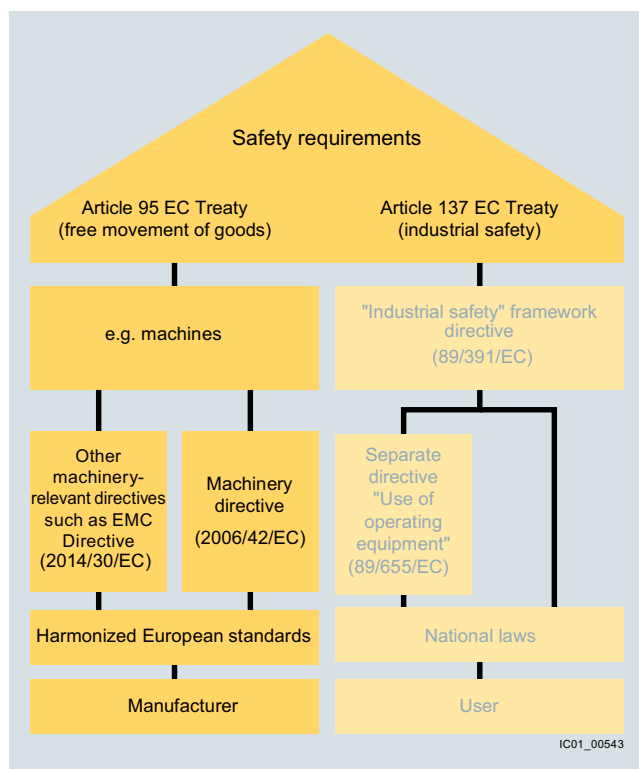


Safety of machines and systems

The EN ISO 13849-1 standard

EN ISO 13849-1 "Safety of machines – Safety-related components of controls, Part 1: General principles" replaced EN 954-1 at the end of 2011. It considers the complete range of safety functions with all the devices which are involved in their performance. EN ISO 13849-1 also makes a quantitative analysis of the safety functions. The standard describes how to determine the performance level (PL) for safety-relevant parts of control systems on the basis of architectures specified for the intended service life.

When combining several safety-related parts to form a complete system, the standard explains how to determine the resulting PL. It can be applied to safety-related parts of control systems (SRP/CS) and all types of machines, regardless of the technology and energy used, e.g. electrical, hydraulic, pneumatic or mechanical.



Safety requirements imposed on machines and plants

Safety Integrated – Integrated safety technology from a single source



Safety Integrated

The following applies equally for machine manufacturers and the companies which operate their machines: Maximum possible safety for personnel and machines. The solution: our Safety Integrated concept based on Totally Integrated Automation. Whether for simple safety functions or highly complex tasks – our portfolio offers you maximum safety.

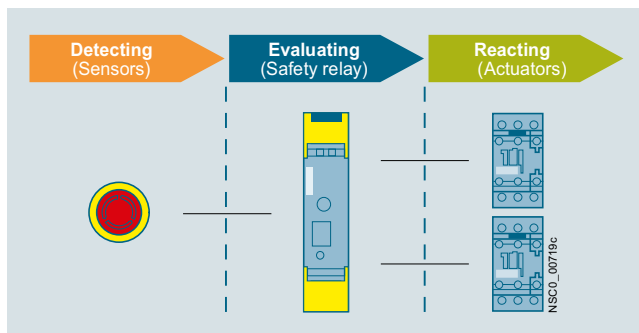
Safety Integrated is a unique, complete and consistent range of safety products covering all safety-related tasks – from detecting, evaluating and reacting, from switches and control systems to operating mechanisms (see graphic on page 11/4). Our products meet the safety requirements in force in industry, including IEC, ISO, NFPA and UL, and are certified in accordance with the latest safety standards.

All Safety Integrated products or systems can be seamlessly integrated in the standard automation environment. They are therefore particularly flexible and economical, reduce engineering time, increase plant availability and enable practice-related machine operation.

Designing a safety function

A safety chain normally comprises the following functions: detect, evaluate and react. In detail this means:

- Detect = the detection of a safety requirement with corresponding sensors, such as EMERGENCY STOP or position switches
- Evaluate = the detection of a safety requirement and the reliable initiation of a reaction, e.g. shutting down the enabling circuits.
- React = Shutting down the hazard using contactors or fail-safe motor starters.



Designing a safety function

Our offering

As a partner for all safety requirements, we not only support you with the respective safety-related products and systems, but also consistently provide you with the most current know-how on international standards and regulations. Machine manufacturers and plant managers are offered a comprehensive training portfolio as well as services for the entire lifecycle of safety-related systems and machines.

- A uniform, certified product range
- Courses on CE marking, risk assessment and standards, see www.siemens.com/sitrain-safetyintegrated
- Worldwide service and support, see <http://support.industry.siemens.com>
- More information, see www.siemens.com/safety-integrated

Safety Evaluation Tool



Safety Evaluation Tool

The Safety Evaluation Tool for the IEC 62061 and EN ISO 13849-1 standards guides you quickly and safely through all the calculation steps involved in implementing safety functions on a machine, from definition of the safety system structure through to selection of the components, all the way through to determination of the achieved safety integrity level (SIL/PL). You receive the results as a standards-compliant report that can be integrated in the documentation as proof of safety.

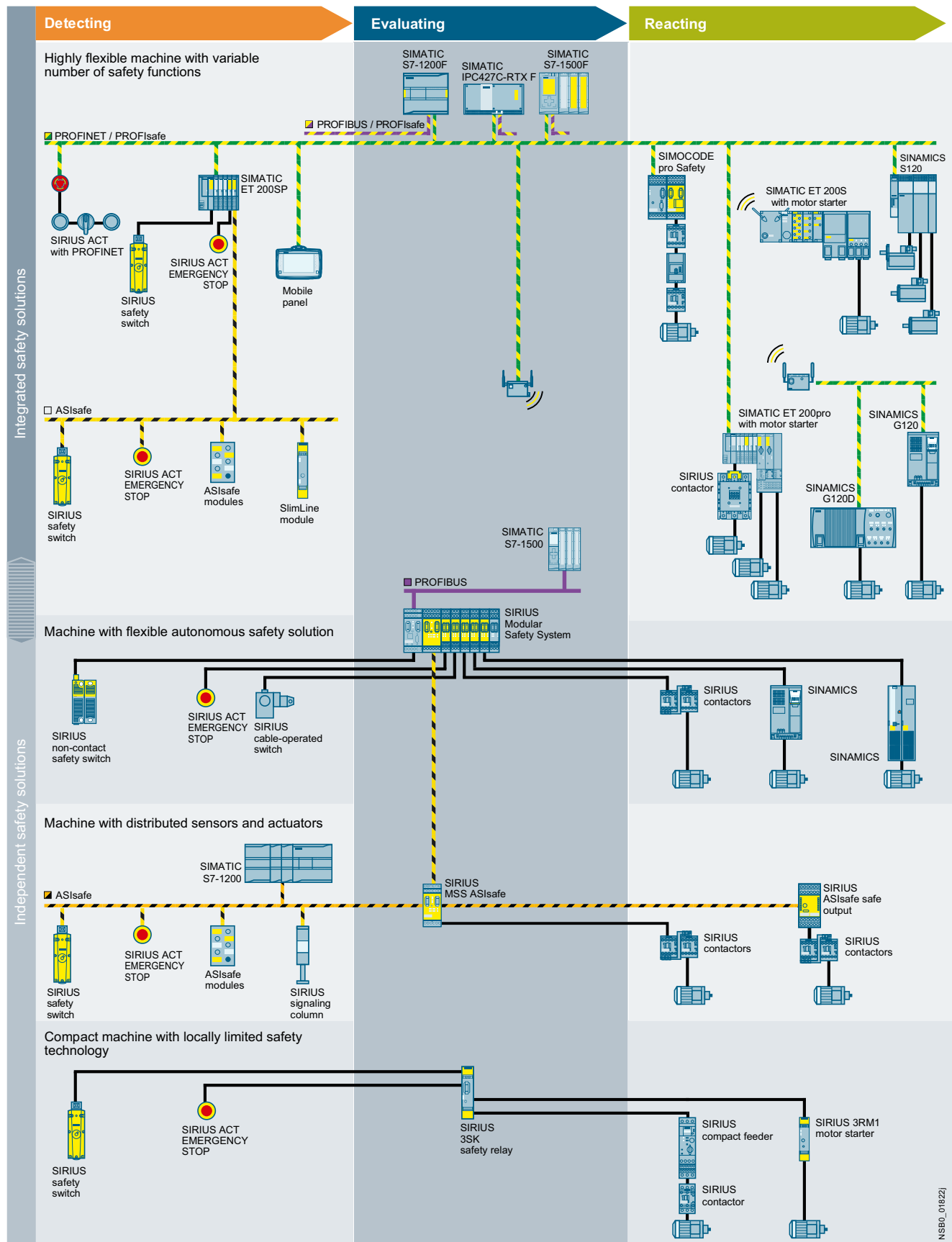
Your advantages at a glance:

- Reliability when dealing with the standards: TÜV-certified tool
- Free use of the online tool
- Automatic calculation in accordance with current standards
- Fast results: Standards-compliant report
- Less time needed to evaluate the safety functions
- Fast access to the latest product data
- User-friendly archiving: Projects can be saved and called up again as required
- Fast and easy handling: comprehensive, predefined libraries of examples
- Selection menus for calculating the DC and CCF
- Different switching cycles can be input when used in a two-channel configuration
- Failure rate calculation
- Selection wizard for drive components.

For more information, see www.siemens.com/safety-evaluation-tool.

Safety Technology

Introduction



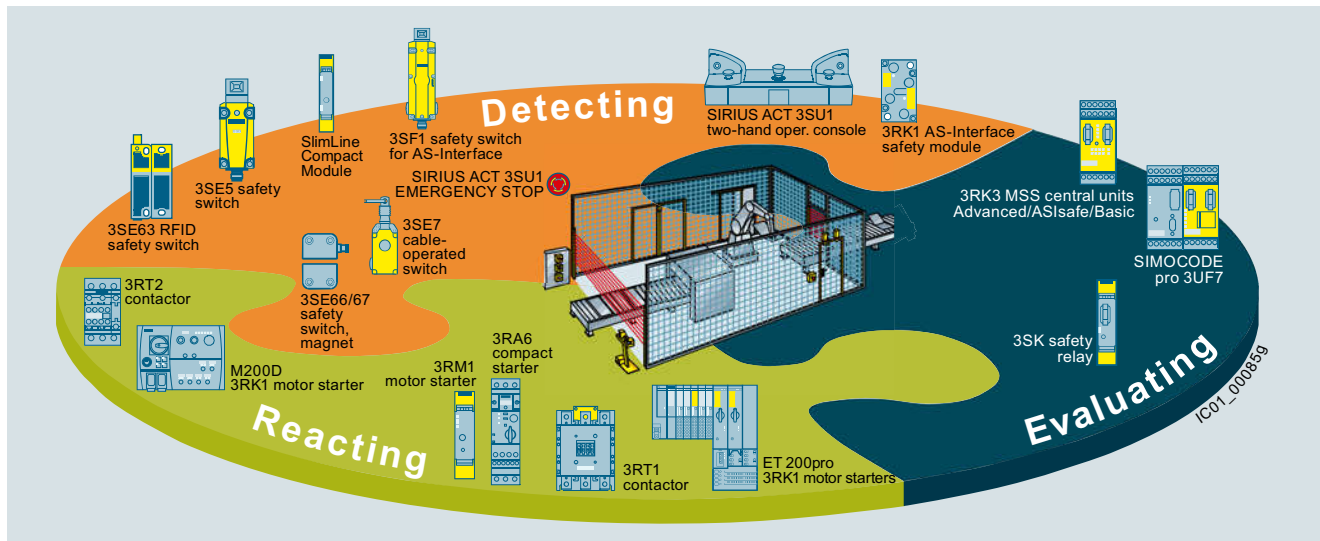
Safety Integrated

SIRIUS Safety Integrated

Our SIRIUS Safety Integrated controls are a central element of the Siemens Safety Integrated concept. Whether for fail-safe detecting, commanding and signaling, monitoring and evaluating or starting and reliable shutting down – our SIRIUS Safety Integrated controls are experts at performing safety tasks in your plant.

SIRIUS Safety Integrated uses fail-safe communication via standard fieldbus systems, such as ASIsafe via AS-Interface and PROFIsafe via PROFIBUS and PROFINET, to solve even networked safety tasks of greater complexity. This opens the door for flexible safety solutions for compact machines or large-scale plants.

Implementation of many typical safety applications, see [Application Manual "SIRIUS Safety Integrated"](#).



SIRIUS Safety Integrated

Monitoring with fail-safe evaluation units from the 3SK and 3RK3 series

Position monitoring with non-contact safety switches:

Safe protective door tumbler with safety switches and separate actuator, in accordance with EN ISO 14119:

Safe evaluation units	Maximum achievable safety level according to type of switch	
	Magnetically operated switches	RFID safety switches
	SIL 3/PL e	

Safe evaluation units	Maximum achievable safety level according to type of switch	
	Safety switches with tumbler	
	SIL 2/PL d	
	SIL 3/PL e	

Notes:

For more information, see [FAQ article](#).

For information on safety switches, see [page 12/1](#).

Safety Technology

Introduction









Using SIRIUS 3RT contactors with fail-safe controllers and safety relays

Safety relays and fail-safe controllers work perfectly with SIRIUS contactors optimized for safety application regardless of their size:

- For sizes S00 and S0 we recommend 3RT2 contactors with DC operating mechanism
- 3RT2 coupling contactors with electronic operating mechanisms are available in sizes S2 and S3
- The innovative 3RT1 versions with electronic operating mechanism and fail-safe control input are ideal for higher power ranges, such as sizes S6 to S12

They offer the following advantages:

- Reduced current load on the controller outputs
- Minimization of wear for mechanical relays on controllers or safety relays
- Coupling elements between controllers and contactors are no longer required

SIRIUS safety relays				SIMATIC controllers		
						
Perfect combination						
						
3RT2 contactors				3RT1 contactors		

Combination of SIRIUS 3RT contacts with fail-safe controllers and safety relays

SIRIUS Safety Integrated		Type	Page
 3SK111	3SK safety relays <ul style="list-style-type: none"> • Key modules of a consistent and cost-effective safety chain • Can be used for all safety applications thanks to compliance with the highest safety requirements (PL e according to EN ISO 13849-1 or SIL 3 according to IEC 61508) • Suitable for use all over the world through compliance with all globally established certifications 		
	<u>SIRIUS 3SK1 Standard basic units</u> <ul style="list-style-type: none"> • Simple, compact devices for all important requirements for monitoring safety sensors and actuators 	3SK111	11/19
	<u>SIRIUS 3SK1 Advanced basic units</u> <ul style="list-style-type: none"> • Multifunctional series of safety relays with safe relay outputs, semiconductor outputs or time-delayed outputs for: <ul style="list-style-type: none"> - EMERGENCY STOP monitoring - Protective door monitoring - Monitoring of non-floating sensors such as light arrays, laser scanners, etc. - Monitoring of two-hand operation consoles - Monitoring of equivalent (NC/NC) and antivalent (NO/NC) sensors • Setting by means of DIP switch 	3SK112	11/20
	<u>SIRIUS 3SK2 basic units</u> <ul style="list-style-type: none"> • Series of safety relays that can be parameterized by software, with semiconductor outputs and independent output functions for: <ul style="list-style-type: none"> - EMERGENCY STOP monitoring - Protective door monitoring - Protective door monitoring with tumbler - Monitoring of non-floating sensors such as light arrays, laser scanners, etc. - Monitoring of two-hand operation consoles - Monitoring of equivalent (NC/NC) and antivalent (NO/NC) sensors - Muting 	3SK2	11/21
	<u>Expansion units</u> <ul style="list-style-type: none"> • 3RO and 4RO output expansions for SIRIUS 3SK1 Standard basic units, SIRIUS 3SK1 Advanced basic units and SIRIUS 3SK2 basic units • Input expansion for SIRIUS 3SK1 Advanced basic units • Power supply for SIRIUS 3SK1 Advanced basic units • Integration of 3RM1 motor starters possible and simple integration of a main circuit component in a system configuration of the safety relays. There is no need for complex wiring between the safety evaluation unit and the actuator. • Expansion of the Standard device series by means of wiring • Expansion of the SIRIUS 3SK1 Advanced and SIRIUS 3SK2 device series by means of wiring or without wiring outlay by means of 3ZY12 device connectors 	3SK121, 3SK122, 3SK123	11/22, 11/23
 3SK121			
 3TK2810-1BA41	3TK2810 safety relays <ul style="list-style-type: none"> • Further modules of a consistent and cost-effective safety chain • Can be used for all safety applications thanks to compliance with the highest safety requirements (PL e according to EN ISO 13849-1 or SIL 3 according to IEC 61508) • Suitable for use all over the world through compliance with all globally established certifications 		
	<u>Safe standstill monitoring with 3TK2810-0</u> <ul style="list-style-type: none"> • Monitoring without external sensors • Universal use in applications possible <u>Safe speed monitoring with 3TK2810-1</u> <ul style="list-style-type: none"> • Monitoring of speed with encoders and proximity switches possible • Easy diagnostics options via display • Integrated monitoring of a spring-type locking protective door 	3TK2810	11/27



		Type	Page
SIRIUS Safety Integrated (continued)			
 3RK3	3RK3 Modular Safety System (MSS) <ul style="list-style-type: none"> • Freely configurable modular safety relays • Safety-related applications up to PL e according to EN ISO 13849-1 or SIL 3 according to IEC 62061 can be implemented • High flexibility and planning reliability thanks to a modular design • More space in the control cabinet and lower costs thanks to highly modular project data • More functionality and time savings thanks to a software-configurable system • Comprehensive on-site diagnostics with the SIRIUS Safety ES software and diagnostics display • Improved plant diagnostics and higher plant availability thanks to exchange of data using PROFIBUS • Automatic creation of plant documentation with regard to MSS and software parameterization • Up to 9 expansion modules can be plugged in for standard I/Os and fail-safe I/Os – optionally electronic or relay-based fail-safe outputs • Graphic parameterization of the logic, online diagnostics, and automatic creation of documentation using SIRIUS Safety ES • Consistent further development of the safety monitors with the Advanced and ASIsafe central units of the SIRIUS 3RK3 Modular Safety System (MSS) <u>Additionally with AS-Interface (ASIsafe):</u> <ul style="list-style-type: none"> • Modularly expandable and freely configurable safety monitor • With MSS Advanced/ASIsafe up to 50 two-channel, fail-safe outputs (38 central outputs and 12 outputs via AS-i) • Safety-related and standard communication between multiple MSS devices and/or safety monitors • Distributed detection of sensors and disconnection of actuators through AS-Interface • Much more space is available without wiring outlay using AS-Interface • Ready-to-use function blocks (e.g. muting or protective door with tumbler) can also be used on AS-i 	3RK3	11/30
 3RK3 MSS ASIsafe	AS-Interface safety modules <ul style="list-style-type: none"> • Complete portfolio of ASIsafe modules • For connection of safety switches with contacts (e.g. position switches) as well as solid-state safety sensors (ESPE) • Degree of protection IP65/IP67 or IP20 • Especially compact dimensions, with widths from 17.5 mm • Up to four safe inputs per module • Up to one safe output per module • Standard outputs are available on the module in addition • Up to Category 4, PL e, SIL 3 <p>Advantage: Easy integration of safe signals both in the control cabinet or in the field</p>	3RK1	2/29
 K45F	 SC17.5F		
 CM AS-i Master ST and F-CM AS-i Safety ST	AS-i Master and AS-i Safety module for ET 200SP <p>The CM AS-i Master ST and F-CM AS-i Safety ST modules are plugged into an ET 200SP configuration and connect an AS-i network, including safety-related inputs and outputs, with the controller.</p> <ul style="list-style-type: none"> • Single, double and multiple masters possible • Per CM AS-i Master ST up to 496 DI/496 DQ/124 AI/124 AQ possible • Up to 31 safe input signals (two-channel)/16 safe output channels possible per F-CM AS-i Safety ST module • Configuration from STEP 7 V5.5 or from V15 (TIA Portal) and higher • Plant-wide safety programming of the F-CPU via SIMATIC Distributed Safety/ Safety Advanced • Integrated diagnostics • No other programming tools required <p>Advantage: Modular connection of fail-safe AS-i networks with system-wide programming in SIMATIC and SINUMERIK controllers.</p>	6ES7	2/36, 2/40
 3RT1...-S.36	SIRIUS 3RT contactors, 3-pole, 55 to 250 kW <ul style="list-style-type: none"> • Solid-state operating mechanism with fail-safe control input for safety-related applications to SIL 2 with a contactor or SIL 3 with two contactors • 3RT10 for motor loads or 3RT14 for resistive loads • Version with removable lateral auxiliary switches or permanently mounted auxiliary switches and additional approval according to SUVA on request 	3RT10, 3RT14	3/72, 4/16

		Type	Page
SIRIUS Safety Integrated (continued)			
 3RM1	3RM1 Failsafe motor starters <ul style="list-style-type: none">• Motor starters for safety-related shutdown as 3RM11 direct-on-line starters or 3RM13 reversing starters• Compact devices with 22.5 mm width comprising combinations of relay contacts and power semiconductors (hybrid technology) and an electronic overload relay• For switching three-phase motors up to 3 kW (at 400 V) and resistive loads up to 10 A at AC voltages up to 500 V under normal operating conditions• Safety-related shutdown according to PL e or SIL 3 by shutting down the control supply voltage or control inputs possible without additional devices in the main circuit• Combination with 3SK safety relay through conventional wiring or 3ZY12 device connectors• Simple wiring and collective shutdown with device connectors in assemblies; there is no further need for complex looping of the connecting cables	3RM1	8/85
 3RK1308-OCB00-0CP0	ET 200SP fail-safe motor starters <ul style="list-style-type: none">• Fully integrated into the ET 200SP I/O system (including TIA Selection Tool and TIA Portal)• Fully pre-wired motor starters for switching and protecting any AC loads up to 5.5 kW from 48 V AC to 500 V AC• Less space required in the control cabinet (20 to 80%) as a result of greater functional density (direct-on-line and reversing starters in same width)• Longer service life and reduced heat losses thanks to hybrid technology• Self-assembling 32 A power bus, i.e. the load voltage is only fed in once for a group of motor starters• High degree of flexibility when it comes to safety applications via SIMATIC F-CPU or SIRIUS 3SK safety relays up to SIL 3 and PL e Category 4• Diagnostics capability for active monitoring of the switching and protection functions• Digital inputs can optionally be used via a 3DI/LC module	3RK1	8/95
 ET 200pro Safety	ET 200pro Safety Motor Starter Solutions <p>The ET 200pro Safety Motor Starter Solutions comprise:</p> <ul style="list-style-type: none">• PROFIsafe modules• Safety repair switch modules• Disconnecting modules• Standard motor starters• High-Feature motor starters <p><u>ET 200pro Safety Motor Starter Solutions local</u></p> <p>Safety Motor Starter Solutions local are preferred from the safety technology point of view for locally restricted safety applications. These motor starters are not dependent on a safe control system.</p> <p><u>ET 200pro Safety Motor Starter Solutions PROFIsafe</u></p> <p>Safety Motor Starter Solutions PROFIsafe are often found by contrast in safety applications of the more complex type that are interlinked. In this case a safe control system is used with the PROFINET or PROFIBUS bus systems with the PROFIsafe profile.</p>	3RK1	9/11
 SIMOCODE pro V	SIMOCODE pro motor management and control devices <ul style="list-style-type: none">• Flexible, modular motor management system for motors with constant speeds in the low-voltage range• Provides an intelligent interface between the higher-level automation system and the motor feeder• Multi-functional, electronic full motor protection which is independent of the automation system• Integrated control functions for the motor control• Detailed operating, service and diagnostics data• Open communication via PROFIBUS DP, PROFINET/OPC UA, Modbus RTU or EtherNet/IP• Safety relay function for the fail-safe disconnection of motors up to SIL 3 (IEC 61508/IEC 62061) or PL e with Category 4 (EN ISO 13849-1)	3UF7	10/5
 SIMOCODE pro S	<p><u>Fail-safe digital modules</u></p> <ul style="list-style-type: none">• DM-F Local for direct assignment between a fail-safe hardware shutdown signal and a motor feeder• DM-F PROFIsafe for when a fail-safe controller (F-CPU) creates the fail-safe signal for the disconnection		

Safety Technology

Introduction

	Type	Page
SIRIUS Safety Integrated (continued)		
 <p>3SE51</p>	Mechanical position switches <ul style="list-style-type: none"> • Easy assembly thanks to modular design • Solid, rugged design • Special versions are easily generated and quickly available, also in combination with standard modules • With a 3SE51/3SE52 position switch it is possible to achieve Category 2 according to EN ISO 13849-1 or SIL 1 according to IEC 61508 • Categories 3 and 4 can be achieved by using a second 3SE51/3SE53 position switch 	3SE51, 3SE52 12/5
 <p>3SE53</p>	Mechanical safety switches <ul style="list-style-type: none"> • With separate actuator, hinge switch, or separate actuator and tumbler • With a position switch it is possible to achieve Category 3 according to EN ISO 13849-1 or SIL 2 according to IEC 61508 • Category 4 according to EN ISO 13849-1 or SIL 3 according to IEC 61508 can be achieved by using a second 3SE51 or 3SE52 position switch • Version in various sizes made of metal or plastic • In the case of safety switches with tumbler, versions in the high IP69K degree of protection • Integrated ASIsafe electronics for all enclosure designs 	3SE51, 3SE52, 3SE53 12/47
 <p>3SE66, 3SE67</p>	Non-contact magnetically operated safety switches <ul style="list-style-type: none"> • Small, compact, safe • Simple installation even in restricted spaces thanks to connector versions • Two safety contacts and one signaling contact enable simple diagnostics at the maximum safety level 	3SE66, 3SE67 12/100
 <p>3SE63</p>	Non-contact RFID safety switches <ul style="list-style-type: none"> • Long service life due to non-contact switching • Only one switch required for the maximum safety level PL e or SIL 3 according to EN ISO 13849-1 and IEC 61508 • Tamper protection better than with mechanical safety switches thanks to switches and actuators with individual coding • LED status indication including threshold indication for door displacement • Degree of protection up to IP69K and resistance to cleaning products • Larger switching displacement than mechanical switches; offers better mounting tolerance and sagging tolerance of the protective door 	3SE63 12/106
 <p>3SU14</p>	Command devices <ul style="list-style-type: none"> • Using a special F adapter, EMERGENCY STOP devices according to ISO 13850 can be directly connected through the standard AS-Interface or PROFIsafe with safety-related communication. This F adapter/fail-safe interface module is snapped from the rear onto the EMERGENCY STOP device, enabling the achievement of maximum performance level "e" according to EN ISO 13849-1, or SIL 3 according to IEC 62061. • Thanks to SIRIUS ACT with PROFINET, commanding and signaling devices can be connected directly via PROFINET to the controller and HMI devices – including with safety functions. Engineering and commissioning are simplified by the TIA Portal. • EMERGENCY STOP devices for disconnecting plants in an emergency situation • With positive latching function according to EN ISO 13850 and performance level "e" according to EN ISO 13849-1 or SIL 3 according to IEC 62061 • Various mushroom diameters (also illuminated), with lock, in plastic/metal, as individual or complete units, and in combination with 3SU1 enclosure or two-hand operation console. The 3SU1 enclosures are also optionally available with ASIsafe interface 	3SU1 13/5
 <p>3SU1 with PROFINET</p>		
 <p>3SU1</p>		

		Type	Page
SIRIUS Safety Integrated (continued)			
 3SE7	Cable-operated switches <ul style="list-style-type: none">• Control functions and EMERGENCY STOP always within reach• More safety over long distances of up to 2 x 100 m length• Easy release• Fail-safe applications with SIRIUS Safety Integrated• Status display directly on the switch• Signal display for long distances in innovative LED technology with visibility over 50 m• Cable-operated switches with latching according to ISO 13850 (EN 418) and full EMERGENCY STOP function with positive-opening contacts• Quick and safe mounting using uniform mounting accessories• Versions with 1 NO/2 NC with yellow lid	3SE7	13/161
 3SE2924-3AA20	Safety foot switches <ul style="list-style-type: none">• Are used wherever manual operation is not possible• With hood, IP65 metal enclosure• With interlock function according to ISO 13850, manual release by pushbutton switch• With 2 NO + 2 NC, NO contacts close by momentary contact, positive-opening NC contacts with independent latching (safety function)	3SE2924-3AA20	13/165

Connection methods

The 3SK safety relays are available with screw or spring-type terminals (push-in).

The 3TK2810 safety relays and the 3RK3 Modular Safety System are available with screw or spring-type terminals.



Screw terminals



Spring-type terminals, spring-type terminals (push-in)

The terminals are indicated in the corresponding tables by the symbols shown on orange backgrounds.

3SK safety relays: Spring-type terminals (push-in)

Push-in connections are a form of spring-type terminals allowing fast wiring without tools for rigid conductors or conductors equipped with end sleeves.

As with other spring-type terminals, a screwdriver (with 3.0 x 0.5 mm blade) is required to disconnect the conductor. The same tool can also be used to wire finely stranded or stranded conductors with no end finishing.

The advantages of the push-in terminals are found, as with all spring-type terminals, in speed of assembly and disassembly and vibration-proof connection. There is no need for the checking and tightening required with screw terminals, [see video "SIRIUS spring-type terminals – strong, flexible, safe and fast!"](#)

Safety Relays

SIRIUS 3SK Safety Relays

General data

Overview



SIRIUS 3SK safety relays

More information

Homepage, see www.siemens.com/safety-relays
 Industry Mall, see www.siemens.com/product?3SK
 Conversion tool, e.g. from 3TK28 to 3SK, see www.siemens.com/sirius/conversion-tool

SIRIUS 3SK safety relays are the key elements of a consistent, cost-effective safety chain. Whether you need EMERGENCY STOP functionality, protective door monitoring, light arrays, laser scanners or the protection of presses or punches – slimline SIRIUS safety relays enable all safety applications to be implemented in the best possible way in terms of engineering and price.

The following safety-related functions are available:

- Monitoring the safety functions of sensors
- Monitoring the sensor leads
- Monitoring the correct device function of the safety relay
- Monitoring the actuators in the shutdown circuit
- Safety-related disconnection when dangers arise

SIRIUS 3SK safety relays are approved for applications up to SIL 3 (IEC 61508/IEC 62061) or PL e (EN ISO 13849-1).

Device series

SIRIUS 3SK safety relays stand out due to their flexibility for both parameterization and system designs with several evaluation units. This reduces device variance, thus bringing advantages in terms of device selection and spare parts management. Optimized solutions when selecting components and reduced spare part inventory requirements are facilitated by a clearly structured component range:

The following device series are available:

- 3SK1 Standard basic units
- 3SK1 Advanced basic units
- 3SK2 basic units
- 3SK1 output expansions
- 3SK1 input expansions
- Accessories

3SK1 Standard basic units

The 3SK1 Standard basic units are characterized by the following features:

- Compact design
- Simple operation
- Relay and semiconductor outputs
- Economical solution

3SK1 Advanced basic units

The 3SK1 Advanced basic units also offer:

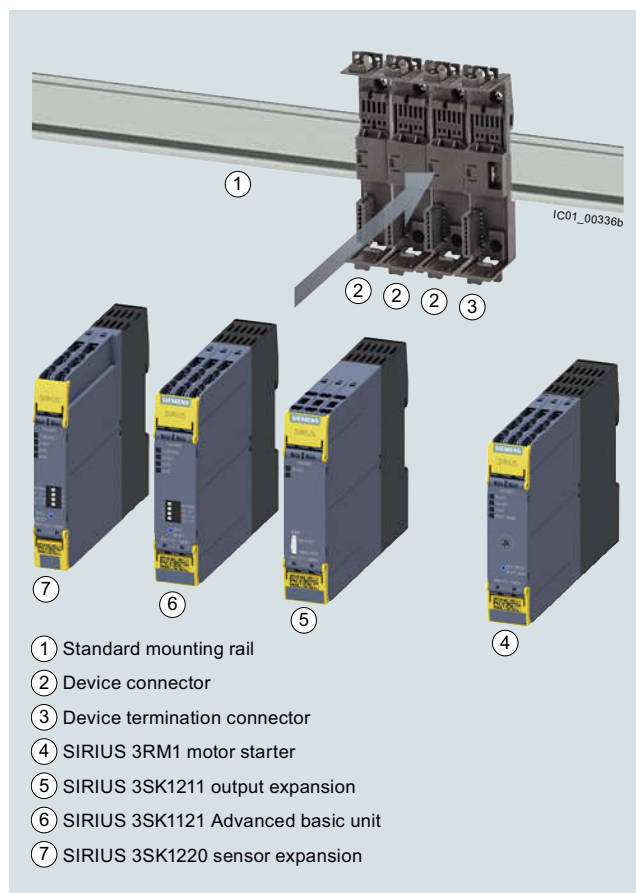
- Universal application possibilities thanks to multifunctionality
- Time-delayed outputs
- Expansion of inputs and outputs

3SK2 basic units

The 3SK2 basic units also offer:

- Up to six fail-safe, independent shutdown functions
- Flexible in use thanks to software parameterization
- Powerful semiconductor outputs
- Convenient diagnostics using diagnostics display and configuration software

In the case of 3SK1 Advanced basic units or 3SK2 basic units, the 3ZY12 device connector allows safety functions involving several sensors and actuators to be constructed very quickly.



System configuration example

Safety Relays

SIRIUS 3SK Safety Relays

General data

The 3SK1 Standard and Advanced and 3SK2 series are a high-quality replacement for the 3TK28 safety relays. In their narrower design, and equipped with greater functionality, they

can replace every 3TK28 device. The only exception to this are the 3TK2810 devices.

Overview of functions of the 3SK series

Type	3SK1 Standard basic units		3SK1 Advanced basic units		3SK2 basic units	
	Safe relay outputs	Safe semiconductor outputs	Safe relay outputs	Safe semiconductor outputs	22.5 mm Safe semiconductor outputs	45 mm Safe semiconductor outputs
Sensors						
• Mechanical	✓	✓	✓	✓	✓	✓
• Non-floating	✓ ¹⁾	✓	✓	✓	✓	✓
• Antivalent	--	--	✓	✓	✓	✓
• Expandable	--	✓ by means of cascading	✓	✓	--	--
Inputs						
	2 x single-channel, 1 x two-channel	2 x single-channel, 1 x two-channel	2 x single-channel, 1 x two-channel	2 x single-channel, 1 x two-channel	Freely configurable: 10 x single-channel, 5 x two-channel	Freely configurable: 20 x single-channel, 10 x two-channel
Parameters						
• Start (auto/monitored)	✓	✓	✓	✓	A variety of functions can be set for each input/output by means of software parameterization.	
• Sensor connection 2 x single-channel/ 1 x two-channel	✓ by means of wiring	✓	✓	✓		
• Cross-circuit detection	✓ by means of wiring	✓	✓	✓		
• Start test ON/OFF	--	✓	✓	✓		
• Monitoring of two-hand operation consoles according to EN 574	--	--	✓	✓		
• Pressure-sensitive mat	--	--	✓	✓		
Safe outputs						
• Instantaneous	✓	✓	✓	✓	Configurable	Configurable
• Time-delayed	--	--	✓	✓	Configurable	Configurable
• Expandable with safe relay outputs	✓ by means of wiring	✓ by means of wiring	✓	✓	✓	✓
• Independent	--	--	--	--	✓ ⁴⁾	✓ ⁵⁾
• Device connectors	--	--	✓	✓	✓	✓
Options						
• External memory module	--	--	--	--	--	✓
• Display on the device	--	--	--	--	--	✓
• External diagnostics module can be connected	--	--	--	--	✓	✓
Control supply voltage						
• 24 V DC	✓ ²⁾	✓	✓ ³⁾	✓	✓	✓
• 110 ... 240 V AC/DC	✓	✓ ⁶⁾	✓ ³⁾	✓ ³⁾	--	--

✓ Available

-- Not available

¹⁾ 24 V basic units only.

²⁾ 24 V AC/DC.

³⁾ Possible using 3SK1230 power supply via device connector.

⁴⁾ Up to four independent safe outputs, two of which via device connectors.

⁵⁾ Up to six independent safe outputs, two of which via device connectors.

⁶⁾ Possible using 3SK1230 power supply by means of wiring.

Safety Relays

SIRIUS 3SK Safety Relays

General data

Parameter assignment

3SK112 and 3SK1112 with DIP switch

The 3SK112 and 3SK1112 safety relays are configurable safety relays. They are used as evaluation units for typical safety chains (detect, evaluate, react). A number of functions can be set using the DIP switches on the front. 3SK112 and 3SK1112 are therefore universally applicable.

DIP switch No.	OFF	ON	Schematic
1	Sensor input Autostart	Sensor input Monitored start	
2	Without crossover monitoring	With crossover monitoring	
3	2 x single-channel sensor connection	1 x two-channel sensor connection	
4	With start test	Without start test	

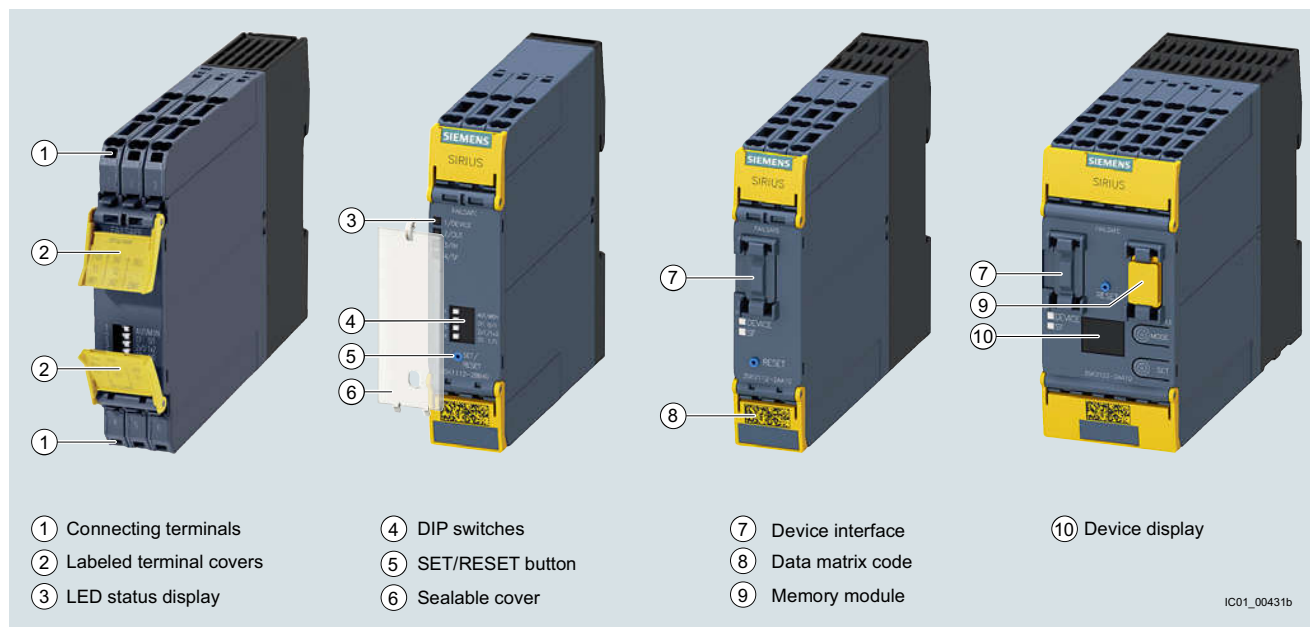
3SK2 with software

The 3SK2 safety relays are configured with the SIRIUS Safety ES software. The behavior of a 3SK2 device as well as the functioning of the individual safe outputs can thus be parameterized simply and conveniently in the logic diagram. In addition, the configuration can be printed out for documentation purposes. The software also supports users in commissioning and troubleshooting by means of online diagnostics and the option of "forcing" signals in the logic diagram. The 3SK2 safety relays thus offer maximum flexibility and universal application options.

Note:

SIRIUS Safety ES, [see page 14/22](#).

Enclosure concept



Innovative enclosure concept for SIRIUS 3SK safety relays

Connection methods

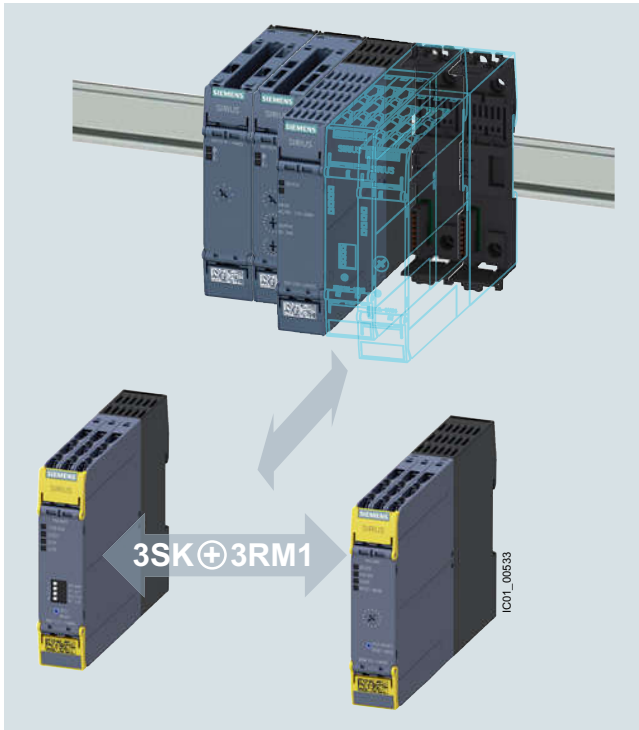
The 3SK safety relays are available with screw or spring-type terminals (push-in).

Spring-type terminals (push-in)

Push-in connections are a form of spring-type terminals allowing fast wiring without tools for rigid conductors or conductors equipped with end sleeves.

As with other spring-type terminals, a screwdriver (with 3.0 x 0.5 mm blade) is required to disconnect the conductor. The same tool can also be used to wire finely stranded or stranded conductors with no end finishing.

The advantages of the push-in terminals are found, as with all spring-type terminals, in speed of assembly and disassembly and vibration-proof connection. There is no need for the checking and tightening required with screw terminals.

Seamlessly integrated safety right through to the main circuit


Problem-free integration of functional safety into the main circuit through the simple combination of 3RM1 and 3SK1 devices

Functional safety in the main circuit needs to be both simple and flexible

The unique compatibility of hybrid 3RM1 fail-safe motor starters and 3SK safety relays means that integrated functional safety right through to the main circuit is no longer a problem.

Their compact design allows the motor starters to be installed to the right of the safety relay in a simple manner, just like an output expansion. The wiring of the safety-related signals to the relay can be performed simply, quickly and in an error-free manner using the device connector.

The ergonomically designed enclosure with removable terminals and terminal labeling in the hinged cover allows for the cables to be conveniently diagonally mounted from the front. Either screw or spring-type terminals with push-in technology are available.

Highlights

- Fail-safe disconnection of motors up to 3 kW
- Problem-free combination of fail-safe motor starters and safety relays
- End-to-end system, simple setup using device connectors
- Ergonomic enclosure

Note:

SIRIUS 3RM1 motor starters, [see page 8/85](#).

Article No. scheme

Product versions		Article number									
3SK1 safety relays		3SK1									
Device version	Basic unit	1									
	Expansion unit	2									
Device variants	3SK11: Standard; 3SK12: Output expansion	1									
	3SK11: Advanced; 3SK12: Input expansion	2									
Type of outputs	Relay outputs	1									
	Semiconductor outputs	2									
	Power outputs	3									
Connection type	Screw terminals					1					
	Spring-type terminals (push-in)					2					
Control circuit/actuation	3SK11: 3 enabling circuits						A				
	3SK11: 2 enabling circuits						B				
	3SK11: 4 enabling circuits						C				
Type of control supply voltage	3SK1213: 24 V AC, 50/60 Hz						B 0				
	3SK1: 24 V AC/DC, 50/60 Hz						B 3				
	3SK1: 24 V DC						B 4				
	3SK1213: 115 V AC, 50/60 Hz						J 2				
	3SK1213: 230 V AC, 50/60 Hz						L 2				
	3SK1: 110 ... 240 V AC/DC; 50/60 Hz						W 2				
Time delay	None								0		
	0.05 ... 3 s								1		
	0.5 ... 30 s								2		
	5 ... 300 s								4		
Example		3SK1	1	1	1	-	1	A	B	3	0

Safety Relays

SIRIUS 3SK Safety Relays

General data

Product versions		Article number							
3SK2 safety relays		3SK2	1	<input type="checkbox"/>	2	-	<input type="checkbox"/>	A	A 1 0
Device variants	10 F-DI, 2 F-DQ, width 22.5 mm		1						
	20 F-DI, 4 F-DQ, width 45 mm		2						
Connection type	Screw terminals						1		
	Spring-type terminals (push-in)						2		
Example		3SK2	1	1	2	-	1	A	A 1 0

Note:

The Article No. schemes show an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Benefits

General

- Approved for all safety applications because of its compliance with the highest safety requirements (SIL 3 and PL e)
- Universally usable thanks to adjustable parameters
- Usable worldwide thanks to globally valid certificates
- Compact SIRIUS design
- Device connectors with standard rail mounting for flexible connectability and expandability
- Removable terminals for greater plant availability
- Yellow terminal covers clearly identify the device as a safety component
- Sensor cable up to 2 000 m long allows it to be used in extensive plants

Relay outputs

- Different voltages can be switched through the floating contacts
- The relay contacts allow currents of up to 5 A at AC-15/DC-13 to be connected

Semiconductor outputs

- Wear-free
- Suitable for operation in frequently switching applications
- Insensitive to vibrations and dirt
- Good electrical endurance

Power outputs (3SK1213 output expansion)

- Different voltages can be switched through the floating contacts
- With the power relay contacts currents up to 10 A AC-15/6 A DC-13 can be switched
- High mechanical and electrical endurance
- Protective separation between safe outputs and electronics

Expansion option by adding the 3RM1 motor starter

SIRIUS 3SK safety relays are ideal for combining with the SIRIUS 3RM1 motor starters.

Combinations are made by means of

- SIRIUS 3ZY12 device connectors (in combination with 3SK1 Advanced/3SK2) or
- Conventional wiring (for all 3SK1 and 3SK2 basic units)

This makes collective shutdown very easy in assemblies. The wiring, and ultimately the shutting down of the control supply voltage for the expansion components in EMERGENCY STOP situations, is performed via the device connector. There is no further need for complex looping of the connecting cables between the safety relay and the motor starters.

The 3RM1 motor starter combines the benefits of semiconductor technology and relay technology. This combination is also known as hybrid technology.

The hybrid technology in the motor starter is characterized by the following features:

- The inrush current in the case of motorized loads is conducted briefly via the semiconductors. Advantages include protection of the relay contacts and a long service life due to low wear.
- The uninterrupted current is conducted via relay contacts. Advantages include lower heat losses compared with the semiconductor.
- Shutdown is implemented again via the semiconductor. The contacts are only slightly exposed to arcs, and this results in a longer service life.
- Integrated overload protection

Note:

SIRIUS 3RM1 motor starters, [see page 8/85](#).

3ZY12 device connectors

Using 3ZY12 device connectors to combine devices reduces the time required to configure and wire the components. At the same time errors are avoided during wiring, and this considerably reduces the testing required for the fully-assembled application.

Configuration and stock keeping

Variable setting options by means of DIP switches or software, a wide voltage range (3SK1111) and a special power supply unit (3SK1 only) reduce the cost of keeping stocks and the considerations involved in configuration where the evaluation units to be selected are concerned.

Application

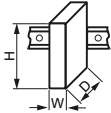
3SK1 safety relays

SIRIUS 3SK1 safety relays are used mainly in autonomous safety applications which are not connected to a safety-related bus system. Their function here is to evaluate the sensors and the safety-related shutdown of hazards. Also they check and monitor the sensors, actuators and safety-related functions of the safety relay.

3SK2 safety relays

SIRIUS 3SK2 safety relays are used primarily in autonomous, more complex safety applications for which the functional scope of the 3SK1 devices is no longer sufficient, such as in the implementation of independent shutdown functions or integration into higher-level control systems for diagnostics via fieldbus. Their function here is to evaluate the sensors and the safety-related shutdown of hazards. Also they check and monitor the sensors, actuators and safety-related functions of the safety relay.

Technical specifications

More information								
Manual 3SK1, see https://support.industry.siemens.com/cs/ww/en/view/67585885				Manual 3SK2, see https://support.industry.siemens.com/cs/ww/en/view/109444336				
Technical specifications 3SK1230, see https://support.industry.siemens.com/cs/ww/en/ps/16388/td				FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16382/faq				
SIRIUS 3SK1 safety relays								
Article number		3SK1111- .AB30, 3SK1211- .BB00, 3SK1211- .BB40	3SK1111- .AW20, 3SK1121, 3SK1211- .BW20	3SK1112	3SK1120	3SK1122	3SK1213	3SK1220
General data:								
Width x height x depth		mm	22.5 x 100 x 121.6	22.5 x 100 x 91.6	17.5 x 100 x 121.6	22.5 x 100 x 121.6	90 x 100 x 121.6	17.5 x 100 x 121.6
Ambient temperature								
• During operation	°C	-25 ... +60						
• During storage	°C	-40 ... +80						
Installation altitude at height above sea level, maximum			m 2 000					
Air pressure acc. to SN 31205			kPa 90 ... 106					
Shock resistance			10 g / 11 ms				5 g / 10 ms	10 g / 11 ms
Vibration resistance according to IEC 60068-2-6			5 ... 500 Hz: 0.75 mm					
Degree of protection of the enclosure			IP20					
Touch protection against electric shock			Finger-safe					
Insulation voltage, rated value			V 300	50			300	50
Impulse withstand voltage, rated value			V 4 000	800			4 000	800
Safety integrity level (SIL) according to IEC 61508			3					
Performance level (PL) according to EN ISO 13849-1			e					
T1 value for proof test interval or y service duration according to IEC 61508			20					
EMC emitted interference			IEC 60947-5-1, class B IEC 60947-5-1, class A				IEC 60947-5-1, class B	IEC 60947-5-1, class A
Certificate of suitability								
• UL certification			Yes					
• TÜV approval			Yes					

Safety Relays

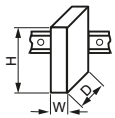
SIRIUS 3SK Safety Relays

General data

Article number		3SK1111, 3SK1121-.AB40, 3SK1211	3SK1112, 3SK1122	3SK1120	3SK1121-.CB4.	3SK1213
Switching capacity current of the NO contacts of the relay outputs <ul style="list-style-type: none"> At AC-15 at 230 V At DC-13 at 24 V 						
	A	5	--		3	10
	A	5	--		3	6
Switching capacity current of the semiconductor outputs at DC-13 at 24 V	A	--	2	0.5	--	

Article number		3SK1111-.AB30, 3SK1211	3SK1111-.AW20	3SK1112, 3SK1220	3SK1120, 3SK1122-.AB40	3SK1121-.AB40	3SK1121-.CB4.	3SK1122-.CB4.	3SK1213
PFHD at high demand rate according to EN 62061	1/h	1.7×10^{-9}	1.5×10^{-9}	1.0×10^{-9}	1.3×10^{-9}	2.5×10^{-9}	3.7×10^{-9}	1.5×10^{-9}	1.0×10^{-9}
PFDavg at low demand rate according to IEC 61508		1.0×10^{-6}		7.0×10^{-6}					1.0×10^{-6}

SIRIUS 3SK2 safety relays

Article number		3SK2112-.AA10	3SK2122-.AA10
General data:			
Width x height x depth	mm	22.5 x 100 x 124.5	45 x 100 x 124.5
			
Ambient temperature			
• During operation	°C	-25 ... +60	
• During storage	°C	-40 ... +80	
Installation altitude at height above sea level, maximum	m	2 000	
Air pressure acc. to SN 31205	kPa	90 ... 106	
Shock resistance		15 g/11 ms	
Vibration resistance acc. to IEC 60068-2-6		5 ... 500 Hz: 0.75 mm	
Degree of protection of the enclosure		IP20	
Touch protection against electric shock		Finger-safe	
Insulation voltage, rated value	V	50	
Impulse withstand voltage, rated value	V	800	
Safety integrity level (SIL) according to IEC 61508		3	
Performance level (PL) according to EN ISO 13849-1		e	
T1 value for proof test interval or service duration according to IEC 61508	y	20	
EMC emitted interference according to IEC 60947-1		Class A	
Certificate of suitability			
• UL certification		Yes	
• TÜV approval		Yes	
Switching capacity current of the semiconductor outputs at DC-13 at 24 V	A	4	
PFHD at high demand rate according to EN 62061	1/h	1.0×10^{-8}	1.2×10^{-8}
PFDavg at low demand rate according to IEC 61508		1.5×10^{-5}	1.8×10^{-5}

Overview



3SK111 Standard basic units

The 3SK111 Standard basic units are characterized by simple, variable functionality. These devices are recommended for safety functions requiring only a few sensors and a small number of outputs on the safety relay.

Note:

Use of device connectors not possible.

Selection and ordering data



3SK1111-1AB30



3SK1111-1AW20



3SK1112-1BB40

Control supply voltage		Number of outputs			as contactless semiconductor			SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
at AC at 50 Hz	at DC	as contacting contact block	as NO contact, instantaneous switching	as NO contact, delayed switching	for signaling function, instantaneous switching	instantaneous switching	delayed switching						
V	V							d					
Standard basic units													
24	24	3	0	1	0	0	0	▶	3SK1111-□AB30		1	1 unit	41L
110 ... 240	110 ... 240	3	0	1	0	0	0	1	3SK1111-□AW20		1	1 unit	41L
--	24	0	0	0	2	0	1	2	3SK1112-□BB40		1	1 unit	41L

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

1
2

Safety Relays

SIRIUS 3SK Safety Relays

Basic Units

SIRIUS 3SK1 Advanced basic units

Overview



3SK112 Advanced basic units

The 3SK112 Advanced basic units form an innovative system landscape that allows even complex safety functions with large numbers of sensors and outputs to be built up using the device connectors. It is possible to increase both the number of inputs for sensors and the number of safe outputs of the basic unit without the need for wiring outlay between the devices.

Note:

Use of device connectors possible.

Selection and ordering data



3SK1121-1AB40



3SK1120-1AB40



3SK1122-1AB40



3SK1122-1CB41

Control supply voltage at DC	Number of outputs as contacting contact block			as contactless semiconductor contact block			Adjustable OFF-delay time	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	as NO contact, instantaneous switching	as NO contact, delayed switching	as NC contact for signaling function, instantaneous switching	instantaneous switching	delayed switching	for signaling function, instantaneous switching							
V							s	d					
Advanced basic units													
24	3	0	1	0	0	0	--	▶	3SK1121-□AB40		1	1 unit	41L
	2	2	0	0	0	0	0.05 ... 3	2	3SK1121-□CB41		1	1 unit	41L
							0.5 ... 30	1	3SK1121-□CB42		1	1 unit	41L
							5 ... 300	5	3SK1121-□CB44		1	1 unit	41L
24	0	0	0	1	0	0	--	2	3SK1120-□AB40		1	1 unit	41L
				3	0	1	--	2	3SK1122-□AB40		1	1 unit	41L
				2	2	0	0.05 ... 3	5	3SK1122-□CB41		1	1 unit	41L
							0.5 ... 30	2	3SK1122-□CB42		1	1 unit	41L
							5 ... 300	5	3SK1122-□CB44		1	1 unit	41L

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

1
2

Overview



3SK2 basic units

The 3SK2 basic units have a large number of inputs and outputs within a narrow width. In addition, demanding safety applications can be implemented simply with several independent safety functions. Flexible application options are enabled by powerful semiconductor outputs, as well as by expandability with additional 3SK output expansions and 3RM1 Failsafe motor starters. Flexible time functions and diagnostics options are available. The 22.5-mm-wide version of the 3SK2 basic units has 10 x single-channel (5 x two-channel) inputs, while the 45-mm-wide 3SK2 version comes with 20 x single-channel (10 x two-channel) inputs.



Starter Kit

Starter Kit

The Starter Kit is a favorably-priced complete package for the simple creation of complex safety applications and comprises:

- 3SK2112-2AA10 basic unit, 22.5 mm wide, with spring-type terminals (push-in)
- SIRIUS Safety ES Standard software for configuring, commissioning, operating and diagnosing
- USB PC cable for easy transmission of the configuration to the device by means of USB

Selection and ordering data



3SK2112



3SK2122

Control supply voltage at DC	Number of outputs as contactless semiconductor contact block, safety-related, two-channel	Number of outputs as contactless semiconductor contact block, non-safety-related, two-channel	Number of outputs to the device connector, safety-related	Width	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
V				mm	d					
3SK2 basic units										
24	2	1	2	22.5	2	3SK2112-□AA10		1	1 unit	41L
	4	2	2	45	2	3SK2122-□AA10		1	1 unit	41L

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

1
2

Control supply voltage at DC	Number of outputs as contactless semiconductor contact block, safety-related, two-channel	Number of outputs as contactless semiconductor contact block, non-safety-related, two-channel	Number of outputs to the device connector, safety-related	Width	SD	Spring-type terminals (push-in)	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
V				mm	d						
Starter Kit											
Contains 3SK2112-2AA10 basic unit, SIRIUS Safety ES Standard and 3UF7941-0AA00-0 USB PC cable											
24	2	1	2	22.5	2		3SK2941-2AA10		1	1 unit	4N1

Safety Relays

SIRIUS 3SK Safety Relays

Expansion Units

Output expansions

Overview



3SK121 output expansion

The 3SK121 output expansions can be used to expand all 3SK basic units.

3SK1211 output expansion

The 3SK1211 output expansion is used to expand the safe outputs of a basic unit by adding another four safe outputs. These outputs have a switching capacity of AC-15 5 A at a switching voltage of 230 V. The devices can be connected to any 3SK basic unit by means of wiring. In addition, the devices with a 24 V DC control supply voltage can also be connected to 3SK1 Advanced basic units and 3SK2 basic units by means of the 3ZY12 device connectors.

3SK1213 output expansion

The 3SK1213 output expansion is used to expand the safe outputs of a basic unit by adding three safe outputs with high switching capacity. These outputs have a switching capacity of AC-15 10 A at a switching voltage of 230 V. The devices can be connected to any 3SK basic unit by means of wiring. As with the 3SK1211, the devices with a 24 V DC control supply voltage can also be connected to 3SK1 Advanced and 3SK2 basic units by means of the 3ZY12 device connectors.

Note:

It is only possible to expand the Standard basic units by means of wiring. Advanced basic units and 3SK2 basic units can be expanded using the 3ZY12 device connector.

Benefits

- Perfect adaptation of the number of outputs
- Simple expansion of instantaneous and time-delayed safe outputs of the Advanced basic units using device connectors
- When using the device connector the outputs on the terminals of the basic device can still be used
- Another two freely configurable shutdown functions on 3SK2 basic units when using device connectors
- Expansion with power contacts for high AC-15/DC-13 currents in the control circuit
- No wiring of the feedback circuit to the basic units is required when using device connectors
- Shorter installation times
- Less configuring and testing required

Selection and ordering data



3SK1211-1BB40



3SK1213-1AB40

Control supply voltage		Number of outputs as contacting contact block			3ZY12 device connectors	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
at AC at 50 Hz	at DC	as NO contact, instantaneous switching	as NO contact, delayed switching	as NC contact instantaneous switching for feedback circuit							
V	V					d					
Output expansions											
24	--	4	0	1	No	5	3SK1211-□BB00		1	1 unit	41L
--	24	4	0	1	Yes	1	3SK1211-□BB40		1	1 unit	41L
110 ... 240	110 ... 240	4	0	1	No	2	3SK1211-□BW20		1	1 unit	41L
--	24	3	0	1	Yes	5	3SK1213-□AB40		1	1 unit	41L
115	--	3	0	1	No	5	3SK1213-□AJ20		1	1 unit	41L
230	--	3	0	1	No	5	3SK1213-□AL20		1	1 unit	41L

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

1
2

Overview



3SK1220 sensor expansion

With the input expansions

- 3SK1220 sensor expansion
- 3SK1230 power supply

the 3SK1 Advanced basic units can be made more flexible.

3SK1220 sensor expansion

The 3SK1220 input expansion allows additional sensors to be integrated easily and flexibly. The device monitors two single-channel sensors or one two-channel sensor, whatever their output technology (floating/single-ended).

Note:

The 3SK1220 sensor expansion can only be connected to the 3SK1 Advanced basic units by means of the 3ZY12 device connector, [see page 11/24](#).

3SK1230 power supply

The 3SK1230 power supply makes the 3SK1 devices universally usable, whatever control supply voltage is to be used.

Note:

Alongside the 3ZY12 device connector, the 3SK1230 power supply can also be wired to act as a power supply for 3SK1 devices.

Benefits

- A wide voltage range of 110 ... 240 V AC/DC allows the devices to be used worldwide
- Low stock keeping due to little variance
- Flexible expansion of the number of sensors without the need for additional wiring between the devices
- Perfect adaptation of the number of inputs to suit the application
- Universal use thanks to the wide range of adjustable parameters for sensor expansion (parameters as for 3SK1 Advanced basic units)

Selection and ordering data



3SK1220-1AB40



3SK1230-1AW20

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Sensor expansions						
For safety-related expansion of the 3SK1 Advanced basic units by adding a further two-channel sensor or two single-channel sensors	2	3SK1220-□AB40		1	1 unit	41L
Power supply						
For supplying 3SK1 Advanced basic units via 3ZY12 device connectors at voltages of 110 ... 240 V AC/DC	2	3SK1230-□AW20		1	1 unit	41L
Type of electrical connection						
<ul style="list-style-type: none"> • Screw terminals • Spring-type terminals (push-in) 						

Safety Relays

SIRIUS 3SK Safety Relays

Accessories

Overview

Numerous accessories are available for 3SK, such as device connectors, terminals, cables, adapters, covers, memory and diagnostics modules or software.

Device connectors for 3SK112., 3SK12.. and 3SK2

The device connector can be used to connect devices of the 3SK/3RM1 system together, with the last device in a system configuration being placed on a device termination connector. Use of device connectors not possible with 3SK1 standard.

Device connectors are available in various versions specifically for the 3SK safety relays:

For type	Device connectors				Device termination connectors	
	3ZY1212-1BA00 (for 3SK1, width 17.5 mm)	3ZY1212-2BA00 (for 3SK1, width 22.5 mm)	3ZY1212-2GA00 (for 3SK2, width 22.5 mm)	3ZY1212-4GA01 (for 3SK2, width 45 mm)	3ZY1212-2DA00 (for 3SK1, width 22.5 mm)	3ZY1212-0FA01 (for 3SK1, set for enclosures ≥ 45 mm)
3SK1 Advanced basic units						
3SK1120	✓	--	--	--	--	--
3SK1121	--	✓	--	--	✓	--
3SK1122	--	✓	--	--	✓	--
3SK2 basic units						
3SK2112	--	--	✓	--	--	--
3SK2122	--	--	--	✓	--	--
Output expansions						
3SK1211	--	✓	--	--	✓	--
3SK1213	--	--	--	--	--	✓
Input expansions						
3SK1220	✓	--	--	--	--	--
3SK1230	--	✓	--	--	--	--

✓ Available

-- Not available

Removable terminals for 3SK

The following removable terminals are available for the 3SK safety relays for pre-wiring of the terminals in the control cabinet, or for replacing terminals:

For type	Removable terminals		Spring-type terminals (push-in)	
	Screw terminals			
	2-pole 3ZY1121-1BA00	3-pole 3ZY1131-1BA00	2-pole 3ZY1121-2BA00	3-pole 3ZY1131-2BA00
3SK1 basic units				
3SK1111	--	✓	--	✓
3SK1112	✓	--	✓	--
3SK1120	--	✓	--	✓
3SK1121	--	✓	--	✓
3SK1122	✓ bottom	✓ top	✓ bottom	✓ top
3SK2 basic units				
3SK2112	--	✓	--	✓
3SK2122	--	✓ ¹⁾	--	✓ ¹⁾
Output expansions				
3SK1211	✓	--	✓	--
3SK1213	--	--	--	--
Input expansions				
3SK1220	--	✓ top	--	✓ top
3SK1230	✓ bottom	--	✓ bottom	--

✓ Available

-- Not available

¹⁾ Two sets of terminals are required for 3SK2122.

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Device connectors for the electrical connection of SIRIUS devices in the industrial standard mounting rail enclosure



3ZY1212-1BA00

3ZY1212-2DA00

Device connector for 3SK1

- Width 17.5 mm
- Width 22.5 mm

Device connector for 3SK2

- Width 22.5 mm
- Width 45 mm

Device termination connectors

For 3SK1, width 22.5 mm

Note:
Observe positions of the slide switch, see Manual "3SK1".

Device daisy chain connectors

For 3RM1 and 3SK, 24 V DC, 22.5 mm, for implementation of distances between devices according to the installation guidelines

Device connectors

For height adjustment for devices without electrical connection via device connector, with a width of 22.5 mm or greater

Device termination connector set


For 3SK1213, width > 45 mm, comprising 3ZY1212-2FA00 and 3ZY1210-2AA00

2	3ZY1212-1BA00	1	1 unit	41L
2	3ZY1212-2BA00	1	1 unit	41L
2	3ZY1212-2GA00	1	1 unit	41L
2	3ZY1212-4GA01	1	1 unit	41L
2	3ZY1212-2DA00	1	1 unit	41L
2	3ZY1212-2AB00	1	1 unit	41L
2	3ZY1210-2AA00	1	1 unit	41L
2	3ZY1212-0FA01	1	1 unit	41L

Safety Relays

SIRIUS 3SK Safety Relays





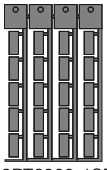


Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Terminals for SIRIUS devices in the industrial standard mounting rail enclosure						
 3ZY1121-1BA00	Removable terminals		Screw terminals 			
	• 2-pole, up to 2 x 1.5 mm ² or 1 x 2.5 mm ²	2	3ZY1121-1BA00	1	6 units	41L
	• 3-pole, up to 2 x 1.5 mm ² or 1 x 2.5 mm ² ¹⁾	2	3ZY1131-1BA00	1	6 units	41L
			Spring-type terminals (push-in) 			
	• 2-pole, up to 2 x 1.5 mm ²	2	3ZY1121-2BA00	1	6 units	41L
	• 3-pole, up to 2 x 1.5 mm ² ¹⁾	2	3ZY1131-2BA00	1	6 units	41L
PC cables and adapters for 3SK2 (essential accessories)						
 3UF7941-0AA00-0	USB PC cables ▶ For connecting to the USB interface of a PC/PG, for communication with 3SK2 through the system interface, recommended for use in connection with 3SK2		3UF7941-0AA00-0 1 1 unit 42J			
Connecting cables for 3SK2 (essential accessory for diagnostics module)						
 3UF7932-0AA00-0	For connecting diagnostics module to 3SK2 basic unit					
	Central units with expansion modules	Diagnostics modules with central unit	Length			
	✓	✓	• 0.025 m (flat) ▶	3UF7930-0AA00-0	1	1 unit 42J
	--	✓	• 0.1 m (flat) ▶	3UF7931-0AA00-0	1	1 unit 42J
	--	✓	• 0.15 m (flat) NEW ▶	3UF7934-0AA00-0	1	1 unit 42J
	--	✓	• 0.3 m (flat) ▶	3UF7935-0AA00-0	1	1 unit 42J
	--	✓	• 0.5 m (flat) ▶	3UF7932-0AA00-0	1	1 unit 42J
	--	✓	• 0.5 m (round) ▶	3UF7932-0BA00-0	1	1 unit 42J
	--	✓	• 1.0 m (round) ▶	3UF7937-0BA00-0	1	1 unit 42J
	--	✓	• 2.5 m (round) ▶	3UF7933-0BA00-0	1	1 unit 42J
Operating and monitoring modules for 3SK2						
 3SK2611-3AA00	Diagnostics modules 2 For direct display of errors, e.g. of cross-circuits <u>Note:</u> The 3RK3611-3AA00 MSS diagnostics module cannot be operated on the 3SK2 devices.		3SK2611-3AA00 1 1 unit 41L			
Door adapters for 3SK2						
 3UF7920-0AA00-0	For external connection of the system interface, e.g. outside a control cabinet ▶		3UF7920-0AA00-0 1 1 unit 42J			
Interface covers for 3SK2						
 3RA6936-0B	For system interface • Titanium gray		3RA6936-0B 1 5 units 42F			
	• Light gray ▶		3UF7950-0AA00-0 1 5 units 42J			
 3UF7950-0AA00-0						
Memory modules for 3SK2						
 3RK3931-0AA00	For backing up the complete parameterization of the 3SK2 safety system without a PC/PG through the system interface 2		3RK3931-0AA00 1 1 unit 42C			
Software for 3SK2						
 3ZS1316-.C.10-0Y.5	SIRIUS Safety ES Software for configuring, commissioning, operating and diagnosing of 3SK2 and 3RK3, see page 14/22.					
¹⁾ For 3SK2122 two terminal sets are required.						

Safety Relays

SIRIUS 3SK Safety Relays

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Accessories for enclosures						
 3ZY1321-2AA00	Sealing covers					
	<ul style="list-style-type: none"> • 17.5 mm (for 3SK1120 and 3SK1220) • 22.5 mm (for all 3SK1 devices except 3SK1120 and 3SK1220) 	2	3ZY1321-1AA00	1	5 units	41L
		2	3ZY1321-2AA00	1	5 units	41L
 3ZY1311-0AA00	Push-in lugs For wall mounting	2	3ZY1311-0AA00	1	10 units	41L
 3ZY1440-1AA00	Coding pins For removable terminals of SIRIUS devices in the industrial standard mounting rail enclosure; they enable the mechanical coding of terminals, see Manual "3SK1"	2	3ZY1440-1AA00	1	12 units	41L
 3ZY1450-1AB00	Hinged cover NEW Replacement cover, without terminal labeling					
	<ul style="list-style-type: none"> • Titanium gray 	2	3ZY1450-1AB00	1	5 units	41H
	<ul style="list-style-type: none"> - 22.5 mm wide (for 3SK1230) 					
	<ul style="list-style-type: none"> • Yellow 	2	3ZY1450-1BA00	1	5 units	41H
	<ul style="list-style-type: none"> - 17.5 mm wide (for 3SK1220, 3SK1120) 					
 3ZY1450-1BB00	<ul style="list-style-type: none"> - 22.5 mm wide (for 3SK11 except 3SK1120, 3SK1211, 3SK2112) 	2	3ZY1450-1BB00	1	5 units	41H
	<ul style="list-style-type: none"> - 45 mm wide (for 3SK2122) 	2	3ZY1450-1BC00	1	5 units	41H
Blank labels						
 3RT2900-1SB20	Unit labeling plates For SIRIUS devices 20 mm x 7 mm, titanium gray ¹⁾	20	3RT2900-1SB20	100	340 units	41B
Tools for opening spring-type terminals						
 3RA2908-1A	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated	2	Spring-type terminals (push-in)  3RA2908-1A	1	1 unit	41B

¹⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

Overview



SIRIUS 3TK2810 safety relays

More information

Homepage, see www.siemens.com/safety-relaysIndustry Mall, see www.siemens.com/product?3TK28

Article No. scheme

Product versions		Article number			
Safety relays with special functions		3TK2810 – □ □ □ A □ □			
Device version	Standstill monitor	0			
	Speed monitor for NPN/PNP proximity switches and encoders	1			
Type of control supply voltage	24 V DC		B		
	230 V AC, 50/60 Hz		G		
	400 V AC, 50/60 Hz		J		
	120 ... 240 V AC/DC; 50/60 Hz		K		
Time delay	0.2 ... 6 s (standstill)			0	
	0 ... 999 s (release delay)			4	
Connection type	Screw terminals				1
	Spring-type terminals (push-in)				2
Version	Speed monitor for NAMUR proximity switches and encoders				– 0 A A 0
Example		3TK2810 – 0 B A 0 1			

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Benefits

3TK2810-0 standstill monitors

- No additional sensors required
- Signaling of faults with diagnostics display
- Standstill time can be set
- Unit can be used with frequency converters

3TK2810-1 speed monitors

- Menu-prompted, easy parameterization
- Direct diagnosis on the display means shorter downtimes thanks to early fault detection
- Integrated protective door monitoring means greater safety because access to the plant is allowed only in the safe state
- Suitable for all standard sensors, i.e. high flexibility

Safety Relays

SIRIUS 3TK28 Safety Relays

With special functions

Technical specifications

More information

Operating instructions 3TK2810-0, see
<https://support.industry.siemens.com/cs/ww/en/view/25437254>
 Manual 3TK2810-1, see
<https://support.industry.siemens.com/cs/ww/en/view/43707376>

Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16391/td>
 FAQs, see
<https://support.industry.siemens.com/cs/ww/en/ps/16391/faq>

Type	3TK2810-0 standstill monitors	3TK2810-1 speed monitors
Sensors		
• Inputs	3	4
• Electronic	--	3
• With contacts	--	1
• Without sensors (measuring inputs)	3	--
• Magnetically operated switch (Reed contacts)	--	--
Safety mats	--	--
Start		
• Auto	✓	✓
• Monitored	--	✓
Cascading input 24 V DC	--	--
Key-operated switch	--	--
Enabling circuit, floating		
• Stop category 0	3 NO + 1 NC	2
• Stop category 1	--	--
Enabling circuit, electronic		
• Stop category 0	--	--
• Stop category 1	--	--

✓ Available
 -- Not available

Type	3TK2810-0 standstill monitors	3TK2810-1 speed monitors
Signaling outputs		
• Floating	1 CO	--
• Electronic	2	2
Standards	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508	IEC 60947-5-1, EN ISO 13849-1, IEC 60204-1, IEC 61508
Test certificates	TÜV, UL, CSA	TÜV, UL, CSA
SIL level max. acc. to IEC 61508	3	3
Performance level PL acc. to EN ISO 13849-1	e	e
Probability of a dangerous failure per hour (PFH_d)	1.5 x 10 ⁻⁸ 1/h	3.38 x 10 ⁻⁹ 1/h
Rated control supply voltage		
• 24 V DC	✓	✓
• 230 V AC	✓	--
• 400 V AC	✓	--
• 120 ... 240 V AC/DC	--	✓

Selection and ordering data

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41L





3TK2810-0BA01



3TK2810-0GA02



3TK2810-1BA41

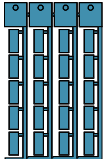






Rated control supply voltage U_s	Times	SD	Screw terminals		SD	Spring-type terminals	
V	s	d	Article No.	Price per PU	d	Article No.	Price per PU
Standstill monitors							
3TK2810-0							
• 24 DC	0.2 ... 6 (standstill)	5	3TK2810-0BA01		15	3TK2810-0BA02	
• 230 AC	0.2 ... 6 (standstill)	15	3TK2810-0GA01		15	3TK2810-0GA02	
• 400 AC	0.2 ... 6 (standstill)	15	3TK2810-0JA01		15	3TK2810-0JA02	
Speed monitors							
3TK2810-1 for NPN/PNP proximity switches and encoders							
• 24 DC	0 ... 999 (release delay)	2	3TK2810-1BA41		2	3TK2810-1BA42	
• 120 ... 240 AC/DC	0 ... 999 (release delay)	5	3TK2810-1KA41		5	3TK2810-1KA42	
3TK2810-1 for NAMUR proximity switches and encoders							
• 24 DC	0 ... 999 (release delay)	5	3TK2810-1BA41-0AA0		5	3TK2810-1BA42-0AA0	
• 120 ... 240 AC/DC	0 ... 999 (release delay)	5	3TK2810-1KA41-0AA0		5	3TK2810-1KA42-0AA0	

Safety Relays

SIRIUS 3TK28 Safety Relays

Accessories

Selection and ordering data

Use	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
Blank labels							
 3RT1900-1SB20	For 3TK28	Unit labeling plates For SIRIUS devices 20 mm x 7 mm, pastel turquoise ¹⁾	20		100	340 units	41B
	For 3TK28	Adhesive labels For SIRIUS devices <ul style="list-style-type: none"> 19 mm x 6 mm, pastel turquoise 19 mm x 6 mm, zinc yellow 	15		100	3 060 units	41B
			15		100	3 060 units	41B
Push-in lugs and covers							
 3RP1903	For 3TK28	Push-in lugs For screw fixing, 2 units required per device	5		1	10 units	41H
Adapters and connection cables for speed monitors							
 3TK2810-1A	For 3TK2810-1	Adapters For connecting encoders of type Siemens/Heidenhain <ul style="list-style-type: none"> 15-pole 	2		1	1 unit	41L
		<ul style="list-style-type: none"> 25-pole 	2		1	1 unit	41L
 3TK2810-1B							
 3TK2810-0A	For 3TK2810-1	Connection cables For connecting the speed monitor to the 3TK2810-1A or 3TK2810-1B adapter	15		1	1 unit	41L
Tools for opening spring-type terminals							
 3RA2908-1A	For auxiliary circuit connections	Screwdrivers For all SIRIUS devices with spring-type terminals; 3.0 mm x 0.5 mm; length approx. 200 mm, titanium gray/black, partially insulated	2		1	1 unit	41B
				Spring-type terminals 			

¹⁾ PC labeling system for individual inscription of unit labeling plates available from: murrplastik Systemtechnik GmbH, see page 16/16.

SIRIUS 3RK3 Modular Safety System

General data

Overview



SIRIUS 3RK3 Modular Safety System

More information

Homepage, see www.siemens.com/sirius-mss

Industry Mall, see www.siemens.com/product?3RK3

The 3RK3 Modular Safety System (MSS) is a freely configurable modular safety relay. Depending on the external circuit version, safety-related applications up to performance level e according to EN ISO 13849-1 or SIL 3 according to IEC 62061 can be realized.

The modular safety relay enables the interconnection of several safety applications.

The comprehensive error and status diagnostics provides the possibility of finding errors in the system and localizing signals from sensors. Plant downtimes can be reduced as the result.

The MSS comprises the following system components:

- Central units
- Expansion modules
- Interface modules
- Diagnostics modules
- Parameterization software
- Accessories

Central units

MSS Basic

The 3RK3 Basic central unit is used wherever several safety functions need to be evaluated and the wiring parameterization of safety relays would involve significant cost and effort. It reads in inputs, controls outputs and communicates through an interface module with higher-level control systems. An application's entire safety program is processed in the central unit. The 3RK3 Basic central unit is the lowest expansion level and fully functional on its own, without the optional expansion modules.

MSS Advanced

The 3RK3 Advanced central unit is the logical expansion of the Basic central unit with the functionality of an AS-i safety monitor. In addition to having a larger volume of project data and scope of functionality it can be integrated in AS-Interface and therefore make use of the many different possibilities offered by this bus system. The function can be optionally activated in the central unit.

The service-proven insulation piercing method of AS-Interface enables not only the distributed expansion of the project data volume using safe AS-i outputs, safe AS-i sensors and other MSS Advanced or safety monitors (F cross traffic) but also a highly flexible adaptation of the application, e.g. very fast connection of AS-i outputs, EMERGENCY STOP command devices, position switches with and without tumbler, or light curtains.

Safety-related disconnection using MSS or by distributed means using safe AS-i outputs and the formation of switch-off groups can be realized very easily. The same applies for any subsequent modifications. They are now possible by simply readdressing, meaning that rewiring is no longer necessary.

The AS-i bus is connected directly to the central unit.

MSS ASIsafe

The MSS ASIsafe basic and MSS ASIsafe extended central units are a logical development of the AS-i safety monitors based on the 3RK3 Modular Safety System.

Like MSS Advanced, MSS ASIsafe detects – in a comparable way to the safety monitors – safe sensor technology on the AS-i bus and switches actuators off in a safety-related manner via a configurable safety logic. It stands out by virtue of its greater project data volume, wider range of functions and the possibility of increasing the integrated I/O project data volume by means of expansion modules from the MSS system family. In this case the range of functions, such as the number and type of the logic elements that can be interconnected, is equivalent to that of MSS Advanced.

Expansion modules

With the optional expansion modules, both safety-related and standard, the system is flexibly adapted to the required safety applications.

Interface modules

The DP interface module is used for transferring diagnostics data and device status data to a higher-level PROFIBUS network, e.g. for purposes of visualization using HMI. When using the Basic central unit, 32-bit cyclic data can be exchanged with the control system. If an Advanced/ASIsafe central unit is used, the number is doubled to 64-bit cycle data. In acyclic mode, both central units can call up diagnostic data.

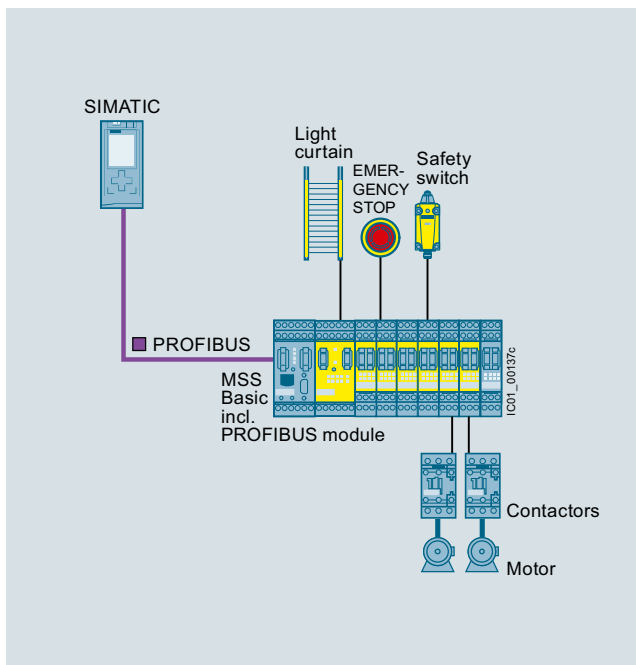
Diagnostics modules

Actuated sensors or faults, e.g. cross-circuit, are indicated directly on the diagnostics display. The fault is diagnosed directly in plain text by the detailed alarm message. The device is fully functional upon delivery. No programming is required.

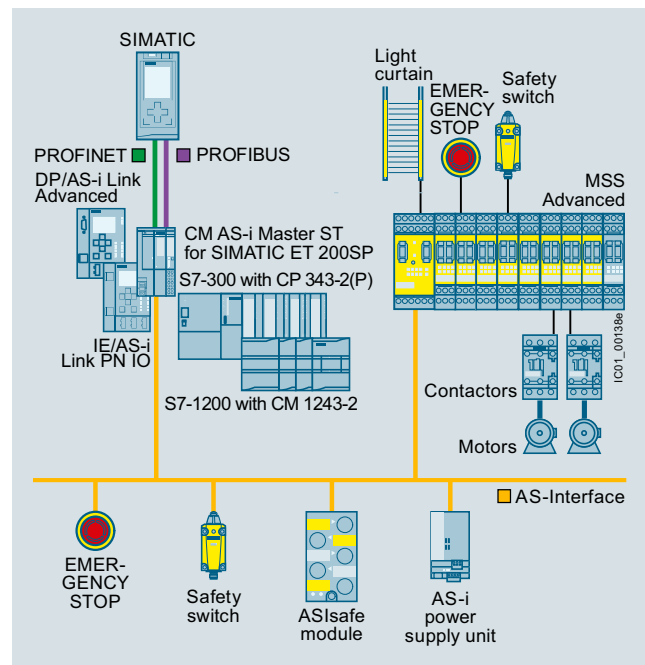
Parameterization software

Using the SIRIUS Safety ES graphical parameterization tool, it is very easy to create the safety functions as well as their logical links on the PC. You can define disconnection ranges, ON-delays, OFF-delays and other dependencies for example.

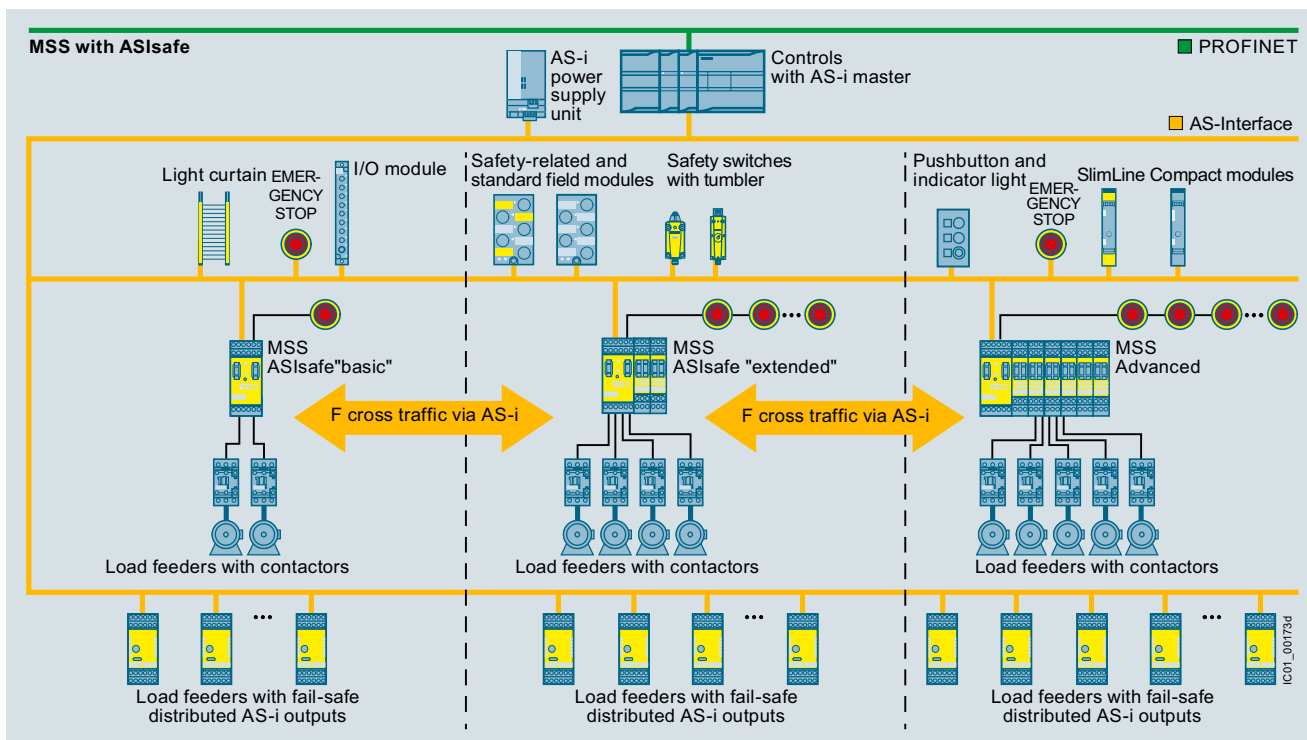
SIRIUS Safety ES also offers comprehensive functions for diagnostics and commissioning. Documentation of the MSS hardware configuration and the parameterized logic is created automatically.



System design of MSS with Basic central unit



System design of MSS with Advanced central unit



System design of MSS as a combination of various central units with AS-Interface

SIRIUS 3RK3 Modular Safety System

General data

Article No. scheme

Product versions		Article number									
Basic units		3RK3 1 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0									
Device variants	3RK3 Basic	1	1								
	3RK3 ASIsafe "basic" variant	2	1								
	3RK3 ASIsafe "extended" variant	2	2								
	3RK3 Advanced	3	1								
Connection type	Screw terminals					1					
	Spring-type terminals					2					
Communication 1	None							A			
	AS-Interface without master							C			
Communication 2	3RK3122: max. 2 expansion modules can be connected									0	
	3RK3131: max. 9 expansion modules can be connected									1	
Example		3RK3 1 1 1 1 – 1 A A 1 0									

Product versions		Article number									
Expansion modules with safe inputs/outputs		3RK3 2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0									
Device variants	4/8 F-DI	1	1								
	2/4 F-DI 1/2 F-RO	2	1								
	2/4 F-DI 2 F-DO	3	1								
	4 F-DO	4	2								
	4/8 F-RO	5	1								
Connection type	Screw terminals					1					
	Spring-type terminals					2					
Example		3RK3 2 1 1 1 – 1 A A 1 0									

Product versions		Article number									
Expansion modules with standard inputs/outputs		3RK3 3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0									
Device variants	8 DO	1	1								
	8 DI	2	1								
Connection type	Screw terminals					1					
	Spring-type terminals					2					
Example		3RK3 3 1 1 1 – 1 A A 1 0									

Product versions		Article number									
DP interface modules		3RK3 5 1 1 1 – <input type="checkbox"/> B A 1 0									
Connection type	Screw terminals					1					
	Spring-type terminals					2					
Example		3RK3 5 1 1 1 – 1 B A 1 0									

Note:

The Article No. schemes show an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Benefits

- More functionality and flexibility through freely configurable safety logic
- Suitable for all safety applications thanks to compliance with the highest safety standards in production automation
- For use all over the world through compliance with all product-relevant, globally established certifications
- Modular hardware configuration
- Parameterization by means of software instead of wiring
- Removable terminals for greater plant availability
- Distributed detection of sensors and disconnection of actuators through AS-Interface
- All logic functions can also be used for AS-Interface, e.g. muting, protective door with tumbler
- Up to 12 independent safe switch-off groups on the AS-i bus
- Volume of project data can be greatly increased by means of AS-Interface
- Up to 50 two-channel enabling circuits per system

Communication via PROFIBUS

The 3RK3 Modular Safety System can be connected to PROFIBUS through the DP interface and exchange data with higher-level control systems.

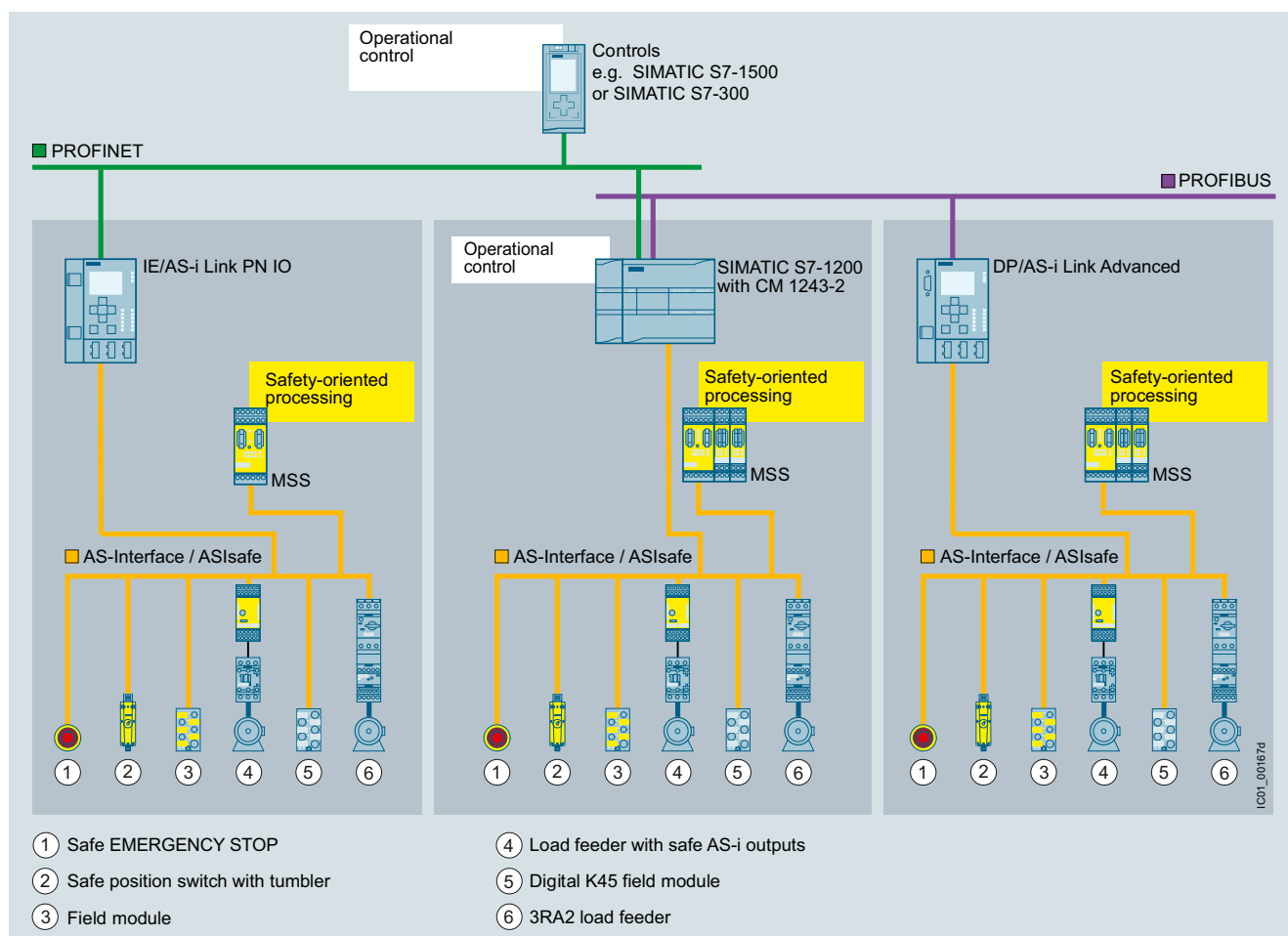
The MSS supports among other things:

- Baud rates up to 12 Mbps
- Automatic baud rate detection
- Cyclic services (DPV0) and acyclic services (DPV1)
- Exchange of 32-bit cyclic data with MSS Basic or 64-bit cyclic data with MSS Advanced/MSS ASIsafe
- Diagnostics using data record invocations

AS-Interface communication

Using the Advanced and ASIsafe "basic" and "extended" central units, the 3RK3 Modular Safety System can be integrated in AS-Interface.

- MSS can read and evaluate the I/O data of up to 31 AS-i modules
- Up to 12 safe output signals per MSS can be placed on the AS-i bus for switching safe AS-i output modules or for fail-safe cross traffic between multiple MSS stations
- Safe cross traffic between multiple MSS stations or between one MSS and AS-i safety monitors
- Standard signals, e.g. for acknowledgment, can also be output on the AS-i bus



Integration of the MSS into AS-Interface

Notes:

MSS with communication function, [see page 11/38 onwards](#).
Accessories, [see page 11/40 onwards](#).
SIRIUS Safety ES, [see page 14/22](#).

For more information on AS-Interface with ASIsafe, [see also page 2/18](#).

SIRIUS 3RK3 Modular Safety System

General data

Application

The 3RK3 Modular Safety System can be used for all safety-related requirements in the manufacturing industry and offers the following safety functions:

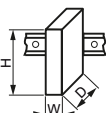
	Symbol	MSS Basic	MSS Advanced, MSS ASIsafe
Monitoring functions			
Universal monitoring Evaluation of any binary signals from single-channel and two-channel sensors		--	✓
EMERGENCY STOP Evaluation of EMERGENCY STOP devices with positive-opening contacts		✓	✓
Safety shutdown mat Evaluation of switching mats with NC contacts and/or crossover detection		✓	✓
Protective door monitoring Evaluation of protective door signals and/or protective flap signals		✓	✓
Protective door tumbler mechanism Evaluation of protective doors with tumbler and of the actuation/release of this tumbler		--	✓
Approval switches Evaluation of OK buttons with NO contact		✓	✓
Two-hand operator controls Evaluation of two-hand operator controls		✓	✓
ESPE monitoring Evaluation of non-contact protective devices, e.g. light curtains and laser scanners		✓	✓
Muting Temporary bridging of non-contact protective devices, 2/4 sensors in parallel, 4 sensors in sequence		--	✓
Mode selector switches Evaluation of operating mode selector switches with NO contacts		✓	✓
Monitoring AS-i (AS-i 2F-DI) Logic element for monitoring of AS-i input slaves		--	✓

✓ Available

-- Not available

	Symbol	MSS Basic	MSS Advanced, MSS ASIsafe
Logic operation functions			
AND		✓	✓
OR		✓	✓
XOR		✓	✓
NAND		✓	✓
NOR		✓	✓
Negation		✓	✓
Flip-flop		✓	✓
Counting functions			
Counter 0 -> 1		✓	✓
Counter 1 -> 0		✓	✓
Counter 0 -> 1/1 -> 0		✓	✓
Timer functions			
With ON-delay		✓	✓
Passing make contact		✓	✓
With OFF-delay		✓	✓
Clock-pulsing		✓	✓
Start functions			
Monitored start		✓	✓
Manual start		✓	✓
Output functions			
Standard output		✓	✓
F output		✓	✓
AS-i output function		--	✓
Status functions			
Element status		--	✓

Technical specifications

More information												
Manual, see https://support.industry.siemens.com/cs/ww/en/view/26493228					FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/16392/faq							
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16392/td												
Central units and expansion modules												
Type	Central units				Expansion modules							
	Basic	Advanced	ASIsafe basic	ASIsafe extended	4/8F-DI	2/4 F-DI 1/2 F-RO	2/4 F-DI 2F-DO	4/8 F-RO	4 F-DO	8 DI	8 DO	
Dimensions (W x H x D)												
												
• Screw terminals	mm	45 x 111 x 124			22.5 x 111 x 124			45 x 111 x 124	22.5 x 111 x 124			
• Spring-type terminals	mm	45 x 113 x 124			22.5 x 113 x 124			45 x 113 x 124	22.5 x 113 x 124			
Device data												
Shock resistance (sine pulse)	g/ms	15/11										
Touch protection acc. to IEC 60529		IP20										
Permissible mounting position		Vertical mounting surface (+10°/-10°), deviating mounting positions are permitted for reduced ambient temperature										
Minimum distances		For heat dissipation through convection from the devices 25 mm to the ventilation openings (top and bottom)										
Permissible ambient temperature												
• During operation	°C	-20 ... +60										
• During storage and transport	°C	-40 ... +85										
Number of sensor inputs (single-channel)												
• Fail-safe		8	8	2	4	8	4	4	--	--	--	
• Not fail-safe		--	--	6	4	--	--	--	--	8	--	
Number of test outputs		2							--			
Number of outputs												
• Relay outputs												
- Single-channel		--	--	--	--	--	2	--	8	--	--	
- Two-channel		1	1	1	1	--	--	--	--	--	--	
• Electronic outputs												
- Single-channel		--	--	--	--	--	--	--	--	--	8	
- Two-channel		1	1	1	1	--	--	2	--	4	--	
Weight	g	300			160			400		135	125	160
Installation altitude above sea level	m	2 000										
Environmental data												
EMC interference immunity		IEC 60947-5-1										
Vibrations												
• Frequency	Hz	5 ... 500										
• Amplitude	mm	0.75										
Climatic withstand capability		IEC 60068-2-78										

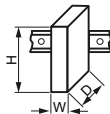
SIRIUS 3RK3 Modular Safety System

General data

Type		Central units				Expansion modules							
		Basic	Advanced	ASIsafe basic	ASIsafe extended	4/8 F-DI	2/4 F-DI 1/2 F-RO	2/4 F-DI 2 F-DO	4/8 F-RO	4 F-DO	8 DI	8 DO	
Electrical specifications													
Rated control supply voltage U_s acc. to IEC 61131-2	V	24 DC \pm 15% ¹⁾											
Operating range		0.85 ... 1.15 x U_s											
Rated insulation voltage U_i	V	300				50	300	50	300	50			
Rated impulse voltage U_{imp}	kV	4				0.5	4	0.5	4	0.5			
Total current input	mA	185				60	85		140	8	78	60	
Rated power at U_s	W	4.5				1.5	2		3	4.8	1.9	1.5	
Utilization category acc. to IEC 60947-5-1													
Relay outputs													
• AC-15 at 230 V	A	2				--	2	--	2	--	--	--	
• DC-13 at 24 V	A	1				--	1	--	1	--	--	--	
Semiconductor outputs													
• DC-13 at 24 V	A	1.5				--	--	1.2	--	2	--	0.5	
Mechanical endurance During rated operation	Operat- ing cycles (relay)	10 x 10 ⁶				--	10 x 10 ⁶	--	10 x 10 ⁶	--			
Switching frequency z At rated operational current	1/h	1 000				--	1 000		360	1 000	--	1 000	
Conventional thermal current I_{th}	A	2/1.5				--	1	1.2	3	2	--	0.5	
Protection for output contacts													
Fuse links													
LV HRC type 3NA, DIAZED type 5SB, NEOZED type 5SE													
• Operational class gG	A	4				--	4	--	4	--			
• Operational class quick	A	6				--	6	--	6	--			
Safety specifications													
Probability of a dangerous failure													
• per hour (PFH _d)	1/h	5.14 x 10 ⁻⁹	3.8 x 10 ⁻⁹ with AS-i, 2.8 x 10 ⁻⁹ without AS-i			1.89 x 10 ⁻⁹	3.79 x 10 ⁻⁹	2.7 x 10 ⁻⁹	7.15 x 10 ⁻⁹	3.18 x 10 ⁻⁹	--		
• On demand (PFD)		1.28 x 10 ⁻⁵	1.7 x 10 ⁻⁴			4.29 x 10 ⁻⁶	5.85 x 10 ⁻⁶	8.34 x 10 ⁻⁶	4.36 x 10 ⁻⁵	2.2 x 10 ⁻⁵	--		
Parameters for cables													
Line resistance	Ω	100							--		100	--	
Cable length from terminal to terminal													
With Cu 1.5 mm ² and 150 nF/km	m	1 000							--		1 000	--	
Conductor capacity	nF	330							--		330	--	

¹⁾ Device current supply through a power supply unit according to IEC 60536 protection class III (SELV or PELV).

Interface and diagnostics modules

Type	Interface modules		Diagnostics modules
Dimensions (W x H x D)			
<div></div>			
<div><div>• Screw terminals</div><div>• Spring-type terminals</div></div>	mm	45 x 111 x 124	96 x 60 x 44
	mm	45 x 113 x 124	--
Device data			
Shock resistance (sine pulse)	g/ms	15/11	
Touch protection acc. to IEC 60529		IP20	
Permissible mounting position		Vertical mounting surface (+10°/-10°), deviating mounting positions are permitted for reduced ambient temperature	
Minimum distances		For heat dissipation through convection from the devices 25 mm to the ventilation openings (top and bottom)	
Permissible ambient temperature			
<div><div>• During operation</div><div>• During storage and transport</div></div>	°C	-20 ... +60	
	°C	-40 ... +85	
Weight	g	270	90
Installation altitude above sea level	m	2 000	
Environmental data			
EMC interference immunity		IEC 60947-5-1	
Vibrations			
<div><div>• Frequency</div><div>• Amplitude</div></div>	Hz	5 ... 500	
	mm	0.75	
Climatic withstand capability		IEC 60068-2-78	
Electrical specifications			
Rated control supply voltage U_s acc. to IEC 61131-2	V	24 DC ± 15%	24 DC ± 15% via connecting cable to the central unit
Operating range		0.85 ... 1.15 x U_s	
Rated insulation voltage U_i	V	50	
Rated impulse voltage U_{imp}	kV	0.5	
Total current input	mA	--	24
Rated power at U_s	W	--	0.6

SIRIUS 3RK3 Modular Safety System

3RK31 central units

Selection and ordering data



3RK3111-1AA10

3RK3121-1AC00
3RK3122-1AC00
3RK3131-1AC10

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
3RK31 central units						
3RK3 Basic Central units with safety-related inputs and outputs <ul style="list-style-type: none"> • 8 fail-safe inputs • 1 two-channel relay output • 1 two-channel electronic output Max. 7 expansion modules can be connected <u>Note:</u> Memory module 3RK3931-0AA00 is included in the scope of supply.	2	3RK3111-□AA10		1	1 unit	42B
3RK3 Advanced Central units for connecting to AS-Interface with safety-related inputs and outputs and extended functional scope <ul style="list-style-type: none"> • 8 fail-safe inputs • 1 two-channel relay output • 1 two-channel electronic output Max. 9 expansion modules can be connected <u>Note:</u> Memory module 3RK3931-0AA00 is included in the scope of supply.	2	3RK3131-□AC10		1	1 unit	42B
3RK3 ASIsafe Central units for connecting to AS-Interface with safety-related inputs and outputs and extended functional scope <ul style="list-style-type: none"> • 1 two-channel relay output • 1 two-channel electronic output "Basic" version <ul style="list-style-type: none"> • 2 fail-safe inputs • 6 non-fail-safe inputs No expansion modules can be connected "Extended" version <ul style="list-style-type: none"> • 4 fail-safe inputs • 4 non-fail-safe inputs Max. 2 expansion modules can be connected <u>Note:</u> Memory module 3RK3931-0AA00 is included in the scope of supply.	2	3RK3121-□AC00		1	1 unit	42B
	2	3RK3122-□AC00		1	1 unit	42B

Type of electrical connection

- Screw terminals
- Spring-type terminals (push-in)

1
2

SIRIUS 3RK3 Modular Safety System

3RK32, 3RK33 expansion modules, 3RK35 interface modules

Selection and ordering data



3RK3211-1AA10
3RK3221-1AA10
3RK3231-1AA10
3RK3242-1AA10



3RK3251-1AA10



3RK3311-1AA10
3RK3321-1AA10



3RK3511-1BA10

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
3RK32, 3RK33 expansion modules						
4/8 F-DI Safety-related input module • 8 inputs	2	3RK3211-□AA10		1	1 unit	42B
2/4 F-DI 1/2 F-RO Safety-related input/output module • 4 inputs • 2 single-channel relay outputs	2	3RK3221-□AA10		1	1 unit	42B
2/4 F-DI 2F-DO Safety-related input/output module • 4 inputs • 2 two-channel electronic outputs	2	3RK3231-□AA10		1	1 unit	42B
4/8 F-RO Safety-related output module • 8 single-channel relay outputs	2	3RK3251-□AA10		1	1 unit	42B
4 F-DO Safety-related output module • 4 two-channel electronic outputs	2	3RK3242-□AA10		1	1 unit	42B
8 DI Standard input module • 8 inputs	2	3RK3321-□AA10		1	1 unit	42B
8 DO Standard output module • 8 electronic outputs	2	3RK3311-□AA10		1	1 unit	42B
3RK35 interface modules						
DP interface PROFIBUS DP interface, 12 Mbps, RS 485, 32-bit cyclic data exchange with Basic central unit or 64-bit with Advanced and ASIsafe central unit, acyclic exchange of diagnostics data	2	3RK3511-□BA10		1	1 unit	42B
Type of electrical connection • Screw terminals • Spring-type terminals (push-in)						









Notes:

For the required connection cable, see page 11/40.

SIRIUS 3RK3 Modular Safety System

Accessories

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Connection cables (essential accessory)						
 3UF7932-0AA00-0	For connection of					
	Central units with expansion modules or interface module	Diagnostics modules with central unit or interface module	Length			
	✓	✓	• 0.025 m (flat)	▶	3UF7930-0AA00-0	1 1 unit 42J
	--	✓	• 0.1 m (flat)	▶	3UF7931-0AA00-0	1 1 unit 42J
	--	✓	• 0.15 m (flat) NEW	▶	3UF7934-0AA00-0	1 1 unit 42J
	--	✓	• 0.3 m (flat)	▶	3UF7935-0AA00-0	1 1 unit 42J
	--	✓	• 0.5 m (flat)	▶	3UF7932-0AA00-0	1 1 unit 42J
	--	✓	• 0.5 m (round)	▶	3UF7932-0BA00-0	1 1 unit 42J
	--	✓	• 1.0 m (round)	▶	3UF7937-0BA00-0	1 1 unit 42J
	--	✓	• 2.5 m (round)	▶	3UF7933-0BA00-0	1 1 unit 42J
Operating and monitoring modules for 3RK3						
 3SK2611-3AA00	Diagnostics modules	2	3SK2611-3AA00	1	1 unit	41L
	For direct display of errors, e.g. of cross-circuits					
PC cables and adapters						
 3UF7941-0AA00-0	USB PC cables	▶	3UF7941-0AA00-0	1	1 unit	42J
	For connecting to the USB interface of a PC/PG, for communication with 3RK3 through the system interface, recommended for use in connection with 3RK3					
Door adapter						
 3UF7920-0AA00-0	For external connection of the system interface, e.g. outside a control cabinet	▶	3UF7920-0AA00-0	1	1 unit	42J
Interface covers						
 3UF7950-0AA00-0	For system interface	▶	3UF7950-0AA00-0	1	5 units	42J
Memory modules						
 3RK3931-0AA00	For backing up the complete parameterization of the 3RK3 Modular Safety System without a PC/PG through the system interface	2	3RK3931-0AA00	1	1 unit	42C
Push-in lugs						
 3RP1903	For screw fixing, e.g. on mounting plate, 2 units required per device					
	Can be used for 3RK3	5	3RP1903	1	10 units	41H
Software for 3RK3						
 3ZS1316-C.10-0Y.5	SIRIUS Safety ES					
	Software for configuring, commissioning, operating and diagnosing of 3SK2 and 3RK3, see page 14/22.					

✓ Available
 -- Not available

Note:

For more accessories and components that can be combined with MSS, see page 2/31.

Position and Safety Switches

**clickable**

Click on an article number in the catalog PDF to call it up in the Industry Mall and you will have access to all the required information.

Article No.

3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N



R01_00413

Or directly on the Internet, e.g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

	Price groups PG 41K, 41L, 42A, 42D		<u>Shock and vibration test according to railway standard</u> SIRIUS 3SE5 mechanical position switches <i>NEW</i>
12/2	Introduction	12/72 12/76	- 3SE5, plastic enclosures - 3SE5, metal enclosures SIRIUS 3SE5 mechanical safety switches with separate actuator
12/5	SIRIUS 3SE5 mechanical position switches General data 3SE5, plastic enclosures	12/81	- 3SE5, plastic enclosures SIRIUS 3SE5 mechanical safety switches with tumbler <i>NEW</i>
12/12	- Enclosure width 31 mm according to EN 50047 NEW	12/82	- 3SE5, plastic enclosures
12/18	- Enclosure width 40 mm according to EN 50041		
12/22	- Enclosure width 50 mm 3SE5, metal enclosures		
12/26	- Enclosure width 31 mm according to EN 50047 NEW		
12/30	- Enclosure width 40 mm according to EN 50041 NEW		
12/34	- Enclosure width 56 mm		
12/38	- Enclosure width 56 mm, XL		
12/41	- Compact design <i>NEW</i> 3SE5, open-type design		
12/43	- Enclosure width 30 mm		
12/44	Accessories and spare parts <i>NEW</i>		
	SIRIUS 3SE5, 3SE2 mechanical safety switches <u>With separate actuator</u>		
12/47	General data	12/83	General data
12/49	3SE5, plastic enclosures NEW	12/85	3SF1, plastic enclosures
12/52	3SE5, metal enclosures NEW	12/87	3SF1, metal enclosures <u>With separate actuator</u>
12/54	Accessories	12/91	General data
12/55	3SE2, plastic enclosures <u>With tumbler</u>	12/92	3SF1, plastic enclosures
12/56	General data	12/93	3SF1, metal enclosures
12/59	3SE5, plastic enclosures with locking force greater than 1 200 N NEW	12/94	Accessories <u>With tumbler</u>
12/61	3SE5, metal enclosures with locking force greater than 2 000 N	12/95	General data
12/62	Accessories	12/96	3SF1, plastic enclosures with locking force greater than 1 200 N
		12/97	3SF1, metal enclosures with locking force greater than 2 000 N <u>Safety hinge switches</u>
		12/98	3SF1, plastic enclosures
		12/99	3SF1, metal enclosures
	SIRIUS 3SE5, 3SE2 mechanical safety hinge switches General data		
12/64	General data		
12/65	3SE5, plastic enclosures		
12/66	3SE5, metal enclosures		
12/67	3SE2, plastic enclosures - with integrated hinge		
	SIRIUS 3SE5 mechanical position switches for ambient temperatures down to -40 °C <u>Shock and vibration test</u>		
12/69	SIRIUS 3SE5 mechanical position switches - 3SE5, plastic enclosures		
12/70	SIRIUS 3SE5 mechanical safety switches with tumbler - 3SE5, plastic enclosures		
12/71	SIRIUS 3SE5 mechanical safety hinge switches - 3SE5, plastic enclosures		
			SIRIUS 3SE6 non-contact safety switches <u>Magnet</u> 3SE66, 3SE67 magnetically operated switches <u>RFID</u> 3SE63 RFID safety switches
			<u>Note:</u> Conversion tool, e.g. from 3SE2 to 3SE5, see www.siemens.com/sirius/conversion-tool

Position and Safety Switches

Introduction

Overview



	Position switches, standard					Compact design	Open-type
Enclosure							
Plastic	✓	✓	✓	--	--	--	✓
Metal	✓	--	✓	✓	✓	✓	--
Dimensions (W x H x D) in mm	31 x 68 x 33	50 x 53 x 33	40 x 78 x 38	56 x 78 x 38	56 x 100 x 38	30 x 50 x 16 40 x 50 x 16	30 x 48.5 x 20
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67	IP10 or IP20
Standards							
IEC 60947-5-1	Mounting and operating points acc. to EN 50047	Operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Operating points acc. to EN 50041	Operating points acc. to EN 50041	--	Mounting and operating points acc. to EN 50047
Approvals	CE, TÜV, UL, CSA, CCC					CE, UL, CSA, CCC	CE, TÜV, UL, CSA, CCC
Contact blocks							
2 slow-action contacts	1 NO + 1 NC; 2 NC		1 NO + 1 NC; 2 NC		2 x (1 NO + 1 NC) --		1 NO + 1 NC
2 snap-action contacts	1 NO + 1 NC		1 NO + 1 NC		2 x (1 NO + 1 NC) 1 NO + 1 NC		1 NO + 1 NC
• Short stroke	1 NO + 1 NC		✓		--	--	✓
• With 2 x 2 mm contact gap	1 NO + 1 NC		✓		--	--	✓
3 slow-action contacts	1 NO + 2 NC; 2 NO + 1 NC		1 NO + 2 NC; 2 NO + 1 NC		--	--	1 NO + 2 NC; 2 NO + 1 NC
• With make-before-break	1 NO + 2 NC		1 NO + 2 NC		2 x (1 NO + 2 NC) --		1 NO + 2 NC
3 snap-action contacts	1 NO + 2 NC		1 NO + 2 NC		--	--	1 NO + 2 NC
Special features							
LED status display	✓		✓		--	--	--
Increased corrosion protection	✓		✓		✓	--	--
ASIsafe integrated	✓		✓		--	--	--
Electrical specifications							
Insulation voltage U_i	400 V		400 V			400 V	400 V
Conventional thermal current I_{th}	6 A/10 A (3-/2-pole)		6 A/10 A (3-/2-pole)			6 A	6 A
Connections							
Cable entry	1 x M20 x 1.5 2 x M20 x 1.5		1 x M20 x 1.5 3 x M20 x 1.5		3 x M20 x 1.5	--	--
M12 plug, 4-, 5- or 8-pole	✓	✓	✓	✓	✓	✓	--
Plug, 6-pole + PE	--	--	✓	✓	--	--	--
Molded cables	--	--	--	--	--	✓	--
Actuators							
Rounded plungers and roller plungers	✓		✓		✓	--	--
Roller levers and angular roller levers	✓		✓		✓	--	--
Spring rod	✓		✓		--	--	--
Twist levers and rod actuators	✓		✓		✓	--	--
Fork lever	--		✓		--	--	--
Hinge switches	--		--		--	--	--
Plungers, twist levers	--		--		✓	✓	✓
Page							
Complete units	12/12, 12/26	12/22	12/18, 12/30	12/34	12/38	12/41	12/43
Modular system	12/16, 12/28	12/24	12/20, 12/32	12/36	12/39	--	--
Ambient temperature -40 °C	12/69, 12/72	12/72	12/75	12/78	12/79	--	--
ASIsafe	12/85, 12/87	12/85	12/89	12/89	--	--	--

✓ Available -- Not available



**3SE5232,
3SE5212,
3SF12.4**



**3SE5132,
3SE5112,
3SF11.4**



**3SE5232,
3SE5242,
3SF12.4**



**3SE5112,
3SE5122,
3SF11.4**



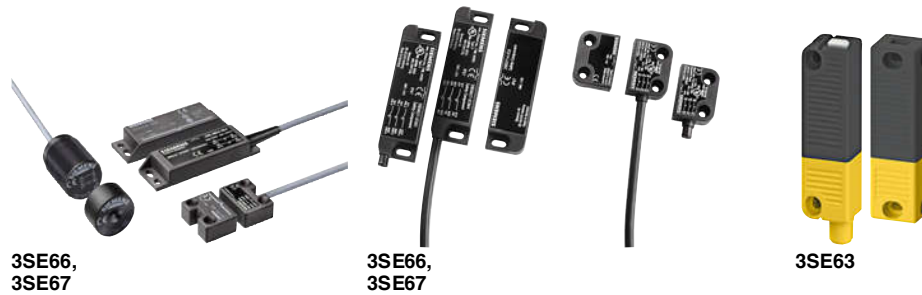
**3SE5322,
3SE5312,
3SF13.4**

	Safety hinge switches		Safety switches with separate actuator		Safety switches with tumbler
Enclosure					
Plastic	✓	✓	✓	✓	✓
Metal	✓	✓	✓	✓	✓
Dimensions (W x H x D) in mm	31 × 68 × 33	40 × 78 × 38	31 × 68 × 33, 50 × 53 × 33	40 × 78 × 38, 56 × 78 × 38	54 × 185 × 44
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP65, IP66/IP67	IP66/IP67	IP66/IP67, IP69K
Standards					
IEC 60947-5-1	Mounting and operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Mounting acc. to EN 50047	Mounting acc. to EN 50041	EN ISO 14119
Approvals	CE, TÜV, UL, CSA, CCC		CE, TÜV, UL, CSA, CCC		CE, TÜV, UL, CSA, CCC
Contact blocks/outputs					
2 slow-action contacts	--		1 NO + 1 NC; 2 NC		--
2 snap-action contacts	1 NO + 1 NC		--		--
• Short stroke	--		--		--
• With 2 × 2 mm contact gap	--		--		--
3 slow-action contacts	--		1 NO + 2 NC		2 × (1 NO + 2 NC)
• With make-before-break	--		--		--
3 snap-action contacts	1 NO + 2 NC		--		--
Electronic safety outputs	--		--		--
Special features					
LED status display	✓		✓		✓
Increased corrosion protection	✓		✓		✓
ASIsafe integrated	✓		✓		✓
Electrical specifications					
Insulation voltage U_i	400 V		400 V		400 V
Conventional thermal current I_{th}	6 A/10 A (3-/2-pole)		6 A		6 A
Connections					
Cable entry	1 × M20 × 1.5	1 × M20 × 1.5	1 × M20 × 1.5, 2 × M20 × 1.5	1 × M20 × 1.5, 3 × M20 × 1.5	3 × M20 × 1.5
M12 plug, 4-, 5- or 8-pole	✓		✓	✓	✓
Molded cables	--		--	--	--
AS-Interface	--		✓	✓	✓
Actuators					
Plungers, twist levers	--		--	--	--
Separate actuators	--		✓	✓	✓
Hinge switches	✓		--	--	--
Page					
Complete units	12/65	12/65	12/49, 12/52	12/50, 12/53	12/59 ... 12/61
Modular system	--	--	--	--	--
Ambient temperature -40 °C	12/71	--	12/81	--	12/82
ASIsafe	12/98	12/99	12/92	12/93	12/96, 12/97

✓ Available
-- Not available

Position and Safety Switches

Introduction



	Safety switches, solenoid	Safety switches, solenoid supplementary range in new design ¹⁾	RFID safety switches ¹⁾
Enclosure			
Plastic	✓	✓	✓
Metal	--	--	--
Dimensions (W x H x D) in mm	M30; 25 x 88; 25 x 33	25 x 88; 26 x 36	25 x 91 x 22
Degree of protection	IP67	IP67	IP69K
Standards	IEC 60947-5-3 Category 4 acc. to ISO 13849-1, PL e acc. to ISO 13849-1, SIL 3 acc. to IEC 61508	IEC 60947-5-3	Category 4 acc. to ISO 13849-1, PL e acc. to ISO 13849-1, SIL 3 acc. to IEC 61508
Approvals	CE, TÜV, UL, CSA, CCC	CE, TÜV, UL, CSA	CE, TÜV, UL, CSA
Contact blocks/outputs			
Reed contacts	1 NO + 1 NC 2 NC 1 NO + 1 NC (+ 1 NC signaling contact)	1 NO + 1 NC (+ 1 NC signaling contact) 2 NC 2 NC (+ 1 NC signaling contact)	--
Special features			
LED status display	--	✓	✓
Increased corrosion protection	--	--	✓
ASIsafe integrated	--	--	--
Electrical specifications			
Insulation voltage U_i	100 V AC/DC 24 V DC	75 V DC 50 V AC	--
Conventional thermal current I_{th}	250 mA 400 mA	250 mA	--
Connections			
M8 plug, 4-pole	✓	✓	--
8 mm Ø, latching connection, plug, 6-pole	--	✓	--
M12 plug, 4-pole	✓	--	✓
Molded cables	✓	✓	--
AS-Interface	--	--	--
Actuators			
RFID	--	--	✓
Switching magnet	✓	✓	--
Page	12/100	12/100	12/106

✓ Available

-- Not available

¹⁾ CCC not required for voltages < 36 V.

Note:

Safety characteristics, see page 16/6.

Overview

More information

Homepage, see www.siemens.com/sirius-detecting
 Industry Mall, see www.siemens.com/product?3SE
 Configurator, see www.siemens.com/sirius/configurators
 System Manual, see <https://support.industry.siemens.com/cs/ww/en/view/43920150>
 Conversion tool, see www.siemens.com/sirius/conversion-tool

The innovative SIRIUS 3SE5 position switches are modern in design, compact, modular and simple to connect. They save time and increase flexibility during installation of a whole range of switch variants. In principle it is possible to combine any enclosure with any operating mechanism, paying due consideration to the EN 50041 and EN 50047 standards where necessary.

Complete units

Popular versions of the position switches in standard enclosures are available as complete units.



3SE5 position switches with plastic and metal enclosures

Modular system

The 3SE5 series is the modular system comprising different sizes of the basic switch and an actuator which must be ordered separately. Thanks to the modular design of the switch the user can select the right solution for his application from numerous versions and install it himself in a very short time.

Simple plug-in mounting enables fast replacement of the actuator heads.



Examples of selection options in the modular system

Design

All enclosure variants have an integrated chlorinated rubber diaphragm for high functional safety in cold and aggressive environments.

Enclosure sizes

The 3SE5 switches are available in five different enclosure sizes with 2 or 3 contacts and with the XL enclosure:

- Open-type position switch IP20 or IP10
- Plastic enclosures according to EN 50047, 31 mm wide, IP65, 1 cable entry
- Metal enclosures according to EN 50047, 31 mm wide, IP66/IP67, 1 cable entry
- Plastic and metal enclosures according to EN 50041, 40 mm wide, IP66/IP67, 1 cable entry
- Plastic enclosures, 50 mm wide, IP66/IP67, 2 cable entries
- Metal enclosures, 56 mm wide, IP66/IP67, 3 cable entries
- XL metal enclosures with 4 to 6 contacts, 56 mm wide, IP66/IP67, 3 cable entries

Enclosure versions

Various basic switches can be selected for the enclosures of the 3SE5 series:

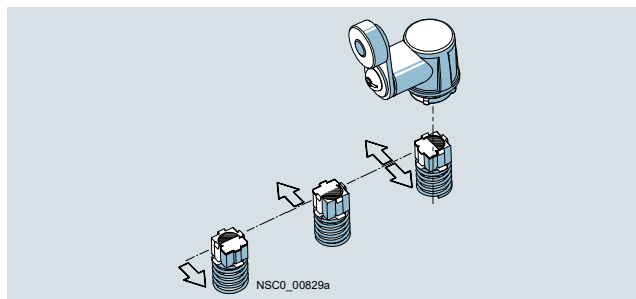
- With contact blocks with two or three contacts (screw terminals) designed as slow-action or snap-action contacts; the slow-action contacts also with make-before-break
- Optional LED status display
- With mounted 4- or 5-pole M12 device plug (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole device plug + PE on the metal enclosures
- Versions with increased corrosion protection
- Versions for operating temperatures down to -40 °C
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 12/83)

Actuator variants

All operating mechanisms can be rotated around the axis in increments of 22.5°. The following actuator variants are available:

- Plain, rounded and roller plungers
- Roller levers and angular roller levers
- Spring rod
- Twist levers and rod actuators with twist actuator
- Fork levers with twist actuator

The actuator rollers are available with various materials and diameters.



Twist actuator for twist levers and rod levers, with setting of switching direction to right, left or right/left (standard for all twist actuators except fork levers)

SIRIUS 3SE5 Mechanical Position Switches

General data

Cover design

The mechanical position switches have a turquoise cover and the mechanical safety switches have a yellow cover.



On request the switches can be delivered ex works with a yellow cover. The cover has no effect on the mode of operation. Both versions can be used in safety applications (see also page 12/14).

Diverse contact types

Exchangeable two- and three-pole contact blocks for all enclosure sizes



The three-pole contact block with snap-action or slow-action contacts is regularly available for all enclosure forms. The same installation space is required as for a two-pole block. The version with 1 NO + 2 NC offers, for example, more safety through redundant shutdowns (2 NC contacts) with simultaneous signaling (NO contact). The three-pole blocks are also available with make-before-break and with 2 NO + 1 NC.

Contact reliability

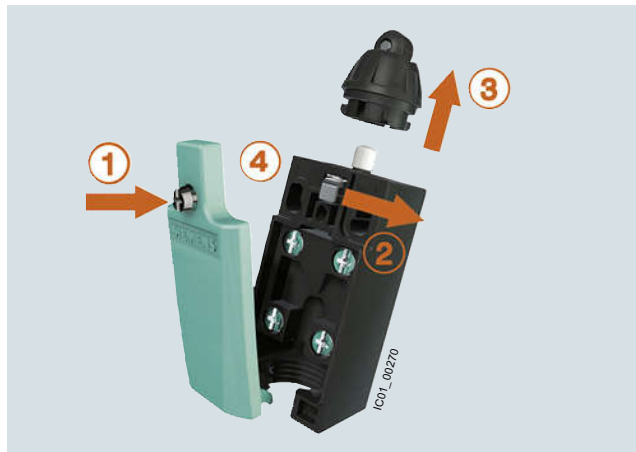
The contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e.g. 1 mA at 5 V DC.

Positive opening ☞

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

Mounting

Easy plug-in method for fast replacement of the actuator heads



Open the cover (1)
Actuate the locking lever (2)
Replace the head (turnable by 16 x 22.5°) (3)
Lock and close the cover (4)

Quick-connect technology

For plastic enclosure with a width of 31 mm



These position switches can be wired quickly and easily as an added customer benefit. The connecting cable is first connected to the terminals of the contact block and then guided through a slit into the cable gland opening. The time saved through this new connection method is approx. 20 to 25%.

A cable gland with seal must be used with the quick-connect method.

Optional LED indicators

LED indicators are available for all enclosure sizes except for XL. The enclosures are supplied with an LED signaling indicator (1 x green + 1 x yellow). This is the first time that optical signaling equipment is also available for small standard enclosures according to EN 50047. The LEDs are implemented in 24 V DC and 230 V AC.

Article No. scheme

Product versions		Article number											
SIRIUS position and safety switches		3	SE					-					
Series		5											
Standard	EN 50041	1											
	EN 50047	2											
	with tumbler	3											
Enclosure material and width	e.g. 1 = metal, narrow												
Connection	Cable entry, device plug					2							
						4/5							
LEDs	None							0					
	24 V DC							1					
	115 V AC							2					
	230 V AC							3					
Version of contacts	e.g. C = snap-action 1 NO + 1 NC												
Version of operating mechanism	e.g. C02 = rounded plunger												
Example		3	SE	5	1	1	2	-	0	C	C	0	2

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Benefits

The 3SE5 position switches differ from the previous series through the following new characteristics:

- The modular design of the product range allows a number of versions with a smaller number of bearing types for enclosures and operating mechanisms.
- All actuators can be turned around the axis in increments of 22.5° (see picture, page 12/6).
- Rounded and roller plungers according to EN 50041 with 3 mm overtravel (total travel 9 mm) for greater tolerance when switching.
- All enclosure sizes – now also including the small enclosure 31 mm wide – are optionally available with an LED signaling indicator (see picture, page 12/6).
- All enclosure variants have an integrated chlorinated rubber diaphragm for high functional safety in cold and aggressive environments.
- All contact blocks are replaceable (see page 12/45).

- The three-pole contact blocks are available for all enclosure sizes (see picture, page 12/6).
- Elements with 1 NO + 2 NC slow-action contacts with make-before-break and 2 NO + 1 NC.
- The short-stroke contact block 1 NO + 1 NC improves the precision of the switching operation through a reduced actuation path.
- The contact block with 1 NO + 1 NC snap-action contacts with 2 x 2 mm contact opening is suitable for simultaneous shutdown and signaling, particularly in the elevator industry.
- XL metal enclosures for accommodating two 2- or 3-pole contact blocks.
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save approx. 20 to 25% of the time when connecting (see picture, page 12/6).

Application

With the standard position switches, mechanical positions of moving machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can comply with practically all requirements in industry.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moving machine parts. Dimensions, fixing points and characteristics are largely in accordance with the EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

Standards

IEC/EN 60947-5-1

The protective measure of "total insulation" by the molded-plastic enclosure is ensured by the use of molded-plastic screw glands.

Safety position switches

For controls according to IEC/EN 60204-1, the devices can be used as a safety position switch. They comply with the standard EN ISO 14119. A TÜV certificate is available. To secure position switches against changes in their position, keyed techniques must be employed on installation.

Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening of the NC contacts. In other words, for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked in accordance with the standard IEC 60947-5-1 with the symbol ☞.

Category 2 according to EN ISO 13849-1 can be attained with 3SE5 position switches with ☞, and category 3 or 4 when using an additional position switch, if the corresponding fail-safe evaluation units are selected and correctly connected. Example: 3SK or 3TK28 safety relays or the corresponding devices from the ASIsafe, SIMATIC or SINUMERIK programs. The operating mechanisms (actuators) must also be connected to the enclosure by keyed techniques. The corresponding operating mechanisms are marked in the catalog with ☞.

SIRIUS 3SE5 Mechanical Position Switches

General data

Contacts for every application

- **Snap-action contacts:** NC and NO contacts switch simultaneously – regardless of the actuating speed ($v_{\min} = 0.01$ m/s) and contact erosion.
- **Slow-action contacts:** Difference in travel between "NC contact opens" and "NO contact closes"; the switching speed is the same as or proportional to the actuating speed ($v_{\min} = 0.4$ m/s).
- **Slow-action contacts with make-before-break:** e.g. suitable for adding a second function to a sequence control.

Operating mechanisms for every application

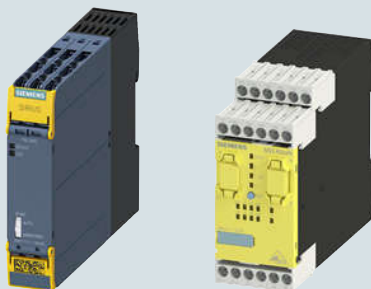





Standard, rounded and roller plungers

- Operation in direction of the plunger axis or in case of roller plunger with bar at right angles to the plunger axis.
- The roller plunger is recommended for lateral actuation and relatively long overtravel.

Roller levers and angular roller levers

- For actuators made of finely ground steel in the form of cams, straight-edges (approach angle 30°) or cam disks.

Monitoring with fail-safe evaluation units from the 3SK and 3RK3 series

Safe evaluation units		Maximum achievable safety level according to type of switch				
		Compact	Standard	Hinge	Separate actuator	Tumbler
 3SK 3RK3		 3SE54	 3SE51/3SE52	 3SE51/3SE52	 3SE51/3SE52	 3SE53
Use of only one position/safety switch		SIL 1 / PL c				
Monitoring with 1 contact: 1 x NC contact		SIL 1 / PL c				
Monitoring with 2 contacts: 2 x NC contact or 1 x NC contact + 1 x NO contact		SIL 2 / PL d				
Use of a second position/safety switch		SIL 3 / PL e				
Standard switch	3SE51/3SE52	SIL 3 / PL e				
Safety switch/hinge switch	3SE51/3SE52					
Safety switch with separate actuator	3SE51/3SE52					
Safety switch with tumbler	3SE53					

Note:

Taking account of certain fault exclusions (e.g. actuator breakage), use of just one hinge switch or a switch with separate actuator with or without tumbler up to SIL 2 or PL d is possible as described in the table.

Since the machine manufacturer must provide proof of fault exclusion, the component manufacturer is unable to carry out a definitive assessment of the measures taken.

Spring rod

- Can be used for undefined actuations and changing starting conditions
- Starting from any direction is possible

Twist levers and rod actuators

- For high starting speeds ($v = 1.5$ m/s)
- Variety of starting options
- Insensitive to oil, grinding dust and coarse-grained material
- Adjustment of the lever in increments of 10°
- Can be adjusted with left or right switching

Fork lever

- Switchable in two directions
- Latching actuator
- For reciprocating movements

For more information, see

<https://support.industry.siemens.com/cs/ww/en/view/35443942>.




The maximum achievable SIL or PL always depends on other assumptions as well. Factors to be taken into account include the DC (declaration), the CCF, and the number of actuations.

For information on the safe evaluation units and an introduction to safety systems, see page 11/1 onwards.

SIRIUS 3SE5 Mechanical Position Switches

General data

Technical specifications

Type		3SE51.. ¹⁾ , 3SE52.. ¹⁾	3SE541.	3SE542.
General data				
Standards		IEC/EN 60947-5-1, EN ISO 14119		
Rated insulation voltage U_i	V	400 ²⁾	400	
Degree of pollution according to IEC 60664-1		Class 3	Class 3	
Rated impulse withstand voltage U_{imp}	kV	6	4	
Rated operational voltage U_e	V	400 AC; over 300 V AC same potential only ³⁾	300 AC	
Conventional thermal current I_{th}	A	10	10	
Rated operational current I_e				
• For alternating current 50/60 Hz		I_e / AC-15	I_e / AC-15	
- At 24 V	A	6	6	
- At 120 V	A	6	6	
- At 240 V	A	6	3	
- At 400 V	A	4	--	
• For direct current		I_e / DC-13	I_e / DC-13	
- At 24 V	A	3	3	
- At 125 V	A	0.55	0.55	
- At 250 V	A	0.27	0.27	
- At 400 V	A	0.12	--	
Short-circuit protection⁴⁾				
• With DIAZED fuse links, utilization category gG	A	6	10	
• With miniature circuit breaker, C char. ($I_{K<400A}$)	A	1	3	
Mechanical endurance				
• Basic switch		15 × 10 ⁶ operating cycles	10 × 10 ⁶ operating cycles	10 × 10 ⁶ operating cycles
• With spring rod, 3SE5...-..R..		10 × 10 ⁶ operating cycles	--	--
• With fork lever, 3SE51...-..T..		1 × 10 ⁶ operating cycles	--	--
Electrical endurance				
• With 3RH.1, 3RT contactors in size S00, S0		10 × 10 ⁶ operating cycles	500 000 operating cycles	500 000 operating cycles
• For utilization category AC-15 when switching off I_e /AC-15 at 240 V		100 000 operating cycles	100 000 operating cycles	100 000 operating cycles
• With utilization category DC-12/DC-13		For direct current depending on the loading of the switch		
Switching frequency				
With 3RH.1, 3RT contactors in size S00, S0		6 000 operating cycles/h	1 800 operating cycles/h	
Switching accuracy				
• For repeated switching, measured at the plunger of the contact block	mm	0.05	0.05	
• With twist actuators		1°	1°	
Rated data according to   and 				
• Rated voltage	V	300	300	
• Uninterrupted current	A	6	10	
• Switching capacity		Heavy duty, A 300/B 300/Q 300	A 300/Q 300	

¹⁾ Special versions, see data sheet.

²⁾ For slow-action contacts 1 NO + 2 NC with make-before-break ("M") and 2 NO + 1 NC ("P") the following applies: 250 V.

³⁾ For slow-action contacts 1 NO + 2 NC with make-before-break ("M") and 2 NO + 1 NC ("P") the following applies: Over 250 V AC same potential only.

⁴⁾ Without any welds according to IEC 60947-5-1.

Type		3SE523.	3SE513.	3SE524.	3SE521.	3SE511.	3SE512., 3SE516.	3SE54..	3SE525.	
Enclosure										
Enclosure										
• Material		Plastic P66			Zinc die-casting			Zn/Al	--	
• Width	mm	31	40	50	31	40	56	30/40	30	
Degree of protection acc. to IEC 60529		IP65	IP66/IP67 ¹⁾					IP67	IP20, IP10	
Ambient temperature										
• During operation	°C	-25 ... +85; -40...+85 for 3SE5*-1AJ0 and 3SE5*-1AY0 versions							-25 ... +85	-25 ... +85
• In operation, switch with LEDs	°C	-25 ... +60							--	--
• Storage, transport	°C	-40 ... +90							-40 ... +90	-40 ... +90
Mounting position		Any								
Connection										
Cable entry		1 x (M20 x 1.5)		2 x (M20 x 1.5)	1 x (M20 x 1.5)		3 x (M20 x 1.5)	--	--	
Conductor cross-sections										
• Solid	mm²	1 x (0.5 ... 1.5), 2 x (0.5 ... 0.75)								
• Finely stranded with end sleeve	mm²	1 x (0.5 ... 1.5), 2 x (0.5 ... 0.75)								
• AWG cables, solid or stranded	AWG	1 x (AWG 20 ... 16), 2 x (AWG 20 ... 18)								
Tightening torque , contact block		Nm 0.8 ... 1.0								
Protective conductor connection inside enclosure		--				M3.5		--	--	

¹⁾ For actuator heads with spring rod and rod actuators: IP65/IP67.

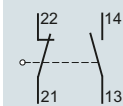
SIRIUS 3SE5 Mechanical Position Switches

General data

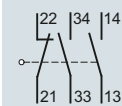
Circuit diagrams

Enclosure widths 31, 40, 50 and 56 mm

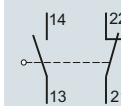
Slow-action contacts
1 NO + 1 NC
3SE5...-B..., -R...



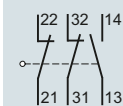
Slow-action contacts
2 NO + 1 NC
3SE5...-P...



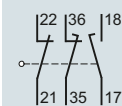
Snap-action contacts
1 NO + 1 NC
3SE5...-C..., -F..., -G..., -H..., -N...



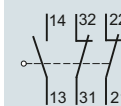
Slow-action contacts
1 NO + 2 NC
3SE5...-K..., -Q...



Slow-action contacts
1 NO + 2 NC with
make-before-break, 3SE5...-M...

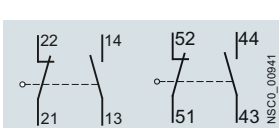


Snap-action contacts
1 NO + 2 NC
3SE5...-L...

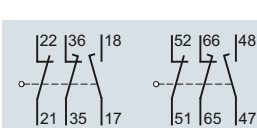


XL enclosures, width 56 mm

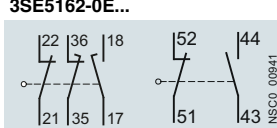
Slow-action contacts
2 x (1 NO + 1 NC)
3SE5162-0B...



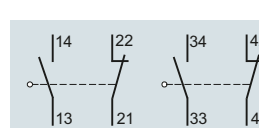
Slow-action contacts
2 x (1 NO + 2 NC) with
make-before-break, 3SE5162-0D...



Slow-action contacts
1 NO + 2 NC with make-before-break,
1 NO + 1 NC
3SE5162-0E...

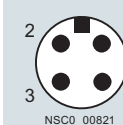


Snap-action contacts
2 x (1 NO + 1 NC)
3SE5162-0C...

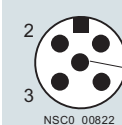


3SE5 pin assignment

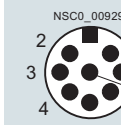
M12 device plug, 4-pole
3SY3127



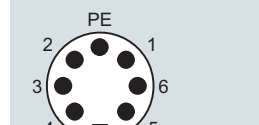
M12 device plugs, 5-pole
3SY3128



M12 device plugs, 8-pole
3SX5100-1SS08



Device plugs, 6-pole + PE
3SY3131



Type	Device plugs	Contacts	LEDs	Connections								
	Type	Version	Version	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	PE
M12 device plugs, 4-, 5- or 8-pole												
3SE5..4-0....-1AC4	3SY3127	1 NO + 1 NC	--	21	22	13	14	--	--	--	--	--
3SE5..4-0....-1AL0	3SY3128	1 NO + 1 NC	--	21	22	13	14	PE	--	--	--	--
3SE5..4-0....-1AE0	3SY3127	2 NC	--	21	22	31	32	--	--	--	--	--
3SE5..4-0....-1AE1	3SY3128	2 NC	--	21	22	31	32	PE	--	--	--	--
3SE5..4-1C....-1AF5	3SY3128	1 NO + 1 NC snap-action	2 LEDs	21	22	13/ LED gn	14/ LED ye	Ground LED	--	--	--	--
3SE5..4-1B....-1AF3	3SY3128	1 NO + 1 NC slow-action	2 LEDs	21	22	14/ LED gn	13/ LED ye	Ground LED	--	--	--	--
3SE5..4-1L....-1AD4	3SY3134	1 NO + 2 NC snap-action	2 LEDs	21	22	13/ LED gn	14/ LED ye	31	32	Ground LED	PE	--
3SE5..4-1K....-1AD4	3SY3134	1 NO + 2 NC slow-action	2 LEDs	21	22	14/ LED gn	13/ LED ye	31	32	Ground LED	PE	--
Device plugs, 6-pole + PE												
3SE5..5-0....-1AD0	3SY3131	1 NO + 1 NC	--	21	22	13	14	--	--	--	--	✓
3SE5..5-0....-1AD1	3SY3131	1 NO + 2 NC	--	21	22	13	14	31	32	--	--	✓
3SE5..5-C....-1AF2	3SY3131	1 NO + 1 NC snap-action	2 LEDs	21	22	13/ LED gn	14/ LED ye	--	Ground LED	--	--	✓
3SE5..5-B....-1AF2	3SY3131	1 NO + 1 NC slow-action	2 LEDs	21	22	14/ LED gn	13/ LED ye	--	Ground LED	--	--	✓
3SE5..5-L....-1AD2	3SY3131	2 NC snap-action	2 LEDs	21	22	31	32	13/ LED gn	Ground LED	--	--	✓
3SE5..5-K....-1AD2	3SY3131	2 NC slow-action	2 LEDs	21	22	31	32	14/ LED gn	Ground LED	--	--	✓

Legend:

gn = green, ye = yellow

✓ Connected

-- Not available

Options

On the following pages you will find selection tables for complete units as well as components of the modular system.

☐ Complete units

☒ Modular system

The differences between the units are indicated in the selection and ordering data by the symbols shown on orange backgrounds.

Using the modular system you can assemble switch variants which are not available as complete units. Each complete unit can also be supplied as a module.

A basic switch for the modular system comprises an enclosure with a contact block and a cover. Among the basic switches the following versions, for example, can be selected:

- Basic enclosure with teflon plunger
- Version with increased corrosion protection
- Version with M12 device plug and/or with 2 LEDs
- Version with M12 device plug or 6-pole + PE

Support functions

The 3SE5/3SF1 position and safety switches can also be ordered using an online configurator.

This also enables a complete documentation to be prepared:

- Product data sheets
- Dimension drawings
- Operating travel diagrams
- CAD data in 2D and 3D model images
- Ordering data
- Product photos

For online configurator, see www.siemens.com/sirius/configurators.

Complete units

Ordering example

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered:

Version	Complete units <input type="checkbox"/>
Article No.	

Complete units • Enclosure width 31 mm



Angular roller lever

With metal lever and plastic roller 13 mm

Slow-action contacts
1 NO + 1 NC

3SE5232-0BF10

Modular system

Ordering example 1

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered separately:

Version	Modular system <input checked="" type="checkbox"/>
Article No.	

Basic switches • Enclosure width 31 mm



With teflon plunger

Slow-action contacts
1 NO + 1 NC

3SE5232-0BC05

+

Operating mechanisms



Angular roller levers

Metal lever,
plastic roller

3SE5000-0AF10

Ordering example 2

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Twist levers, high-grade steel lever and plastic roller

To be ordered separately:

Version	Modular system <input checked="" type="checkbox"/>
Article No.	

Basic switches • Enclosure width 31 mm



With teflon plunger

Slow-action contacts
1 NO + 1 NC

3SE5232-0BC05

+

Twist actuators



Twist actuators

3SE5000-0AK00

Twist levers

High-grade steel lever,
plastic roller

3SE5000-0AA31

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

Selection and ordering data

Complete units for installation in control cabinets

2 contacts · Degree of protection IP40 · Cable entry by means of a locking plug with Ø 6 mm

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Complete units¹⁾ · Enclosure width 31 mm

Control cabinet type, IP40, rounded plungers, type B, acc. to EN 50047

Flat cover

Snap-action contacts, integrated²⁾

1 NO + 1 NC --



5

3SE5232-0HC05-1AB1

1

1 unit

41K



3SE5232-0HC05-1AB1

With mounting plate and screws for attachment profile

Snap-action contacts, integrated²⁾

1 NO + 1 NC --



5

3SE5232-0HC05-1AB2

1

1 unit

41K



3SE5232-0HC05-1AB2

Standard cover

Snap-action contacts, integrated²⁾

1 NO + 1 NC --



5

3SE5232-0HC05-1AB3

1

1 unit

41K



3SE5232-0HC05-1AB3

With mounting plate and screws for attachment profile

Snap-action contacts, integrated²⁾

1 NO + 1 NC --



5

3SE5232-0HC05-1AB4

1

1 unit

41K



3SE5232-0HC05-1AB4

Accessories

Mounting plate

Suitable for 3SE523 and 3SE521 position switches with a width of 31 mm

--

--

5

3SX5100-1A

1

1 unit

41K



3SX5100-1A

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ The control cabinet types are not basic switches for the modular system.





²⁾ Subsequent replacement of contact blocks is not possible.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

Complete units2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5¹⁾

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units²⁾ · Enclosure width 31 mm							
Rounded plungers, type B, acc. to EN 50047							
 3SE5232-0HC05-1AB1	With teflon plunger						
	Slow-action contacts	1 NO + 1 NC --	→ ▶	3SE5232-0BC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0CC05	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	→ ▶	3SE5232-0HC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0FC05	1	1 unit	41K
	• Short stroke, integrated ³⁾						
	Snap-action contacts	1 NO + 1 NC --	→ 15	3SE5232-0GC05	1	1 unit	41K
	• 2 × 2 mm contact gap						
	Slow-action contacts	1 NO + 2 NC --	→ ▶	3SE5232-0KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	→ ▶	3SE5232-0LC05	1	1 unit	41K
 3SE5232-0BC05-1CA0	Slow-action contacts with make-before-break	1 NO + 2 NC --	→ 2	3SE5232-0MC05	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	→ 2	3SE5232-0PC05	1	1 unit	41K
	With increased corrosion protection						
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0BC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0CC05-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5232-0KC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5232-0LC05-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	→ 5	3SE5232-0MC05-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5232-0PC05-1CA0	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
 3SE5232-1KC05	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5234-0BC05-1AC4	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	→ 2	3SE5234-0HC05-1AC4	1	1 unit	41K
	Slow-action contacts	2 NC --	→ 5	3SE5234-0KC05-1AE0	1	1 unit	41K
	Snap-action contacts	2 NC --	→ 2	3SE5234-0LC05-1AE0	1	1 unit	41K
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	→ 5	3SE5232-1KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	→ 5	3SE5232-1LC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	→ 5	3SE5232-3KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	→ 5	3SE5232-3LC05	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
 3SE5234-0LC05-1AE2	Slow-action contacts	1 NO + 1 NC 24 V DC	→ 5	3SE5234-1BC05-1AF3	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	→ 5	3SE5234-1CC05-1AF3	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200⁴⁾ NEW						
	Snap-action contacts	1 NO + 1 NC 24 V DC	→ X	3SE5234-0LC05-1AE2	1	1 unit	41K

→ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ A cable gland with seal must be used with the quick-connect method.²⁾ Popular versions.³⁾ Subsequent replacement of contact blocks is not possible.⁴⁾ The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

SIRIUS 3SE5 Mechanical Position Switches







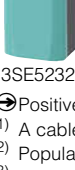

3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5¹⁾

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU		

Complete units²⁾ · Enclosure width 31 mm

	Roller plungers, type C, acc. to EN 50047						
	With plastic roller 10 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5232-0BD03	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊙ ►	3SE5232-0HD03	1	1 unit	41K
	• Integrated ³⁾						
	Snap-action contacts	1 NO + 1 NC --	⊙ 5	3SE5232-0FD03	1	1 unit	41K
	• Short stroke, integrated ³⁾						
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0KD03	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LD03	1	1 unit	41K
	Actuator head rotated by 90°						
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LD03-1AH0	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 5	3SE5234-0HD03-1AC4	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200⁴⁾ NEW						
	Snap-action contacts	1 NO + 2 NC --	⊙ X	3SE5234-0LD03-1AE2	1	1 unit	41K
	With yellow cover						
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LD03-1AG0	1	1 unit	41K
	Roller plungers with central fixing						
	With plastic roller 10 mm						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 5	3SE5232-0HD10	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0KD10	1	1 unit	41K
	Roller levers, type E acc. to EN 50047						
	With metal lever and plastic roller 13 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 2	3SE5232-0BE10	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ ►	3SE5232-0HE10	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0KE10	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LE10	1	1 unit	41K
	With increased corrosion protection, with high-grade steel lever and plastic roller 13 mm						
	Snap-action contacts	1 NO + 1 NC --	⊙ 5	3SE5232-0CE12-1CA0	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 5	3SE5234-0HE10-1AC4	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200⁴⁾ NEW						
	Snap-action contacts	1 NO + 2 NC --	⊙ X	3SE5234-0LE11-1AE2	1	1 unit	41K
	With high-grade steel lever and plastic roller 13 mm						
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LE12	1	1 unit	41K
	Angular roller lever						
	With metal lever and plastic roller 13 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5232-0BF10	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 2	3SE5232-0HF10	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0KF10	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LF10	1	1 unit	41K

⊙ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ A cable gland with seal must be used with the quick-connect method.

²⁾ Popular versions.

³⁾ Subsequent replacement of contact blocks is not possible.






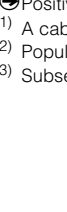

⁴⁾ The 3SE5234-.....-1AE2 position switches, wired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5¹⁾

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units²⁾ · Enclosure width 31 mm							
	Spring rod						
	Length 142.5 mm, with plastic plunger 50 mm						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	2	3SE5232-0HR01	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5234-0HR01-1AC4	1	1 unit	41K
	Twist levers, type A, acc. to EN 50047						
	With metal lever 21 mm and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 2	3SE5232-0BK21	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 5	3SE5232-0HK21	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0KK21	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5232-0LK21	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 5	3SE5234-0HK21-1AC4	1	1 unit	41K
	With metal lever 35 mm and plastic roller 19 mm						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 5	3SE5232-0HK15	1	1 unit	41K
	Twist levers, adjustable length						
	With metal lever with grid hole and plastic roller 19 mm						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	⊙ 2	3SE5232-0HK60	1	1 unit	41K
	With metal lever and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	5	3SE5232-0BK50	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	▶	3SE5232-0HK50	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	3SE5232-0LK50	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5234-0HK50-1AC4	1	1 unit	41K
	Rod actuator						
	With aluminum rod, length 200 mm						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5232-0HK80	1	1 unit	41K
	With plastic rod, length 200 mm						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5232-0HK82	1	1 unit	41K
	With M12 device plug, 4-pole (250 V, 4 A)						
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5234-0HK82-1AC4	1	1 unit	41K

⊙ Positive opening according to IEC 60947-5-1, Appendix K.

1) A cable gland with seal must be used with the quick-connect method.

2) Popular versions.

3) Subsequent replacement of contact blocks is not possible.

Note:If the device you require is not available as a complete unit, see [Modular system, page 12/16](#).






SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

Modular system

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5¹⁾

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches • Enclosure width 31 mm (with rounded plunger²⁾)							
	Teflon plungers						
	Slow-action contacts	1 NO + 1 NC --	→ ▶	3SE5232-0BC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0CC05	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	→ ▶	3SE5232-0HC05	1	1 unit	41K
	Snap-action contacts • Short stroke, integrated ³⁾	1 NO + 1 NC --	→ 5	3SE5232-0FC05	1	1 unit	41K
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	→ 15	3SE5232-0GC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	→ ▶	3SE5232-0KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	→ ▶	3SE5232-0LC05	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	→ 2	3SE5232-0MC05	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	→ 2	3SE5232-0PC05	1	1 unit	41K
	Increased corrosion protection⁴⁾						
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0BC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5232-0CC05-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5232-0KC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5232-0LC05-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	→ 5	3SE5232-0MC05-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5232-0PC05-1CA0	1	1 unit	41K
	M12 device plug, 4-pole (250 V, 4 A)						
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5234-0BC05-1AC4	1	1 unit	41K
	Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	→ 2	3SE5234-0HC05-1AC4	1	1 unit	41K
	Slow-action contacts	2 NC --	→ 5	3SE5234-0KC05-1AE0	1	1 unit	41K
	Snap-action contacts	2 NC --	→ 2	3SE5234-0LC05-1AE0	1	1 unit	41K
	2 LEDs yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	→ 5	3SE5232-1KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	→ 5	3SE5232-1LC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	→ 5	3SE5232-3KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	→ 5	3SE5232-3LC05	1	1 unit	41K
	M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	→ 5	3SE5234-1BC05-1AF3	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	→ 5	3SE5234-1CC05-1AF3	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200⁵⁾ NEW						
	Snap-action contacts	1 NO + 2 NC 24 V DC	→ X	3SE5234-0LC05-1AE2	1	1 unit	41K

→ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) A cable gland with seal must be used with the quick-connect method.

2) For enclosures with widths of 31 mm, the basic switch is a complete unit with rounded plungers.

3) Subsequent replacement of contact blocks is not possible.

4) Use corresponding high-grade steel lever.

5) The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.











Note:

For the selection aid, see page 12/11.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		
Operating mechanisms						
 3SE5000-0AD03	Roller plungers, type C, acc. to EN 50047					
	Plastic rollers	10	↻ 2	3SE5000-0AD03	1	1 unit 41K
	High-grade steel rollers	10	↻ 5	3SE5000-0AD04	1	1 unit 41K
 3SE5000-0AD10	Roller plungers with central fixing					
	Plastic rollers	10	↻ 2	3SE5000-0AD10	1	1 unit 41K
	High-grade steel rollers	10	↻ 5	3SE5000-0AD11	1	1 unit 41K
 3SE5000-0AE10	Roller levers, type E, acc. to EN 50047					
	Metal lever, plastic roller	13	↻ 2	3SE5000-0AE10	1	1 unit 41K
	Metal lever, high-grade steel roller	13	↻ 5	3SE5000-0AE11	1	1 unit 41K
	High-grade steel lever, plastic roller	13	↻ 5	3SE5000-0AE12	1	1 unit 41K
	High-grade steel lever, high-grade steel roller	13	↻ 5	3SE5000-0AE13	1	1 unit 41K
 3SE5000-0AF10	Angular roller levers					
	Metal lever, plastic roller	13	↻ 2	3SE5000-0AF10	1	1 unit 41K
	Metal lever, high-grade steel roller	13	↻ 5	3SE5000-0AF11	1	1 unit 41K
	High-grade steel lever, plastic roller	13	↻ 2	3SE5000-0AF12	1	1 unit 41K
	High-grade steel lever, high-grade steel roller	13	↻ 5	3SE5000-0AF13	1	1 unit 41K
 3SE5000-0AR01	Spring rods (for switches with snap-action contacts only)					
	Plunger made of plastic, spring of high-grade steel: 7					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)	5		3SE5000-0AR01	1	1 unit 41K
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)	5		3SE5000-0AR03	1	1 unit 41K
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)	5		3SE5000-0AR04	1	1 unit 41K
	Plunger and spring made of high-grade steel: 7					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)	5		3SE5000-0AR02	1	1 unit 41K
Twist actuators						
 3SE5000-0AK00	Twist actuators, for 31 mm/50 mm, EN 50047					
	Switching right and/or left, adjustable		↻ 2	3SE5000-0AK00	1	1 unit 41K
 3SE5000-0AA21	Levers					
	Twist levers 21 mm, straight, type A acc. to EN 50047					
	Metal lever, plastic roller	19	↻ 2	3SE5000-0AA21	1	1 unit 41K
	Metal lever, high-grade steel roller	19	↻ 5	3SE5000-0AA22	1	1 unit 41K
	Metal lever, high-grade steel roller with ball bearing	19	↻ 5	3SE5000-0AA23	1	1 unit 41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA25	1	1 unit 41K
	High-grade steel lever, plastic roller	19	↻ 5	3SE5000-0AA31	1	1 unit 41K
	High-grade steel lever, high-grade steel roller	19	↻ 5	3SE5000-0AA32	1	1 unit 41K
 3SE5000-0AA60 3SE5000-0AA50	Twist levers 30 mm, straight					
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA24	1	1 unit 41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA26	1	1 unit 41K
	Twist levers, adjustable length, with grid hole					
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA60	1	1 unit 41K
	Metal lever, high-grade steel roller	19	↻ 5	3SE5000-0AA61	1	1 unit 41K
	Metal lever, plastic roller	50	↻ 5	3SE5000-0AA67	1	1 unit 41K
	Metal lever, rubber roller	50	↻ 5	3SE5000-0AA68	1	1 unit 41K
 3SE5000-0AA80	Twist levers, adjustable length					
	Metal lever, plastic roller	19	2	3SE5000-0AA50	1	1 unit 41K
	Metal lever, high-grade steel roller	19	5	3SE5000-0AA51	1	1 unit 41K
	Metal lever, plastic roller	30	5	3SE5000-0AA55	1	1 unit 41K
	Metal lever, plastic roller	50	5	3SE5000-0AA57	1	1 unit 41K
	Metal lever, rubber roller	50	5	3SE5000-0AA58	1	1 unit 41K
	High-grade steel lever, plastic roller	19	5	3SE5000-0AA52	1	1 unit 41K
	High-grade steel lever, high-grade steel roller	19	5	3SE5000-0AA53	1	1 unit 41K
 3SE5000-0AA80	Rod actuator					
	Aluminum rod, length 200 mm	6	5	3SE5000-0AA80	1	1 unit 41K
	Spring rod, length 200 mm	6	5	3SE5000-0AA81	1	1 unit 41K
	Plastic rod, length 200 mm	6	5	3SE5000-0AA82	1	1 unit 41K

↻ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 40 mm according to EN 50041


Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Complete units¹⁾ • Enclosure width 40 mm

	Plain plungers							
	With high-grade steel plunger							
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0BB01	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0CB01	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0KB01	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0LB01	1	1 unit	41K	
3SE5132-0BB01	Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5132-0PB01	1	1 unit	41K	
	Rounded plungers, type B, acc. to EN 50041							
	With plastic plunger							
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0BC03	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	→ 2	3SE5132-0CC03	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0KC03	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0LC03	1	1 unit	41K	
3SE5132-0BC03	Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5132-0PC03	1	1 unit	41K	
	Roller plungers, type C, acc. to EN 50041							
	With plastic roller 13 mm							
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0BD05	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	→ 2	3SE5132-0CD05	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0KD05	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0LD05	1	1 unit	41K	
3SE5132-0BD05	Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5132-0PD05	1	1 unit	41K	
	Roller levers							
	With metal lever and plastic roller 22 mm							
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0BE05	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	→ 2	3SE5132-0CE05	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0KE05	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0LE05	1	1 unit	41K	
3SE5132-0BE05	Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5132-0PE05	1	1 unit	41K	
	Angular roller lever							
	With metal lever and plastic roller 22 mm							
	Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0BF05	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5132-0CF05	1	1 unit	41K	
3SE5132-0BF05	Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5132-0LF05	1	1 unit	41K	
	Spring rod							
	Length 142.5 mm, with plastic plunger 50 mm							
	Snap-action contacts	1 NO + 1 NC --	5	3SE5132-0CR01	1	1 unit	41K	
3SE5132-0CR01	Snap-action contacts	1 NO + 2 NC --	5	3SE5132-0LR01	1	1 unit	41K	

→ Positive opening according to IEC 60947-5-1, Appendix K.





¹⁾ Popular versions.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 40 mm according to EN 50041

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ • Enclosure width 40 mm							
	Twist levers, type A, acc. to EN 50041						
	With metal lever 27 mm and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5132-0BJ01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5132-0CJ01	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0KJ01	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0LJ01	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5132-0PJ01	1	1 unit	41K
3SE5132-0BJ01							
	Twist levers, adjustable length						
	With metal lever with grid hole and plastic roller 19 mm						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0CJ60	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0LJ60	1	1 unit	41K
3SE5132-0CJ60							
	With metal lever and plastic roller 19 mm						
	Snap-action contacts	1 NO + 1 NC --	2	3SE5132-0CJ50	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	3SE5132-0LJ50	1	1 unit	41K
3SE5132-0CJ50							
	Rod actuators, type D, acc. to EN 50041						
	With aluminum rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC --	5	3SE5132-0CJ80	1	1 unit	41K
	With plastic rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC --	2	3SE5132-0CJ82	1	1 unit	41K
3SE5132-0CJ80							

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.Note:If the device you require is not available as a complete unit, see [Modular system, page 12/20](#).





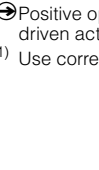
SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 40 mm according to EN 50041

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches • Enclosure width 40 mm							
	Connecting thread M20 × 1.5						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0BA00	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0CA00	1	1 unit	41K
	• Gold-plated contacts		⊕ 5	3SE5132-0CA00-1AC1	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0KA00	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0LA00	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5132-0MA00	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5132-0PA00	1	1 unit	41K
	Increased corrosion protection¹⁾						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0BA00-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0CA00-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0KA00-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0LA00-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5132-0MA00-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5132-0PA00-1CA0	1	1 unit	41K
	M12 device plug, 4-pole (250 V, 4 A)						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5134-0BA00-1AC4	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5134-0CA00-1AC4	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	3SE5134-0KA00-1AE0	1	1 unit	41K
	Snap-action contacts	2 NC --	⊕ 5	3SE5134-0LA00-1AE0	1	1 unit	41K
	2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5132-1KA00	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5132-1LA00	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5132-3KA00	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5132-3LA00	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

¹⁾ Use corresponding high-grade steel lever.










Note:

For the selection aid, [see page 12/11](#).

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 40 mm according to EN 50041

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		
Operating mechanisms						
 3SE5000-0AB01	Plain plungers High-grade steel plunger	10	↻ 2	3SE5000-0AB01	1	1 unit 41K
 3SE5000-0AC03 3SE5000-0AD05	Rounded plungers, type B, acc. to EN 50041 Plastic plungers	10	↻ 5	3SE5000-0AC03	1	1 unit 41K
	Roller plungers, type C, acc. to EN 50041 Plastic plunger, plastic roller	13	↻ 5	3SE5000-0AD05	1	1 unit 41K
	Plastic plunger, high-grade steel roller	13	↻ 5	3SE5000-0AD06	1	1 unit 41K
 3SE5000-0AE05	Roller levers Metal lever with plastic roller, plastic base	22	↻ 5	3SE5000-0AE05	1	1 unit 41K
 3SE5000-0AF05	Angular roller levers Metal lever with plastic roller, plastic base	22	↻ 5	3SE5000-0AF05	1	1 unit 41K
 3SE5000-0AR01	Spring rods (for switches with snap-action contacts only) Plunger made of plastic, spring of high-grade steel: • Length 142.5 mm (spring 50 mm, plunger 50 mm) • Length 76 mm (spring 23.5 mm, plunger 10 mm) • Length 242.5 mm (spring 150 mm, plunger 50 mm) Plunger and spring made of high-grade steel: • Length 142.5 mm (spring 50 mm, plunger 50 mm)	7 5 5 5 7 5	5 5 5 5 5 5	3SE5000-0AR01 3SE5000-0AR03 3SE5000-0AR04 3SE5000-0AR02	1 1 1 1 1 1	1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K
Twist actuators						
 3SE5000-0AH00	Twist actuators, for 40 mm, EN 50041 • For twist levers and rod actuators, switching right and/or left, adjustable		↻ 2	3SE5000-0AH00	1	1 unit 41K
 3SE5000-0AA01	Levers Twist levers, offset, type A, acc. to EN 50041 Metal lever 27 mm, plastic roller Metal lever 27 mm, high-grade steel roller Metal lever 27 mm, high-grade steel roller with ball bearing Metal lever 27 mm, 2 plastic rollers Metal lever 27 mm, plastic roller Metal lever 27 mm, rubber roller High-grade steel lever 27 mm, plastic roller High-grade steel lever 27 mm, high-grade steel roller Metal lever 35 mm, plastic roller High-grade steel lever 35 mm, plastic roller	19 19 19 19 30 50 19 19 19 19 19	↻ 2 ↻ 2 ↻ 5 ↻ 5 ↻ 5 ↻ 5 ↻ 5 ↻ 5 ↻ 5 ↻ 5 ↻ 5	3SE5000-0AA01 3SE5000-0AA02 3SE5000-0AA03 3SE5000-0AA04 3SE5000-0AA05 3SE5000-0AA08 3SE5000-0AA11 3SE5000-0AA12 3SE5000-0AA15 3SE5000-0AA16	1 1 1 1 1 1 1 1 1 1 1	1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K
 3SE5000-0AA60 3SE5000-0AA50	Twist levers 30 mm, straight Metal lever, plastic roller Metal lever, plastic roller	19 30	↻ 5 ↻ 5	3SE5000-0AA24 3SE5000-0AA26	1 1	1 unit 41K 1 unit 41K
 3SE5000-0AA80	Twist levers, adjustable length, with grid hole Metal lever, plastic roller Metal lever, high-grade steel roller Metal lever, rubber roller High-grade steel lever, plastic roller High-grade steel lever, high-grade steel roller	19 19 50 19 19	↻ 5 ↻ 5 ↻ 5 ↻ 5 ↻ 5	3SE5000-0AA60 3SE5000-0AA61 3SE5000-0AA68 3SE5000-0AA62 3SE5000-0AA63	1 1 1 1 1	1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K
	Twist levers, adjustable length Metal lever, plastic roller Metal lever, high-grade steel roller Metal lever, plastic roller Metal lever, rubber roller High-grade steel lever, plastic roller High-grade steel lever, high-grade steel roller	19 19 30 50 19 19	2 5 5 5 5 5	3SE5000-0AA50 3SE5000-0AA51 3SE5000-0AA55 3SE5000-0AA58 3SE5000-0AA52 3SE5000-0AA53	1 1 1 1 1 1	1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K
	Rod actuators, type D, acc. to EN 50041 Aluminum rod, length 200 mm Spring rod, length 200 mm Plastic rod, length 200 mm	6 6 6	5 5 5	3SE5000-0AA80 3SE5000-0AA81 3SE5000-0AA82	1 1 1	1 unit 41K 1 unit 41K 1 unit 41K

↻ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 50 mm

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 2 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Complete units¹⁾ · Enclosure width 50 mm



3SE5242-0BC05

Rounded plungers

With teflon plunger

Slow-action contacts	1 NO + 1 NC --	→ 2	3SE5242-0BC05	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5242-0CC05	1	1 unit	41K
Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	→ ►	3SE5242-0HC05	1	1 unit	41K
Snap-action contacts • Short stroke, integrated ²⁾	1 NO + 1 NC --	→ 15	3SE5242-0FC05	1	1 unit	41K
Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	→ 30	3SE5242-0GC05	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5242-0KC05	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5242-0LC05	1	1 unit	41K
Slow-action contacts with make-before-break	1 NO + 2 NC --	→ 5	3SE5242-0MC05	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	→ 2	3SE5242-0PC05	1	1 unit	41K



3SE5242-0BC05-1CA0

With increased corrosion protection

Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5242-0BC05-1CA0	1	1 unit	41K
Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	→ 30	3SE5242-0HC05-1CA0	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5242-0KC05-1CA0	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5242-0LC05-1CA0	1	1 unit	41K
Slow-action contacts with make-before-break	1 NO + 2 NC --	→ 5	3SE5242-0MC05-1CA0	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	→ 5	3SE5242-0PC05-1CA0	1	1 unit	41K



3SE5242-1KC05

With 2 LEDs, yellow/green

Slow-action contacts	1 NO + 2 NC 24 V DC	→ 5	3SE5242-1KC05	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 24 V DC	→ 5	3SE5242-1LC05	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC 230 V AC	→ 5	3SE5242-3KC05	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 230 V AC	→ 5	3SE5242-3LC05	1	1 unit	41K



3SE5242-0BD03

Roller plunger

With plastic roller 10 mm

Slow-action contacts	1 NO + 1 NC --	→ 5	3SE5242-0BD03	1	1 unit	41K
Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	→ 5	3SE5242-0HD03	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5242-0LD03	1	1 unit	41K

→ Positive opening according to IEC 60947-5-1, Appendix K.




¹⁾ Popular versions.²⁾ Subsequent replacement of contact blocks is not possible.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 50 mm

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 2 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ • Enclosure width 50 mm							
Roller levers							
With metal lever and plastic roller 13 mm							
	Slow-action contacts	1 NO + 1 NC --	⤵ 5	3SE5242-0BE10	1	1 unit	41K
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	⤵ 2	3SE5242-0HE10	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⤵ 5	3SE5242-0LE10	1	1 unit	41K
With M12 device plug, 4-pole right (250 V, 4 A)							
3SE5242-0BE10	Snap-action contacts	2 NC --	⤵ 5	3SE5244-0LE10-1AE0	1	1 unit	41K
Twist levers							
With metal lever 21 mm and plastic roller 19 mm							
	Slow-action contacts	1 NO + 1 NC --	⤵ 5	3SE5242-0BK21	1	1 unit	41K
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	⤵ 5	3SE5242-0HK21	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⤵ 5	3SE5242-0LK21	1	1 unit	41K
3SE5242-0BK21							
Twist levers, adjustable length							
With metal lever and plastic roller 19 mm							
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	5	3SE5242-0HK50	1	1 unit	41K
3SE5242-0HK50							

⤵ Positive opening according to IEC 60947-5-1, Appendix K.

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

Note:If the device you require is not available as a complete unit, see [Modular system, page 12/24](#).




SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 50 mm

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 2 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches · Enclosure width 50 mm (with rounded plunger¹⁾)							
	Teflon plungers						
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5242-0BC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5242-0CC05	1	1 unit	41K
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	⊕ ►	3SE5242-0HC05	1	1 unit	41K
	Snap-action contacts • Short stroke, integrated ²⁾	1 NO + 1 NC --	⊕ 15	3SE5242-0FC05	1	1 unit	41K
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	⊕ 30	3SE5242-0GC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5242-0KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5242-0LC05	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5242-0MC05	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	3SE5242-0PC05	1	1 unit	41K
	Increased corrosion protection³⁾						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5242-0BC05-1CA0	1	1 unit	41K
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	⊕ 30	3SE5242-0HC05-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5242-0KC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5242-0LC05-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5242-0MC05-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5242-0PC05-1CA0	1	1 unit	41K
	2 LEDs yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5242-1KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5242-1LC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5242-3KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5242-3LC05	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.




¹⁾ For enclosures with widths of 50 mm, the basic switch is a complete unit with rounded plungers.

²⁾ Subsequent replacement of contact blocks is not possible.

³⁾ Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/11.













	Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG	
		mm	d	Article No.	Price per PU				
Operating mechanisms									
 3SE5000-0AD03	Roller plungers, type C, acc. to EN 50047					1	1 unit	41K	
	Plastic rollers	10	↻ 2						3SE5000-0AD03
	High-grade steel rollers	10	↻ 5						3SE5000-0AD04
 3SE5000-0AD10	Roller plungers with central fixing					1	1 unit	41K	
	Plastic rollers	10	↻ 2						3SE5000-0AD10
	High-grade steel rollers	10	↻ 5						3SE5000-0AD11

⊕ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Plastic Enclosures

Enclosure width 50 mm

Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU			
Operating mechanisms							
 3SE5000-0AE10	Roller levers, type E, acc. to EN 50047						
	Metal lever, plastic roller	13	↻ 2	3SE5000-0AE10	1	1 unit	41K
	Metal lever, high-grade steel roller	13	↻ 5	3SE5000-0AE11	1	1 unit	41K
	High-grade steel lever, plastic roller	13	↻ 5	3SE5000-0AE12	1	1 unit	41K
 3SE5000-0AF10	Angular roller levers						
	Metal lever, plastic roller	13	↻ 2	3SE5000-0AF10	1	1 unit	41K
	Metal lever, high-grade steel roller	13	↻ 5	3SE5000-0AF11	1	1 unit	41K
	High-grade steel lever, plastic roller	13	↻ 2	3SE5000-0AF12	1	1 unit	41K
 3SE5000-0AR01	Spring rods (for switches with snap-action contacts only)						
	Plunger made of plastic, spring of high-grade steel: 7						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)	5		3SE5000-0AR01	1	1 unit	41K
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)	5		3SE5000-0AR03	1	1 unit	41K
 3SE5000-0AK00	Twist actuators, for 31 mm/50 mm, EN 50047						
	Switching right and/or left, adjustable		↻ 2	3SE5000-0AK00	1	1 unit	41K
 3SE5000-0AA21	Levers						
	Twist levers 21 mm, straight, type A acc. to EN 50047						
	Metal lever, plastic roller	19	↻ 2	3SE5000-0AA21	1	1 unit	41K
	Metal lever, high-grade steel roller	19	↻ 5	3SE5000-0AA22	1	1 unit	41K
 3SE5000-0AA60 3SE5000-0AA24	Twist levers 30 mm, straight						
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA23	1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	↻ 5	3SE5000-0AA25	1	1 unit	41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA26	1	1 unit	41K
 3SE5000-0AA50	Twist levers, adjustable length, with grid hole						
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA31	1	1 unit	41K
	High-grade steel lever, plastic roller	19	↻ 5	3SE5000-0AA32	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	↻ 5	3SE5000-0AA33	1	1 unit	41K
 3SE5000-0AA50	Twist levers, adjustable length						
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA60	1	1 unit	41K
	Metal lever, high-grade steel roller	19	↻ 5	3SE5000-0AA61	1	1 unit	41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA62	1	1 unit	41K
 3SE5000-0AA80	Rod actuator						
	Metal lever, plastic roller	50	↻ 5	3SE5000-0AA63	1	1 unit	41K
	Metal lever, rubber roller	50	↻ 5	3SE5000-0AA64	1	1 unit	41K
	High-grade steel lever, plastic roller	19	↻ 5	3SE5000-0AA65	1	1 unit	41K
 3SE5000-0AA80	Rod actuator						
	High-grade steel lever, high-grade steel roller	19	↻ 5	3SE5000-0AA66	1	1 unit	41K
	Aluminum rod, length 200 mm	6	5	3SE5000-0AA80	1	1 unit	41K
	Spring rod, length 200 mm	6	5	3SE5000-0AA81	1	1 unit	41K
 3SE5000-0AA80	Rod actuator						
	Plastic rod, length 200 mm	6	5	3SE5000-0AA82	1	1 unit	41K

↻ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches








3SE5, Metal Enclosures

Enclosure width 31 mm according to EN 50047

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ · Enclosure width 31 mm							
Rounded plungers, type B, acc. to EN 50047							
 3SE5212-0BC05	With plunger						
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0BC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0CC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	3SE5212-0LC05	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	3SE5212-0MC05	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5212-0PC05	1	1 unit	41K
 3SE5212-0BC05-1CA0	With increased corrosion protection						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CC05-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LC05-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5212-0MC05-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5212-0PC05-1CA0	1	1 unit	41K
 3SE5214-0BC05-1AC5	With M12 device plug, 5-pole (125 V, 4 A)						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5214-0BC05-1AC5	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5214-0CC05-1AC5	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	3SE5214-0KC05-1AE1	1	1 unit	41K
	Snap-action contacts	2 NC --	⊕ 5	3SE5214-0LC05-1AE1	1	1 unit	41K
 3SE5212-1KC05	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5212-1KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 2	3SE5212-1LC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5212-3KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5212-3LC05	1	1 unit	41K
 3SE5214-1BC05-1AF3	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1BC05-1AF3	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1CC05-1AF3	1	1 unit	41K
 3SE5212-0BB01	Plain plungers						
	With high-grade steel plunger						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BB01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CB01	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KB01	1	1 unit	41K
 3SE5212-0BD03	Roller plungers, type C, acc. to EN 50047						
	With plastic roller 10 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0BD03	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CD03	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KD03	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LD03	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.






¹⁾ Popular versions.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 31 mm according to EN 50047

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ • Enclosure width 31 mm							
	Roller plungers with central fixing						
	With plastic roller 10 mm						
3SE5212-0KD10	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KD10		1	1 unit 41K
	Roller levers, type E acc. to EN 50047						
	With metal lever and plastic roller 13 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BE10		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CE10		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KE10		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LE10		1	1 unit 41K
3SE5212-0BE10							
	Angular roller lever						
	With metal lever and plastic roller 13 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BF10		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CF10		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KF10		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LF10		1	1 unit 41K
3SE5212-0BF10							
	Twist levers, type A, acc. to EN 50047						
	With metal lever 21 mm and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BK21		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CK21		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KK21		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LK21		1	1 unit 41K
3SE5212-0BK21							
	Twist levers, adjustable length						
	With metal lever with grid hole and plastic roller 19 mm						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CK60		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KK60		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LK60		1	1 unit 41K
	With metal lever and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	5	3SE5212-0BK50		1	1 unit 41K
3SE5212-0CK60	Snap-action contacts	1 NO + 1 NC --	5	3SE5212-0CK50		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	5	3SE5212-0LK50		1	1 unit 41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.**Note:**If the device you require is not available as a complete unit, see [Modular system](#), page 12/28.






SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 31 mm according to EN 50047

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches • Enclosure width 31 mm (with rounded plunger¹⁾)							
	Plunger						
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0BC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0CC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	3SE5212-0LC05	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	3SE5212-0MC05	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5212-0PC05	1	1 unit	41K
	Increased corrosion protection²⁾						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CC05-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KC05-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LC05-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5212-0MC05-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5212-0PC05-1CA0	1	1 unit	41K
	M12 device plug, 5-pole (125 V, 4 A)						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5214-0BC05-1AC5	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5214-0CC05-1AC5	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	3SE5214-0KC05-1AE1	1	1 unit	41K
	Snap-action contacts	2 NC --	⊕ 5	3SE5214-0LC05-1AE1	1	1 unit	41K
	2 LEDs yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5212-1KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 2	3SE5212-1LC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5212-3KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5212-3LC05	1	1 unit	41K
	M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1BC05-1AF3	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1CC05-1AF3	1	1 unit	41K
	Snap-action contacts	NEW 1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CA00-1AF5	1	1 unit	41K







⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) For enclosures with widths of 31 mm, the basic switch is a complete unit with rounded plungers.

2) Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/11.










Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU				
Operating mechanisms								
	Plain plungers				1	1 unit	41K	
	High-grade steel plunger	10						 2
3SE5000-0AB01								
	Roller plungers, type C, acc. to EN 50047				1	1 unit	41K	
	Plastic rollers	10						 2
	High-grade steel rollers	10						 5
3SE5000-0AD03								

⊕ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 31 mm according to EN 50047

Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU			
Operating mechanisms							
 3SE5000-0AD10	Roller plungers with central fixing						
	Plastic rollers	10	➞ 2	3SE5000-0AD10	1	1 unit	41K
	High-grade steel rollers	10	➞ 5	3SE5000-0AD11	1	1 unit	41K
 3SE5000-0AE10	Roller levers, type E, acc. to EN 50047						
	Metal lever, plastic roller	13	➞ 2	3SE5000-0AE10	1	1 unit	41K
	Metal lever, high-grade steel roller	13	➞ 5	3SE5000-0AE11	1	1 unit	41K
	High-grade steel lever, plastic roller	13	➞ 5	3SE5000-0AE12	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	13	➞ 5	3SE5000-0AE13	1	1 unit	41K
 3SE5000-0AF10	Angular roller levers						
	Metal lever, plastic roller	13	➞ 2	3SE5000-0AF10	1	1 unit	41K
	Metal lever, high-grade steel roller	13	➞ 5	3SE5000-0AF11	1	1 unit	41K
	High-grade steel lever, plastic roller	13	➞ 2	3SE5000-0AF12	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	13	➞ 5	3SE5000-0AF13	1	1 unit	41K
 3SE5000-0AR01	Spring rods (for switches with snap-action contacts only)						
	Plunger made of plastic, spring of high-grade steel:	7					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR01	1	1 unit	41K
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	3SE5000-0AR03	1	1 unit	41K
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	3SE5000-0AR04	1	1 unit	41K
	Plunger and spring made of high-grade steel:	7					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR02	1	1 unit	41K
Twist actuators							
 3SE5000-0AK00	Twist actuators, for 31 mm/50 mm, EN 50047						
	Switching right and/or left, adjustable		➞ 2	3SE5000-0AK00	1	1 unit	41K
 3SE5000-0AA21	Levers						
	Twist levers, straight, type A, acc. to EN 50047						
	Metal lever 21 mm, plastic roller	19	➞ 2	3SE5000-0AA21	1	1 unit	41K
	Metal lever 21 mm, high-grade steel roller	19	➞ 5	3SE5000-0AA22	1	1 unit	41K
	Metal lever 21 mm, high-grade steel roller with ball bearing	19	➞ 5	3SE5000-0AA23	1	1 unit	41K
	Metal lever 21 mm, plastic roller	30	➞ 5	3SE5000-0AA25	1	1 unit	41K
	High-grade steel lever 21 mm, plastic roller	19	➞ 5	3SE5000-0AA31	1	1 unit	41K
	High-grade steel lever 21 mm, high-grade steel roller	19	➞ 5	3SE5000-0AA32	1	1 unit	41K
 3SE5000-0AA60 3SE5000-0AA50	Twist levers 30 mm, straight						
	Metal lever, plastic roller	19	➞ 5	3SE5000-0AA24	1	1 unit	41K
	Metal lever, plastic roller	30	➞ 5	3SE5000-0AA26	1	1 unit	41K
	Twist levers, adjustable length, with grid hole						
	Metal lever, plastic roller	19	➞ 5	3SE5000-0AA60	1	1 unit	41K
	Metal lever, high-grade steel roller	19	➞ 5	3SE5000-0AA61	1	1 unit	41K
	Metal lever, plastic roller	50	➞ 5	3SE5000-0AA67	1	1 unit	41K
	Metal lever, rubber roller	50	➞ 5	3SE5000-0AA68	1	1 unit	41K
	High-grade steel lever, plastic roller	19	➞ 5	3SE5000-0AA62	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	➞ 5	3SE5000-0AA63	1	1 unit	41K
	Twist levers, adjustable length						
	Metal lever, plastic roller	19	2	3SE5000-0AA50	1	1 unit	41K
	Metal lever, high-grade steel roller	19	5	3SE5000-0AA51	1	1 unit	41K
	Metal lever, plastic roller	30	5	3SE5000-0AA55	1	1 unit	41K
	Metal lever, plastic roller	50	5	3SE5000-0AA57	1	1 unit	41K
	Metal lever, rubber roller	50	5	3SE5000-0AA58	1	1 unit	41K
	High-grade steel lever, plastic roller	19	5	3SE5000-0AA52	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	5	3SE5000-0AA53	1	1 unit	41K
 3SE5000-0AA80	Rod actuators, type D, acc. to EN 50041						
	Aluminum rod, length 200 mm	6	5	3SE5000-0AA80	1	1 unit	41K
	Spring rod, length 200 mm	6	5	3SE5000-0AA81	1	1 unit	41K
	Plastic rod, length 200 mm	6	5	3SE5000-0AA82	1	1 unit	41K
	Plastic rod, length 330 mm	6	5	3SE5000-0AA83	1	1 unit	41K

➞ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

SIRIUS 3SE5 Mechanical Position Switches







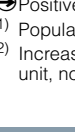


3SE5, Metal Enclosures

Enclosure width 40 mm according to EN 50041

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ · Enclosure width 40 mm							
 3SE5112-0BB01	Plain plungers						
	With high-grade steel plunger						
	Slow-action contacts	1 NO + 1 NC --	⊙ 2	3SE5112-0BB01		1 1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊙ 2	3SE5112-0CB01		1 1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0KB01		1 1 unit	41K
 3SE5112-0BC02	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0LB01		1 1 unit	41K
	Rounded plungers, type B, acc. to EN 50041						
	With high-grade steel plungers, with 3 mm overtravel						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5112-0BC02		1 1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊙ ►	3SE5112-0CC02		1 1 unit	41K
 3SE5112-0BD02	Snap-action contacts ²⁾	1 NO + 1 NC --	⊙ 5	3SE5112-0CC02-1AA7		1 1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0KC02		1 1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0LC02		1 1 unit	41K
	Snap-action contacts with M12 device plug, 4-pole	1 NO + 1 NC --	⊙ 5	3SE5114-0CC02-1AC4		1 1 unit	41K
	Roller plungers, type C, acc. to EN 50041						
 3SE5112-0BE01	With high-grade steel roller 13 mm, with 3 mm overtravel						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5112-0BD02		1 1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊙ ►	3SE5112-0CD02		1 1 unit	41K
	Snap-action contacts ²⁾	1 NO + 1 NC --	⊙ 5	3SE5112-0CD02-1AA7		1 1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0KD02		1 1 unit	41K
 3SE5112-0BF01	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0LD02		1 1 unit	41K
	Snap-action contacts ²⁾	1 NO + 2 NC --	⊙ 5	3SE5112-0LD02-1AA7		1 1 unit	41K
	Slow-action contacts ²⁾	2 NO + 1 NC --	⊙ 5	3SE5112-0PD02-1AA7		1 1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A)						
	Snap-action contacts with 2 LEDs	1 NO + 1 NC 24 V DC	⊙ 5	3SE5114-1CD02-1AF3		1 1 unit	41K
 3SE5112-0CF01	Snap-action contacts with 2 LEDs NEW	1 NO + 1 NC 24 V DC	⊙ 5	3SE5114-1CD02-1AF5		1 1 unit	41K
	Snap-action contacts without LED	1 NO + 1 NC 24 V DC	⊙ 5	3SE5114-0CD02-1AC5		1 1 unit	41K
	Snap-action contacts without LED ²⁾³⁾	1 NO + 1 NC 24 V DC	⊙ 5	3SE5114-0CD02-1AL0		1 1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200³⁾						
	Snap-action contacts without LED NEW	1 NO + 2 NC 24 V DC	⊙ X	3SE5114-0LD02-1AE3		1 1 unit	41K
 3SE5112-0CR01	Roller levers						
	With metal lever and plastic roller 22 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5112-0BE01		1 1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊙ ►	3SE5112-0CE01		1 1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0KE01		1 1 unit	41K
 3SE5112-0CF01	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0LE01		1 1 unit	41K
	Angular roller lever						
	With metal lever and plastic roller 22 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5112-0BF01		1 1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊙ 2	3SE5112-0CF01		1 1 unit	41K
 3SE5112-0CR01	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5112-0LF01		1 1 unit	41K
	Spring rod						
	Length 142.5 mm, with plastic plunger 50 mm						
	Snap-action contacts	1 NO + 1 NC --	►	3SE5112-0CR01		1 1 unit	41K










¹⁾ Positive opening according to IEC 60947-5-1, Appendix K.²⁾ Popular versions.³⁾ Increased operation or restoring force 30 N; only available as complete unit, no modular design³⁾ The 3SE5114-.....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 40 mm according to EN 50041

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ · Enclosure width 40 mm							
	Twist levers, type A, acc. to EN 50041						
	With metal lever 27 mm and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BH01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ ►	3SE5112-0CH01	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5112-0KH01	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5112-0LH01	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A)						
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5114-0CH01-1AC5	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200³⁾ NEW						
	Snap-action contacts	1 NO + 2 NC --	⊕ X	3SE5114-0LH01-1AE3	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CH01-1AF3	1	1 unit	41K
	With metal lever 27 mm and high-grade steel roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BH02	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5112-0CH02	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5114-1CH02-1AF3	1	1 unit	41K
	With metal lever 30 mm and plastic roller 19 mm						
	Snap-action contacts	1 NO + 1 NC --	⊕ ►	3SE5112-0CH24	1	1 unit	41K
	Twist levers, adjustable length						
	Metal lever, grid hole and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BH60	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ ►	3SE5112-0CH60	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5112-0LH60	1	1 unit	41K
	Metal lever, grid hole with high-grade steel roller NEW						
	Snap-action contacts	1 NO + 1 NC --	X	3SE5114-0CH61-1AC5	1	1 unit	41K
	With metal lever and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	5	3SE5112-0BH50	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	►	3SE5112-0CH50	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	3SE5112-0LH50	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Snap-action contacts	1 NO + 1 NC 24 V DC	5	3SE5114-1CH60-1AF3	1	1 unit	41K
	With M12 device plug, 8-pole (30 V, 2 A), and 2 LEDs						
	Snap-action contacts	1 NO + 2 NC 24 V DC	5	3SE5114-1LH50-1AD4	1	1 unit	41K
	With metal lever and high-grade steel roller 19 mm						
	Snap-action contacts	1 NO + 1 NC --	5	3SE5112-0CH51	1	1 unit	41K
	Fork levers, latching						
	With metal lever and 2 plastic rollers 19 mm						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0CT11	1	1 unit	41K
	Rod actuators, type D, acc. to EN 50041						
	With aluminum rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC --	►	3SE5112-0CH80	1	1 unit	41K
	With plastic rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC --	5	3SE5112-0CH82	1	1 unit	41K
	Nagara switch²⁾ With M12 device plug, 5-pole (125 V, 4 A) NEW						
	Snap-action contacts, short-stroke	1 NO + 1 NC --	5	3SE5114-0NH82-1AM2	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

1) Popular versions.

2) Start switch triggerable via one-hand operation (during operation)

3) The 3SE5114-.....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

Note:If the device you require is not available as a complete unit, see [Modular system, page 12/32](#).





SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 40 mm according to EN 50041

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches • Enclosure width 40 mm							
	Connecting thread M20 × 1.5						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BA00	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5112-0CA00	1	1 unit	41K
	• Gold-plated contacts		⊕ 5	3SE5112-0CA00-1AC1	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 2	3SE5112-0KA00	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	3SE5112-0LA00	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	3SE5112-0MA00	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	3SE5112-0PA00	1	1 unit	41K
	Increased corrosion protection¹⁾						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BA00-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0CA00-1CA0	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5112-0KA00-1CA0	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5112-0LA00-1CA0	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5112-0MA00-1CA0	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5112-0PA00-1CA0	1	1 unit	41K
	M12 device plug, 5-pole (125 V, 4 A)						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5114-0BA00-1AC5	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5114-0CA00-1AC5	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	3SE5114-0KA00-1AE1	1	1 unit	41K
	Snap-action contacts	2 NC --	⊕ 5	3SE5114-0LA00-1AE1	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200²⁾ NEW						
	Snap-action contacts	1 NO + 2 NC --	⊕ X	3SE5114-0LA00-1AE3	1	1 unit	41K
	Device plug, 6-pole + PE (250 V, 10 A)						
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5115-0KA00-1AD1	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5115-0LA00-1AD1	1	1 unit	41K
	Device plug, 6-pole + PE (250 V, 10 A), and quick-release device						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5115-0CA00-1AD0	1	1 unit	41K
	2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1KA00	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1LA00	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3KA00	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3LA00	1	1 unit	41K
	M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1BA00-1AF3	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CA00-1AF3	1	1 unit	41K
	M12 device plug, 8-pole (30 V, 2 A), and 2 LEDs						
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5114-1LA00-1AD4	1	1 unit	41K
	Device plug, 6-pole + PE (10 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5115-1BA00-1AF2	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5115-1CA00-1AF2	1	1 unit	41K
	Snap-action contacts	2 NC 24 V DC	⊕ 5	3SE5115-1LA00-1AD2	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

¹⁾ Use corresponding high-grade steel lever.

²⁾ The 3SE5114-.....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.




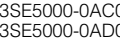




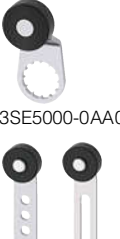


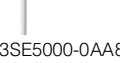
Note:

For the selection aid, see page 12/11.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 40 mm according to EN 50041

Version		Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
		mm	d	Article No.	Price per PU			
Operating mechanisms								
	Plain plungers							
	High-grade steel plunger	10	↻ 2	3SE5000-0AB01		1	1 unit	41K
	Rounded plungers, type B, acc. to EN 50041							
	High-grade steel plungers, with 3 mm overtravel	10	↻ 5	3SE5000-0AC02		1	1 unit	41K
	Roller plungers, type C, acc. to EN 50041							
	High-grade steel roller, with 3 mm overtravel	13	↻ 5	3SE5000-0AD02		1	1 unit	41K
	Roller levers							
	Metal lever, plastic roller	22	↻ 2	3SE5000-0AE01		1	1 unit	41K
	Metal lever, high-grade steel roller	22	↻ 5	3SE5000-0AE02		1	1 unit	41K
	High-grade steel lever, plastic roller	22	↻ 5	3SE5000-0AE03		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	22	↻ 5	3SE5000-0AE04		1	1 unit	41K
	Angular roller levers							
	Metal lever, plastic roller	22	↻ 2	3SE5000-0AF01		1	1 unit	41K
	Metal lever, high-grade steel roller	22	↻ 5	3SE5000-0AF02		1	1 unit	41K
	High-grade steel lever, plastic roller	22	↻ 5	3SE5000-0AF03		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	22	↻ 5	3SE5000-0AF04		1	1 unit	41K
	Spring rods (for switches with snap-action contacts only)							
	Plunger made of plastic, spring of high-grade steel:	7						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR01		1	1 unit	41K
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	3SE5000-0AR03		1	1 unit	41K
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	3SE5000-0AR04		1	1 unit	41K
	Plunger and spring made of high-grade steel:	7						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR02		1	1 unit	41K
	Twist actuators							
	Twist actuators, for 40/56/56 XL mm EN 50041							
	• For twist levers and rod actuators, switching right and/or left, adjustable		↻ 2	3SE5000-0AH00		1	1 unit	41K
	• For fork levers, latching		↻ 5	3SE5000-0AT10		1	1 unit	41K
Levers								
	Twist levers, offset, type A, acc. to EN 50041							
	Metal lever 27 mm, plastic roller	19	↻ 2	3SE5000-0AA01		1	1 unit	41K
	Metal lever 27 mm, high-grade steel roller	19	↻ 2	3SE5000-0AA02		1	1 unit	41K
	Metal lever 27 mm, high-grade steel roller with ball bearing	19	↻ 5	3SE5000-0AA03		1	1 unit	41K
	Metal lever 27 mm, 2 plastic rollers	19	↻ 5	3SE5000-0AA04		1	1 unit	41K
	Metal lever 27 mm, plastic roller	30	↻ 5	3SE5000-0AA05		1	1 unit	41K
	Metal lever 27 mm, rubber roller	50	↻ 5	3SE5000-0AA08		1	1 unit	41K
	High-grade steel lever 27 mm, plastic roller	19	↻ 5	3SE5000-0AA11		1	1 unit	41K
	High-grade steel lever 27 mm, high-grade steel roller	19	↻ 5	3SE5000-0AA12		1	1 unit	41K
	Metal lever 35 mm, plastic roller	19	↻ 5	3SE5000-0AA15		1	1 unit	41K
	High-grade steel lever 35 mm, plastic roller	19	↻ 5	3SE5000-0AA16		1	1 unit	41K
	Twist levers 30 mm, straight							
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA24		1	1 unit	41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA26		1	1 unit	41K
		Twist levers, adjustable length, with grid hole						
Metal lever, plastic roller		19	↻ 5	3SE5000-0AA60		1	1 unit	41K
Metal lever, high-grade steel roller		19	↻ 5	3SE5000-0AA61		1	1 unit	41K
Metal lever, rubber roller		50	↻ 5	3SE5000-0AA68		1	1 unit	41K
High-grade steel lever, plastic roller		19	↻ 5	3SE5000-0AA62		1	1 unit	41K
High-grade steel lever, high-grade steel roller		19	↻ 5	3SE5000-0AA63		1	1 unit	41K
	Twist levers, adjustable length							
	Metal lever, plastic roller	19	2	3SE5000-0AA50		1	1 unit	41K
	Metal lever, high-grade steel roller	19	5	3SE5000-0AA51		1	1 unit	41K
	Metal lever, plastic roller	30	5	3SE5000-0AA55		1	1 unit	41K
	Metal lever, rubber roller	50	5	3SE5000-0AA58		1	1 unit	41K
	High-grade steel lever, plastic roller	19	5	3SE5000-0AA52		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	5	3SE5000-0AA53		1	1 unit	41K
	Fork levers (for switches with snap-action contacts only)							
	2 metal levers, 2 plastic rollers	19	↻ 5	3SE5000-0AT01		1	1 unit	41K
2 metal levers, 2 high-grade steel rollers	19	↻ 5	3SE5000-0AT02		1	1 unit	41K	
2 high-grade steel levers, 2 plastic rollers	19	↻ 5	3SE5000-0AT03		1	1 unit	41K	
	Rod actuators, type D, acc. to EN 50041							
	Aluminum rod, length 200 mm	6	5	3SE5000-0AA80		1	1 unit	41K
	Spring rod, length 200 mm	6	5	3SE5000-0AA81		1	1 unit	41K
	Plastic rod, length 200 mm	6	5	3SE5000-0AA82		1	1 unit	41K

↷ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm








Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Complete units¹⁾ · Enclosure width 56 mm

Plain plungers							
With high-grade steel plunger							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0BB01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0CB01	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0KB01	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0LB01	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5122-0PB01	1	1 unit	41K
Rounded plungers							
With high-grade steel plungers, with 3 mm overtravel							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0BC02	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ ▶	3SE5122-0CC02	1	1 unit	41K
	Snap-action contacts ²⁾	1 NO + 1 NC --	⊕ 5	3SE5122-0CC02-1AA7	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0KC02	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0LC02	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5122-0PC02	1	1 unit	41K
Roller plunger							
With high-grade steel roller 13 mm, with 3 mm overtravel							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0BD02	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5122-0CD02	1	1 unit	41K
	Snap-action contacts ²⁾	1 NO + 1 NC --	⊕ 5	3SE5122-0CD02-1AA7	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0KD02	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0LD02	1	1 unit	41K
Roller levers							
With metal lever and plastic roller 22 mm							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0BE01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5122-0CE01	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0KE01	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0LE01	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5122-0PE01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0CE02	1	1 unit	41K
Angular roller lever							
With metal lever and plastic roller 22 mm							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0BF01	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0CF01	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5122-0PF01	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.







²⁾ Increased operation or restoring force 30 N; only available as complete unit, no modular design

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Complete units¹⁾ · Enclosure width 56 mm							
	Spring rod						
	Length 142.5 mm, with plastic plunger 50 mm						
3SE5122-0CR01	Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CR01		1	1 unit 41K
	Twist levers						
	With metal lever 27 mm and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5122-0BH01		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊙ 2	3SE5122-0CH01		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊙ 5	3SE5122-0KH01		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5122-0LH01		1	1 unit 41K
3SE5122-0BH01	Slow-action contacts	2 NO + 1 NC --	⊙ 5	3SE5122-0PH01		1	1 unit 41K
	With metal lever 27 mm and high-grade steel roller 19 mm						
	Snap-action contacts	1 NO + 1 NC --	⊙ 5	3SE5122-0CH02		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5122-0LH02		1	1 unit 41K
	Twist levers, adjustable length						
	With metal lever with grid hole and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	⊙ 5	3SE5122-0BH60		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊙ 5	3SE5122-0CH60		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊙ 5	3SE5122-0LH60		1	1 unit 41K
	With metal lever and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC --	5	3SE5122-0BH50		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	2	3SE5122-0CH50		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	5	3SE5122-0LH50		1	1 unit 41K
3SE5122-0BH60							
	Fork levers, latching						
	With metal lever and 2 plastic rollers 19 mm						
3SE5122-0CT11	Snap-action contacts	1 NO + 1 NC --	⊙ 5	3SE5122-0CT11		1	1 unit 41K
	Rod actuator						
	With aluminum rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CH80		1	1 unit 41K
	With plastic rod, length 200 mm						
3SE5122-0CH80	Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CH82		1	1 unit 41K

⊙ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.**Note:**If the device you require is not available as a complete unit, see [Modular system, page 12/36](#).




SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)






Version	Contacts	LEDs	SD	Modular system	Price per PU	PU (UNIT, SET, M)	PS*	PG
				Article No.				
				d				
Basic switches • Enclosure width 56 mm								
	With 3 × connection thread M20 × 1.5							
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5122-0BA00		1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5122-0CA00		1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0KA00		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	3SE5122-0LA00		1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	3SE5122-0MA00		1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	3SE5122-0PA00		1	1 unit	41K
	With increased corrosion protection¹⁾							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0BA00-1CA0		1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5122-0CA00-1CA0		1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0KA00-1CA0		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0LA00-1CA0		1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5122-0MA00-1CA0		1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5122-0PA00-1CA0		1	1 unit	41K
	With 2 LEDs, yellow/green							
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5122-1KA00		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5122-1LA00		1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5122-3KA00		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5122-3LA00		1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

¹⁾ Use corresponding high-grade steel lever.

Note:






For the selection aid, see page 12/11.

Version		Diameter	SD	Modular system		PU (UNIT, SET, M)		PS*	PG
		mm	d	Article No.	Price per PU				
Operating mechanisms									
	Plain plungers								
	High-grade steel plungers	10	➡ 2	3SE5000-0AB01		1	1 unit	41K	
	Rounded plungers, type B, acc. to EN 50041								
	High-grade steel plungers, with 3 mm overtravel	10	➡ 5	3SE5000-0AC02		1	1 unit	41K	
	Roller plungers, type C, acc. to EN 50041								
	High-grade steel roller, with 3 mm overtravel	13	➡ 5	3SE5000-0AD02		1	1 unit	41K	
	Roller levers								
	Metal lever, plastic roller	22	➡ 2	3SE5000-0AE01		1	1 unit	41K	
	Metal lever, high-grade steel roller	22	➡ 5	3SE5000-0AE02		1	1 unit	41K	
	High-grade steel lever, plastic roller	22	➡ 5	3SE5000-0AE03		1	1 unit	41K	
	High-grade steel lever, high-grade steel roller	22	➡ 5	3SE5000-0AE04		1	1 unit	41K	
	Angular roller levers								
	Metal lever, plastic roller	22	➡ 2	3SE5000-0AF01		1	1 unit	41K	
	Metal lever, high-grade steel roller	22	➡ 5	3SE5000-0AF02		1	1 unit	41K	
	High-grade steel lever, plastic roller	22	➡ 5	3SE5000-0AF03		1	1 unit	41K	
	High-grade steel lever, high-grade steel roller	22	➡ 5	3SE5000-0AF04		1	1 unit	41K	
	Spring rods (for switches with snap-action contacts only)								
	Plunger made of plastic, spring of high-grade steel: 7								
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR01		1	1 unit	41K	
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	3SE5000-0AR03		1	1 unit	41K	
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	3SE5000-0AR04		1	1 unit	41K	
	Plunger and spring made of high-grade steel: 7								
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR02		1	1 unit	41K	

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm

Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU			
Twist actuators							
	Twist actuators, for 40/56/56 XL mm EN 50041						
	• For twist levers and rod actuators, switching right and/or left, adjustable	↻ 2	3SE5000-0AH00		1	1 unit	41K
	• For fork levers, latching	↻ 5	3SE5000-0AT10		1	1 unit	41K
Levers							
	Twist levers 27 mm, offset, type A, acc. to EN 50041						
	Metal lever, plastic roller	↻ 2	3SE5000-0AA01		1	1 unit	41K
	Metal lever, high-grade steel roller	↻ 2	3SE5000-0AA02		1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	↻ 5	3SE5000-0AA03		1	1 unit	41K
	Metal lever, 2 plastic rollers	↻ 5	3SE5000-0AA04		1	1 unit	41K
	Metal lever, plastic roller	↻ 5	3SE5000-0AA05		1	1 unit	41K
	Metal lever, plastic roller	↻ 5	3SE5000-0AA07		1	1 unit	41K
	Metal lever, rubber roller	↻ 5	3SE5000-0AA08		1	1 unit	41K
	High-grade steel lever, plastic roller	↻ 5	3SE5000-0AA11		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	↻ 5	3SE5000-0AA12		1	1 unit	41K
	Twist levers 35 mm, offset						
	Metal lever, plastic roller	↻ 5	3SE5000-0AA15		1	1 unit	41K
	High-grade steel lever, plastic roller	↻ 5	3SE5000-0AA16		1	1 unit	41K
	Twist levers 30 mm, straight (can be mounted rotated by 180°)						
	Metal lever, plastic roller	↻ 5	3SE5000-0AA24		1	1 unit	41K
	Metal lever, plastic roller	↻ 5	3SE5000-0AA26		1	1 unit	41K
	Twist levers, adjustable length, with grid hole						
	Metal lever, plastic roller	↻ 5	3SE5000-0AA60		1	1 unit	41K
	Metal lever, high-grade steel roller	↻ 5	3SE5000-0AA61		1	1 unit	41K
	Metal lever, plastic roller	↻ 5	3SE5000-0AA67		1	1 unit	41K
	Metal lever, rubber roller	↻ 5	3SE5000-0AA68		1	1 unit	41K
	High-grade steel lever, plastic roller	↻ 5	3SE5000-0AA62		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	↻ 5	3SE5000-0AA63		1	1 unit	41K
	Twist levers, adjustable length						
	Metal lever, plastic roller	2	3SE5000-0AA50		1	1 unit	41K
	Metal lever, high-grade steel roller	5	3SE5000-0AA51		1	1 unit	41K
	Metal lever, plastic roller	5	3SE5000-0AA55		1	1 unit	41K
	Metal lever, plastic roller	5	3SE5000-0AA57		1	1 unit	41K
	Metal lever, rubber roller	5	3SE5000-0AA58		1	1 unit	41K
	High-grade steel lever, plastic roller	5	3SE5000-0AA52		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	5	3SE5000-0AA53		1	1 unit	41K
	Fork levers (for switches with snap-action contacts only)						
	2 metal levers, 2 plastic rollers	↻ 5	3SE5000-0AT01		1	1 unit	41K
	2 metal levers, 2 high-grade steel rollers	↻ 5	3SE5000-0AT02		1	1 unit	41K
	2 high-grade steel levers, 2 plastic rollers	↻ 5	3SE5000-0AT03		1	1 unit	41K
	2 high-grade steel levers, 2 high-grade steel rollers	↻ 5	3SE5000-0AT04		1	1 unit	41K
	Rod actuators, type D, acc. to EN 50041						
	Aluminum rod, length 200 mm	5	3SE5000-0AA80		1	1 unit	41K
	Spring rod, length 200 mm	5	3SE5000-0AA81		1	1 unit	41K
	Plastic rod, length 200 mm	5	3SE5000-0AA82		1	1 unit	41K

↻ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm, XL

Selection and ordering data

Complete units

4 or 5 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Complete units¹⁾ · Enclosure width 56 mm, XL



3SE5162-0CB01

Plain plungers

With high-grade steel plunger

Snap-action contacts 2 × (1 NO + 1 NC) -- 5 3SE5162-0CB01 1 1 unit 41K



3SE5162-0EC02

Rounded plungers

With high-grade steel plungers, with 3 mm overtravel

Slow-action contacts 1 NO + 1 NC -- 5 3SE5162-0EC02 1 1 unit 41K

Slow-action contacts with make-before-break 1 NO + 2 NC
2 mm travel difference



3SE5162-0BD02

Roller plunger

With high-grade steel roller 13 mm, with 3 mm overtravel

Slow-action contacts 2 × (1 NO + 1 NC) -- 5 3SE5162-0BD02 1 1 unit 41K

Snap-action contacts 2 × (1 NO + 1 NC) -- 2 3SE5162-0CD02 1 1 unit 41K



3SE5162-0BE01

Roller levers

With metal lever and plastic roller 22 mm

Slow-action contacts 2 × (1 NO + 1 NC) -- 5 3SE5162-0BE01 1 1 unit 41K

Snap-action contacts 2 × (1 NO + 1 NC) -- 2 3SE5162-0CE01 1 1 unit 41K

With metal lever and high-grade steel roller 22 mm

Snap-action contacts 2 × (1 NO + 1 NC) -- 5 3SE5162-0CE02 1 1 unit 41K



3SE5162-0CF01

Angular roller lever

With metal lever and plastic roller 22 mm

Snap-action contacts 2 × (1 NO + 1 NC) -- 5 3SE5162-0CF01 1 1 unit 41K



3SE5162-0CH01

Twist levers

With metal lever 27 mm and plastic roller 19 mm

Snap-action contacts 2 × (1 NO + 1 NC) -- 2 3SE5162-0CH01 1 1 unit 41K

With high-grade steel lever 27 mm and high-grade steel roller 19 mm, increased corrosion protection

Snap-action contacts (gold contacts) 2 × (1 NO + 1 NC) -- 5 3SE5162-0CH12-1CC1 1 1 unit 41K

Twist levers, adjustable length

High-grade steel lever with grid hole and high-grade steel roller 19 mm, increased corrosion protection Adapter 3SX5100-3B included

Snap-action contacts (gold contacts) 2 × (1 NO + 1 NC) -- 5 3SE5162-0CH63-1AN4 1 1 unit 41K

➡ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.

Note:

If the device you require is not available as a complete unit, see [Modular system](#), page 12/39.


SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm, XL

Modular system

4 or 6 contacts · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5)







Version	Contacts	LEDs	SD	Modular system	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d	Article No.				
Basic switches • Enclosure width 56 mm, XL								
	With 3 × connection thread M20 × 1.5							
	Slow-action contacts	2 × (1 NO + 1 NC) --	⊕ 2	3SE5162-0BA00		1	1 unit	41K
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 2	3SE5162-0CA00		1	1 unit	41K
	Slow-action contacts with make-before-break	2 × (1 NO + 2 NC) --	⊕ 30	3SE5162-0DA00		1	1 unit	41K
	With increased corrosion protection¹⁾							
3SE5162-0BA00	Slow-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	3SE5162-0BA00-1CA0		1	1 unit	41K
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	3SE5162-0CA00-1CA0		1	1 unit	41K
	Slow-action contacts with make-before-break	2 × (1 NO + 2 NC) --	⊕ 30	3SE5162-0DA00-1CA0		1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/11.







Version	Diameter	SD	Modular system	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.				
Operating mechanisms							
	Plain plungers						
	High-grade steel plunger	10	⊕ 2	3SE5000-0AB01		1	1 unit 41K
	Rounded plungers, type B, acc. to EN 50041						
	High-grade steel plungers, with 3 mm overtravel	10	⊕ 5	3SE5000-0AC02		1	1 unit 41K
	Roller plungers, type C, acc. to EN 50041						
	High-grade steel roller, with 3 mm overtravel	13	⊕ 5	3SE5000-0AD02		1	1 unit 41K
	Roller levers						
	Metal lever, plastic roller	22	⊕ 2	3SE5000-0AE01		1	1 unit 41K
	Metal lever, high-grade steel roller	22	⊕ 5	3SE5000-0AE02		1	1 unit 41K
	High-grade steel lever, plastic roller	22	⊕ 5	3SE5000-0AE03		1	1 unit 41K
	High-grade steel lever, high-grade steel roller	22	⊕ 5	3SE5000-0AE04		1	1 unit 41K
	Angular roller levers						
	Metal lever, plastic roller	22	⊕ 2	3SE5000-0AF01		1	1 unit 41K
	Metal lever, high-grade steel roller	22	⊕ 5	3SE5000-0AF02		1	1 unit 41K
	High-grade steel lever, plastic roller	22	⊕ 5	3SE5000-0AF03		1	1 unit 41K
	High-grade steel lever, high-grade steel roller	22	⊕ 5	3SE5000-0AF04		1	1 unit 41K
	Spring rods (for switches with snap-action contacts only)						
	Plunger made of plastic, spring of high-grade steel: 7						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR01		1	1 unit 41K
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	3SE5000-0AR03		1	1 unit 41K
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	3SE5000-0AR04		1	1 unit 41K
3SE5000-0AR01	Plunger and spring made of high-grade steel: 7						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	3SE5000-0AR02		1	1 unit 41K

⊕ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Enclosure width 56 mm, XL

Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU				
Twist actuators								
	Twist actuators, for 40/56/56 XL mm EN 50041							
	• For twist levers and rod actuators, switching right and/or left, adjustable	→ 2	3SE5000-0AH00		1	1 unit	41K	
	• For fork levers, latching	→ 5	3SE5000-0AT10		1	1 unit	41K	
3SE5000-0AH00								
Levers								
	Twist levers 27 mm, offset, type A, acc. to EN 50041							
	Metal lever, plastic roller	19	→ 2	3SE5000-0AA01		1	1 unit	41K
	Metal lever, high-grade steel roller	19	→ 2	3SE5000-0AA02		1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	→ 5	3SE5000-0AA03		1	1 unit	41K
	Metal lever, 2 plastic rollers	19	→ 5	3SE5000-0AA04		1	1 unit	41K
	Metal lever, plastic roller	30	→ 5	3SE5000-0AA05		1	1 unit	41K
	Metal lever, plastic roller	50	→ 5	3SE5000-0AA07		1	1 unit	41K
	Metal lever, rubber roller	50	→ 5	3SE5000-0AA08		1	1 unit	41K
	High-grade steel lever, plastic roller	19	→ 5	3SE5000-0AA11		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	→ 5	3SE5000-0AA12		1	1 unit	41K
	Twist levers 35 mm, offset							
	Metal lever, plastic roller	19	→ 5	3SE5000-0AA15		1	1 unit	41K
	High-grade steel lever, plastic roller	19	→ 5	3SE5000-0AA16		1	1 unit	41K
	Twist levers 30 mm, straight							
	Metal lever, plastic roller	19	→ 5	3SE5000-0AA24		1	1 unit	41K
Metal lever, plastic roller	30	→ 5	3SE5000-0AA26		1	1 unit	41K	
	Twist levers, adjustable length, with grid hole							
	Metal lever, plastic roller	19	→ 5	3SE5000-0AA60		1	1 unit	41K
	Metal lever, high-grade steel roller	19	→ 5	3SE5000-0AA61		1	1 unit	41K
	Metal lever, plastic roller	50	→ 5	3SE5000-0AA67		1	1 unit	41K
	Metal lever, rubber roller	50	→ 5	3SE5000-0AA68		1	1 unit	41K
	High-grade steel lever, plastic roller	19	→ 5	3SE5000-0AA62		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	→ 5	3SE5000-0AA63		1	1 unit	41K
	Twist levers, adjustable length							
	Metal lever, plastic roller	19	2	3SE5000-0AA50		1	1 unit	41K
	Metal lever, high-grade steel roller	19	5	3SE5000-0AA51		1	1 unit	41K
	Metal lever, plastic roller	30	5	3SE5000-0AA55		1	1 unit	41K
	Metal lever, plastic roller	50	5	3SE5000-0AA57		1	1 unit	41K
	Metal lever, rubber roller	50	5	3SE5000-0AA58		1	1 unit	41K
	High-grade steel lever, plastic roller	19	5	3SE5000-0AA52		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	5	3SE5000-0AA53		1	1 unit	41K
	Fork levers (for switches with snap-action contacts only)							
	2 metal levers, 2 plastic rollers	19	→ 5	3SE5000-0AT01		1	1 unit	41K
	2 metal levers, 2 high-grade steel rollers	19	→ 5	3SE5000-0AT02		1	1 unit	41K
	2 high-grade steel levers, 2 plastic rollers	19	→ 5	3SE5000-0AT03		1	1 unit	41K
	2 high-grade steel levers, 2 high-grade steel rollers	19	→ 5	3SE5000-0AT04		1	1 unit	41K
3SE5000-0AT01								
Rod actuators, type D, acc. to EN 50041								
	Aluminum rod, length 200 mm	6	5	3SE5000-0AA80		1	1 unit	41K
	Spring rod, length 200 mm	6	5	3SE5000-0AA81		1	1 unit	41K
	Plastic rod, length 200 mm	6	5	3SE5000-0AA82		1	1 unit	41K
	Plastic rod, length 330 mm	6	5	3SE5000-0AA83		1	1 unit	41K
3SE5000-0AA80								

→ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Compact design

Overview



Compact design in width 30 mm

Particularly in harsh environments or on equipment with limited space, the small 3SE54 position switches in compact design with a depth of 16 mm and a weight of only 80 g (without cable) are ideal. Above all the versions with molded cable can be mounted in the most confined spaces.

3SE54 compact position switches are available in two different widths as complete units:

- The 3SE5413 series complies with the EU standard and features a 30-mm-wide enclosure with drilled holes at a distance of 20 mm.
- The 3SE5423 series meets the requirements of the US market and features a 40-mm-wide enclosure with drilled holes at a spacing of 25 mm.

Both the enclosure and the actuator head are made of metal and comply with the high IP67 degree of protection. The following actuators are available:

- Rounded plungers
- Rounded plungers with central fixing
- Rounded plungers with external seal
- Roller plungers
- Roller plungers with central fixing
- Twist levers

The contact block is designed with snap-action contacts 1 NO + 1 NC. The NC contact complies with the requirements for positive opening acc. to IEC 60947-5-1.

Use in safety circuits up to category 4 according to EN ISO 13849-1.

Connection:

- With molded cable, 2 m or 5 m long
- With M12 device plug

Benefits

- Very compact yet with the same rating as the 3SE51 standard switches, for notable space savings in confined installation conditions
- Various actuator versions available
- Roller plungers can be rotated through 90°
- Twist levers can be rotated through 180°; twist levers can be adjusted in 15° increments
- Time is saved when mounting the fully assembled unit
- With metal enclosure of degree of protection IP67, ideal for use in rough industrial environments
- Insensitive to electromagnetic interference

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Metal Enclosures

Compact design

Selection and ordering data

2 snap-action contacts 1 NO + 1 NC · Degree of protection IP67 · With connecting cable or M12 device plug

Operating mechanism	Enclosure width	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm	d					
Complete units • Enclosure width 30 or 40 mm							
Rounded plungers							
	• Standard mounting						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CC20-1EA2	1	1 unit	41K
		40	⊕ 2	3SE5423-0CC20-1EA2	1	1 unit	41K
	- With 5 m cable 5 x 0.75 mm ²	30	⊕ 5	3SE5413-0CC20-1EA5	1	1 unit	41K
	- With M12 device plug, 5-pole	30	⊕ 2	3SE5413-0CC20-1EB1	1	1 unit	41K
3SE5413-0CC20-1EA2		40	⊕ 5	3SE5423-0CC20-1EB1	1	1 unit	41K
	• With central fixing M12 x 1						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CC21-1EA2	1	1 unit	41K
		40	⊕ 5	3SE5423-0CC21-1EA2	1	1 unit	41K
3SE5413-0CC21-1EA2							
	• With external seal						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 5	3SE5413-0CC22-1EA2	1	1 unit	41K
		40	⊕ 5	3SE5423-0CC22-1EA2	1	1 unit	41K
3SE5413-0CC22-1EA2							
Roller plungers							
	• Standard mounting						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CD20-1EA2	1	1 unit	41K
		40	⊕ 2	3SE5423-0CD20-1EA2	1	1 unit	41K
	- With 5 m cable 5 x 0.75 mm ²	30	⊕ 5	3SE5413-0CD20-1EA5	1	1 unit	41K
	- With M12 device plug, 5-pole	30	⊕ 2	3SE5413-0CD20-1EB1	1	1 unit	41K
3SE5413-0CD20-1EA2		40	⊕ 2	3SE5423-0CD20-1EB1	1	1 unit	41K
	• With central fixing M12 x 1						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CD21-1EA2	1	1 unit	41K
		40	⊕ 5	3SE5423-0CD21-1EA2	1	1 unit	41K
3SE5413-0CD21-1EA2							
	• Actuator head rotated 90°						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CD23-1EA2	1	1 unit	41K
3SE5413-0CD23-1EA2							
Twist levers							
	• Standard mounting						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CN20-1EA2	1	1 unit	41K
		40	⊕ 5	3SE5423-0CN20-1EA2	1	1 unit	41K
	- With 5 m cable 5 x 0.75 mm ²	30	⊕ 2	3SE5413-0CN20-1EA5	1	1 unit	41K
	- With M12 device plug, 5-pole	30	⊕ 2	3SE5413-0CN20-1EB1	1	1 unit	41K
3SE5413-0CN20-1EA2		40	⊕ 5	3SE5423-0CN20-1EB1	1	1 unit	41K
	• Twist levers with a smaller mounting depth and lower height						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ 5	3SE5413-0CP20-1EA2	1	1 unit	41K
	• Twist levers, adjustable length						
	- With 2 m cable 5 x 0.75 mm ²	30	⊕ X	3SE5413-0CQ20-1EA2	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

SIRIUS 3SE5 Mechanical Position Switches

3SE5, Open-Type Design

Enclosure width 30 mm

Overview



Open-type design

Their compact design makes these switches particularly suitable for use in confined conditions. The fixing dimensions and operating points are according to EN 50047.

The switches are equipped with two or three contacts in snap-action, slow-action or slow-action with make-before-break versions. The stroke is 6 mm.





The empty enclosure can be equipped with all contact block versions (see page 12/45).

Improved version

The switches have a robust metal plunger with increased abrasion resistance (instead of the teflon plunger). This enables the switch to be approached from a 30° angle.

Selection and ordering data

2 or 3 contacts · Degree of protection IP20 (2 contacts), IP10 (3 contacts)

Version	Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Plastic enclosures • Enclosure width 30 mm							
With metal plunger							
	Slow-action contacts	1 NO + 1 NC	⊕ 2	3SE5250-0BC05	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC	⊕ ▶	3SE5250-0CC05	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC	⊕ 5	3SE5250-0KC05	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC	⊕ ▶	3SE5250-0LC05	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC	⊕ 2	3SE5250-0MC05	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC	⊕ 2	3SE5250-0PC05	1	1 unit	41K
	Empty enclosures without contact block	--	⊕ 5	3SE5250-0AC05	1	1 unit	41K
Contact blocks with 2 contacts							
For open-type design ¹⁾							
	• Slow-action contacts	1 NO + 1 NC	⊕ 5	3SE5050-0BA00	1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC	⊕ 5	3SE5050-0CA00	1	1 unit	41K
	- Standard		⊕ 30	3SE5050-0GA00	1	1 unit	41K
	- 2 × 2 mm switching interval		⊕ 30	3SE5050-0NA00	1	1 unit	41K
	- Short stroke		⊕ 30	3SE5050-0NA00	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

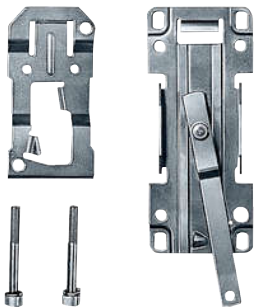







¹⁾ Contact blocks with 3 contacts, see page 12/45.

SIRIUS 3SE5 Mechanical Position Switches

Accessories and spare parts

Selection and ordering data

The quick-release devices and plug-in connections are used for fast installation and replacement of position switches.





	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					
Quick-release devices for enclosure width 40 mm							
 3SY3110 3SY3027	Adapter plates with screws	5	3SY3110		1	1 unit	41K
	Base plate with locking lever	5	3SY3027		1	1 unit	41K
Plug-in connections for M20 × 1.5 connecting threads							
 3SY3131 3SY3136	Device plugs (6-pole + PE), for M20 × 1.5 For max. 250 V, 10 A With connecting cable 0.75 mm ² , plastic, degree of protection IP65, ambient temperature -40 ... +90 °C	5	3SY3131		1	1 unit	41K
	Cable box (6-pole + PE)¹⁾ With terminal compartment, can be pre-assembled, plastic, degree of protection IP65	2	3SY3136		1	1 unit	41K
 3SY3127 3SX5100-1SS51	Device plugs (4-pole), M12, for M20 × 1.5, fixed For max. 250 V, 4 A, $U_{imp} = 2\,500\text{ V}$ With 4 connecting cables 0.25 mm ² , plastic, degree of protection IP67, ambient temperature -40 ... +85 °C	5	3SY3127		1	1 unit	41K
	Device plugs (5-pole), M12, for M20 × 1.5, fixed For max. 125 V, 4 A, $U_{imp} = 1\,500\text{ V}$ With 5 connecting cables 0.25 mm ² , plastic, degree of protection IP67, ambient temperature -40 ... +85 °C	5	3SY3128		1	1 unit	41K
 3SY3127 3SX5100-1SS51	Device plugs (8-pole), M12, for M20 × 1.5, fixed, plastic version²⁾ For max. 30 V, 1.5 A, $U_{imp} = 800\text{ V}$ With 8 connecting cables 0.25 mm ² , metal, degree of protection IP67, ambient temperature -25 ... +85 °C	NEW X	3SX5100-1SS51		1	1 unit	41K
	M12 cable box, angled, 4-pole For AS-Interface, max. 4 A With cabling box, max. 0.75 mm ²	5	3RK1902-4CA00-4AA0		1	1 unit	42D
Adapters and cable glands for M20 × 1.5 connecting threads							
 3SX9917 3SX9918	Adapters acc. to  and  For cable entry from M20 × 1.5 to NPT 1/2	5	3SX9917		1	1 unit	41K
	<ul style="list-style-type: none"> • Metal • Plastic 	30	3SX9918		1	1 unit	41K
 3SX9926	Cable glands M20 × 1.5 Plastic						
	<ul style="list-style-type: none"> • Plastic, degree of protection IP67 • High degree of protection IP69, IEC 60529 	2	3SX9926		1	1 unit	41K
		5	3SX5601-1A		1	1 unit	41K

¹⁾ For wiring, a crimping tool is necessary, max. conductor cross-section 1 mm².

²⁾ Suitable for wiring sensors to be connected to all compact block I/O modules in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series.

SIRIUS 3SE5 Mechanical Position Switches

Accessories and spare parts

Version	Color/ contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Optional accessories for 3SE51, 3SE52			d				
	Protective caps For rounded plungers acc. to EN 50047, 3SE5...-C05	Black	2		1	1 unit	41K
3SE5000-0AC30							
	Adapters with screw¹⁾ For an increase in the mounting depth on the 3SE5000-0AH00 twist actuator, in combination with twist lever with adjustable length or rod actuator		5		1	1 unit	41K
3SX5100-3B							
	Mounting plate Suitable for 3SE523. and 3SE521. position switches with a width of 31 mm (in particular for control cabinet types)		5		1	1 unit	41K
3SX5100-1A							
Spare parts for 3SE51, 3SE52							
	Empty enclosures, plastic Enclosure width 31 mm • With increased corrosion protection	Turquoise	5		1	1 unit	41K
3SE5232-0AC05							
	Enclosure width 40 mm		5		1	1 unit	41K
	Enclosure width 50 mm • With increased corrosion protection		5		1	1 unit	41K
			5		1	1 unit	41K
	Empty enclosures, metal Enclosure width 31 mm • With increased corrosion protection	Turquoise	5		1	1 unit	41K
3SE5212-0AC05							
	Enclosure width 40 mm • With increased corrosion protection		5		1	1 unit	41K
	Enclosure width 56 mm • With increased corrosion protection		5		1	1 unit	41K
	Enclosure width 56 mm, XL ²⁾		5		1	1 unit	41K
			5		1	1 unit	41K
	Contact blocks with 2 contacts³⁾ • Slow-action contacts • Snap-action contacts - Standard - Gold-plated contacts - 2 x 2 mm switching interval - Short stroke	1 NO + 1 NC 1 NO + 1 NC	5 5 5 30 5		1	1 unit	41K
3SE5000-0BA00							
	Contact blocks with 3 contacts • Slow-action contacts • Snap-action contacts • Slow-action contacts with make-before-break • Slow-action contacts	1 NO + 2 NC 1 NO + 2 NC 1 NO + 2 NC 2 NO + 1 NC	5 5 2 2		1	1 unit	41K
3SE5000-0KA00							
	Contact blocks for XL enclosure²⁾ • Slow-action contacts • Snap-action contacts • Slow-action contacts with make-before-break	1 NO + 1 NC 1 NO + 1 NC 1 NO + 2 NC	5 5 30		1	1 unit	41K
3SE5060-0BA00							

⌚ Positive opening according to IEC 60947-5-1, Appendix K.







¹⁾ Possibly required for the conversion from 3SE21 to 3SE51.

²⁾ Equip XL enclosures only with contact combinations, [see pages 12/10, 12/38 and 12/39](#).

³⁾ Unsuitable for open-type position switches, [see page 12/43](#).

SIRIUS 3SE5 Mechanical Position Switches

Accessories and spare parts

Version	Rated voltage LED	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V	d					
Spare parts for 3SE51, 3SE52							
	Covers for plastic enclosures, width 31 mm						
	• Turquoise with LED	24 DC	5	3SE5230-1AA00	1	1 unit	41K
		230 AC	5	3SE5230-3AA00	1	1 unit	41K
	• Yellow	--	5	3SE5230-0AA00-1AG0	1	1 unit	41K
	• Yellow with LED	24 DC	5	3SE5230-1AA00-1AG0	1	1 unit	41K
		230 AC	5	3SE5230-3AA00-1AG0	1	1 unit	41K
3SE5230-1AA00							
	Covers for plastic enclosures, width 40 mm						
	• Turquoise with LED	24 DC	5	3SE5130-1AA00	1	1 unit	41K
		230 AC	5	3SE5130-3AA00	1	1 unit	41K
	• Yellow	--	5	3SE5130-0AA00-1AG0	1	1 unit	41K
	• Yellow with LED	24 DC	5	3SE5130-1AA00-1AG0	1	1 unit	41K
		230 AC	5	3SE5130-3AA00-1AG0	1	1 unit	41K
3SE5130-1AA00-1AG0							
	Covers for plastic enclosures, width 50 mm						
	• Turquoise with LED	24 DC	5	3SE5240-1AA00	1	1 unit	41K
		230 AC	5	3SE5240-3AA00	1	1 unit	41K
	• Yellow	--	5	3SE5240-0AA00-1AG0	1	1 unit	41K
	• Yellow with LED	24 DC	5	3SE5240-1AA00-1AG0	1	1 unit	41K
		230 AC	5	3SE5240-3AA00-1AG0	1	1 unit	41K
3SE5240-1AA00							
	Covers for metal enclosures, width 31 mm						
	• Turquoise with LED	24 DC	5	3SE5210-1AA00	1	1 unit	41K
		230 AC	5	3SE5210-3AA00	1	1 unit	41K
	• Yellow	--	5	3SE5210-0AA00-1AG0	1	1 unit	41K
	• Yellow with LED	24 DC	5	3SE5210-1AA00-1AG0	1	1 unit	41K
		230 AC	5	3SE5210-3AA00-1AG0	1	1 unit	41K
3SE5210-1AA00							
	Covers for metal enclosures, width 40 mm						
	• Turquoise with LED	24 DC	5	3SE5110-1AA00	1	1 unit	41K
		230 AC	5	3SE5110-3AA00	1	1 unit	41K
	• Yellow	--	5	3SE5110-0AA00-1AG0	1	1 unit	41K
	• Yellow with LED	24 DC	5	3SE5110-1AA00-1AG0	1	1 unit	41K
		230 AC	5	3SE5110-3AA00-1AG0	1	1 unit	41K
3SE5110-1AA00							
	Covers for metal enclosures, width 56 mm						
	• Turquoise with LED	24 DC	5	3SE5120-1AA00	1	1 unit	41K
		230 AC	5	3SE5120-3AA00	1	1 unit	41K
	• Yellow	--	5	3SE5120-0AA00-1AG0	1	1 unit	41K
	• Yellow with LED	24 DC	5	3SE5120-1AA00-1AG0	1	1 unit	41K
		230 AC	5	3SE5120-3AA00-1AG0	1	1 unit	41K
3SE5120-0AA00-1AG0							
Covers for XL metal enclosures, width 56 mm							
• Yellow	--	5	3SE5160-0AA00-1AG0		1	1 unit	41K

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Separate Actuator

General data

Overview

Safety switches with separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons.

3SE5 safety switches with separate actuator have the same enclosures as the 3SE5 position switches (modular system).



3SE5 safety switches with head for separate actuator

Design

Enclosure sizes

The 3SE5 safety switches are available in four different enclosure sizes:

- Plastic enclosures according to EN 50047, 31 mm wide, IP65, 1 cable entry
- Metal enclosures according to EN 50047, 31 mm wide, IP66/IP67, 1 cable entry
- Plastic and metal enclosures according to EN 50041, 40 mm wide, IP66/IP67, 1 cable entry
- Plastic enclosures, 50 mm wide, IP66/IP67, 2 cable entries
- Metal enclosures, 56 mm wide, IP66/IP67, 3 cable entries

Also available are safety switches in the 3SE2 series which have been developed in this form according to general market requirements:

- Molded-plastic enclosures outside of the standards, enclosure width 52 mm, IP67

Enclosure versions

Various basic versions can be selected for the enclosures of the 3SE5 series:

- Available with two- or three-pole contact blocks designed as slow-action contacts
- Optional LED status display
- With mounted four or five-pole M12 device plug (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole device plug + PE on the metal enclosures
- Similarly with a combination of plug and LED indicators
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 12/91)

For a description of the basic switches, see page 12/5.

Operation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through $4 \times 90^\circ$. The switches can also be approached from above.

The actuator heads of the 3SE2243 and 3SE2257 switches with special enclosures cannot be changed. The switches can be approached from the two broad sides and from above.

The actuator is not included in the scope of supply of the safety switches and must be ordered separately from a choice of different versions to suit the application (see page 12/54).

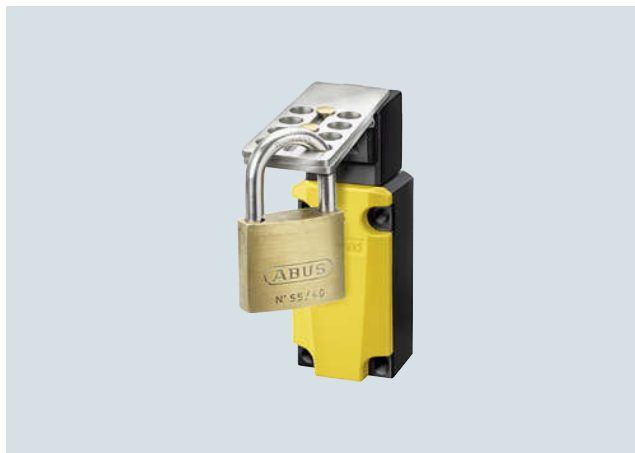
The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Radius actuators

The safety switches with radius actuators are particularly suitable for rotary protective devices. The movable actuation key allows even small radii to be approached. Damage to the switch and the actuator due to inaccurate approach is prevented.

Locking devices

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more security (see page 12/54).



Blocking inserts with padlock

Dust protection

For use in dusty environments, a rubber cap is offered that protects the actuator entries of the actuator head from contamination (see page 12/54).

Contact reliability

The contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e.g. 1 mA at 5 V DC.

Positive opening ➞

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Separate Actuator

General data

Benefits

The 3SE5 safety switches with separate actuator differ from the previous series through the following new properties:

- All enclosure sizes with increased corrosion protection are optionally available with an LED signaling indicator.
- The three-pole contact block 1 NO + 2 NC is available for all enclosure sizes.
- The plastic enclosure has simple and fast wiring equipment which makes it possible to save approx. 20 to 25% of the time when connecting.
- The ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/91); an additional adapter is not required.

Application

Safety switches with separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons.

The safety switch can only be operated with the matching coded actuator. Simple overruling by hand or auxiliary devices is impossible.

Devices are available with enclosure versions to suit the particular ambient conditions. The high-grade steel actuator IP69K with optimized geometry is suitable for extreme environmental conditions as low as -40 °C. Different control tasks can be performed with the best contact blocks suited for the particular purpose. Dimensions and fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards. The devices are suitable for use in any climate.

Standards


IEC/EN 60947-5-1

The protective measure of "total insulation" by the molded-plastic enclosure is ensured by the use of molded-plastic screw glands.

Safety position switches

For controls according to IEC/EN 60204-1, the devices can be used as a safety position switch. They comply with the standard EN ISO 14119. A TÜV certificate is available. To secure position switches against changes in their position, keyed techniques must be employed on installation.

Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening of the NC contacts. In other words, for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked in accordance with the standard IEC 60947-5-1 with the symbol .

Category 3 according to EN ISO 13849-1 can be attained with a safety switch with separate actuator if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK, 3TK28 safety relays or matching units from the ASI-safe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional 3SE5 safety switch.

Technical specifications

Type		3SE51...-V.., 3SE52...-V..	3SE2257-.XX..	3SE2243-.XX..
General data				
Standards		IEC 60947-5-1, EN 60947-5-1, EN ISO 14119		
Rated insulation voltage U_i	V	400	500	
Degree of pollution according to IEC 60664-1		Class 3	Class 3	
Rated impulse withstand voltage U_{imp}	kV	6		
Rated operational voltage U_e	V	400 AC; over 300 V AC same potential only	500 AC; over 380 V AC same potential only	
Conventional thermal current I_{th}	A	6	10	
Rated operational current I_e			1-pole	3-pole
• With alternating current 50/60 Hz		I_e / AC-15	I_e / AC-12	I_e / AC-15
- At 24 V	A	6	10	10
- At 120 V	A	6	10	10
- At 240 V	A	4	10	10
- At 400 V	A	4	10	10
- At 500 V	A	--	10	10
• For direct current		I_e / DC-13	I_e / DC-12	I_e / DC-13
- At 24 V	A	3	10	10
- At 125 V	A	0.55	--	--
- At 250 V	A	0.27	--	--
- At 110 V	A	--	4	4
- At 220 V	A	--	1	1
- At 400 V	A	0.12	--	--
- At 440 V	A	--	0.5	0.2
Short-circuit protection				
• With DIAZED fuse links, operational class gG	A	6	6	
• With fuse links, quick	A	--	10	
• With miniature circuit breaker, C char. ($I_{K<400A}$)	A	1	--	
Mechanical endurance		1 × 10 ⁶ operating cycles		
Electrical endurance				
• With 3RH.1, 3RT contactors in size S00, S0		1 × 10 ⁶ operating cycles	> 1 × 10 ⁶ operating cycles	
• For utilization category AC-15 when switching off I_e / AC-15 at 240 V		100 000 operating cycles	500 000 operating cycles	
Switching frequency		6 000 operating cycles/h		
With 3RH.1, 3RT contactors in size S00, S0				
Minimum pull-out force for positive opening	N	20	10	30




SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Separate Actuator

3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047

Selection and ordering data

2 or 3 contacts · 5 directions of approach · Degree of protection IP65 · Cable entry M20 × 1.5

Version ¹⁾	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Enclosure width 31 mm according to EN 50047							
	Slow-action contacts	1 NO + 1 NC --	⤵ 5	3SE5232-0RV40	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⤵ ▶	3SE5232-0QV40	1	1 unit	41K
	With increased minimum pull-out force 30 N						
	Slow-action contacts	1 NO + 2 NC --	⤵ 5	3SE5232-0QV40-1AA1	1	1 unit	41K
With M12 device plug, 4-pole (250 V, 4 A)							
	Slow-action contacts	1 NO + 1 NC --	⤵ 5	3SE5234-0RV40-1AC4	1	1 unit	41K
	Slow-action contacts	2 NC --	⤵ 5	3SE5234-0QV40-1AE0	1	1 unit	41K
With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200 ²⁾ NEW							
	Slow-action contacts	2 NC --	⤵ X	3SE5234-0QV40-1AE2	1	1 unit	41K
With 2 LEDs, yellow/green							
	Slow-action contacts	1 NO + 1 NC 24 V DC	⤵ 5	3SE5232-1RV40	1	1 unit	41K
	Slow-action contacts	1 NO + 1 NC 230 V AC	⤵ 5	3SE5232-3RV40	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⤵ 5	3SE5234-1RV40-1AF3	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/54).

²⁾ The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.



SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Separate Actuator

3SE5, plastic enclosures, enclosure width 40 mm according to EN 50041

Selection and ordering data

2 or 3 contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version ¹⁾	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Enclosure width 40 mm acc. to EN 50041							
	Slow-action contacts	1 NO + 2 NC --	↻ 5	3SE5132-0QV20		1	1 unit 41K
3SE5132-0QV20							
With 2 LEDs, yellow/green							
	Slow-action contacts	1 NO + 2 NC 24 V DC	↻ 5	3SE5132-1QV20		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	↻ 5	3SE5132-3QV20		1	1 unit 41K
3SE5132-1QV20							

↻ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/54).



SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Separate Actuator

3SE5, plastic enclosures, enclosure width 50 mm

Selection and ordering data

2 or 3 contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version ¹⁾	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Enclosure width 50 mm							
 3SE5242-0QV40	Slow-action contacts	1 NO + 2 NC --	↻ 5	3SE5242-0QV40	1	1 unit	41K
	With increased minimum pull-out force 30 N						
	Slow-action contacts	1 NO + 1 NC --	↻ 5	3SE5242-0RV40-1AA1	1	1 unit	41K
 3SE5242-1QV40	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	↻ 5	3SE5242-1QV40	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	↻ 5	3SE5242-3QV40	1	1 unit	41K

↻ Positive opening according to IEC 60947-5-1, Appendix K.



¹⁾ Supplied without actuator. Please order separately (see page 12/54).

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Separate Actuator

3SE5, metal enclosures, enclosure width 31 mm according to EN 50047

Selection and ordering data

2 or 3 contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version ¹⁾	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Enclosure width 31 mm according to EN 50047							
	Slow-action contacts	1 NO + 1 NC --	↻ 2	3SE5212-0RV40		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	↻ 5	3SE5212-0QV40		1	1 unit 41K
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 1 NC 24 V DC	↻ 5	3SE5212-1RV40		1	1 unit 41K
	Slow-action contacts	1 NO + 1 NC 230 V AC	↻ 5	3SE5212-3RV40		1	1 unit 41K

↻ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/54).

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Separate Actuator

3SE5, metal enclosures, enclosure width 40 mm according to EN 50041 / 56 mm

Selection and ordering data

2 or 3 contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version ¹⁾	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Enclosure width 40 mm acc. to EN 50041							
	Slow-action contacts	1 NO + 2 NC --	⤵ ▶	3SE5112-0QV10	1	1 unit	41K
	With increased minimum pull-out force 30 N						
	Slow-action contacts	1 NO + 2 NC --	⤵ 5	3SE5112-0QV10-1AA7	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A)						
	Slow-action contacts	1 NO + 1 NC --	⤵ 5	3SE5114-0RV10-1AC5	1	1 unit	41K
	Slow-action contacts	2 NC --	⤵ 5	3SE5114-0QV10-1AE1	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200²⁾ NEW						
	Slow-action contacts	2 NC --	⤵ X	3SE5114-0QV10-1AE3	1	1 unit	41K
	With device plug, 6-pole + PE (250 V, 10 A)						
	Slow-action contacts	1 NO + 2 NC --	⤵ 5	3SE5115-0QV10-1AD1	1	1 unit	41K
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⤵ 5	3SE5112-1QV10	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⤵ 5	3SE5112-3QV10	1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⤵ 5	3SE5114-1RV10-1AF3	1	1 unit	41K
	With device plug, 6-pole + PE (250 V, 10 A), and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⤵ 5	3SE5115-1RV10-1AF2	1	1 unit	41K
Enclosure width 56 mm							
	Slow-action contacts	1 NO + 2 NC --	⤵ 5	3SE5122-0QV10	1	1 unit	41K
	With increased minimum pull-out force 30 N						
	Slow-action contacts	1 NO + 2 NC --	⤵ 5	3SE5122-0QV10-1AA7	1	1 unit	41K
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⤵ 5	3SE5122-1QV10	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⤵ 5	3SE5122-3QV10	1	1 unit	41K

⤵ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/54).













²⁾ The 3SE5114-.....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Separate Actuator

Accessories

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
IP66/IP67						
 3SE5000-0AV01	Standard actuator					
	• Length 75.6 mm					
	▶ 3SE5000-0AV01					
	1 1 unit 41K					
 3SE5000-0AV02	• With vertical fixing, length 53 mm					
	5	3SE5000-0AV02		1	1 unit	41K
 3SE5000-0AV03	• With transverse fixing, length 47 mm					
	5	3SE5000-0AV03		1	1 unit	41K
 3SE5000-0AW11	• With transverse fixing, plastic ¹⁾ , length 40 mm					
	5	3SE5000-0AW11		1	1 unit	41K
High-grade steel actuator, IP69K²⁾						
 3SE5000-0AW51	• Length 75.6 mm					
	5	3SE5000-0AW51		1	1 unit	41K
Radius actuator, length 51 mm						
 3SE5000-0AV06	• Direction of approach from the left					
	2	3SE5000-0AV04		1	1 unit	41K
	• Direction of approach from the right					
	5	3SE5000-0AV06		1	1 unit	41K
Universal radius actuator						
 3SE5000-0AV05-1AA6	• Length 77 mm					
	5	3SE5000-0AV05		1	1 unit	41K
	• Length 77 mm, tab rotated 90°					
	5	3SE5000-0AV05-1AA6		1	1 unit	41K
Universal radius actuator, heavy duty						
 3SE5000-0AV07	• Length 67 mm					
	2	3SE5000-0AV07-1AK2		1	1 unit	41K
	• Length 77 mm					
	5	3SE5000-0AV07		1	1 unit	41K
Optional accessories for 3SE5						
 3SE5000-0AV08-1AA2	Protective caps , black rubber					
	For the actuator head, to protect the actuator openings from contamination					
 3SE5000-0AV08-1AA3	(Only for enclosure width 40 or 56 mm)					
	5	3SE5000-0AV08-1AA2		1	1 unit	41K
	Blocking inserts , high-grade steel, for actuator head					
	For up to eight padlocks					
	5 3SE5000-0AV08-1AA3					
	1	1 unit	41K			
Connections for 3SE5, 3SE2						
 3SY3127	Device plugs (4-pole), M12, fixed for M20 x 1.5					
	With connecting cable 0.25 mm ² , plastic, degree of protection IP67; ambient temperature -40 to +85 °C					
 3SX9926	For max. 250 V, 4 A					
	5	3SY3127		1	1 unit	41K
	For max. 125 V, 4 A					
	5	3SY3128		1	1 unit	41K
	Cable glands M20 x 1.5					
	Plastic					
	2 3SX9926					
	1	1 unit	41K			

¹⁾ Not suitable for safety switches with tumbler.

²⁾ With optimized geometry and suitable for extreme environmental conditions such as -40 °C







SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Separate Actuator

3SE2, plastic enclosures, special width 52 mm

Selection and ordering data

1 or 3 contacts · 3 directions of approach · Degree of protection IP67

Version	Operation	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU			
Plastic enclosures in special width of 52 mm							
	Lateral and front-end actuation ¹⁾	6 mm stroke					
	• With connecting thread M20 × 1.5						
	- Slow-action contacts 1 NO + 2 NC	Holding force 5 N	↻ 2	3SE2243-0XX40	1	1 unit	41K
		Holding force 30 N	↻ 2	3SE2243-0XX	1	1 unit	41K
		With automatic ejection	↻ 2	3SE2243-0XX30	1	1 unit	41K
	- Slow-action contacts 1 NC	Holding force 5 N	↻ 15	3SE2257-6XX40	1	1 unit	41K
		Holding force 30 N	↻ 15	3SE2257-6XX	1	1 unit	41K
		With automatic ejection	↻ 5	3SE2257-6XX30	1	1 unit	41K
	• With connecting thread M16 × 1.5						
	- Slow-action contacts 1 NO + 2 NC	Holding force 30 N	↻ 10	3SE2243-0XX18	1	1 unit	41K
Accessories							
Actuators							
	• Standard actuators (r _{min} = 150 mm), length 28 mm	2	3SX3218		1	1 unit	41K
	• Universal radius actuator (r _{min} = 45 mm), length 34 mm	2	3SX3228		1	1 unit	41K
	• Radius actuator, adjustable radius, length 34 mm	10	3SX3256		1	1 unit	41K
	• Ball locating, force adjustable up to max. 100 N by 2 adjustable screws, length 28 mm	2	3SX3217		1	1 unit	41K
	• Actuator, length 34 mm, with dust protection and slit cover	30	3SX3234		1	1 unit	41K
Accessories							
	• Slit cover (1 set = 3 units)	30	3SX3233		1	3 units	41K

↻ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator.

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

General data

Overview

The safety switches with tumbler are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the switched-off machine).



3SE5 safety switch with tumbler

The safety switches with tumbler are comprised of a switch part with electromechanical tumbler and a mechanical actuator which has to be ordered separately.

They are rugged protective devices that enable the greatest possible safety for man and machine.

The safety switches with tumbler are offered in plastic or metal enclosures.

Dimensions (W × H × D): 54 mm × 185 mm × 43.5 mm

Operation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through $4 \times 90^\circ$. The switches can also be approached from above.

The actuator is not included in the scope of supply of the safety switches and must be ordered separately from a choice of different versions to suit the application (see page 12/62).

Actuation data:

- Maximum actuating speed $v_{\max} = 1.5 \text{ m/s}$
- Minimum actuating speed $v_{\min} = 0.4 \text{ mm/s}$
- Minimum force in the direction of actuation $F_{\min} = 30 \text{ N}$

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Radius actuators

The safety switches with radius actuators are particularly suitable for rotary protective devices. The movable actuation key allows even small radii to be approached. Damage to the switch and the actuator due to inaccurate approach is prevented.

Locking devices

A high-grade steel locking device for attaching up to eight padlocks is available for even more security (see page 12/63).

Dust protection

A rubber cap to protect the actuator entry of the actuator head from contamination is available for operation in dusty environments (see page 12/63).

Tumbler

There are two versions for interlocking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Solenoid-locked (open-circuit principle)

The spring-actuated lock switch is equipped with an auxiliary release for emergency situations or setup mode. Available as options:

- Escape release or
- Emergency release

Contact blocks

The safety switches with tumbler have one switching block each for:




- Monitoring the actuator or the position of the protective door
- Monitoring the position of the solenoid

The mechanical design of the switches corresponds to the requirements of the fail-safe principle according to EN ISO 14119.

Optical signaling equipment

The safety switches with tumbler are available with an optional optical signaling device.

The signaling device indicates the switch position of the interlock and the protective device optically by means of 2 LEDs on the front.

Protective device	Tumbler	Display	Meaning
Closed	Released		Actuator able to be pulled
Closed	Locked		Actuator locked
Open	Released		Actuator pulled

Internal wiring:

- The yellow LED is pre-wired to the solenoid monitoring NO contact.
- The green LED is pre-wired to the actuator monitoring NC contact.
- LED ground is pre-wired to the ground of the solenoid.

Note:

- The operational voltage must be connected to the corresponding contacts by the customer.
- This voltage for the LEDs must match the operational voltage of the solenoid (same potential).

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

General data

Benefits

The new generation of 3SE53 safety switches offers:

- More safety through higher locking forces:
 - 1 300 N with plastic enclosure
 - 2 600 N with metal enclosure
- Various release mechanisms: lock release, escape release and emergency release
- Two contact blocks each with three contacts as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure versions: Plastic, metal or with integrated ASIsafe
- An extensive range of actuators
- An optional LED status display 24 V DC, 115 V or 230 V AC for all switch versions
- Devices with ASIsafe electronics integrated in the enclosure/ wired to 8-pole M12 device plug (see page 12/95)
- 3SE5322-1S.21-1AG4 series with high degree of protection IP69, IP69K in accordance with IEC 60529, cover with foamed seal

Application

The safety switches with tumbler are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the switched-off machine).

The safety position switches with tumbler have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and tumbler

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to EN ISO 14119.

Approvals

The switches are approved for use with locking devices according to EN ISO 14119 and EN 292, Parts 1 and 2.

Category 3 according to EN ISO 13849-1 can be attained with a safety switch with tumbler if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK or 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional 3SE5 safety switch.

These switches are approved according to UL 508, UL 50 and UL 746-C.

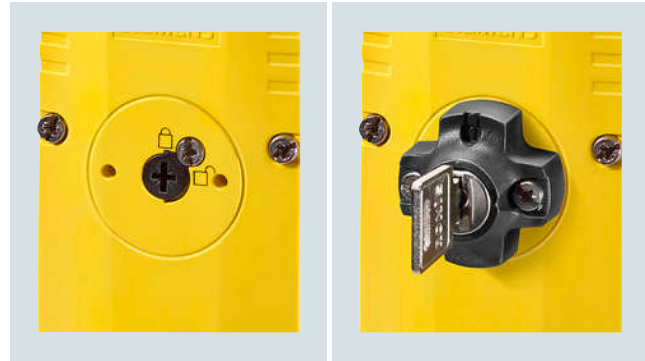
Tumbler

The separate actuator works like a key using coding and protects against manipulation. It transmits the locking force to the protective device and helps to monitor its position.

There are two versions of locking:

Spring-actuated lock (closed-circuit principle)

- In the standard version, the safety switch locks by means of spring force and releases by means of electromagnetic force. In the case of voltage failure, it reliably prevents the protective device from opening when machine parts are still moving.
- The switch is equipped with an auxiliary release for emergency situations or setup mode.
- An auxiliary release which can be secured with a lock to prevent misuse is available as a version.

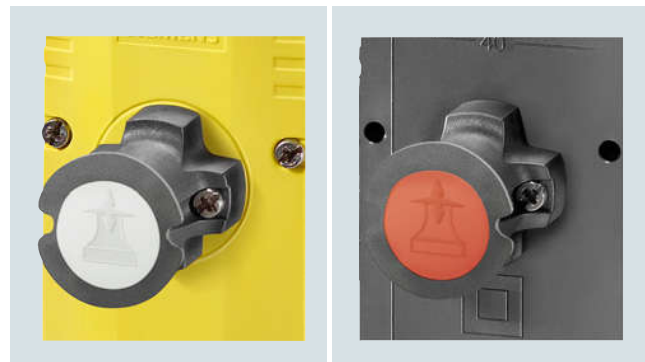


Auxiliary release

Auxiliary release with lock

The 3SE5 3 safety switches are also available with an escape release or emergency release.

- Personnel working inside the hazard zone can use the escape release feature to manually release the tumbler without tools from the escape side (hazardous area side) so that they can exit the hazard area. An intentional act (in this case pulling the gray actuator) is required to release the locking mechanism and restore the normal operating state.
- The emergency release enables someone in an emergency situation to manually release the tumbler without tools from the access side (outside the hazardous area). Releasing the lock and restoring the normal operating state must require effort which is comparable to repair activity: in this case disassembly of the red actuator and resetting of the mechanical lock.



Escape release from the front

Emergency release from the back

Solenoid-locked (open-circuit principle)

- The second version offers locking by means of electromagnetic force and release by means of spring force. This version has an advantage when it is necessary to quickly access the machine after a power failure occurs, or in the case of very short coasting times.

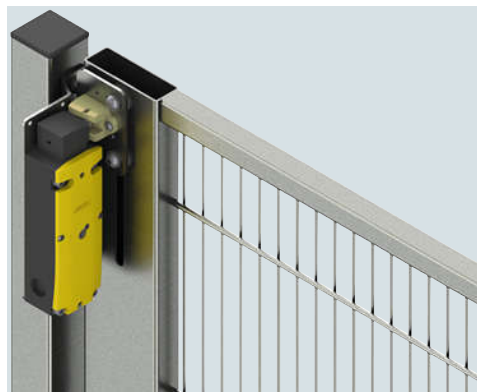
SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

General data

Examples of door interlocking



X-Lock door interlocking from Axelent



Door interlocking from Brühl

For the addresses of the door interlock manufacturers,
see page 16/16.

Technical specifications

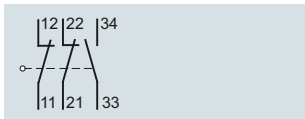
Type		3SE5322	3SE5312
General data			
Standards		IEC/EN 60947-5-1, EN ISO 14119	
Rated insulation voltage U_i	V	250	
Degree of pollution according to IEC 60664-1		Class 3	
Rated impulse withstand voltage U_{imp}	kV	4	
Rated operational voltage U_e			
• DC	V	24	
• 50/60 Hz AC	V	230	
Conventional thermal current I_{th}	A	6	
Rated operational current I_e			
• With alternating current 50/60 Hz		I_e / AC-15 or B300	
- At 24 V	A	6	
- At 120 V	A	6	
- At 240 V	A	3	
• For direct current		I_e / DC-13 or Q300	
- At 24 V	A	3	
- At 125 V	A	0.55	
- At 250 V	A	0.27	
Solenoid			
• Locking force, max.	N	1 300	2 600
• Locking force acc. to EN ISO 14119	N	1 000	2 000
• Power consumption at U_c	W	3.5	
Short-circuit protection¹⁾			
• With DIAZED fuse links, utilization category gG	A	6	
• With miniature circuit breaker, C char.	A	0.5	
Mechanical endurance	Operating cycles	1×10^6	
Electrical endurance			
• With 3RH.1, 3RT contactors in size S00, S0	Operating cycles	1×10^6	
• For utilization category AC-15 when switching off I_e / AC-15 at 230 V	Operating cycles	100 000	
• With utilization category DC-12/DC-13		For direct current depending on the loading of the switch	
Switching frequency	Operating cycles/h	6 000	
With 3RH.1, 3RT contactors in size S00, S0			
Shock resistance acc. to IEC 60068-2-27	g/ms	30/11	

¹⁾ Without any welds according to IEC 60947-5-1.

Circuit diagrams

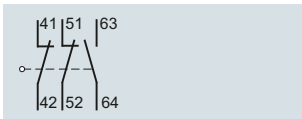
Monitoring the actuator

Slow-action contacts 1 NO + 2 NC



Monitoring the solenoid

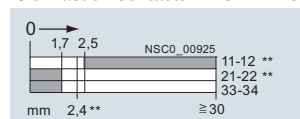
Slow-action contacts 1 NO + 2 NC



Operating travel

Monitoring the actuator

Slow-action contacts 1 NO + 2 NC









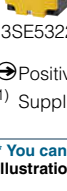
SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

With Tumbler

3SE5, plastic enclosures with locking force greater than 1 200 N

Selection and ordering data

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 × M20 × 1.5 · Locking force 1 300 N

Tumbler ¹⁾	LEDs	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
1 300 N locking force · Enclosure width 54 mm								
	Spring-actuated lock							
	• With auxiliary release	--	24 DC	⊕ ▶	3SE5322-0SD21	1	1 unit	41K
		--	115 AC	⊕ 5	3SE5322-0SD22	1	1 unit	41K
		--	230 AC	⊕ 5	3SE5322-0SD23	1	1 unit	41K
		Yellow/Green	24 DC	⊕ 2	3SE5322-1SD21	1	1 unit	41K
		Yellow/Green	115 AC	⊕ 5	3SE5322-2SD22	1	1 unit	41K
		Yellow/Green	230 AC	⊕ 5	3SE5322-3SD23	1	1 unit	41K
	• With auxiliary release with lock	--	24 DC	⊕ 5	3SE5322-0SE21	1	1 unit	41K
		--	115 AC	⊕ 5	3SE5322-0SE22	1	1 unit	41K
		--	230 AC	⊕ 5	3SE5322-0SE23	1	1 unit	41K
		Yellow/Green	24 DC	⊕ 5	3SE5322-1SE21	1	1 unit	41K
		Yellow/Green	115 AC	⊕ 5	3SE5322-2SE22	1	1 unit	41K
		Yellow/Green	230 AC	⊕ 5	3SE5322-3SE23	1	1 unit	41K
	• With escape release from the front	--	24 DC	⊕ 5	3SE5322-0SF21	1	1 unit	41K
		--	115 AC	⊕ 5	3SE5322-0SF22	1	1 unit	41K
		--	230 AC	⊕ 5	3SE5322-0SF23	1	1 unit	41K
		Yellow/Green	24 DC	⊕ 5	3SE5322-1SF21	1	1 unit	41K
		Yellow/Green	115 AC	⊕ 5	3SE5322-2SF22	1	1 unit	41K
		Yellow/Green	230 AC	⊕ 5	3SE5322-3SF23	1	1 unit	41K
	• With escape release from the front and emergency release from the back	--	24 DC	⊕ 5	3SE5322-0SL21	1	1 unit	41K
	• With escape release from the back and auxiliary release from the front	--	24 DC	⊕ 5	3SE5322-0SG21	1	1 unit	41K
		--	115 AC	⊕ 5	3SE5322-0SG22	1	1 unit	41K
		--	230 AC	⊕ 5	3SE5322-0SG23	1	1 unit	41K
		Yellow/Green	24 DC	⊕ 5	3SE5322-1SG21	1	1 unit	41K
		Yellow/Green	115 AC	⊕ 5	3SE5322-2SG22	1	1 unit	41K
		Yellow/Green	230 AC	⊕ 5	3SE5322-3SG23	1	1 unit	41K
	• With escape release from the back and auxiliary release with lock from the front	--	24 DC	⊕ 5	3SE5322-0SH21	1	1 unit	41K
	• With emergency release from the back and auxiliary release from the front	--	24 DC	⊕ 5	3SE5322-0SJ21	1	1 unit	41K
		--	115 AC	⊕ 5	3SE5322-0SJ22	1	1 unit	41K
		--	230 AC	⊕ 5	3SE5322-0SJ23	1	1 unit	41K
		Yellow/Green	24 DC	⊕ 5	3SE5322-1SJ21	1	1 unit	41K
		Yellow/Green	115 AC	⊕ 5	3SE5322-2SJ22	1	1 unit	41K
		Yellow/Green	230 AC	⊕ 5	3SE5322-3SJ23	1	1 unit	41K
	Solenoid-locked	--	24 DC	⊕ ▶	3SE5322-0SB21	1	1 unit	41K
		--	115 AC	⊕ 5	3SE5322-0SB22	1	1 unit	41K
		--	230 AC	⊕ 5	3SE5322-0SB23	1	1 unit	41K
	• With device plug, 8-pole Head rotated clockwise by 90°	Yellow/Green	24 DC	NEW ⊕ 5	3SE5334-0SB21-1AC8	1	1 unit	41K
		Yellow/Green	24 DC	NEW ⊕ 5	3SE5324-0SB21-1AP0	1	1 unit	41K
		Yellow/Green	24 DC	⊕ 2	3SE5322-1SB21	1	1 unit	41K
		Yellow/Green	115 AC	⊕ 5	3SE5322-2SB22	1	1 unit	41K
		Yellow/Green	230 AC	⊕ 5	3SE5322-3SB23	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/62).

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

3SE5, plastic enclosures with locking force greater than 1 200 N

6 slow-action contacts · 5 directions of approach · **Degree of protection IP69K** · Cable entry 3 × M20 × 1.5 · Locking force 1 300 N

- With foamed seal and special cover

Tumbler ¹⁾	LEDs	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
		V	d	Article No.	Price per PU			

1 300 N locking force · Enclosure width 54 mm · Degree of protection IP69K

Spring-actuated locks

- With auxiliary release



3SE5322-1SD21-1AG4

Yellow/Green 24 DC

⤵ 5

3SE5322-1SD21-1AG4

1

1 unit

41K



3SE5322-1SE21-1AG4

- With auxiliary release with lock

Yellow/Green 24 DC

⤵ 5

3SE5322-1SE21-1AG4

1

1 unit

41K



3SE5322-1SF21-1AG4

- With escape release from the front

Yellow/Green 24 DC

⤵ 5

3SE5322-1SF21-1AG4

1

1 unit

41K



3SE5322-1SG21-1AG4

- With escape release from the back and auxiliary release from the front

Yellow/Green 24 DC

⤵ 5

3SE5322-1SG21-1AG4

1

1 unit

41K

⤵ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/62).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Accessories

Cable glands M20 × 1.5

Plastic
High degree of protection IP69, IEC 60529



3SX5601-1A

5

3SX5601-1A

1

1 unit







41K

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

3SE5, metal enclosures with locking force greater than 2 000 N

Selection and ordering data

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 × M20 × 1.5 · Locking force 2 600 N

Tumbler ¹⁾	LEDs	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		V	d					
2 600 N locking force · Enclosure width 54 mm								
	Spring-actuated locks							
	• With auxiliary release	--	24 DC	→	▶	3SE5312-0SD11	1	1 unit 41K
		--	115 AC	→	5	3SE5312-0SD12	1	1 unit 41K
		--	230 AC	→	5	3SE5312-0SD13	1	1 unit 41K
		Yellow/Green	24 DC	→	5	3SE5312-1SD11	1	1 unit 41K
		Yellow/Green	115 AC	→	5	3SE5312-2SD12	1	1 unit 41K
		Yellow/Green	230 AC	→	5	3SE5312-3SD13	1	1 unit 41K
	• With auxiliary release with lock	--	24 DC	→	5	3SE5312-0SE11	1	1 unit 41K
		--	115 AC	→	5	3SE5312-0SE12	1	1 unit 41K
		--	230 AC	→	5	3SE5312-0SE13	1	1 unit 41K
		Yellow/Green	24 DC	→	5	3SE5312-1SE11	1	1 unit 41K
		Yellow/Green	115 AC	→	5	3SE5312-2SE12	1	1 unit 41K
		Yellow/Green	230 AC	→	5	3SE5312-3SE13	1	1 unit 41K
	• With escape release from the front	--	24 DC	→	5	3SE5312-0SF11	1	1 unit 41K
		--	115 AC	→	5	3SE5312-0SF12	1	1 unit 41K
		--	230 AC	→	5	3SE5312-0SF13	1	1 unit 41K
		Yellow/Green	24 DC	→	5	3SE5312-1SF11	1	1 unit 41K
		Yellow/Green	115 AC	→	5	3SE5312-2SF12	1	1 unit 41K
		Yellow/Green	230 AC	→	5	3SE5312-3SF13	1	1 unit 41K
	• With escape release from the back and auxiliary release from the front	--	24 DC	→	5	3SE5312-0SG11	1	1 unit 41K
		--	115 AC	→	5	3SE5312-0SG12	1	1 unit 41K
		--	230 AC	→	5	3SE5312-0SG13	1	1 unit 41K
		Yellow/Green	24 DC	→	5	3SE5312-1SG11	1	1 unit 41K
		Yellow/Green	115 AC	→	5	3SE5312-2SG12	1	1 unit 41K
		Yellow/Green	230 AC	→	5	3SE5312-3SG13	1	1 unit 41K
	• With escape release from the back and auxiliary release with lock from the front	--	24 DC	→	5	3SE5312-0SH11	1	1 unit 41K
	• With emergency release from the back and auxiliary release from the front	--	24 DC	→	5	3SE5312-0SJ11	1	1 unit 41K
		--	115 AC	→	5	3SE5312-0SJ12	1	1 unit 41K
		--	230 AC	→	5	3SE5312-0SJ13	1	1 unit 41K
		Yellow/Green	24 DC	→	5	3SE5312-1SJ11	1	1 unit 41K
		Yellow/Green	115 AC	→	5	3SE5312-2SJ12	1	1 unit 41K
		Yellow/Green	230 AC	→	5	3SE5312-3SJ13	1	1 unit 41K
	Solenoid-locked	--	24 DC	→	▶	3SE5312-0SB11	1	1 unit 41K
		--	115 AC	→	5	3SE5312-0SB12	1	1 unit 41K
		--	230 AC	→	5	3SE5312-0SB13	1	1 unit 41K
		Yellow/Green	24 DC	→	5	3SE5312-1SB11	1	1 unit 41K
		Yellow/Green	115 AC	→	5	3SE5312-2SB12	1	1 unit 41K
		Yellow/Green	230 AC	→	5	3SE5312-3SB13	1	1 unit 41K










→ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/62).

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

Accessories

Selection and ordering data





Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
IP66/IP67						
 3SE5000-0AV01		Standard actuator				
		• Length 75.6 mm				
 3SE5000-0AV02	5	• With vertical fixing, length 53 mm		1	1 unit	41K
 3SE5000-0AV03	5	• With transverse fixing, length 47 mm		1	1 unit	41K
 3SE5000-0AW51	5	High-grade steel actuator, IP69K¹⁾				
		• Length 75.6 mm		1	1 unit	41K
 3SE5000-0AW52	5	• With vertical fixing, length 53 mm		1	1 unit	41K
 3SE5000-0AW53	5	• With transverse fixing, length 47 mm		1	1 unit	41K
 3SE5000-0AV06	2	Radius actuator, length 51 mm		1	1 unit	41K
	5	• Direction of approach from the left • Direction of approach from the right		1	1 unit	41K
 3SE5000-0AV05-1AA6	5	Universal radius actuator				
	5	• Length 77 mm • Length 77 mm, tab rotated 90°		1	1 unit	41K
 3SE5000-0AV07	2	Universal radius actuator, heavy duty		1	1 unit	41K
	5	• Length 67 mm • Length 77 mm		1	1 unit	41K

For further plug versions, [see page 12/44](#).

¹⁾ With optimized geometry and suitable for extreme environmental conditions such as -40 °C

SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories for 3SE5						
 3SE5000-0AV08-1AA2	Protective caps , black rubber For the actuator head, to protect the actuator openings from contamination	5	3SE5000-0AV08-1AA2	1	1 unit	41K
 3SE5000-0AV08-1AA3	Blocking inserts , high-grade steel, for actuator head For up to eight padlocks	5	3SE5000-0AV08-1AA3	1	1 unit	41K
Spare parts for 3SE5						
	Spare keys	5	3SX5100-1F	1	1 unit	41K
Connection for 3SE5						
 3SY3127	Device plugs (4-pole), M12, fixed for M20 x 1.5 For max. 250 V, 4 A With connecting cable 0.25 mm ² , plastic, degree of protection IP67, ambient temperature -40 to +85 °C	5	3SY3127	1	1 unit	41K
	Device plugs (5-pole), M12, fixed for M20 x 1.5 For max. 125 V, 4 A With connecting cable 0.25 mm ² , plastic, degree of protection IP67, ambient temperature -40 to +85 °C	5	3SY3128	1	1 unit	41K
 3SX9926	Cable glands M20 x 1.5 Plastic					
	<ul style="list-style-type: none"> Degree of protection IP67 	2	3SX9926	1	1 unit	41K
	<ul style="list-style-type: none"> High degree of protection IP69, IEC 60529 	5	3SX5601-1A	1	1 unit	41K

For further plug versions, [see page 12/44](#).

SIRIUS 3SE5, 3SE2 Mechanical Safety Hinge Switches

General data

Overview

3SE5 hinge switches have the same enclosures as the 3SE5 position switches (modular system).



Hinge switches

Design

Enclosure sizes

The 3SE5 switches are available as complete units in two enclosure sizes:

- Plastic enclosures according to EN 50047, 31 mm wide, IP65, 1 cable entry
- Metal enclosures according to EN 50047, 31 mm wide, IP66/IP67, 1 cable entry
- Plastic and metal enclosures according to EN 50041, 40 mm wide, IP66/IP67, 1 cable entry

Enclosure versions

Various basic versions can be selected for the enclosures:

- With two or three-pole switching elements designed as snap-action contacts
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 12/98)

For a description of the basic switches, see page 12/5.

Operating mechanism

The hinge switches are provided for mounting on hinges. The actuator head is included in the scope of supply. There are two versions:

- Operating mechanism with hollow shaft, inner diameter 8 mm, outer 12 mm
- Operating mechanism with solid shaft, diameter 10 mm

3SE2283 hinge switches

The 3SE2283 hinge switches with integrated hinge are available in a special design. They are particularly suitable for use in machine doors and flaps.

Benefits

The 3SE5 hinge switches differ from the previous series through the following new characteristics:

- All actuators can be turned around the axis in increments of 22.5° (see picture, page 12/6).
- The new three-pole contact block 1 NO + 2 NC is available for all enclosure sizes (see picture, page 12/6).
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save approx. 20 to 25% of the time when connecting (see picture, page 12/6).
- The ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/83); an additional adapter is not required.

Application

The hinge switches are used in those areas where the position of swiveling protective devices such as doors or flaps must be monitored. With these switches, the position of the doors and flaps is converted into electric signals. The switches allow shutdown and signaling without delay in the event of a small opening angle through the snap-action contacts with an operating angle of 10°.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. Dimensions and fixing points of the enclosures are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

Standards

IEC/EN 60947-5-1


The protective measure of "total insulation" by the plastic enclosure is ensured by the use of molded-plastic screw glands.

Safety position switches

For controls according to IEC/EN 60204-1, the devices can be used as a safety position switch. To secure position switches against changes in their position, keyed techniques must be employed on installation.

Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening of the NC contacts. In other words, for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked in accordance with IEC 60947-5-1 with the symbol .

Category 4 according to EN ISO 13849-1 can be attained with the 3SE5 hinge switches with  if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK or 3TK28 safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges.

SIRIUS 3SE5, 3SE2 Mechanical Safety Hinge Switches

3SE5, Plastic Enclosures

Enclosure width 31 mm acc. to EN 50047 / 40 mm according to EN 50041





Technical specifications

The technical specifications are the same as for the standard switches (see page 12/9).

Selection and ordering data

Complete units



2 or 3 contacts · Degree of protection IP65 (31 mm) or IP67/IP68 (40 mm) · Cable entry M20 × 1.5

Version	Snap-action contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
Article No.	Price per PU	d				
Plastic enclosures · Enclosure width 31 mm acc. to EN 50047						
	With hollow shaft					
	Operating angle 10°	1 NO + 1 NC ¹⁾ → 5	3SE5232-0HU21	1	1 unit	41K
	Operating angle 10°	1 NO + 2 NC → 5	3SE5232-0LU21	1	1 unit	41K
	With solid shaft					
	Operating angle 10°	1 NO + 1 NC ¹⁾ → 5	3SE5232-0HU22	1	1 unit	41K
	Operating angle 10°	1 NO + 2 NC → 5	3SE5232-0LU22	1	1 unit	41K
	With hollow shaft					
	Operating angle 10°	1 NO + 2 NC → 5	3SE5132-0LU21	1	1 unit	41K
	With solid shaft					
	Operating angle 10°	1 NO + 2 NC → 5	3SE5132-0LU22	1	1 unit	41K
Plastic enclosures · Enclosure width 40 mm acc. to EN 50041						

→ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Contact blocks permanently integrated, replacement not available.

Spare parts

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Actuator heads						
	With hollow shaft					
	Operating angle 10°	5	3SE5000-0AU21	1	1 unit	41K
	With solid shaft					
	Operating angle 10°	5	3SE5000-0AU22	1	1 unit	41K

Note:

The respective actuators are included in the scope of supply for the complete units.

SIRIUS 3SE5, 3SE2 Mechanical Safety Hinge Switches





3SE5, Metal Enclosures

Enclosure width 31 mm acc. to EN 50047 / 40 mm according to EN 50041

Selection and ordering data



Complete units

3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version	Snap-action contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
Article No.	Price per PU	d				
Metal enclosures · Enclosure width 31 mm acc. to EN 50047						
	With hollow shaft Operating angle 10°	1 NO + 2 NC	↻ 5	3SE5212-0LU21	1	1 unit 41K
	With solid shaft Operating angle 10°	1 NO + 2 NC	↻ 5	3SE5212-0LU22	1	1 unit 41K
Metal enclosures · Enclosure width 40 mm acc. to EN 50041						
	With hollow shaft Operating angle 10°	1 NO + 2 NC	↻ 5	3SE5112-0LU21	1	1 unit 41K
	With solid shaft Operating angle 10°	1 NO + 2 NC	↻ 5	3SE5112-0LU22	1	1 unit 41K

↻ Positive opening according to IEC 60947-5-1, Appendix K.

Spare parts

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Actuator heads						
	With hollow shaft Operating angle 10°	5	3SE5000-0AU21	1	1 unit	41K
3SE5000-0AU21						
	With solid shaft Operating angle 10°	5	3SE5000-0AU22	1	1 unit	41K
3SE5000-0AU22						

Note:

The respective actuators are included in the scope of supply for the complete units.

SIRIUS 3SE5, 3SE2 Mechanical Safety Hinge Switches

3SE2, Plastic Enclosures

With integrated hinge

Overview

The 3SE2283 hinge switches with built-in hinge are particularly suitable for use in doors and flaps of machines that must be closed to ensure the safety of operating personnel. Their thin profile and the compact design allow them to be directly mounted on a hinged protective cover and the stable frame.

Benefits

- Easy mounting through use of versions with integrated hinge
- Versions with small operating angle of 4° or 8°
- Protection against personal injury provided by positively driven NC contacts according to IEC 60947-5-1
- Simultaneous shutdown and signaling by 1 NO + 2 NC contacts

Technical specifications

Type		3SE2283
Rated insulation voltage U_i	V	250
Conventional thermal current I_{th}	A	2.5
Rated operational current I_e		
• At AC-15, 120 V	A	4.2
• At AC-15, 250 V	A	2
• At DC-13, 24 V	A	1
Min. make-break capacity		> 5 V/1 mA
Short-circuit protection		
• Operational class gG	A	2
Mechanical endurance		> 1×10^6 operating cycles
Switching frequency		1 200 operating cycles/h
Positive opening		2 mm after opening point
Enclosure material		Plastic
Degree of protection		IP65
Ambient temperature	°C	-25 ... +65
Shock resistance		30 g / 18 ms
Resistance to vibrations		20 g / 10 ... 200 Hz
Cable entry		2 × (M20 × 1.5)
Screw terminals		0.5 ... 1.5 mm ² / AWG 15

SIRIUS 3SE5, 3SE2 Mechanical Safety Hinge Switches

3SE2, Plastic Enclosures

With integrated hinge

Selection and ordering data

3 contacts · Degree of protection IP65 · Cable entry 2 × (M20 × 1.5)

Version	Slow-action contacts	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU			

Plastic enclosures with integrated hinge



3SE2283

With integrated hinge

(Scope of supply includes additional hinge and fixing accessories)

• Aluminum hinge							
- 4° actuating angle	1 NO + 2 NC	⌚ 15	3SE2283-0GA43		1	1 unit	41K
- 4° actuating angle	3 NC	⌚ 5	3SE2283-6GA43		1	1 unit	41K
- 8° actuating angle	1 NO + 2 NC	⌚ 10	3SE2283-0GA53		1	1 unit	41K
- 8° actuating angle	3 NC	⌚ 15	3SE2283-6GA53		1	1 unit	41K
• High-grade steel hinge							
- 4° actuating angle	1 NO + 2 NC	⌚ 5	3SE2283-0GA44		1	1 unit	41K

⌚ Positive opening according to IEC 60947-5-1, Appendix K.

Accessories/spare parts

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Accessories



3SX3225

Additional hinge

(Scope of supply includes fixing accessories)

• Made of aluminum	10	3SX3225		1	1 unit	41K
--------------------	----	----------------	--	---	--------	-----

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test

SIRIUS 3SE5 Mechanical Position Switches**3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047****Selection and ordering data****Complete units**

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		

Complete units¹⁾ · Enclosure width 31 mm

3SE5232-OLK21-1AY0

Twist levers, 21 mm long, acc. to EN 50047**With plastic roller 19 mm**

Snap-action contacts

1 NO + 2 NC → 5

3SE5232-OLK21-1AY0

1 1 unit 41K



3SE5232-OLE10-1AY0

Roller levers, acc. to EN 50047**With plastic roller 13 mm**

Snap-action contacts

1 NO + 2 NC → 5

3SE5232-OLE10-1AY0

1 1 unit 41K



3SE5232-0HK82-1AY0

Rod actuators, acc. to EN 50047**Plastic rod, length 200 mm**

Snap-action contacts

1 NO + 1 NC 30

3SE5232-0HK82-1AY0

1 1 unit 41K



3SE5232-0HR01-1AY0

Spring rod

Snap-action contacts

1 NO + 1 NC 30

3SE5232-0HR01-1AY0

1 1 unit 41K

→ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

¹⁾ Popular versions.

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C**Shock and Vibration Test****SIRIUS 3SE5 Mechanical Safety Switches with Tumbler****3SE5, plastic enclosures, enclosure width 54 mm****Selection and ordering data**

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 × M20 × 1.5 · Locking force 1 300 N

Tumbler ¹⁾	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
	V	d	Article No.	Price per PU			

1 300 N locking force · Enclosure width 54 mm**Spring-actuated locks**

- With front auxiliary release

24 DC

⤵ 5

3SE5322-0SD21-1AY0

1

1 unit

41K



3SE5322-0SD21-1AY0

⤵ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.**Accessories/spare parts**

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Accessories**Standard actuator**

- Length 75.6 mm

▶

3SE5000-0AV01

1

1 unit

41K

3SE5000-0AV01

High-grade steel actuator, standard, IP69K¹⁾

- Length 75.6 mm

5

3SE5000-0AW51

1

1 unit

41K



3SE5000-0AW51

- With vertical fixing, length 53 mm

5

3SE5000-0AW52

1

1 unit

41K



3SE5000-0AW52

- With transverse fixing, length 47 mm

5

3SE5000-0AW53

1

1 unit

41K



3SE5000-0AW53


¹⁾ With optimized geometry and suitable for extreme environmental conditions such as -40 °C

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C
Shock and Vibration Test
SIRIUS 3SE5 Mechanical Safety Hinge Switches

3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047

Selection and ordering data

With increased corrosion protection

Version	Contacts	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU			
Complete units ¹⁾ • Enclosure width 31 mm							
	Hinge switches, acc. to EN 50047 With hollow shaft D = 8 mm, operating angle 10 degrees, Snap-action contacts	1 NO + 1 NC	➞ 30	3SE5232-0HU21-1AY0	1	1 unit	41K

3SE5232-0HU21-1AY0

➞ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ With optimized geometry and suitable for extreme environmental conditions such as -40 °C

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C






Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm

Selection and ordering data**Complete units**

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Complete units	<div><div></div></div>	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			
Complete units ¹⁾ • Enclosure width 31 mm								
	Roller plungers, type C, acc. to EN 50047 With plastic roller 10 mm, with M12 device plug, 4-pole (250 V, 4 A) Snap-action contacts			1 NO + 1 NC --	→ 5	3SE5234-0CD03-1AJ1	1	1 unit 41K
3SE5234-0CD03-1AJ1								
	Roller plungers with central fixing Snap-action contacts			1 NO + 1 NC --	→ 5	3SE5232-0CD10-1AJ0	1	1 unit 41K
3SE5232-0CD10-1AJ0								
	Twist levers, type A, acc. to EN 50047 With high-grade steel lever 21 mm and plastic roller 19 mm Snap-action contacts			1 NO + 1 NC --	→ 2	3SE5232-0CK31-1AJ0	1	1 unit 41K
3SE5232-0CK31-1AJ0								
	Twist levers, adjustable length With high-grade steel lever with grid hole and plastic roller 19 mm Snap-action contacts			1 NO + 1 NC --	→ 5	3SE5232-0CK62-1AJ0	1	1 unit 41K
3SE5232-0CK62-1AJ0								
	Twist levers, adjustable length With high-grade steel lever with grid hole and plastic roller 19 mm Snap-action contacts			1 NO + 2 NC --	→ 5	3SE5232-0LK62-1AJ0	1	1 unit 41K
3SE5232-0LK62-1AJ0								
Complete units ¹⁾ • Enclosure width 50 mm								
	Twist levers With metal lever 21 mm and plastic roller 19 mm Snap-action contacts, integrated ²⁾			1 NO + 1 NC --	→ 5	3SE5242-0HK21-1AJ0	1	1 unit 41K
3SE5242-0HK21-1AJ0								
	Twist levers, adjustable length With high-grade steel lever with grid hole and plastic roller 19 mm Snap-action contacts, integrated ²⁾			1 NO + 1 NC --	→ 5	3SE5242-0HK62-1AJ0	1	1 unit 41K
3SE5242-0HK62-1AJ0								

⊙ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

Note:If the device you require is not available as a complete unit, see [Modular system](#), page 12/73.

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C









Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm

Modular system

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			
Basic switches • Enclosure width 31 mm (with rounded plunger¹⁾)								
With teflon plunger								
	Snap-action contacts	1 NO + 1 NC --	 5	3SE5232-0CC05-1AJ0		1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	 5	3SE5232-0KC05-1AJ0		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	 5	3SE5232-0LC05-1AJ0		1	1 unit	41K
Basic switches • Enclosure width 50 mm (with rounded plunger¹⁾)								
With teflon plunger								
	Slow-action contacts	1 NO + 1 NC --	 5	3SE5242-0BC05-1AJ0		1	1 unit	41K
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	 5	3SE5242-0HC05-1AJ0		1	1 unit	41K

3SE5232-0CC05-1AJ0

3SE5242-0BC05-1AJ0

 Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

¹⁾ For enclosures with widths of 31 and 50 mm, the basic switch is a complete unit with rounded plungers.

²⁾ Subsequent replacement of contact blocks is not possible.







Note:

For the selection aid, [see page 12/11](#).

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches**3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm**

Version		Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG	
		mm	d	Article No.	Price per PU				
Operating mechanisms									
	Roller plungers, type C, acc. to EN 50047								
	Plastic roller	10	→ 5	3SE5000-0AD03-1AJ0		1	1 unit	41K	
3SE5000-0AD03-1AJ0									
	Roller levers, type E, acc. to EN 50047								
	Metal lever, plastic roller	13	→ 5	3SE5000-0AE10-1AJ0		1	1 unit	41K	
	High-grade steel lever, plastic roller	13	→ 5	3SE5000-0AE12-1AJ0		1	1 unit	41K	
	High-grade steel lever, high-grade steel roller	13	→ 5	3SE5000-0AE13-1AJ0		1	1 unit	41K	
	Angular roller levers								
	Metal lever, plastic roller	13	→ 5	3SE5000-0AF10-1AJ0		1	1 unit	41K	
High-grade steel lever, plastic roller	13	→ 5	3SE5000-0AF12-1AJ0		1	1 unit	41K		
3SE5000-0AF10-1AJ0									
Twist actuators									
	Twist actuators, for 31 mm/50 mm, EN 50047								
	Switching right and/or left, adjustable		→ 5	3SE5000-0AK00-1AJ0		1	1 unit	41K	
3SE5000-0AK00-1AJ0									
	Levers								
	Twist levers straight, 21 mm, type A acc. to EN 50047								
	Metal lever, plastic roller	19	→ 5	3SE5000-0AA21-1AJ0		1	1 unit	41K	
	High-grade steel lever, plastic roller	19	→ 5	3SE5000-0AA31-1AJ0		1	1 unit	41K	
	High-grade steel lever, high-grade steel roller	19	→ 5	3SE5000-0AA32-1AJ0		1	1 unit	41K	
3SE5000-0AA21-1AJ0									
	Twist levers, adjustable length, with grid hole								
	Metal lever, plastic roller	19	→ 5	3SE5000-0AA60-1AJ0		1	1 unit	41K	
	High-grade steel lever, plastic roller	19	→ 5	3SE5000-0AA62-1AJ0		1	1 unit	41K	
3SE5000-0AA60-1AJ0									

→ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, plastic enclosures, enclosure width 40 mm according to EN 50041

Selection and ordering data

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Basic switches • Enclosure width 40 mm



3SE5132-0CA00-1AJ0

With connecting thread M20 × 1.5

Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0CA00-1AJ0	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0KA00-1AJ0	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5132-0LA00-1AJ0	1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

Note:

For the selection aid, see page 12/11.

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		

Operating mechanisms



3SE5000-0AC03-1AJ0

Rounded plungers, type B, acc. to EN 50041

Plastic plungers	10	⊕ 5	3SE5000-0AC03-1AJ0	1	1 unit	41K
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3SE5000-0AD05-1AJ0

Roller plungers, type C, acc. to EN 50041

Plastic plunger, plastic roller	13	⊕ 5	3SE5000-0AD05-1AJ0	1	1 unit	41K
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3SE5000-0AE05-1AJ0

Roller levers

Metal lever with plastic roller, plastic base	22	⊕ 5	3SE5000-0AE05-1AJ0	1	1 unit	41K
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3SE5000-0AH00-1AJ0

Twist actuators, for 31 mm/50 mm, EN 50047

• For twist levers and rod actuators, switching right and/or left, adjustable		⊕ 5	3SE5000-0AH00-1AJ0	1	1 unit	41K
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3SE5000-0AA01-1AJ0

Levers

Twist levers, type A, acc. to EN 50041

Metal lever, plastic roller	19	⊕ 5	3SE5000-0AA01-1AJ0	1	1 unit	41K
High-grade steel lever, plastic roller	19	⊕ 5	3SE5000-0AA11-1AJ0	1	1 unit	41K



3SE5000-0AA60-1AJ0

Twist levers, adjustable length, with grid hole

Metal lever, plastic roller	19	⊕ 5	3SE5000-0AA60-1AJ0	1	1 unit	41K
High-grade steel lever, plastic roller	19	⊕ 5	3SE5000-0AA62-1AJ0	1	1 unit	41K

⊕ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C


Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, metal enclosures, enclosure width 31 mm according to EN 50047

Selection and ordering data**Complete units**

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Complete units • Enclosure width 31 mm**Rounded plungers, type B, acc. to EN 50047**

3SE5212-0CC05-1AJ0

Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5212-0CC05-1AJ0	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	→ 5	3SE5212-0KC05-1AJ0	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	→ 5	3SE5212-0LC05-1AJ0	1	1 unit	41K

Twist levers, type A, acc. to EN 50047

With metal lever 21 mm and high-grade steel roller 19 mm, twist actuator for 40 mm



3SE5212-0CH22-1AJ0

Snap-action contacts	1 NO + 1 NC --	→ 5	3SE5212-0CH22-1AJ0	1	1 unit	41K
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→ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

Note:If the device you require is not available as a complete unit, [see Modular system on page 12/75](#).

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, metal enclosures, enclosure width 31 mm according to EN 50047

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Basic switches • Enclosure width 31 mm (with rounded plunger¹⁾)



With plunger

Snap-action contacts	1 NO + 1 NC --	⊕ 5	5	3SE5212-0CC05-1AJ0	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	5	3SE5212-0KC05-1AJ0	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 5	5	3SE5212-0LC05-1AJ0	1	1 unit	41K

3SE5212-0CC05-1AJ0

⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

¹⁾ For enclosures with widths of 31 mm, the basic switch is a complete unit with rounded plungers.

Note:

For the selection aid, see page 12/11.

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		

Operating mechanisms



Roller plungers, type C, acc. to EN 50047

Plastic roller	10	⊕ 5	5	3SE5000-0AD03-1AJ0	1	1 unit	41K
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3SE5000-0AD03-1AJ0



Roller levers, type E, acc. to EN 50047

Metal lever, plastic roller	13	⊕ 5	5	3SE5000-0AE10-1AJ0	1	1 unit	41K
High-grade steel lever, plastic roller	13	⊕ 5	5	3SE5000-0AE12-1AJ0	1	1 unit	41K
High-grade steel lever, high-grade steel roller	13	⊕ 5	5	3SE5000-0AE13-1AJ0	1	1 unit	41K

3SE5000-0AE10-1AJ0



Angular roller levers

Metal lever, plastic roller	13	⊕ 5	5	3SE5000-0AF10-1AJ0	1	1 unit	41K
High-grade steel lever, plastic roller	13	⊕ 5	5	3SE5000-0AF12-1AJ0	1	1 unit	41K

3SE5000-0AF10-1AJ0

Twist actuators



Twist actuators, for 31 mm/50 mm, EN 50047

Switching right and/or left, adjustable		⊕ 5	5	3SE5000-0AK00-1AJ0	1	1 unit	41K
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3SE5000-0AK00-1AJ0

Levers

Twist levers straight, 21 mm, type A acc. to EN 50047

Metal lever, plastic roller	19	⊕ 5	5	3SE5000-0AA21-1AJ0	1	1 unit	41K
High-grade steel lever, plastic roller	19	⊕ 5	5	3SE5000-0AA31-1AJ0	1	1 unit	41K

3SE5000-0AA21-1AJ0



Twist levers, adjustable length, with grid hole

Metal lever, plastic roller	19	⊕ 5	5	3SE5000-0AA60-1AJ0	1	1 unit	41K
High-grade steel lever, plastic roller	19	⊕ 5	5	3SE5000-0AA62-1AJ0	1	1 unit	41K

3SE5000-0AA60-1AJ0

⊕ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C








Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, metal enclosures, enclosure width 40 mm according to EN 50041 / 56 mm, XL

Selection and ordering data**Complete units**

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 x 1.5, with increased corrosion protection

Version	Contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
Article No.	Price per PU					
Complete units • Enclosure width 40 mm						
	Rounded plungers, type B, acc. to EN 50041 With high-grade steel plungers, with 3 mm overtravel Snap-action contacts	1 NO + 1 NC	5	3SE5112-0CC02-1AJ0	1	1 unit 41K
3SE5112-0CC02-1AJ0						
	Roller plungers, type C, acc. to EN 50041 With high-grade steel plungers, with 3 mm overtravel Snap-action contacts	1 NO + 2 NC	5	3SE5112-0LD02-1AJ0	1	1 unit 41K
3SE5112-0LD02-1AJ0						
	Twist levers, type A, acc. to EN 50041 With high-grade steel lever 27 mm and plastic roller 19 mm Snap-action contacts	1 NO + 2 NC	5	3SE5112-0LH11-1AJ0	1	1 unit 41K
3SE5112-0LH11-1AJ0						
	With high-grade steel lever 27 mm and high-grade steel roller 19 mm Snap-action contacts	2 x (1 NO + 1 NC) NEW	10	3SE5162-0CH12-1AN5	1	1 unit 41K
3SE5112-0LH11-1AJ0						
	Twist levers, adjustable length With high-grade steel lever with grid hole and plastic roller 19 mm Snap-action contacts	1 NO + 1 NC	5	3SE5112-0CH62-1AJ0	1	1 unit 41K
3SE5112-0CH62-1AJ0						
Complete units • Enclosure width 56 mm, XL, 3 x M20 x 1.5						
	Twist levers, adjustable length With metal lever with grid hole and plastic roller 19 mm Snap-action contacts	1 NO + 1 NC	5	3SE5162-0CH60-1AJ0	1	1 unit 41K
3SE5162-0CH60-1AJ0						
	With high-grade steel lever and high-grade steel roller 19 mm Snap-action contacts	2 x (1 NO + 1 NC) NEW	10	3SE5162-0CH63-1AN6	1	1 unit 41K
3SE5162-0CH60-1AJ0						

⤵ Positive opening according to IEC 60947-5-1, Appendix K or positively driven actuator, necessary in safety circuits.

Note:

If the device you require is not available as a complete unit, see [Modular system on page 12/79](#).

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard




SIRIUS 3SE5 Mechanical Position Switches

3SE5, metal enclosures, enclosure width 40 mm according to EN 50041 / 56 mm / 56 mm, XL

Selection and ordering data

Modular system

2, 3 or 4 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches • Enclosure width 40 mm							
	With connecting thread M20 × 1.5						
	Snap-action contacts	1 NO + 1 NC	--	⤵ 5	3SE5112-0CA00-1AJ0	1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC	--	⤵ 5	3SE5112-0KA00-1AJ0	1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC	--	⤵ 5	3SE5112-0LA00-1AJ0	1	1 unit 41K
Basic switches • Enclosure width 56 mm							
	With 3 x connecting thread M20 × 1.5						
	Snap-action contacts	1 NO + 1 NC	--	⤵ 5	3SE5122-0CA00-1AJ0	1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC	--	⤵ 5	3SE5122-0KA00-1AJ0	1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC	--	⤵ 5	3SE5122-0LA00-1AJ0	1	1 unit 41K
Basic switches • Enclosure width 56 mm, XL							
	With 3 x connection thread M20 × 1.5						
	Slow-action contacts	2 × (1 NO + 1 NC)	--	⤵ 5	3SE5162-0BA00-1AJ0	1	1 unit 41K
	Snap-action contacts	2 × (1 NO + 1 NC)	--	⤵ 5	3SE5162-0CA00-1AJ0	1	1 unit 41K

⤵ Positive opening according to IEC 60947-5-1, Appendix K or positively driven actuator, necessary in safety circuits.

Note:




















For the selection aid, [see page 12/11](#).

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Position Switches

3SE5, metal enclosures, enclosure width 40 mm according to EN 50041 / 56 mm / 56 mm, XL

Version		Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
		mm	d	Article No.	Price per PU			
Operating mechanisms								
	Rounded plungers, type B, acc. to EN 50041							
	High-grade steel plunger, with 3 mm overtravel	10	 5	3SE5000-0AC02-1AJ0		1	1 unit	41K
3SE5000-0AC02-1AJ0								
	Roller plungers, type C, acc. to EN 50041							
	High-grade steel roller, with 3 mm overtravel	10	 5	3SE5000-0AD02-1AJ0		1	1 unit	41K
3SE5000-0AD02-1AJ0								
	Roller levers							
	Metal lever, plastic roller	13	 5	3SE5000-0AE01-1AJ0		1	1 unit	41K
3SE5000-0AE01-1AJ0	High-grade steel lever, plastic roller	13	 5	3SE5000-0AE03-1AJ0		1	1 unit	41K
	Angular roller levers							
	Metal lever, plastic roller	13	 5	3SE5000-0AF01-1AJ0		1	1 unit	41K
3SE5000-0AF01-1AJ0	High-grade steel lever, plastic roller	13	 5	3SE5000-0AF03-1AJ0		1	1 unit	41K
Twist actuators								
	Twist actuators, for 40/56/56 XL mm EN 50041							
	Switching right and/or left, adjustable		 5	3SE5000-0AH00-1AJ0		1	1 unit	41K
3SE5000-0AH00-1AJ0								
	Levers							
	Twist levers, type A, acc. to EN 50041							
3SE5000-0AA01-1AJ0	Metal lever, plastic roller	19	 5	3SE5000-0AA01-1AJ0		1	1 unit	41K
	High-grade steel lever, plastic roller	19	 5	3SE5000-0AA11-1AJ0		1	1 unit	41K
	Twist levers, adjustable length, with grid hole							
	Metal lever, plastic roller	19	 5	3SE5000-0AA60-1AJ0		1	1 unit	41K
3SE5000-0AA60-1AJ0	High-grade steel lever, plastic roller	19	 5	3SE5000-0AA62-1AJ0		1	1 unit	41K

➔ Positively driven actuator, necessary in safety circuits.

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Safety Switches with Separate Actuator**3SE5, plastic enclosures, enclosure width 31 mm according to EN 50047****Selection and ordering data****Complete units**

2 or 3 contacts · 5 directions of approach · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · Cable entry M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		

Enclosure width 31 mm according to EN 50047

3SE5232-0RV40-1AJ0

Ambient temperature down to -40° C
With increased corrosion protection

Slow-action contacts

1 NO + 1 NC --



5

3SE5232-0RV40-1AJ0

1

1 unit

41K

Accessories/spare parts

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Accessories**Standard actuator**

- With transverse fixing, plastic, length 40 mm

5

3SE5000-0AW11

1

1 unit

41K



3SE5000-0AW11

High-grade steel actuator¹⁾

- Length 75.6 mm

5

3SE5000-0AW51

1

1 unit

41K



3SE5000-0AW51

- With vertical fixing, length 53 mm

5

3SE5000-0AW52

1

1 unit

41K



3SE5000-0AW52

- With transverse fixing, length 47 mm

5

3SE5000-0AW53

1

1 unit

41K



3SE5000-0AW53

¹⁾ With optimized geometry and suitable for extreme environmental conditions such as -40 °C

SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C

Shock and Vibration Test according to Railway Standard

SIRIUS 3SE5 Mechanical Safety Switches with Tumbler

3SE5, plastic enclosures**Selection and ordering data**

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 × M20 × 1.5 · Locking force 1 300 N

Tumbler ¹⁾	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
	V	d	Article No.	Price per PU			

1 300 N locking force · Enclosure width 54 mm

3SE5322-0SL21-1AJ0

Spring-actuated locks

- With escape release from the front and emergency release from the back
- With auxiliary release

24 DC



5

NEW

5

3SE5322-0SL21-1AJ0

1

1 unit

41K

3SE5322-0SD21-1AJ0

1

1 unit

41K

⤴ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.**Accessories/spare parts**

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Accessories

3SE5000-0AV01

Standard actuator

- Length 75.6 mm

**3SE5000-0AV01**

1

1 unit

41K



3SE5000-0AW51

High-grade steel actuator¹⁾

- Length 75.6 mm

5

3SE5000-0AW51

1

1 unit

41K



3SE5000-0AW52

- With vertical fixing, length 53 mm

NEW

5

3SE5000-0AW52

1

1 unit

41K



3SE5000-0AW53

- With transverse fixing, length 47 mm

5

3SE5000-0AW53

1

1 unit

41K

¹⁾ With optimized geometry and suitable for extreme environmental conditions such as -40 °C

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

General data

Overview

The 3SF1 position switches with safety-related communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be wired up conventionally.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.



Examples of selection options in the modular system

Modular system

The position switches of the 3SF11.4 and 3SF12.4 series are designed as a modular system comprising different versions of the basic switch and an actuator which must be ordered separately. Thanks to the modular design of the switch the end users can select the right solution for their application from numerous versions and install it themselves in a very short time.

Design

The 3SF1 switches are available in four different enclosure sizes:

- Plastic and metal enclosures according to EN 50047, 31 mm wide, with M12 device plug
- Metal enclosures according to EN 50041, 40 mm wide, with M12 device plug
- Plastic enclosures, 50 mm wide, with M12 device plug and M12 socket
- Metal enclosures, 56 mm wide, with M12 device plug and M12 socket

Display

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

Connection

Connection to the AS-Interface is by means of a 4-pole M12 device plug (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) also have an M12 socket for connecting a second position switch. Category 4 according to EN ISO 13849-1 is thus achieved.

Benefits

The new generation of 3SF1 position switches offers:

- ASIsafe electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs
- Can be integrated easily via TIA Portal

Application

With the standard position switches, mechanical positions of moving machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can comply with practically all requirements in industry.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moving machine parts. Dimensions, fixing points and characteristics are largely in accordance with the EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to EN ISO 14119.

Approvals

AS-Interface according to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve Category 2 according to EN ISO 13849-1 or SIL 1 according to IEC 61508.

Categories 3 or 4 according to EN ISO 13849-1 or SIL 2 or 3 according to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved according to UL 508, UL 50 and UL 746-C.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

General data

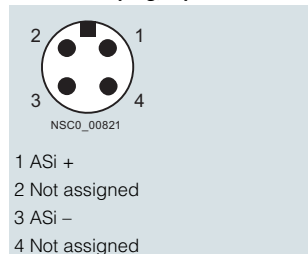
Technical specifications

Type	3SF11..., 3SF12..	
General data		
Standards	IEC/EN 60947-5-1, EN ISO 14119	
According to AS-Interface specification		
• I/O configuration/ID configuration		0/B
• ID1 code/ID2 code (Hex)		F/F
• Power consumption, overall	mA	≤ 60
Inputs		
• Low signal range		Contact open
• High signal range		Contact closed, I_{in} dynamic ($I_{peak} \geq 5$ mA)
Status display		
		Green/red dual LED
Rated impulse withstand voltage U_{imp}	kV	0.6
EMC strength		
• IEC 61000-1-2	kV	4
• IEC 61000-4-3	V/m	10
• IEC 61000-4-4 (A/B)	kV	1/2
Mechanical endurance		
• Basic switch		15 × 10 ⁶ operating cycles
• With separate actuator, 3SF1...-..V..		1 × 10 ⁶ operating cycles
PFH value		
Probability of failure upon request of the safety function, with 1 actuation per hour and B10 = 5 × 10 ⁶		
• Basic switch	1/h	4 × 10 ⁻⁹
• With separate actuator, 3SF1...-..V..	1/h	2 × 10 ⁻⁹
• Hinge switches, 3SF1...-..U..	1/h	2 × 10 ⁻⁹
Shock resistance acc. to IEC 60068-2-27	30 g / 11 ms	

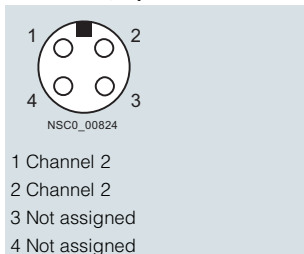
Type		3SF1234	3SF1134	3SF1244	3SF1214	3SF1114	3SF1124
Enclosure							
Enclosure							
• Material		Ultramid A3X2G7			Zinc die casting GD Zn Al4 Cu1		
• Width	mm	31	40	50	31	40	56
• Dimensions according to EN		EN 50047	EN 50041	--	EN 50047	EN 50041	--
Degree of protection acc. to IEC 60529		IP65	IP66/IP67				
Ambient temperature							
• During operation	°C	-25 ... +60					
• Storage, transport	°C	-40 ... +80					
Mounting position		Any					

Pin assignment

M12 device plug, 4-pole



M12 socket, 4-pole



LEDs

Status display (operating state)

LED	No voltage on AS-Interface chip	Communication OK	Communication failed	Slave has address "0"
ASi/Fault (GN/RD)				

Safe inputs

LED	Not actuated	Actuated		
F-IN1 (YE)				
F-IN2 (YE)				

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface


3SF1, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm

Selection and ordering data

Modular system

For the ASIsafe version of the position switch, the basic switch and actuator must be ordered separately.

1 or 2 contacts · 3 LEDs · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · M12 device plug



Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Basic switches (with rounded plunger¹⁾) • Enclosure width 31 mm acc. to EN 50047



With teflon plunger

With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact

Slow-action contacts	2 NC	24 V DC		5
Snap-action contacts	2 NC	24 V DC		5

3SF1234-1KC05-1BA1

1 1 unit 42A

3SF1234-1LC05-1BA1

1 1 unit 42A



3SF1234-1KC05-1BA1

Basic switches (with rounded plunger¹⁾) • Enclosure width 50 mm



With teflon plunger

With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right

Slow-action contacts	1 NC	24 V DC		5
Snap-action contacts	1 NC	24 V DC		5


3SF1244-1KC05-1BA2

1 1 unit 42A

3SF1244-1LC05-1BA2

1 1 unit 42A

3SF1244-1KC05-1BA2

 Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, for use in safety circuits.









¹⁾ For enclosures with widths of 31 mm and 50 mm, the basic switch is a complete unit with rounded plungers.

Note:

For the selection aid, see page 12/11.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

3SF1, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm

Version		Roller diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
		mm	d	Article No.	Price per PU			
Operating mechanisms								
	Roller plungers, type C, acc. to EN 50047							
	Plastic roller	10	↻ 2	3SE5000-0AD03		1	1 unit	41K
	High-grade steel roller	10	↻ 5	3SE5000-0AD04		1	1 unit	41K
3SE5000-0AD03								
	Roller plungers with central fixing							
	Plastic roller	10	↻ 2	3SE5000-0AD10		1	1 unit	41K
	High-grade steel roller	10	↻ 5	3SE5000-0AD11		1	1 unit	41K
3SE5000-0AD10								
	Roller levers, type E, acc. to EN 50047							
	Metal lever, plastic roller	13	↻ 2	3SE5000-0AE10		1	1 unit	41K
	Metal lever, high-grade steel roller	13	↻ 5	3SE5000-0AE11		1	1 unit	41K
	High-grade steel lever, plastic roller	13	↻ 5	3SE5000-0AE12		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	13	↻ 5	3SE5000-0AE13		1	1 unit	41K
3SE5000-0AE10								
	Angular roller levers							
	Metal lever, plastic roller	13	↻ 2	3SE5000-0AF10		1	1 unit	41K
	Metal lever, high-grade steel roller	13	↻ 5	3SE5000-0AF11		1	1 unit	41K
	High-grade steel lever, plastic roller	13	↻ 2	3SE5000-0AF12		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	13	↻ 5	3SE5000-0AF13		1	1 unit	41K
3SE5000-0AF10								
Twist actuators with lever								
	Twist actuators, for 31 mm/50 mm, EN 50047							
	Switching right or left, adjustable		↻ 2	3SE5000-0AK00		1	1 unit	41K
3SE5000-0AK00								
	Levers							
	Twist levers, type A, acc. to EN 50047							
	Metal lever, plastic roller	19	↻ 2	3SE5000-0AA21		1	1 unit	41K
	Metal lever, high-grade steel roller	19	↻ 5	3SE5000-0AA22		1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	↻ 5	3SE5000-0AA23		1	1 unit	41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA25		1	1 unit	41K
	High-grade steel lever, plastic roller	19	↻ 5	3SE5000-0AA31		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	↻ 5	3SE5000-0AA32		1	1 unit	41K
	Twist levers 30 mm, straight ¹⁾							
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA24		1	1 unit	41K
	Metal lever, plastic roller	30	↻ 5	3SE5000-0AA26		1	1 unit	41K
	Twist levers, adjustable length, with grid hole							
	Metal lever, plastic roller	19	↻ 5	3SE5000-0AA60		1	1 unit	41K
	Metal lever, high-grade steel roller	19	↻ 5	3SE5000-0AA61		1	1 unit	41K
	Metal lever, plastic roller	50	↻ 5	3SE5000-0AA67		1	1 unit	41K
	Metal lever, rubber roller	50	↻ 5	3SE5000-0AA68		1	1 unit	41K
	High-grade steel lever, plastic roller	19	↻ 5	3SE5000-0AA62		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	↻ 5	3SE5000-0AA63		1	1 unit	41K
3SE5000-0AA60								

↻ Positively driven actuator, for use in safety circuits.

¹⁾ Can be clinch mounted (turned through 180°, rear of lever).

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface


3SF1, metal enclosures, enclosure width 31 mm according to EN 50047

Selection and ordering data




Modular system

For the ASIsafe version of the position switch, the basic switch and actuator must be ordered separately.

2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 device plug


Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Basic switches (with rounded plunger¹⁾) · Enclosure width 31 mm acc. to EN 50047

	With plunger								
	With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact								
	Slow-action contacts	2 NC	24 V DC		5	3SF1214-1KC05-1BA1	1	1 unit	42A
	Snap-action contacts	2 NC	24 V DC		5	3SF1214-1LC05-1BA1	1	1 unit	42A

3SF1214-1KC05-1BA1

3SF1214-1KC05-1BA1

 Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, for use in safety circuits.










¹⁾ For enclosures with widths of 31 mm, the basic switch is a complete unit with rounded plungers.

Note:

For the selection aid, see page 12/11.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

3SF1, metal enclosures, enclosure width 31 mm according to EN 50047

	Version	Roller diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
		mm	d	Article No.	Price per PU			
Operating mechanisms								
 3SE5000-0AB01	Plain plungers							
	High-grade steel plunger	10	➡ 2	3SE5000-0AB01		1	1 unit	41K
 3SE5000-0AD03	Roller plungers, type C, acc. to EN 50047							
	Plastic roller	10	➡ 2	3SE5000-0AD03		1	1 unit	41K
	High-grade steel roller	10	➡ 5	3SE5000-0AD04		1	1 unit	41K
 3SE5000-0AD10	Roller plungers with central fixing							
	Plastic roller	10	➡ 2	3SE5000-0AD10		1	1 unit	41K
	High-grade steel roller	10	➡ 5	3SE5000-0AD11		1	1 unit	41K
 3SE5000-0AE10	Roller levers, type E, acc. to EN 50047							
	Metal lever, plastic roller	13	➡ 2	3SE5000-0AE10		1	1 unit	41K
	Metal lever, high-grade steel roller	13	➡ 5	3SE5000-0AE11		1	1 unit	41K
	High-grade steel lever, plastic roller	13	➡ 5	3SE5000-0AE12		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	13	➡ 5	3SE5000-0AE13		1	1 unit	41K
 3SE5000-0AF10	Angular roller levers							
	Metal lever, plastic roller	13	➡ 2	3SE5000-0AF10		1	1 unit	41K
	Metal lever, high-grade steel roller	13	➡ 5	3SE5000-0AF11		1	1 unit	41K
	High-grade steel lever, plastic roller	13	➡ 2	3SE5000-0AF12		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	13	➡ 5	3SE5000-0AF13		1	1 unit	41K
Twist actuators with lever								
 3SE5000-0AK00	Twist actuators, for 31 mm/50 mm, EN 50047							
	Switching right or left, adjustable		➡ 2	3SE5000-0AK00		1	1 unit	41K
 3SE5000-0AA21	Levers							
	Twist levers, type A, acc. to EN 50047							
	Metal lever, plastic roller	19	➡ 2	3SE5000-0AA21		1	1 unit	41K
	Metal lever, high-grade steel roller	19	➡ 5	3SE5000-0AA22		1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	➡ 5	3SE5000-0AA23		1	1 unit	41K
	Metal lever, plastic roller	30	➡ 5	3SE5000-0AA25		1	1 unit	41K
	High-grade steel lever, plastic roller	19	➡ 5	3SE5000-0AA31		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	➡ 5	3SE5000-0AA32		1	1 unit	41K
	Twist levers 30 mm, straight ¹⁾							
Metal lever, plastic roller	19	➡ 5	3SE5000-0AA24		1	1 unit	41K	
Metal lever, plastic roller	30	➡ 5	3SE5000-0AA26		1	1 unit	41K	
 3SE5000-0AA60	Twist levers, adjustable length, with grid hole							
	Metal lever, plastic roller	19	➡ 5	3SE5000-0AA60		1	1 unit	41K
	Metal lever, high-grade steel roller	19	➡ 5	3SE5000-0AA61		1	1 unit	41K
	Metal lever, plastic roller	50	➡ 5	3SE5000-0AA67		1	1 unit	41K
	Metal lever, rubber roller	50	➡ 5	3SE5000-0AA68		1	1 unit	41K
	High-grade steel lever, plastic roller	19	➡ 5	3SE5000-0AA62		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	➡ 5	3SE5000-0AA63		1	1 unit	41K

➡ Positively driven actuator, for use in safety circuits.

¹⁾ Can be clinch mounted (turned through 180°, rear of lever).

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface


3SF1, metal enclosures, enclosure width 40 mm according to EN 50041 / 56 mm

Selection and ordering data

Modular system

For the ASIsafe version of the position switch, the basic switch and actuator must be ordered separately.

1 or 2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 device plug

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Basic switches · Enclosure width 40 mm acc. to EN 50041



3SF1114-1KA00-1BA1

With M12 device plug, 4-pole,
channel 1 on NC contact,
channel 2 on NC contact

Slow-action contacts	2 NC	24 V DC	⌚	5
Snap-action contacts	2 NC	24 V DC	⌚	5

3SF1114-1KA00-1BA1

3SF1114-1LA00-1BA1

1 1 unit 42A

1 1 unit 42A

Basic switches · Enclosure width 56 mm



3SF1124-1KA00-1BA2

With M12 device plug, 4-pole,
channel 1 on NC contact,
channel 2 on M12 socket, right

Slow-action contacts	1 NC	24 V DC	⌚	5
Snap-action contacts	1 NC	24 V DC	⌚	5

3SF1124-1KA00-1BA2

3SF1124-1LA00-1BA2


1 1 unit 42A

1 1 unit 42A

⌚ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, for use in safety circuits.

Note:

For the selection aid, see page 12/11.

Version	Roller diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU			

Operating mechanisms



3SE5000-0AB01

Plain plungers

High-grade steel plunger	10	⌚	2
--------------------------	----	---	---

3SE5000-0AB01

1 1 unit 41K



3SE5000-0AC02

Rounded plungers, type B, acc. to EN 50041

High-grade steel plunger, with 3 mm overtravel	10	⌚	5
--	----	---	---

3SE5000-0AC02

1 1 unit 41K



3SE5000-0AD02

Roller plungers, type C, acc. to EN 50041

High-grade steel roller, with 3 mm overtravel	13	⌚	5
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3SE5000-0AD02

1 1 unit 41K

⌚ Positively driven actuator, for use in safety circuits.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

3SF1, metal enclosures, enclosure width 40 mm according to EN 50041 / 56 mm

Version		Roller diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
		mm	d	Article No.	Price per PU			
Operating mechanisms								
 3SE5000-0AE01	Roller levers							
	Metal lever, plastic roller	22	➡ 2	3SE5000-0AE01		1	1 unit	41K
	Metal lever, high-grade steel roller	22	➡ 5	3SE5000-0AE02		1	1 unit	41K
	High-grade steel lever, plastic roller	22	➡ 5	3SE5000-0AE03		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	22	➡ 5	3SE5000-0AE04		1	1 unit	41K
 3SE5000-0AF01	Angular roller levers							
	Metal lever, plastic roller	22	➡ 2	3SE5000-0AF01		1	1 unit	41K
	Metal lever, high-grade steel roller	22	➡ 5	3SE5000-0AF02		1	1 unit	41K
	High-grade steel lever, plastic roller	22	➡ 5	3SE5000-0AF03		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	22	➡ 5	3SE5000-0AF04		1	1 unit	41K
Twist actuators with lever								
 3SE5000-0AH00	Twist actuators, for 40/56/56 XL mm EN 50041							
	• For twist levers, switching right or left, adjustable		➡ 2	3SE5000-0AH00		1	1 unit	41K
	- For enclosure width 40 and 56 mm		➡ 5	3SE5000-0AT10		1	1 unit	41K
 3SE5000-0AA01	Levers							
	Twist levers 27 mm, offset, type A, acc. to EN 50041							
	Metal lever, plastic roller	19	➡ 2	3SE5000-0AA01		1	1 unit	41K
	Metal lever, high-grade steel roller	19	➡ 2	3SE5000-0AA02		1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	➡ 5	3SE5000-0AA03		1	1 unit	41K
	Metal lever, 2 plastic rollers	19	➡ 5	3SE5000-0AA04		1	1 unit	41K
	Metal lever, plastic roller	30	➡ 5	3SE5000-0AA05		1	1 unit	41K
	Metal lever, plastic roller	50	➡ 5	3SE5000-0AA07		1	1 unit	41K
	Metal lever, rubber roller	50	➡ 5	3SE5000-0AA08		1	1 unit	41K
	High-grade steel lever, plastic roller	19	➡ 5	3SE5000-0AA11		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	➡ 5	3SE5000-0AA12		1	1 unit	41K
	Twist levers 35 mm, offset							
	Metal lever, plastic roller	19	➡ 5	3SE5000-0AA15		1	1 unit	41K
	High-grade steel lever, plastic roller	19	➡ 5	3SE5000-0AA16		1	1 unit	41K
Twist levers 30 mm, straight ¹⁾								
Metal lever, plastic roller	19	➡ 5	3SE5000-0AA24		1	1 unit	41K	
Metal lever, plastic roller	30	➡ 5	3SE5000-0AA26		1	1 unit	41K	
 3SE5000-0AA60	Twist levers, adjustable length, with grid hole							
	Metal lever, plastic roller	19	➡ 5	3SE5000-0AA60		1	1 unit	41K
	Metal lever, high-grade steel roller	19	➡ 5	3SE5000-0AA61		1	1 unit	41K
	Metal lever, plastic roller	50	➡ 5	3SE5000-0AA67		1	1 unit	41K
	Metal lever, rubber roller	50	➡ 5	3SE5000-0AA68		1	1 unit	41K
	High-grade steel lever, plastic roller	19	➡ 5	3SE5000-0AA62		1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	➡ 5	3SE5000-0AA63		1	1 unit	41K
 3SE5000-0AT01	Fork levers (for switches with snap-action contacts only)							
	Metal lever, 2 plastic rollers	19	➡ 5	3SE5000-0AT01		1	1 unit	41K
	Metal lever, 2 high-grade steel rollers	19	➡ 5	3SE5000-0AT02		1	1 unit	41K
	High-grade steel lever, 2 plastic rollers	19	➡ 5	3SE5000-0AT03		1	1 unit	41K
	High-grade steel lever, 2 high-grade steel rollers	19	➡ 5	3SE5000-0AT04		1	1 unit	41K

→ Positively driven actuator, for use in safety circuits.

¹⁾ Can be clinch mounted (turned through 180°, rear of lever).

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface With Separate Actuator

General data

Overview

The 3SF1 safety switches with safety-related communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be wired up conventionally.

With the 3SF1 safety switches the ASIsafe electronics are integrated in the switch enclosure.



3SF1 safety switches with head for separate actuator and with integrated ASIsafe electronics

3SF1 safety switches with separate actuator have the same enclosures as the 3SF1 position switches.

Operation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through $4 \times 90^\circ$. The switches can also be approached from above.

The actuators are not included in the scope of supply of the safety switch and must be ordered separately from a choice of different versions to suit the application (see page 12/94).

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety.

A rubber cap to protect the actuator head from contamination is available for operation in dusty environments.

Display

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-I/FAULT

Connection

Connection to the AS-Interface is by means of a 4-pole M12 device plug (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) also have an M12 socket for connecting a second safety switch. Category 4 according to EN ISO 13849-1 is thus achieved.

Benefits

The new generation of 3SF1 safety switches with separate actuator offers

- ASIsafe electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs

Application

Safety switches with separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons.

The safety switch can only be operated with the matching coded actuator. Simple overruling by hand or auxiliary devices is impossible.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. Dimensions and fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to EN ISO 14119.

Approvals

AS-Interface according to EN 50295 and IEC 62026-2.

With a 3SF1 safety switch it is possible to achieve Category 3 according to EN ISO 13849-1 or SIL 2 according to IEC 61508.

Category 4 according to EN ISO 13849-1 or SIL 3 according to IEC 61508 can be achieved by using an additional 3SE5 safety switch.

The 3SF1 safety switches are approved according to UL 508, UL 50 and UL 746-C.



SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface With Separate Actuator

3SF1, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm

Overview

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC;
1: F-IN1, 2: F-IN2, 3: AS-i/FAULT
- Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm)

Selection and ordering data

Version ¹⁾	Contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
Enclosure width 31 mm according to EN 50047						
 3SF1234-1QV40-1BA1	5 directions of approach					
	With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact					
	Slow-action contacts	2 NC	⤵ 5	3SF1234-1QV40-1BA1	1	1 unit 42A
Enclosure width 50 mm						
 3SF1244-1QV40-1BA2	5 directions of approach					
	With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right					
	Slow-action contacts	1 NC	⤵ 5	3SF1244-1QV40-1BA2	1	1 unit 42A

⤵ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/94).




SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface With Separate Actuator

3SF1, metal enclosures, enclosure width 31 mm according to EN 50047 / 40 mm according to EN 50041 / 56 mm

Overview

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC;
1: F-IN1, 2: F-IN2, 3: AS-i/FAULT
- Degree of protection IP66/IP67

Selection and ordering data

Version ¹⁾	Contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU		
Enclosure width 31 mm acc. to EN 50047						
	5 directions of approach With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC ⤵ 5	3SF1214-1QV40-1BA1	1	1 unit	42A
3SF1214-1QV40-1BA1						
Enclosure width 40 mm acc. to EN 50041						
	5 directions of approach With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC ⤵ 5	3SF1114-1QV10-1BA1	1	1 unit	42A
3SF1114-1QV10-1BA1						
Enclosure width 56 mm						
	5 directions of approach With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right Slow-action contacts	1 NC ⤵ 5	3SF1124-1QV10-1BA2	1	1 unit	42A
3SF1124-1QV10-1BA2						

⤵ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 12/94).

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

With Separate Actuator

Accessories

Selection and ordering data

	Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					
Actuators							
 3SE5000-0AV01	Standard actuator						
	• Length 75.6 mm	►	3SE5000-0AV01		1	1 unit	41K
	• With vertical fixing, length 53 mm	5	3SE5000-0AV02		1	1 unit	41K
	• With transverse fixing, length 47 mm	5	3SE5000-0AV03		1	1 unit	41K
 3SE5000-0AV02							
 3SE5000-0AV03							
 3SE5000-0AW11	• With transverse fixing, plastic ¹⁾ , length 40 mm	5	3SE5000-0AW11		1	1 unit	41K
Radius actuators							
 3SE5000-0AV04	• Length 51 mm, direction of approach from the left	2	3SE5000-0AV04		1	1 unit	41K
	• Length 51 mm, direction of approach from the right	5	3SE5000-0AV06		1	1 unit	41K
 3SE5000-0AV06							
 3SE5000-0AV05-1AA6	Universal radius actuator						
	• Length 77 mm	5	3SE5000-0AV05		1	1 unit	41K
	• Length 77 mm, tab rotated 90°	5	3SE5000-0AV05-1AA6		1	1 unit	41K
Universal radius actuator, heavy duty							
 3SE5000-0AV07	• Length 67 mm	2	3SE5000-0AV07-1AK2		1	1 unit	41K
	• Length 77 mm	5	3SE5000-0AV07		1	1 unit	41K
Optional accessories							
 3SE5000-0AV08-1AA2	Protective caps , black rubber For the actuator head, to protect the actuator openings from contamination (Only for enclosure width 40 mm or 56 mm)	5	3SE5000-0AV08-1AA2		1	1 unit	41K
 3SE5000-0AV08-1AA3	Blocking inserts , high-grade steel, for actuator head For up to eight padlocks	5	3SE5000-0AV08-1AA3		1	1 unit	41K

¹⁾ Not suitable for safety switches with tumbler.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface With Tumbler

General data

Overview

The 3SF1 safety switches with safety-related communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be wired up conventionally.

With the 3SF1 safety switches the ASIsafe electronics are integrated in the switch enclosure.



3SF1 safety switch with tumbler and with integrated ASIsafe electronics

Operation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through $4 \times 90^\circ$. The switches can also be approached from above.

The actuators are not included in the scope of supply of the safety switch and must be ordered separately from a choice of different versions to suit the application (see page 12/94).

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety.

A rubber cap to protect the actuator entry of the actuator head from contamination is available for operation of the enclosures in dusty environments.

Tumbler

There are two versions for interlocking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Solenoid-locked (open-circuit principle)

For more explanations, see page 12/57.

Display

The switches have a status display with four LEDs:

- LED 1 (green): AS-i
- LED 2 (red): FAULT
- LED 3 (yellow): F-IN1
- LED 4 (yellow): F-IN2

Connection

Connection to the AS-Interface is by means of a 4-pole M12 device plug (plastic version) connected to the yellow AS-Interface bus cable (no additional supply of auxiliary power is required thanks to the low current consumption of the solenoid of max. 170 mA).

Benefits

The new generation of 3SF13 safety switches with tumbler offers:

- More safety through higher locking forces:
 - 1 300 N for the plastic version
 - 2 600 N for the metal version
- Various release mechanisms: lock release, escape release and emergency release
- ASIsafe electronics integrated in the enclosure; connected through 4-pole M12 device plug
- Current consumption of the solenoid no more than 170 mA
- Two contact blocks as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure versions: plastic, metal
- An extensive range of actuators
- Status display with four LEDs
- 3SF1324-1S.21-1BK4 series with high degree of protection IP69K, IP69 in accordance with IEC 60529, cover with foamed seal

Application

The safety switches with tumbler are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the switched-off machine).

The safety switches with tumbler have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and tumbler

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to EN ISO 14119.

Approvals

AS-Interface according to EN 50295 and IEC 62026-2

The switches are approved for use with locking devices according to EN ISO 14119 and EN 292, Parts 1 and 2.

3SF13 safety switches with tumbler have a VDE test mark.

With a 3SF13 safety switch with tumbler it is possible to achieve Category 3 according to EN ISO 13849-1 or SIL 2 according to IEC 61508.

Category 4 according to EN ISO 13849-1 or SIL 3 according to IEC 61508 can be achieved by using an additional 3SE5 safety switch.

The 3SF1 safety switches are approved according to UL 508, UL 50 and UL 746-C.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

With Tumbler

3SF1, plastic enclosures with locking force greater than 1 200 N

Overview

Versions

- 1BA1: ASIsafe channel 1 on 1 NC contact from the actuator, and channel 2 on 1 NC contact from the solenoid
- 1BA3: ASIsafe channel 1 on the first NC contact from the actuator and channel 2 on the second NC contact from the actuator
- 1BA4: ASIsafe channel 1 on 2 NC contacts (two-channel) from the actuator, and channel 2 on 1 NC contact from the solenoid. The position switch transfers the information of actuators to a transfer channel because the discrepancy of the two actuator contacts is already evaluated in the switch.

The 3SF1324-1S.21-1BA4 safety switches are also recommended where there are several protective door tumblers and reliable diagnostics and quick restart capability of equipment is required.

- A response is received from the solenoid.
- No opening of the doors required after the solenoid is unlocked.

In connection with an ASIsafe MSS modular safety system or an ET 200SP F-CM AS-i Safety ST module, it is possible to achieve SIL 2 according to IEC 61508 or PL d according to ISO 13849-1. They comply with the standard EN ISO 14119. A TÜV certificate is available.

Features:





- Slow-action contacts
- 5 directions of approach
- Solenoid: Rated operational voltage 24 V DC
- 1 300 N locking force
- Degree of protection IP66/IP67 (IP69K)
- Status display with 4 LEDs 24 V DC;
1: AS-i, 2: FAULT, 3: F-IN1, 4: F-IN2

Comparison of versions

Safety switches	Contacts	Achievable safety level	Diagnostics	Reclosing condition after unlocking the solenoid (depending on the type of evaluation)
Type	Actuator/solenoid		Feedback from the solenoid	
3SF1324-1S.21-1BA1	1 NC/1 NC	SIL 1/PL c	✓	Door does <u>not</u> have to be opened
	1 NC/1 NC	SIL 2/PL d	✓	Door must be opened
3SF1324-1S.21-1BA3	2 NC/--	SIL 2/PL d	--	Door does <u>not</u> have to be opened
3SF1324-1S.21-1BA4	2 NC/1 NC	SIL 2/PL d	✓	Door does <u>not</u> have to be opened
3SF1324-1S.21-1BK4 (IP69K)	2 NC/1 NC	SIL 2/PL d	✓	Door does <u>not</u> have to be opened

✓ Available -- Not available

Selection and ordering data

Tumbler ¹⁾	Contacts Actuator/ solenoid	SD	Complete units	PU (UNIT, SET, M)	PS*	PG	
		d	Article No.	Price per PU			
1 300 N locking force · Enclosure width 54 mm							
	Spring-actuated locks						
	• With auxiliary release	1 NC/1 NC	⊕ 5	3SF1324-1SD21-1BA1	1	1 unit	42A
		2 NC/--	⊕ 5	3SF1324-1SD21-1BA3	1	1 unit	42A
		2 NC/1 NC	⊕ 5	3SF1324-1SD21-1BA4	1	1 unit	42A
		2 NC/1 NC	⊕ 5	3SF1324-1SD21-1BK4	1	1 unit	42A
- Degree of protection IP69 acc. to 60529; IP69K acc. to DIN 40050							
	• With auxiliary release with lock	1 NC/1 NC	⊕ 5	3SF1324-1SE21-1BA1	1	1 unit	42A
	• With escape release from the front	1 NC/1 NC	⊕ 5	3SF1324-1SF21-1BA1	1	1 unit	42A
		2 NC/1 NC	⊕ 5	3SF1324-1SF21-1BA4	1	1 unit	42A
		2 NC/1 NC	⊕ 5	3SF1324-1SF21-1BK4	1	1 unit	42A
		2 NC/1 NC	⊕ 5	3SF1324-1SG21-1BA1	1	1 unit	42A
- Degree of protection IP69 acc. to 60529; IP69K acc. to DIN 40050							
	• With escape release from the back and auxiliary release from the front	1 NC/1 NC	⊕ 5	3SF1324-1SG21-1BA1	1	1 unit	42A
	• With emergency release from the back and auxiliary release from the front	2 NC/1 NC	⊕ 5	3SF1324-1SG21-1BA4	1	1 unit	42A
		2 NC/1 NC	⊕ 5	3SF1324-1SG21-1BK4	1	1 unit	42A
		1 NC/1 NC	⊕ 5	3SF1324-1SJ21-1BA1	1	1 unit	42A
		1 NC/1 NC	⊕ 5	3SF1324-1SB21-1BA1	1	1 unit	42A
Solenoid-locked							
	2 NC/--	⊕ 5	3SF1324-1SB21-1BA3	1	1 unit	42A	

⊕ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.
For actuators and optional accessories, see page 12/62.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface With Tumbler

3SF1, metal enclosures with locking force greater than 2 000 N

Overview

Version

- 1BA1: ASIsafe channel 1 on 1 NC contact from the actuator, and channel 2 on 1 NC contact from the solenoid

Features




- Slow-action contacts
- Solenoid: Rated operational voltage 24 V DC
- 2 600 N locking force
- Degree of protection IP66/IP67
- Status display with 4 LEDs 24 V DC;
1: AS-i, 2: FAULT, 3: F-IN1, 4: F-IN2

Comparison of versions

Safety switches	Contacts	Achievable safety level	Diagnostics	Reclosing condition after unlocking the solenoid (depending on the type of evaluation)
Type	Actuator/solenoid		Feedback from the solenoid	
3SF1314-1S.11-1BA1	1 NC/1 NC	SIL 1/PL c	✓	Door does <u>not</u> have to be opened

✓ Available

Selection and ordering data

Tumbler ¹⁾	Contacts Actuator/solenoid	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU		
2 600 N locking force · Enclosure width 54 mm						
	Spring-actuated locks					
	• With auxiliary release	1 NC/1 NC	↻ 5	3SF1314-1SD11-1BA1	1	1 unit 42A
	• With auxiliary release with lock	1 NC/1 NC	↻ 5	3SF1314-1SE11-1BA1	1	1 unit 42A
3SF1314-1SD11-1BA1						
	• With escape release from the front	1 NC/1 NC	↻ 5	3SF1314-1SF11-1BA1	1	1 unit 42A
	• With escape release from the back and auxiliary release from the front	1 NC/1 NC	↻ 5	3SF1314-1SG11-1BA1	1	1 unit 42A
	• With escape release from the back and auxiliary release with lock from the front	1 NC/1 NC	↻ 5	3SF1314-1SH11-1BA1	1	1 unit 42A
	• With emergency release from the back and auxiliary release from the front	1 NC/1 NC	↻ 5	3SF1314-1SJ11-1BA1	1	1 unit 42A
3SF1314-1SF11-1BA1						
	Solenoid-locked	1 NC/1 NC	↻ 5	3SF1314-1SB11-1BA1	1	1 unit 42A
3SF1314-1SB11-1BA1						

↻ Positive opening according to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.

For actuators and optional accessories, see page 12/62.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

Safety Hinge Switches

3SF1, plastic enclosures, enclosure width 31 mm according to EN 50047 / 50 mm

Overview

The 3SF1 safety hinge switches with safety-related communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be wired up conventionally.

With the 3SF1 hinge switches the ASIsafe electronics are integrated in the switch enclosure.

The hinge switches are provided for mounting on hinges.

There are two actuator variants here:

- Hollow shaft, inner diameter 8 mm, outer 12 mm
- Solid shaft, diameter 10 mm





For the ASIsafe version of the hinge switch, the basic switch and actuator head must be ordered separately. The basic switches correspond to the 3SF1 position switches (use only versions with snap-action contacts).

The provisions and approvals are the same as for the 3SF1 standard switches ([see page 12/83](#)).

Selection and ordering data

Modular system

1 or 2 contacts · 3 LEDs · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · M12 device plug

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches · Enclosure width 31 mm acc. to EN 50047							
	With Teflon plunger, with M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact						
	Snap-action contacts	2 NC	24 V DC	5	3SF1234-1LC05-1BA1	1	1 unit 42A
Basic switches · Enclosure width 50 mm							
	With Teflon plunger, with M12 device plug, 4-pole channel 1 on NC contact, channel 2 on M12 socket, right						
	Snap-action contacts	1 NC	24 V DC	5	3SF1244-1LC05-1BA2	1	1 unit 42A
Actuator heads							
	With hollow shaft						
	Operating angle 10°		5	3SE5000-0AU21	1	1 unit 41K	
	With solid shaft						
	Operating angle 10°		5	3SE5000-0AU22	1	1 unit 41K	

➞ Positive opening according to IEC 60947-5-1, Appendix K.

SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

Safety Hinge Switches

3SF1, metal enclosures, enclosure width 31 mm according to EN 50047 / 40 mm according to EN 50041 / 56 mm

Overview

The 3SF1 safety hinge switches with safety-related communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be wired up conventionally.

With the 3SF1 hinge switches the ASIsafe electronics are integrated in the switch enclosure.

The hinge switches are provided for mounting on hinges.

There are two actuator variants here:

- Hollow shaft, inner diameter 8 mm, outer 12 mm
- Solid shaft, diameter 10 mm






For the ASIsafe version of the hinge switch, the basic switch and actuator head must be ordered separately. The basic switches correspond to the 3SF1 position switches (use only versions with snap-action contacts).

The provisions and approvals are the same as for the 3SF1 standard switches ([see page 12/83](#)).

Selection and ordering data

Modular system

1 or 2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 device plug

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
Basic switches · Enclosure width 31 mm acc. to EN 50047							
	With plunger With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact Snap-action contacts	2 NC	24 V DC	5	3SF1214-1LC05-1BA1	1	1 unit 42A
Basic switches · Enclosure width 40 mm acc. to EN 50041							
	With M12 device plug , 4-pole, channel 1 on NC contact, channel 2 on NC contact Snap-action contacts	2 NC	24 V DC	5	3SF1114-1LA00-1BA1	1	1 unit 42A
Basic switches · Enclosure width 56 mm							
	With M12 device plug , 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right Snap-action contacts	1 NC	24 V DC	5	3SF1124-1LA00-1BA2	1	1 unit 42A
Actuator heads							
	Hollow shaft Operating angle 10°			5	3SE5000-0AU21	1	1 unit 41K
	Solid shaft Operating angle 10°			5	3SE5000-0AU22	1	1 unit 41K

➞ Positive opening according to IEC 60947-5-1, Appendix K.

SIRIUS 3SE6 Non-Contact Safety Switches

Magnet

3SE66, 3SE67 magnetically operated switches

Overview



3SE66 contact blocks and 3SE67 switching magnets

A magnetically operated switch comprises a coded switching magnet and a contact block (sensor unit). The switch must be connected to a safety relay, e.g. SIRIUS 3SK1, or a bus system, e.g. SIMATIC ET 200SP, for evaluation. The switches use reed contacts as mechanical contacts. The status of the contacts is monitored using an evaluation unit.



3SE66 contact blocks and 3SE67 switching magnets, supplementary range in new design

Safety relays

3SK safety relays can be used worldwide since they possess all the required certification. Since they satisfy the most exacting safety requirements, they are suitable for all kinds of safety applications.

The following can be selected:

- 3SK1 Standard basic units: simple and compact to satisfy all the essential requirements of safety sensor monitoring systems
- 3SK1 Advanced basic units: multifunctional series with relay enabling circuits, semiconductor outputs or time-delay outputs
- 3SK2 basic units: multifunctional series whose functionality is parameterized using software. The basic units have solid-state outputs. Relay outputs from the 3SK1 portfolio can also be connected via device connectors.
- Expansion units for inputs and outputs

The 3SE6806 safety relay is also available with two floating enabling circuits (safe circuits) as NO contact circuits and one floating signaling circuit as an NC contact circuit.

Benefits

Standard range

- Non-contact round, rectangular, small (25 mm x 33 mm) and larger (25 mm x 88 mm) versions
- Small, compact, safe
- Simple mounting with alignment of sensor and actuator, and concealed installation also easy
- Suitable for restricted spaces

Supplementary range

- New design for rectangular shape
- More functionality
- Greater switching intervals and a larger horizontal or vertical displacement
- Various mounting positions possible (e.g. at 90° offset)
- SIL 3 and PL e diagnostics possible because there are two safety contacts and one signaling contact
- LED variant
- Fast connection possible using plug-in variants

SIRIUS 3SE6 Non-Contact Safety Switches Magnet

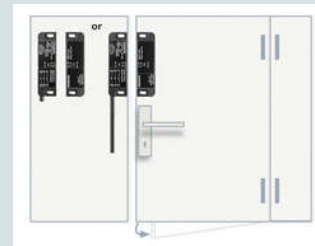
3SE66, 3SE67 magnetically operated switches

Application

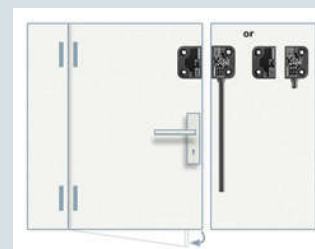
SIRIUS 3SE6 magnetically operated switches are designed for mounting on movable protective guards (hoods, hinged covers, doors, etc.). Evaluation can be performed by means of a safety relay or through connection to a bus system.

The 3SE66 non-contact, magnetically operated safety switches stand out due to their enclosed design with degree of protection IP67. Since they are coded, they do not have to be concealed when installed. They are particularly suitable therefore for areas exposed to contamination, cleaning or disinfecting.

A magnetic monitoring system comprises one or more magnetically operated switches and an evaluation unit, e.g. a safety relay. When contact blocks 1 NO + 1 NC (+ 1 NC signaling contact) or 2 NC (+ 1 NC signaling contact) are used, the 3SK safety relay, for example, provides a high degree of protection against manipulation and can be installed in safety circuits up to SIL 3 according to IEC 62061 and PL e according to EN ISO 13849-1.



Non-contact safety magnetically operated switches (with plug or cable) for right-hinged door



Non-contact safety magnetically operated switches (with plug or cable) for left-hinged door

SIRIUS 3SE6 Non-Contact Safety Switches

Magnet

3SE66, 3SE67 magnetically operated switches

Combination of monitoring units and magnetically operated switches

Monitoring units		Magnetically operated switches (contact block + switching magnet)			Achievable SIL (IEC 61508, IEC 62061) Performance Level (EN ISO 13849-1)
		1 NO + 1 NC 3SE6605-..BA..  3SE6704-..BA	2 NC 3SE6604-2BA.. 1 NO + 2 NC 3SE6606-2BA04  3SE6704-2BA	--	
		1 NO + 1 NC (+ 1 NC signaling contact) 3SE6616-3CA01 3SE6626-3CA01  3SE6714-3CA 3SE6724-3CA	2 NC; 2 NC (+ 1 NC signaling contact) 3SE6614-4CA01 3SE6624-4CA01 3SE6617-2CA01 3SE6627-2CA01 3SE6617-2CA04 3SE6627-2CA04  3SE6714-2CA 3SE6724-2CA	2 NC (+ 1 NC signaling contact) 3SE6617-3CA01 3SE6627-3CA01 3SE6617-3CA04 3SE6627-3CA04  3SE6714-3CA 3SE6724-3CA	
Relay output					
SIRIUS safety relays	3SK1121, 3TK2826 	✓	✓	✓	SIL 3/PL e
Solid-state outputs					
SIRIUS safety relays	3SK1112, 3SK1122 	--/✓	✓	✓	SIL 3/PL e
	3SK2112, 3SK2122 	✓	✓	✓	SIL 3/PL e
ASIsafe compact safety modules	3RK1205, 3RK1405 	--	✓	✓	SIL 3/PL e
Modular Safety System (MSS)	3RK3 	✓	✓	✓	SIL 3/PL e
SIMATIC S7-1200F	F-DI 16 x 24 V DC	✓	✓	✓	SIL 3/PL e
SIMATIC ET 200SP PROFIsafe	4/8 F-DI, 24 V DC	✓	✓	✓	SIL 3/PL e
SIMATIC ET 200eco	4/8 F-DI, 24 V DC	✓	✓	✓	SIL 3/PL e
SIMATIC ET 200pro	8/16 F-DI, 24 V DC, 4/8 F-DI/4 F-DQ 2 A, 24 V DC, F-Switch	✓	✓	✓	SIL 3/PL e
SIMATIC ET 200SP	8F-DI, 24 V DC F-PM-E 24 V DC	✓	✓	✓	SIL 3/PL e
SIMATIC ET 200MP	16 F-DI, 24 V DC	✓	✓	✓	SIL 3/PL e

✓ Suitable magnetically operated switch

-- Not available

SIRIUS 3SE6 Non-Contact Safety Switches

Magnet

3SE66, 3SE67 magnetically operated switches

Selection and ordering data

Version	Size	Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm		d					
Standard range – Round sensor units								
 3SE6704-1BA	Switching magnet (coded)	M30	--	2	3SE6704-1BA	1	1 unit	41K
	Contact blocks							
 3SE6505-1BA	• With cable 3 m	M30	1 NO + 1 NC	2	3SE6605-1BA	1	1 unit	41K
	• With M12 plug, 4-pole	M30	1 NO + 1 NC	2	3SE6605-1BA02	1	1 unit	41K
Standard range – Rectangular sensor units								
 3SE6704-2BA	Switching magnet (coded)	25 × 88	--	2	3SE6704-2BA	1	1 unit	41K
	Contact blocks							
 3SE660-2BA	• With cable 3 m	25 × 88	1 NO + 1 NC 2 NC	2 2	3SE6605-2BA 3SE6604-2BA	1 1	1 unit 1 unit	41K 41K
			1 NO + 2 NC	10	3SE6606-2BA04	1	1 unit	41K
	• With cable 10 m	25 × 88	1 NO + 1 NC 2 NC	5 2	3SE6605-2BA10 3SE6604-2BA10	1 1	1 unit 1 unit	41K 41K
	• With M8 plug, 4-pole	25 × 88	1 NO + 1 NC 2 NC	2 2	3SE6605-2BA01 3SE6604-2BA01	1 1	1 unit 1 unit	41K 41K
	Switching magnet (coded)	25 × 33	--	2	3SE6704-3BA	1	1 unit	41K
	Contact blocks							
 3SE660-3BA	• With cable 3 m	25 × 33	1 NO + 1 NC	2	3SE6605-3BA	1	1 unit	41K
	• With cable 5 m			2	3SE6605-3BA05	1	1 unit	41K
	• With cable 10 m			2	3SE6605-3BA10	1	1 unit	41K
Supplementary range in new design – Rectangular sensor units for left-hinged door								
 3SE6714-2CA	Switching magnets (coded)	25 × 88	--	5	3SE6714-2CA	1	1 unit	41K
	• Same level			5	3SE6724-2CA	1	1 unit	41K
 3SE6614-4CA01	Contact blocks							
	• With M8 plug, 4-pole, with LED	25 × 88	2 NC	5	3SE6614-4CA01	1	1 unit	41K
	• 8 mm Ø, latching connection, plug, 6-pole		2 NC + 1 NC ¹⁾	5	3SE6617-2CA01	1	1 unit	41K
 3SE6714-3CA	• With cable 3 m		2 NC + 1 NC ¹⁾	5	3SE6617-2CA04	1	1 unit	41K
	Switching magnets (coded)							
 3SE6616-3CA01	• Same level	26 × 36	--	5	3SE6714-3CA	1	1 unit	41K
	• 90° offset			5	3SE6724-3CA	1	1 unit	41K
 3SE6616-3CA01	Contact blocks							
	• 8 mm Ø, latching connection, plug, 6-pole	26 × 36	1 NO + 1 NC + 1 NC ¹⁾	5	3SE6616-3CA01	1	1 unit	41K
	• With cable 3 m		2 NC + 1 NC ¹⁾ 2 NC + 1 NC ¹⁾	5 5	3SE6617-3CA01 3SE6617-3CA04	1 1	1 unit 1 unit	41K 41K

¹⁾ The NC is a signaling contact, not a safety contact.

SIRIUS 3SE6 Non-Contact Safety Switches

Magnet

3SE66, 3SE67 magnetically operated switches

Version	Size	Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm		d					
Supplementary range in new design – Rectangular sensor units for right-hinged door								
	Switching magnets (coded)							
	• Same level	25 x 88	--	5	3SE6714-2CA	1	1 unit	41K
	• 90° offset			5	3SE6724-2CA	1	1 unit	41K
	Contact blocks							
	• With M8 plug, 4-pole, with LED	25 x 88	2 NC	5	3SE6624-4CA01	1	1 unit	41K
	• 8 mm Ø, latching connection, plug, 6-pole		2 NC + 1 NC ¹⁾	5	3SE6627-2CA01	1	1 unit	41K
	• With cable 3 m		2 NC + 1 NC ¹⁾	5	3SE6627-2CA04	1	1 unit	41K
	Switching magnets (coded)							
	• Same level	26 x 36	--	5	3SE6714-3CA	1	1 unit	41K
	• 90° offset			5	3SE6724-3CA	1	1 unit	41K
	Contact blocks							
	• 8 mm Ø, latching connection, plug, 6-pole	26 x 36	1 NO + 1 NC + 1 NC ¹⁾	5	3SE6626-3CA01	1	1 unit	41K
			2 NC + 1 NC ¹⁾	5	3SE6627-3CA01	1	1 unit	41K
	• With cable 3 m		2 NC + 1 NC ¹⁾	5	3SE6627-3CA04	1	1 unit	41K
Accessories for standard range								
	Spacer							
		25 x 88	--	2	3SX3260	1	1 unit	41K
		25 x 33	--	5	3SX3261	1	1 unit	41K
Coupling								
	With connecting cable, 5 m							
	• With M8 socket, 4-pole		--	5	3SX5601-3GA05	1	1 unit	41K
Accessories for supplementary range in new design								
	Spacer							
		25 x 88	--	5	3SX5600-2GA01	1	1 unit	41K
		26 x 36	--	5	3SX5600-2GA02	1	1 unit	41K
Coupling								
	With connecting cable, 5 m							
	• With M8 socket, 4-pole		--	5	3SX5601-3GA05	1	1 unit	41K
	• With 8 mm Ø socket, 8 mm, latching connection, 6-pole		--	5	3SX5601-4GA05	1	1 unit	41K

¹⁾ The second NC is a signaling contact, not a safety contact.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

SIRIUS 3SE6 Non-Contact Safety Switches

Magnet

3SE66, 3SE67 magnetically operated switches

Version	Rated control voltage	Number of sensors	Enabling/signaling circuits	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									

Monitoring units

3SK1 safety relays

Standard or Advanced basic units

With relay output	24 V DC	6 ¹⁾	3 NO/1 NC	▶	3SK1121-1AB40		1	1 unit	41L
With semiconductor output	24 V DC	1	2 x F-DQ/ 1 QM	2	3SK1112-1BB40		1	1 unit	41L



3SK1121-1AB40

3SK2 safety relays

Basic units

With semiconductor output	24 V DC	5	2 x F-DQ/ 1 QM	2	3SK2112-1AA10		1	1 unit	41L
		10	4 x F-DQ/ 2 QM	2	3SK2122-1AA10		1	1 unit	41L



3SK2112-1AA10

¹⁾ Only when up to 5 3SK1220 expansion units are used, [see page 11/23](#).

For more monitoring units, [see pages 2/1, 8/1, 9/1 and 11/1](#), as well as [Catalog IK PI](#).

SIRIUS 3SE6 Non-Contact Safety Switches RFID

3SE63 RFID safety switches

Overview



Non-contact RFID safety switches with maximum tamper resistance

RFID 3SE63 non-contact safety switches comply with the highest safety requirements, SIL 3 or Cat. 4, for monitoring the positions of movable protective devices.

An RFID safety switch consists of a coded RFID switch with an 8-pole M12 connection plug and an identical RFID actuator.

The switch is available in several versions:

- Family coded with M12 plug or with additional 18 N magnetic catch as an option
- Individually coded, programmable once, with M12 plug or with additional 18 N magnetic catch as an option
- Individually coded, programmable more than once (an unlimited number of times), with M12 plug or variant with additional 18 N magnetic catch

The actuator is therefore available in two versions:

- Standard
- With 18 N magnetic catch

The magnetic catch keeps doors and hinge switches closed with permanent magnets.

Mounting and maintenance

Various options for mounting save on enclosure variants:

- Mounting of the switch on the right or left side
- The actuator can be mounted on all sides

Quick and easy mounting thanks to universal mounting holes:

- Standard gauge/holes for 3SE6 magnetically operated switches
- Fine adjustment thanks to slotted holes

Little adjustment or maintenance required:

- Threshold indication by LED display on the switch for quick and easy adjustment during mounting and maintenance
- Molded switch allows it to be used as an end stop for small and medium-sized doors

Note:

- Keep metal parts and cuttings away from the vicinity of the switch
- Minimum distance between two switches 100 mm

Optional accessories (mounting)

- Covers for sealing mounting holes, also suitable for tamper-proofing screw fixings
- Spacers (approx. 3 mm high) to facilitate cleaning under the installation surface when using high-pressure cleaners, for example

Coding

Family coded

These safety switches are delivered ready to use, i. e. no programming is necessary.

Individually coded, programmable once

The assignment of safety switch and actuator thus created is irreversible.

The actuator is programmed simply by routine during startup, thus permanently preventing any form of tampering by means of a replacement actuator.

Individually coded, programmable several times

The procedure for programming a new actuator can be repeated an unlimited number of times. When a new actuator is programmed the previous code becomes invalid. A protected coding process allows new actuators to be programmed for service purposes.

After this, a ten-minute lockout provides increased tamper protection. The green LED flashes until the lockout time has ended and the new actuator has been detected. If the operational voltage is interrupted during this time, the ten-minute guard time is restarted.

Programming procedure for individual coding

1. Apply operational voltage to safety sensor
2. Move actuator into detection range:
red LED lights up, yellow LED flashes (1 Hz)
3. After 10 s it changes to a shorter flashing frequency (3 Hz). In this state switch off operational voltage.
4. After the next time the operational voltage is switched on, the actuator is detected again to activate the programmed actuator code. The activated code is thus stored permanently.

Diagnostics

The RFID safety switch indicates its operating state including faults by means of the LED indicator in the switch and the short-circuit proof diagnostics output. The signals can then be used for central displays or non-safety-related control tasks.

There are the following diagnostics functions:

- Crossover monitoring
- Open-circuit monitoring
- External voltage monitoring
- Ambient temperature too high
- Wrong or defective actuator
- Switching interval threshold identification with LED display

The signal combination "diagnostics output switched off" and "safety outputs still switched on" can be used to move the machine into a controlled stop position.

Any crossover or a fault that is not currently compromising the safe function of a safety switch results in the disconnection of the safety channels after a 30-minute delay. However, the diagnostics output switches off instantaneously.

SIRIUS 3SE6 Non-Contact Safety Switches

RFID

3SE63 RFID safety switches

Mode of operation of the diagnostics LEDs

The safety switch indicates not only its operating state, but also faults by means of LEDs in three colors at the ends of the RFID switch.

- The green LED indicates readiness for operation when the control supply voltage is connected.
- The yellow LED indicates that there is an actuator in detection range. If the actuator is in the switching interval threshold, this is indicated by flashing. This flashing can be used to identify a change in the distance between sensor and actuator at an early stage (e.g. as a result of the sagging of a protective door). The installation should be tested before the distance increases further, the safety outputs switch off and the machine stops.
- The red LED indicates the individual causes of the fault by means of defined flashing frequencies.

Benefits

- Maximum tamper resistance by means of individual coding of switches and actuators at the highest safety level
- Plastic enclosure with integrated plug
- Two solid-state short-circuit proof safety outputs, each 250 mA
- Integrated crossover, open circuit and external voltage monitoring, with series circuit as far as the control cabinet
- Safety and diagnostics signals can be connected in series
- Series connection of safety circuits in Cat. 4/PL e/SIL 3
- LED status indication including switching interval threshold indication for quick and easy adjustment during installation and maintenance
- Short-circuit proof conventional diagnostics output
- Optional version with magnetic catch for interlocking hinge switches or small doors even when de-energized
- Highly rugged thanks to the use of tested enclosure materials, resistant to aggressive cleaning products, with a degree of protection of up to IP69K
IP69 does not automatically mean that it can be used outdoors. The devices must be installed with corresponding protection for this purpose. UV radiation additionally affects the enclosure
- Fine adjustment thanks to slotted holes
- Little adjustment or maintenance required
- Molded switch allows it to be used as an end stop for small and medium-sized doors

Application

RFID non-contact safety switches are designed for use in safety circuits, and are used to monitor the positions of movable protective devices. They monitor the positions of rotating, laterally sliding or removable protective devices using the coded electronic actuator.

Their high degree of protection (IP69K) and the use of cleaning-product-resistant materials means that these switches are optimized for use under extreme environmental conditions.

Their electronic operating principle makes these switches ideal for metalworking machinery.

The switches have a larger switching interval and switching displacement than mechanical switches, improve the mounting tolerance of the protective door, and offer a wide range of diagnostics options.

The RFID switches can be connected to all standard evaluation units suitable for solid-state inputs and in which the built-in crossover monitoring function can be deactivated, e.g.:

Monitoring units	
Relay output	
SIRIUS safety relays	3SK1111-.AB30, 3SK1121
SIRIUS safety relays	3TK2826-.BB4.
Solid-state outputs	
SIRIUS safety relays	3SK1112, 3SK1122, 3SK2112, 3SK2122
SIRIUS safety relays	3TK2841, 3TK2842, 3TK2845
	3TK2853-.BB40
Modular Safety System (MSS)	3RK3 (safe inputs)
SIMATIC ET 200S	6ES7138-4FA0.-0AB0 6ES7138-4FC0.-0AB0
SIMATIC ET 200M	6ES7326-1BK0.-0AB0
SIMATIC ET 200eco	6ES7148-3FA00-0XB0
SIMATIC ET 200pro	6ES7148-4F.00-0AB0
SIMATIC ET 200SP	6ES7136-6BA00-0CA0 6ES7136-6PA00-0BC0
SIMATIC ET 200MP	6ES7526-3BH00-0AB0
SIMATIC S7-1200F	6ES7226-6BA32-0XB0

These safety categories can be achieved in safety circuits:

- Category 4 according to EN ISO 13849-1
- PL e according to EN ISO 13849-1
- SIL 3 according to IEC 61508

Technical specifications

Type	3SE63
General data	
Standards	IEC 60947-5-3, IEC 61508, EN ISO 13849-1, EN ISO 14119
Enclosure material	Glass-fiber reinforced thermoplast, self-extinguishing
Degree of protection	IP65/IP67/IP69K
Ambient temperature	
• During operation	°C -25 ... +70
• During storage, transport	°C -25 ... +85
Shock resistance	30 g/11 ms
Vibration resistance	10 ... 55 Hz, amplitude 1 mm

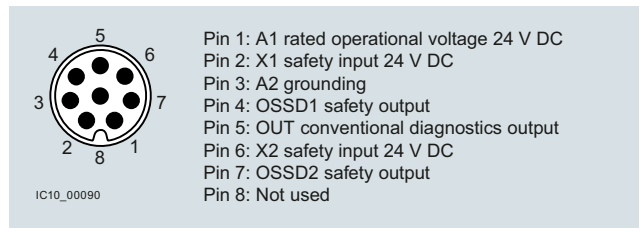
Type	3SE63
Electrical specifications	
Rated insulation voltage U_i	V 32
Degree of pollution according to IEC 60664-1	3
Rated impulse withstand voltage U_{imp}	V 800
Rated conditional short-circuit current	A 100
Rated operational voltage U_e (PELV acc. to EN 60204-1)	V DC 24 -15/+10%
Protection class	II
Overvoltage category	III
Rated operational current I_e	A 0.6
Lowest operating current I_m	mA 0.5
No-load current I_0	mA 35

SIRIUS 3SE6 Non-Contact Safety Switches RFID

3SE63 RFID safety switches

Type	3SE63	
Inputs/outputs		
Safety inputs X1/X2		
• Input voltage	V DC	24 –15/+10%
• Power consumption per input	mA	5
Safety outputs OSSD1/OSSD2		
		p operation
• Max. rated operating current $I_{e \max}$	A	0.25
• Rated operational current I_e /DC-12/DC-13 at U_e	A	0.25
• Voltage drop U_e	V	< 1
• Switching frequency	Hz	1
• Response time, max.	ms	100
• Risk time, max.	ms	200
• Recovery, max.	s	5
Diagnostics output		
		p operation
• Max. rated operating current $I_{e2 \max}$	A	0.05
• Rated operational current I_e /DC-12/DC-13 at U_e	A	0.05
• Voltage drop U_e	V	< 2
• Operational current	mA	150
• Conductor capacity, max.	nF	50

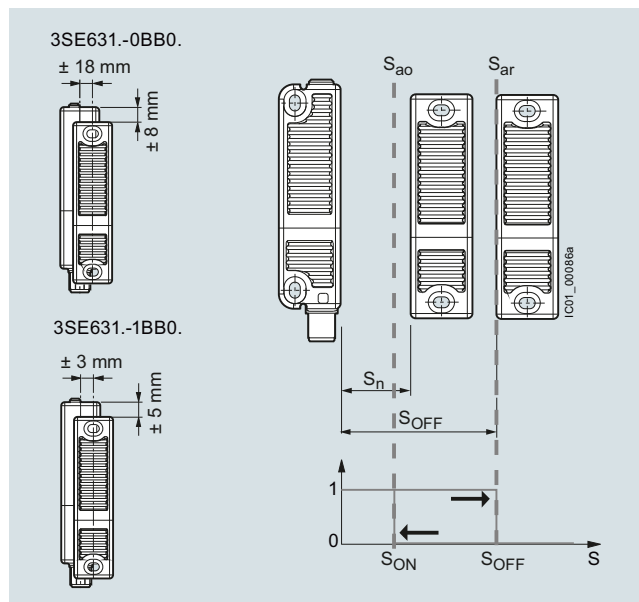
Pin assignment



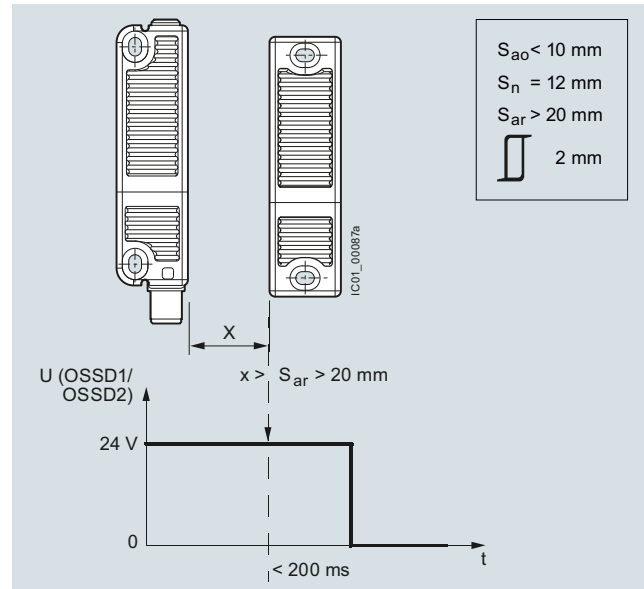
Pin assignment

Directions of approach and switching interval

The side area permits a maximum height offset of the switch and actuator of ± 8 mm (e.g. mounting tolerance or due to sagging of the protective door). The transverse offset also equals max. ± 18 mm.

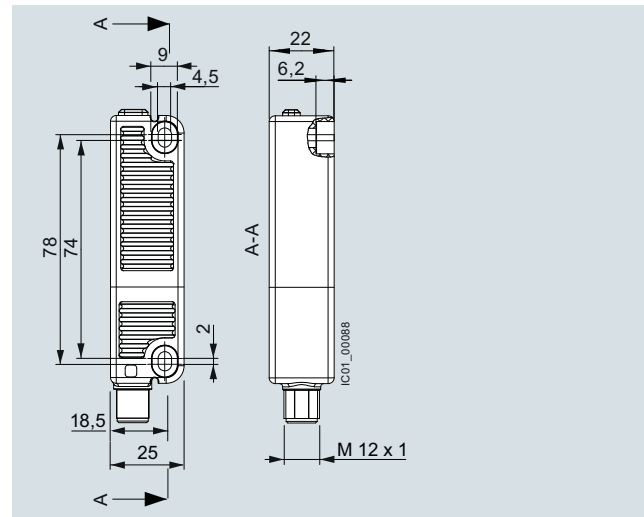


Switching interval: Output signal with hysteresis

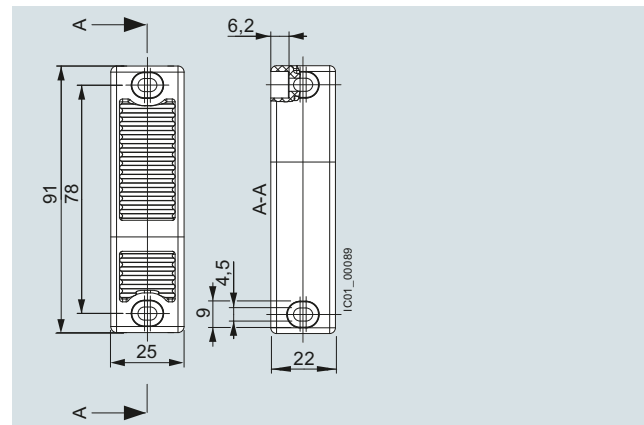


Dimension drawings

RFID switch 3SE6315



RFID actuator 3SE6310





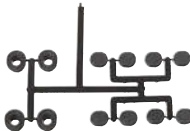

SIRIUS 3SE6 Non-Contact Safety Switches

RFID

3SE63 RFID safety switches

Selection and ordering data

With M12 connection plug, 8-pole

Version/coding	Latching/length	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d				
Rectangular safety switches 91 mm x 25 mm ¹⁾							
	RFID safety switch						
	• Family coded	None	2	3SE6315-0BB01	1	1 unit	41K
		With 18 N magnetic catch	2	3SE6315-1BB01	1	1 unit	41K
	• Individually coded, programmable several times	None	2	3SE6315-0BB02	1	1 unit	41K
		With 18 N magnetic catch	5	3SE6315-1BB02	1	1 unit	41K
	• Individually coded, programmable once	None	2	3SE6315-0BB03	1	1 unit	41K
		With 18 N magnetic catch	5	3SE6315-1BB03	1	1 unit	41K
	RFID actuator						
	• Standard	None	2	3SE6310-0BC01	1	1 unit	41K
		With 18 N magnetic catch	2	3SE6310-1BC01	1	1 unit	41K
Optional accessories							
	Covers and spacers		2	3SX5600-1G	1	1 unit	41K
	One pack (1 unit) contains 8 covers and 4 spacers						
	Connecting cables, 8-pole, with 1 straight M12 socket						
		Length 3 m	2	3SX5601-2GA03	1	1 unit	41K
		Length 5 m	2	3SX5601-2GA05	1	1 unit	41K
		Length 10 m	2	3SX5601-2GA10	1	1 unit	41K

¹⁾ Not connectable via AS-i modules.

For monitoring unit, see pages 8/1, 9/1 and 11/1.

SIRIUS 3SE6 Non-Contact Safety Switches

Notes

Commanding and Signaling Devices



clickable

Click on an article number in the catalog PDF to call it up in the Industry Mall and you will have access to all the required information.

Article No.

3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N



ICD: 00413

Or directly on the Internet, e.g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

	Price groups PG 41J, 41K, 42C		Enclosures
13/2	Introduction	13/101	General data
	SIRIUS ACT pushbuttons and indicator lights	13/102	Empty enclosures NEW
13/5	General data	13/103	Pushbuttons and indicator lights in the enclosure NEW
	<u>Actuators and indicators, 22 mm, round, plastic, black NEW</u>	13/107	Pushbuttons and indicator lights in the enclosure for AS-Interface NEW
13/20	Complete units	13/110	Modules for enclosures
13/27	Compact units	13/114	Two-hand operation consoles
13/30	Actuating and signaling elements		<u>Accessories</u>
	<u>Actuators and indicators, 22 mm, plastic with metal front ring, matte NEW</u>		Labels
13/42	Complete units	13/115	- Insert labels
13/48	Compact units	13/118	- Label holders for labeling plates NEW
13/51	Actuating and signaling elements	13/120	- Labeling plates
	<u>Actuators and indicators, 22 mm, metal, shiny NEW</u>	13/127	- Labeling plates for enclosures
13/63	Complete units	13/131	- Labels for laser printers
13/69	Compact units	13/132	- Other labels NEW
13/72	Actuating and signaling elements	13/134	Protection/access protection NEW
	<u>Actuators and indicators, flat, 30 mm, metal, matte NEW</u>	13/138	Actuators
13/84	Actuating and signaling elements	13/141	Enclosures
	<u>Actuators and indicators, customized designs</u>	13/143	Miscellaneous accessories
13/87	Special locks		SIRIUS 3SB2 pushbuttons and indicator lights, 16 mm
13/88	Laser inscriptions	13/145	General data
	<u>Holders</u>	13/148	Complete units
13/89	Holders without module	13/150	Actuating and signaling elements
13/90	Holders with module	13/152	Contact blocks and lampholders
	<u>Modules for actuators and indicators</u>		<u>Accessories and spare parts</u>
13/91	<u>Contact modules NEW</u>	13/154	Insert labels and insert caps
13/95	LED modules	13/158	Backing plates
13/97	AS-Interface modules	13/159	Mounting parts and components
13/98	Electronic modules for IO-Link		SIRIUS 3SE7 cable-operated switches
13/98	Support terminals	13/161	3SE7 metal enclosures
13/99	Electronic modules for ID key-operated switches		SIRIUS 3SE2, 3SE3 foot switches
13/100	Interface modules for PROFINET	13/165	Plastic and metal enclosures
13/100	Terminal modules		SIRIUS 8WD4 signaling columns
		13/167	General data
		13/170	8WD42 signaling columns, 50 mm diameter
		13/172	8WD44 signaling columns, 70 mm diameter
			SIRIUS 8WD5 integrated signal lamps
		13/176	8WD53 integrated signal lamps, 70 mm diameter

Note:

Conversion tool,
e.g. from 3SB3 to 3SU1, [see
www.siemens.com/sirius/conversion-tool](http://www.siemens.com/sirius/conversion-tool)

Commanding and Signaling Devices

Introduction

Overview



3SU1.0



3SU1.3

Pushbuttons and indicator lights						
Designs						
Nominal diameter	22 mm			22 mm		
Version	Plastic			Plastic with metal front ring, matte		
	Complete units	Compact units	Actuating/ signaling elements	Complete units	Compact units	Actuating/ signaling elements
Actuators						
Pushbuttons	✓ see p. 13/20	--	✓ see p. 13/30	✓ see p. 13/42	--	✓ see p. 13/51
Illuminated pushbuttons	✓ see p. 13/20	--	✓ see p. 13/31	✓ see p. 13/42	--	✓ see p. 13/52
Mushroom pushbuttons	✓ see p. 13/22	--	✓ see p. 13/33	✓ see p. 13/44	--	✓ see p. 13/54
EMERGENCY STOP mushroom pushbuttons	✓ see p. 13/22	--	✓ see p. 13/34	✓ see p. 13/44	--	✓ see p. 13/55
Selector switches	✓ see p. 13/23	--	✓ see p. 13/36	✓ see p. 13/45	--	✓ see p. 13/57
Key-operated switches	✓ see p. 13/24	--	✓ see p. 13/38	✓ see p. 13/46	--	✓ see p. 13/59
ID key-operated switches	--	--	✓ see p. 13/40	--	--	✓ see p. 13/61
Twin pushbuttons	--	--	✓ see p. 13/32	--	--	✓ see p. 13/53
Toggle switches	--	--	✓ see p. 13/35	--	--	✓ see p. 13/56
Coordinate switches	✓ see p. 13/25	--	✓ see p. 13/41	✓ see p. 13/46	--	✓ see p. 13/62
Sensor switches	--	✓ see p. 13/28	--	--	✓ see p. 13/49	--
Potentiometers	--	✓ see p. 13/28	--	--	✓ see p. 13/50	--
Pushbuttons with extended stroke	--	✓ see p. 13/29	--	--	✓ see p. 13/50	--
Indicators						
Indicator lights	✓ see p. 13/26	--	✓ see p. 13/41	✓ see p. 13/47	--	✓ see p. 13/62
Indicator lights in illuminated push-button design	--	--	✓ see p. 13/41	--	--	✓ see p. 13/62
Indicator lights with "traffic light" LED	--	✓ see p. 13/27	--	--	✓ see p. 13/48	--
Acoustic signaling devices	--	✓ see p. 13/28	--	--	✓ see p. 13/49	--
Contact modules						
Single-pole	✓ see p. 13/91					
LED modules						
Module with integrated LED	✓ see p. 13/95, 13/96, 13/111, 13/112					
Connections						
Screw terminals	✓	✓	✓	✓	✓	✓
Spring-type terminals	✓	--	✓	✓	--	✓
Solder pins	--	--	✓	--	--	✓
AS-Interface	✓	--	✓	✓	--	✓
IO-Link	--	--	✓	--	--	✓
✓ Available						
-- Not available						



	3SU1.5			3SU1.6			3SB2
Pushbuttons and indicator lights							
Designs							
Nominal diameter	22 mm			30 mm			16 mm
Version	Metal, shiny			Metal, matte, flat			Plastic, round
	Complete units	Compact units	Actuating/ signaling elements	Complete units	Compact units	Actuating/ signaling elements	
Actuators							
Pushbuttons	✓ see p. 13/63	--	✓ see p. 13/72	--	--	✓ see p. 13/84	✓ see p. 13/150
Illuminated pushbuttons	✓ see p. 13/63	--	✓ see p. 13/73	--	--	✓ see p. 13/84	✓ see p. 13/150
Mushroom pushbuttons	✓ see p. 13/65	--	✓ see p. 13/75	--	--	--	--
EMERGENCY STOP mushroom pushbuttons	✓ see p. 13/65	--	✓ see p. 13/76	--	--	--	✓ see p. 13/150
Selector switches	✓ see p. 13/66	--	✓ see p. 13/78	--	--	✓ see p. 13/85	✓ see p. 13/150
Key-operated switches	✓ see p. 13/67	--	✓ see p. 13/81	--	--	✓ see p. 13/86	✓ see p. 13/151
Twin pushbuttons	--	--	✓ see p. 13/74	--	--	--	--
Toggle switches	--	--	✓ see p. 13/78	--	--	--	--
Coordinate switches	✓ see p. 13/67	--	✓ see p. 13/83	--	--	--	--
Potentiometers	--	✓ see p. 13/70	--	--	--	--	--
Pushbuttons with extended stroke	--	✓ see p. 13/71	--	--	--	--	--
Indicators							
Indicator lights	✓ see p. 13/68	--	✓ see p. 13/83	--	--	✓ see p. 13/86	✓ see p. 13/149
Indicator lights with "traffic light" LED	--	✓ see p. 13/69	--	--	--	--	--
Acoustic signaling devices	--	✓ see p. 13/70	--	--	--	--	--
Contact modules							
Single-pole	✓ see p. 13/91, 13/110						--
LED modules							
Wedge bases	--	--	--	--	--	--	✓ see p. 13/159
Module with integrated LED	✓ see p. 13/95, 13/96, 13/111, 13/112						
Connections							
Plug-in connection	--	--	--	--	--	--	✓
Screw terminals	✓	✓	✓	✓	✓	✓	--
Spring-type terminals	✓	✓	✓	✓	✓	✓	--
Solder pins	✓	✓	✓	✓	✓	✓	✓
AS-Interface	✓	✓	✓	✓	✓	✓	✓
IO-Link	✓	✓	✓	✓	✓	✓	✓

✓ Available

-- Not available

Note:

Safety characteristics, see page 16/6.

AS-Interface solutions

Pushbuttons and indicator lights of the SIRIUS ACT series can be connected to the AS-Interface communication system quickly and easily with the help of various solutions.

For AS-Interface solutions, see Catalog IK PI.

AS-Interface EMERGENCY STOP according to ISO 13850

Using special modules, EMERGENCY STOP devices according to ISO 13850 can be directly connected through the standard AS-Interface with safety-related communication (see page 13/97).

AS-Interface enclosures

Enclosures with standard fittings are listed in this catalog. For customized enclosures, use the SIRIUS ACT Configurator to select the elements for equipping (see page 13/107).

Commanding and Signaling Devices

Introduction



	3SU18	3SU18	3SE7	3SE29, 3SE39
	Enclosures	Two-hand operation consoles	Cable-operated switches	Foot switches
Enclosures				
Plastic	✓	✓	--	✓
Metal	✓	✓	✓	✓
Actuators				
Pushbuttons	✓	--	✓	✓
Illuminated pushbuttons	--	--	--	--
Mushroom pushbuttons	✓	✓	--	--
EMERGENCY STOP mushroom pushbuttons	✓	✓	✓	--
Selector switches	✓	--	--	--
Key-operated switches	✓	--	--	--
Bowden wires	--	--	✓	--
Indicators				
Indicator lights	✓	--	✓	--
Acoustic signaling devices	✓	--	--	--
Contact modules				
Single-pole	✓	✓	--	--
Two-pole	--	✓	✓	✓
Three-pole	--	--	✓	✓
Four-pole	--	--	✓	✓
Connections				
Screw terminals	✓	✓	✓	✓
Pages	see p. 13/101	see p. 13/114	see p. 13/161	see p. 13/165

✓ Available -- Not available



	8WD42, 8WD44	8WD53
	Signaling columns	Integrated signal lamps
Enclosures		
Plastic	✓	✓
Illumination		
Incandescent lamps	✓	✓
LEDs	✓	✓
Flashlights	✓	✓
Connections		
Screw terminals	✓	✓
Spring-type terminals	✓	--
AS-Interface	✓	--
Pages	see p. 13/167	see p. 13/176

✓ Available -- Not available

Overview



SIRIUS ACT pushbuttons and indicator lights

SIRIUS ACT – commanding and signaling

SIRIUS ACT is a modular system of pushbuttons and indicator lights for front plate mounting and rear-mounted electrical modules. Thanks to SIRIUS ACT with PROFINET,

Extensive portfolio

- Customized variants, e.g. special tumbler arrangements, labeling, equipped enclosures
- Communication-enabled thanks to direct interfacing to AS-Interface, IO-Link or PROFINET

Diverse possible applications

- National and international approvals
- Many trade approvals
- Short delivery times thanks to global availability

Standards

- IEC/EN 60947-1
- IEC/EN 60947-5-1
- IEC/EN 60947-5-5 for EMERGENCY STOP devices

More information

Homepage, see www.siemens.com/sirius-act

Industry Mall, see www.siemens.com/product?3SU1

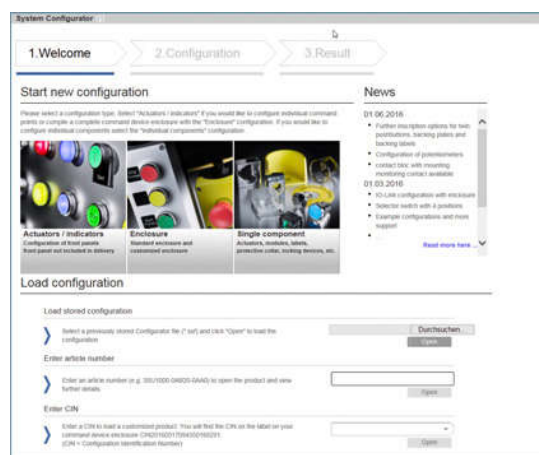
Configurator, see www.siemens.com/sirius-act/configurator

Conversion tool, see www.siemens.com/sirius/conversion-tool

Manual, see <https://support.industry.siemens.com/cs/ww/en/view/107542462>

TIA Portal, see www.siemens.com/TIA

pushbuttons and indicator lights can be connected directly via PROFINET to the controller and HMI devices – including with safety functions. Engineering and commissioning are simplified no end by the TIA Portal.

Configurator

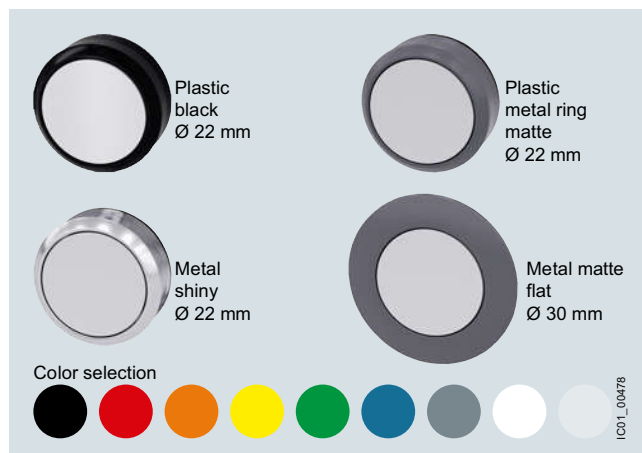
- Fast, simple selection by intuitive navigation through clearly-organized menus using drag & drop
- Image preview of selected components
- Inscription of pushbuttons and labeling plates using the interactive inscription tool
- Once created, a configuration can be ordered as often as required using the customer-specific article number and the CIN (Configuration Identification Number)
- Everything at a glance: Product data sheets, certificates, dimensional drawings, list prices, inscription tool

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Benefits

Design



SIRIUS ACT is available in four design lines.

Ruggedness



- Degree of protection IP66, IP67, IP69 (IP69K)

IP66

6 = Protection against the ingress of dust

6 = Protection against powerful splashwater

IP67

6 = Protection against the ingress of dust

7 = Protection against temporary immersion

IP69 (IP69K)

6 = Protection against the ingress of dust

9/9K = Protection against water in high-pressure cleaning (approx. 80 bar) and high water jet temperatures (approx. 80 °C)

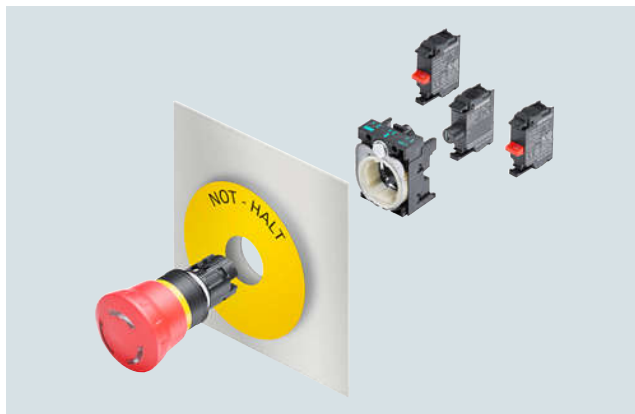
- Service life of 100 000 hours thanks to use of LEDs
- Media resistance (chemicals) thanks to solid stainless steel and high-grade plastics
- Mechanical endurance of 10×10^6 operating cycles
- Suitable for use in extreme environments
- Reliable, friction-locked fixing with just one screw
- Design stability according to use
- Simple geometry for mounting holes

Communication



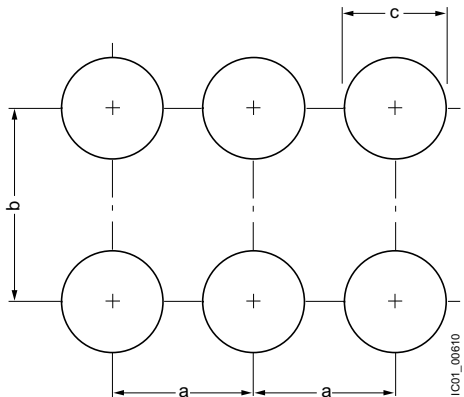
- Direct connection of the enclosure to AS-Interface or IO-Link
- Direct connection in the control cabinet to PROFINET, IO-Link or AS-Interface
- Can be integrated easily via the TIA Portal

Easy handling



- Self-holding function of the actuator when mounting
- Twist prevention integrated into patented holder design
- Stackable contact modules
- Self-explanatory and fast installation using one hand
- Components can be mounted with holder removed
- No special tools required, simple size 2 screwdriver (cross-tip DIN ISO 87641PZD1, flat-head DIN ISO 2380-1 A/B 1x4.5) is sufficient

Mounting dimensions



	Minimum clearance		
	a	b	c
	mm	mm	mm
22 mm plastic, plastic with metal front ring, metal for front plate thickness 1 ... 6 mm			
3-slot holder	30	40	22.3 ^{+0.4}
4-slot holder	40	40	22.3 ^{+0.4}
30 mm metal, matte for front plate thickness 1 ... 4 mm			
3-slot holder	40	45	30.5 ^{+0.5}

Versions

SIRIUS ACT is a modular system of pushbuttons and indicator lights with which customized variants can be configured flexibly.

One command point comprises:

- An actuating or signaling element in front of the control panel
- A holder for securing behind the control panel
- Up to six contact modules and/or one LED module (mounted onto the holder), single-pole contacts can be stacked
- A comprehensive range of accessories for inscription/markings

Complete units

Complete units made up of an actuating or signaling element, holder and contact modules and/or LED modules are offered for the most frequent application cases. The electrical parts are integrated and only have to be wired.

Compact units

Signaling devices, sensor switches, pushbuttons with extended stroke and potentiometers are available as compact units. The electronic circuitry is already integrated in these devices, i.e. it is not necessary to snap on a contact or LED module.

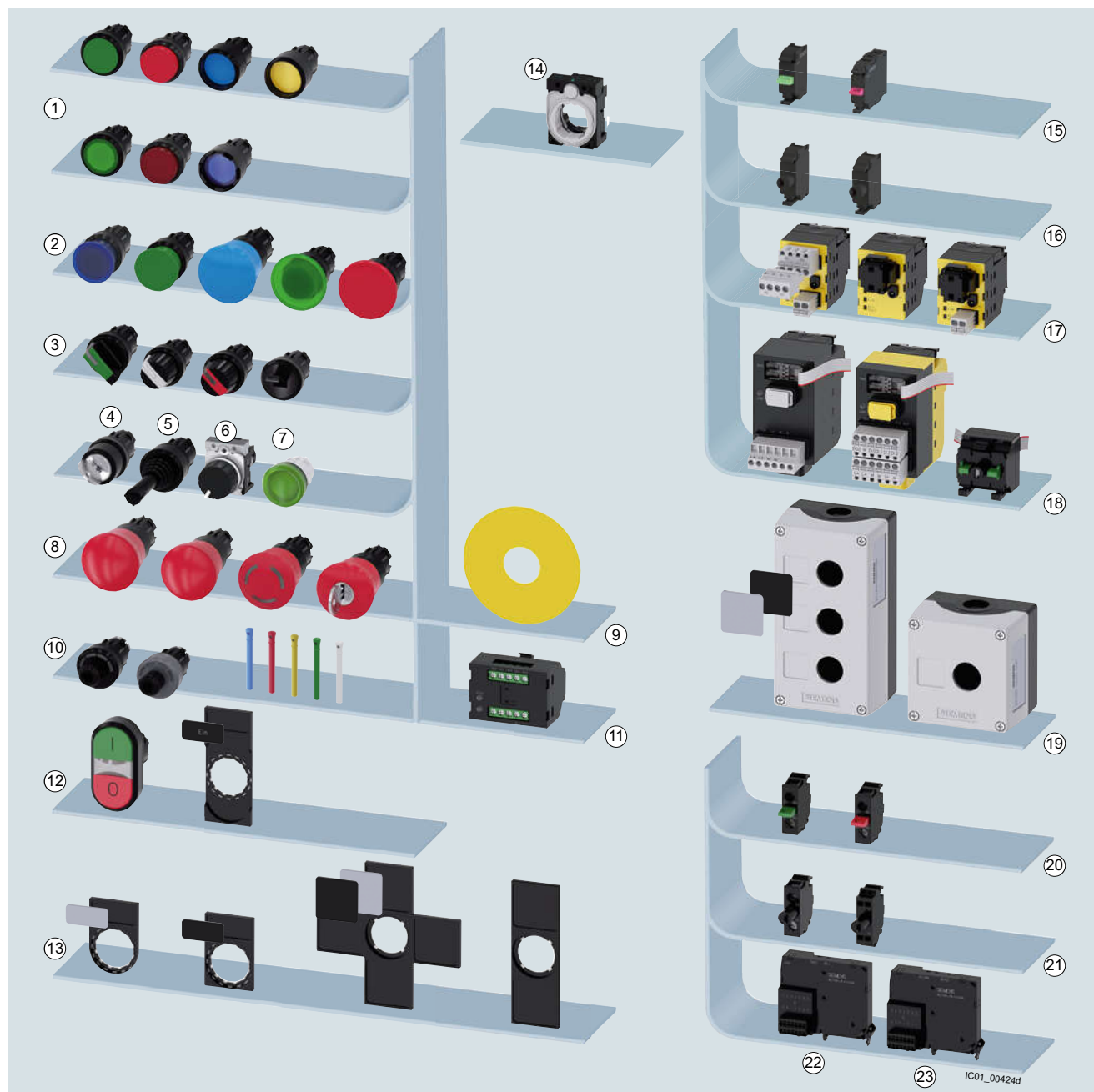


Complete units	Pages	Compact units	Pages
Plastic, black	13/20	Plastic, black	13/27
Plastic with metal front ring, matte	13/42	Plastic with metal front ring, matte	13/48
Metal, shiny	13/63	Metal, shiny	13/69

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Actuating and signaling elements



System overview of SIRIUS ACT pushbuttons and indicator lights from the plastic design line. Pushbuttons and indicator lights available in four design lines.

Actuating and signaling elements		Pages	Modules for front plate mounting		Pages
①	Pushbuttons, illuminated pushbuttons	13/20	⑮	Contact modules	13/91
②	Mushroom pushbuttons	13/22	⑯	LED modules	13/95
③	Selector switches, toggle switches	13/45	⑰	AS-Interface modules	13/97
④ ⑤	Key-operated switches, coordinate switches, potentiometers, indicator lights	13/46	⑱	Interface modules, fail-safe interface modules terminal modules	13/100
⑥ ⑦					
⑧ ⑨	EMERGENCY STOP mushroom pushbuttons, backing plates	13/22	Enclosures		Pages
⑩ ⑪	ID key-operated switches with ID key, electronic modules	13/40	⑲	Enclosures	13/101
⑫	Twin pushbuttons, label holders, labeling plates	13/32	Modules for base mounting		Pages
Holders and labels		Pages	⑳	Contact modules	13/110
⑬	Label holders, labeling plates	13/115	㉑	LED modules	13/111
⑭	Holder	13/89	㉒	IO-Link modules	13/113
			㉓	AS-Interface modules	13/113

SIRIUS ACT Pushbuttons and Indicator Lights

General data

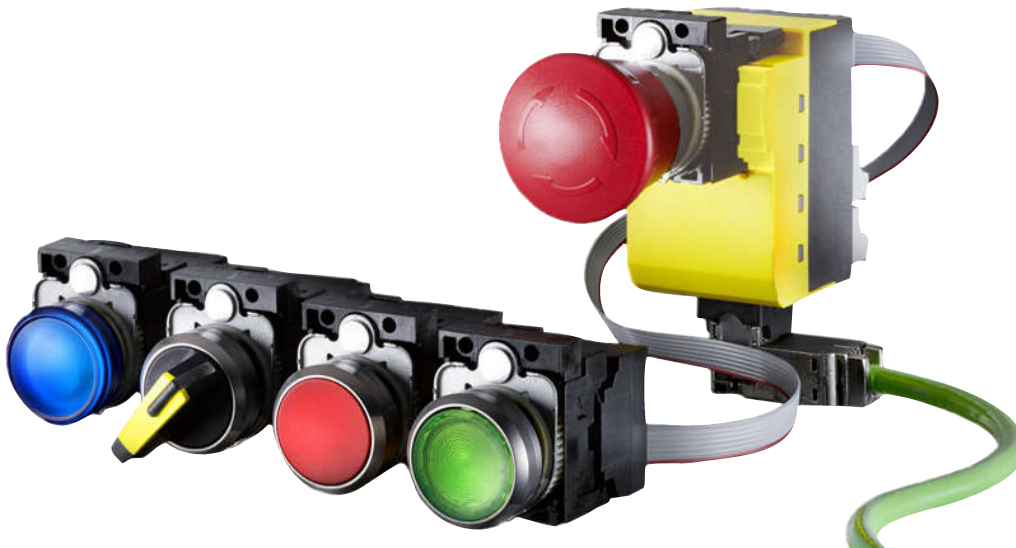
SIRIUS ACT with PROFINET

SIRIUS ACT with PROFINET connects pushbuttons and indicator lights directly via PROFINET to the controller and HMI devices – including with safety functions.

With this solution designed for the control panel, up to 21 SIRIUS ACT devices can be connected to the controller via PROFINET. Integration of the EMERGENCY STOP mushroom pushbutton (SIL 3, PL e) is possible via PROFIsafe. Non SIRIUS ACT devices, e.g. position switches, can additionally be connected via the open, digital/analog interfaces (DI, DQ, AI).

The system is entirely integrated into TIA Portal and does not require any further addressing apart from the IP address for PROFINET.

Quick and easy installation with flat cables without special tools saves significantly on wiring outlay.



Interface modules/fail-safe interface modules				
		Interface module for PROFINET, 24 V DC 1 to 20 terminal modules can be connected	3SU1400-1L□10-□AA1	See page 13/100
Terminal modules				
		Terminal modules with 2 contacts Terminal modules with 2 contacts and integrated LED Terminal modules with integrated LED	3SU1401-1MA□0-1□A1 3SU1401-1MC□0-1□A1 3SU1401-1ME□0-1□A1	See page 13/100
Accessories				
		Memory module For backing up the complete parameterization of the 3SK2 safety system without a PC/PG through the system interface	3RK3931-0AA00	See page 13/100
		LED modules for mounting on printed-circuit boards	3SU1401-3BA□0-5AA0	See page 13/96
		Flat ribbon cable 7 cores, length 10 m 7 cores, length 5 m	3SU1900-0KQ80-0AA0 3SU1900-0KP80-0AA0	See page 13/144

SIRIUS ACT Pushbuttons and Indicator Lights

General data

ID key-operated switches

Groups of employees or individuals can be authenticated by means of the ID key-operated switch. The ID key-operated switch is electronic and has four switch positions that are selected by keys with different codes. Using the four ID keys with different codes, it is possible to select 1 to 4 positions. The ID keys are color-coded (yellow, blue, red, green, white) so that they can be clearly differentiated at a glance and used flexibly thanks to four function levels.

RFID authentication solutions

Groups of employees or individuals can be authenticated by means of the ID key-operated switch. Color-coded keys for easy distinction between users.

Different versions of ID key-operated switches are available depending on the following features:

- Front ring material
- Conventional variant: 1 + 4 non-isolated outputs
- Variant with IO-Link: Option of individual coding

Operation:

Insert ID key, turn key to select the position. Standard keys can also be used in conjunction with the electronic module for ID key-operated switches with IO-Link function. The white ID key is supplied without coding.



3SU1000-4WS10-0AA0
Plastic, black



3SU1500-0AA10-0AA0
Holder, plastic



3SU1030-4WS10-0AA0
Plastic with metal front ring, matte



3SU1500-0AA10-0AA0
Holder, plastic

ID key-operated switches		
Number of switching positions	4	4
Operating angle	45°	45°
Operating principle	Latching	Latching
Switch position for key removal	Key removal possible in all 4 positions	Key removal possible in all 4 positions
Color	Black	Black
Pages	13/40	13/61



3SU1400-1GC10-1AA0



3SU1400-1GD10-1AA0

Electronic modules for ID key-operated switches		
Type of power supply	--	via IO-Link master
Protocol is supported IO-Link protocol	--	IO-Link protocol
Number of NO contacts	5	5
IO-Link transfer rate	--	COM2 (38.4 kBaud)
Pages	13/99	13/99



3SU1900-0FU60-0AA0

ID keys ID group individual



3SU1900-0FV40-0AA0
3SU1900-0FW30-0AA0
3SU1900-0FX20-0AA0
3SU1900-0FY50-0AA0

ID keys

ID keys		
Material	Plastic	Plastic
Version of RFID coding	Individually coded, programmable several times	ID group 1 ID group 2 ID group 3 ID group 4
Color	White	Green Yellow Red Blue
Pages	13/140	13/140

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Article No. scheme

Device types



3SU10	3SU11	3SU12	3SU14	3SU15	3SU18	3SU19
Device types						
Actuating and signaling elements	Complete units	Compact units	Modules for actuators and indicators	Holders with module	Enclosures	Accessories

Actuating and signaling elements

Product versions		Article number														
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Device type	Actuating and signaling elements	0														
Material (front ring)	Plastic, black	0														
	Metal, matte (front ring)/plastic, black (rosette, holder)	3														
	Metal, matte (front ring)/metal (rosette, holder)	4														
	Metal, shiny	5														
	Metal, matte	6														
Illumination	Non-illuminated	0														
	Illuminated/transparent	1														
	Illuminated/non-illuminated	2														
Type of actuator/indicator	Pushbutton		0													
	Mushroom pushbutton/EMERGENCY STOP mushroom pushbutton/sensor switch		1													
	Selector switch		2													
	Twin pushbutton, toggle switch		3													
	Key-operated switch		4/5													
	Indicator light/acoustic signaling device		6													
	Coordinate switch		7													
Design of the actuator/ acoustic signaling device	e.g. A = Flat						<input type="checkbox"/>									
Function	e.g. B = Momentary contact							<input type="checkbox"/>								
Color/key removal position	e.g. 10 = Black, 20 = Red								<input type="checkbox"/>	<input type="checkbox"/>						
Connection type	None											0				
Module/holder equipment	e.g. A = Without module, without holder Y = Without module, with holder												<input type="checkbox"/>			
Marking	e.g. A = None, C = "I", D = "O", R = "R"													<input type="checkbox"/>		
Ambient condition	Standard														0	
	ATEX Zone 21-22: Protection from dust														1	
	ATEX Zone 1-2: Intrinsic safety														2	
Example		3SU1	0	0	0	-	0	A	B	1	0	-	0	A	A	0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Complete units

Product versions		Article number														
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device type	Complete units	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material (front ring)	Plastic, black	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Metal, matte (front ring)/plastic, black (rosette, holder)	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Metal, shiny	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Metal, matte	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illumination	Non-illuminated	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Illuminated (with/without LED, various voltages)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		...	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type of actuator/indicator	Pushbutton	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Mushroom pushbutton/EMERGENCY STOP mushroom pushbutton/sensor switch	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Selector switch	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Twin pushbutton, toggle switch	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Key-operated switch	4/5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Indicator light/acoustic signaling device	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Coordinate switch	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design of the actuator/ acoustic signaling device	e.g. A = Flat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function	e.g. B = Momentary contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Color/key removal position	e.g. 10 = Black, 20 = Red	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Connection type	Screw terminals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Spring-type terminals	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Module/holder equipment including contact material	e.g.	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A = Without module, with holder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	B = 1 NO contact with holder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	C = 1 NC contact with holder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marking	e.g. A = None, C = "I", D = "O", R = "R"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ambient condition	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ATEX Zone 21-22: Protection from dust	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ATEX Zone 1-2: Intrinsic safety	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Example		3SU1	1	0	0	-	0	A	B	1	0	-	1	B	A	0

Compact units

Product versions		Article number													
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device type	Compact units	2													
Material (front ring)	Plastic, black	0													
	Metal, matte (front ring)/plastic, black (rosette, holder)	3													
	Metal, shiny	5													
	Metal, matte	6													
Illumination	Non-illuminated	0													
	Illuminated/non-illuminated	1													
Type of actuator/indicator	Pushbutton							0							
	Sensor switch							1							
	Potentiometers							2							
	Indicator light/acoustic signaling device							6							
Design of the actuator/ acoustic signaling device	e.g. A = Flat							<input type="checkbox"/>							
Function (voltage/resistance)	e.g. B = 24 V AC/DC								<input type="checkbox"/>						
Color	e.g. 10 = Black, 20 = Red									<input type="checkbox"/>	<input type="checkbox"/>				
Connection type	None												0		
	Screw terminals												1		
	M12 connection, 4-pin												2		
	Spring-type terminals												3		
Module/holder equipment including contact material	e.g.													<input type="checkbox"/>	
	A = Without module, without holder														
	B = 1 NO contact with holder														
	C = 1 NC contact with holder														
Marking	e.g. A = None													<input type="checkbox"/>	
Ambient condition	Standard														0
	ATEX Zone 21-22: Protection from dust														1
	ATEX Zone 1-2: Intrinsic safety														2
Example		3SU1	2	0	1	-	6	A	B	1	0	-	1	A	A 0

Note:

The Article No. schemes show an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Modules for actuators and indicators

Product versions		Article number														
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Device type	Modules for actuators and indicators	4														
Material (front ring)	Plastic, black	0														
Illumination	Non-illuminated	0														
	Illuminated	1														
Fastening method	Front plate mounting						1									
	Base mounting						2									
	Printed circuit board						3									
Module type	Contact module							A								
	LED module							B								
	LED test module							C								
	Support terminal							D								
	AS-Interface module							E								
	Electronic module for ID key-operated switches							G								
	Interface modules for PROFINET							L								
	Terminal modules							M								
Function/voltage	e.g. B = 24 V AC/DC								<input type="checkbox"/>							
Color	e.g. 10 = Black, 20 = Red									<input type="checkbox"/>	<input type="checkbox"/>					
Connection type	Screw terminals												1			
	Screw terminals + insulation piercing method												2			
	Spring-type terminals												3			
	Spring-type terminals + insulation piercing method												4			
	Socket terminals												5			
Module equipment including contact material	e.g. A = None B = 1 NO contact, silver C = 1 NC contact, silver												<input type="checkbox"/>			
Marking	None													A		
Ambient condition	Standard														0	
	ATEX Zone 21-22: Protection from dust														1	
	ATEX Zone 1-2: Intrinsic safety														2	
Example		3SU1	4	0	0	-	1	A	A	1	0	-	1	B	A	0

Holders

Product versions		Article number														
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Device type	Holder	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Material (front ring)	Plastic, black	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Metal, shiny	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Illumination	Non-illuminated	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Illuminated	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Fastening method	Without		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Front plate mounting	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Holder type	3x A		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	4x B		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Function/voltage	Without		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	6 ... 24 V AC/DC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Color	e.g. 10 = Black, 20 = Red		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Connection type	None		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Screw terminals		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Module equipment including contact material and slot	e.g. A = None B = 1 NO contact, silver C = 1 NC contact, silver		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Marking	None		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Ambient condition	Standard		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	ATEX Zone 21-22: Protection from dust		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	ATEX Zone 1-2: Intrinsic safety		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Example		3SU1	5	0	0	-	0	A	A	1	0	-	0	A	A	0

Note:

The Article No. schemes show an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Enclosures

Product versions		Article number													
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device type	Enclosures	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material (enclosure/front ring)	Plastic, black plastic	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Metal, shiny metal	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of command points	Command point	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... Command points	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type of enclosure	Surface-mounting	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4-position selector switch and coordinate switch	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Palm pushbutton	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Two-hand operation console	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Command point	e.g. command point, inscription, module		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication capability	Without		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	AS-i		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ambient condition	Standard		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ATEX Zone 21-22: Protection from dust		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ATEX Zone 1-2: Intrinsic safety		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mounting/connection of modules	None		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Front plate mounting, screw terminals		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Base mounting, screw terminals		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Front mounting, spring-type terminals		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Base mounting, spring-type terminals		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cable exit from enclosure	None		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Direct entry of AS-i flat cable at top/on right		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	AS-i insulation piercing method at top/on right		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design of enclosure top	Center command point		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	With recess for labeling plate		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	With protective collar		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4 additional holes (two-hand operation console)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8 additional premachined breaking points (two-hand operation console)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Color of enclosure top	Gray		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Yellow		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Example		3SU1	8	0	1	-	0	A	A	0	0	-	0	A	A

Accessories

Product versions		Article number														
SIRIUS ACT pushbuttons and indicator lights		3SU1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device type	Accessories	9														
Material	Plastic, black	0														
	Metal/plastic	3														
	Metal, shiny	5														
	Metal, matte	6														
Illumination	Non-illuminated	0														
	Illuminated	1														
Type of accessory (labels, protection, actuator, enclosure)	e.g. 0AB = Insert label						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
Color	e.g. 10 = Black, 20 = Red									<input type="checkbox"/>	<input type="checkbox"/>					
Marking	e.g. 0AA = None 0AB = ON 0AT = EMERGENCY STOP													<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ambient condition	Standard ATEX Zone 21-22: Protection from dust ATEX Zone 1-2: Intrinsic safety															0 1 2
Example		3SU1	9	0	0	-	0	A	B	2	0	-	0	A	B	0

Note:

The Article No. schemes show an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Application

Environmental conditions

The pushbuttons and indicator lights are climate-proof (KTW 24) and suitable for standard industrial applications and operation in marine applications.

Simple electrical equipment

Non-illuminated actuators, contact modules, enclosures and special accessories can be classified as simple electrical equipment according to IEC 60079-11. This means that they may be used in intrinsically safe circuits in potentially explosive atmospheres. An overview of the devices and atmospheres can be found in Confirmation No. 3287.01.

Safety EMERGENCY STOP pushbuttons according to ISO 13850

For controls according to IEC/EN 60204-1, the SIRIUS ACT mushroom pushbuttons are suitable for use as safety EMERGENCY STOP pushbuttons.

Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening. This means that for the purpose of personal safety, the reliable opening of NC contacts in all safety circuits is expressly prescribed for the electrical equipment of machines and is designated according to IEC 60947-5-1 with the symbol (⊖).

Category 4 according to EN ISO 13849-1 can be attained with the EMERGENCY STOP mushroom pushbuttons if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK11 safety relays or the 3RK3 Modular Safety System ([see page 11/1 onwards](#)) or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

The SIRIUS ACT pushbuttons and indicator lights can be connected to the AS-Interface communication system quickly and safely.

The following solutions are available:

- AS-Interface modules
- AS-Interface module in safety-related version for EMERGENCY STOP mushroom pushbutton
- Ready-fitted AS-Interface enclosures with 1 to 6 command points

IO-Link

The SIRIUS ACT pushbuttons and indicator lights can be connected to IO-Link quickly and safely. The connection is made via a special IO-Link module.

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Technical specifications

More information	
Industry Mall, see www.siemens.com/product?3SU1	Configurator, see www.siemens.com/sirius-act/configurator
	Conversion tool, see www.siemens.com/sirius/conversion-tool
	Manual, see https://support.industry.siemens.com/cs/ww/en/view/107542462

Type	3SU1..0-AA 3SU1..0-JA		3SU1..1-AA 3SU1..1-JA	3SU1..0-AB 3SU1..0-BB 3SU1..0-CB 3SU1..0-DB 3SU1..0-JB	3SU1..1-AB 3SU1..1-BB 3SU1..1-JB
Product version	Pushbuttons				
Operating principle of the actuating element	Latching			Momentary contact	
Optional expansion of product by light source	No	Yes	No	Yes	
Mechanical endurance (operating cycles) typical	500 000			10 000 000	3 000 000
Switching frequency maximum	1/h	1 800		3 600	
Shock resistance according to IEC 60068-2-27	Half-sine wave 50 g / 11 ms				
Vibration resistance according to IEC 60068-2-6	10 ... 500 Hz: 5 g				
Degree of protection	IP66, IP67, IP69 (IP69K)				
Environmental category during operation According to IEC 60721	3M6, 3S2, 3B2, 3C3, 3K6 (with a relative air humidity of 10 ... 95%)				
Ambient temperature					
• During operation	°C	-25 ... +70			
• During storage	°C	-40 ... +80			

Type		3SU1.00-AA 3SU1.00-BA 3SU1.00-CA 3SU1.30-AA 3SU1.30-BA 3SU1.50-AA 3SU1.50-BA 3SU1.50-CA	3SU1.50-EA	3SU1.01-AA 3SU1.01-BA 3SU1.51-AA 3SU1.51-BA 3SU1.51-CA	3SU1.00-AD 3SU1.00-BD 3SU1.00-CD 3SU1.30-AD 3SU1.30-BD 3SU1.50-AD 3SU1.50-BD 3SU1.50-CD	3SU1.50-ED	3SU1.01-AD 3SU1.01-BD 3SU1.31-AD 3SU1.31-BD
Product version	Mushroom pushbuttons						
Operating principle of the actuating element	Latching				Momentary contact		
Optional expansion of product by light source	No			Yes	No		Yes
Mechanical endurance (operating cycles) typical	500 000	300 000	500 000	10 000 000	300 000	3 000 000	
Switching frequency maximum	1/h	1 800		3 600	1 800	3 600	
Shock resistance according to IEC 60068-2-27	Half-sine wave 50 g / 11 ms						
Vibration resistance according to IEC 60068-2-6	10 ... 500 Hz: 5 g						
Degree of protection	IP66, IP67, IP69 (IP69K)	IP65, IP67, IP69 (IP69K)	IP66, IP67, IP69 (IP69K)		IP65, IP67, IP69 (IP69K)	IP66, IP67, IP69 (IP69K)	
Environmental category during operation According to IEC 60721	3M6, 3S2, 3B2, 3C3, 3K6 (with a relative air humidity of 10 ... 95%)						
Ambient temperature							
• During operation	°C	-25 ... +70					
• During storage	°C	-40 ... +80					

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Type	3SU1...-J 3SU1...-H 3SU1...-G	
Product version	EMERGENCY STOP mushroom pushbuttons	
Mechanical endurance (operating cycles)	300 000	
Switching frequency maximum	1/h	600
Shock resistance according to IEC 60068-2-27	Half-sine wave 50 g / 11 ms	
Vibration resistance according to IEC 60068-2-6	10 ... 500 Hz: 5 g	
Degree of protection	IP66, IP67, IP69 (IP69K)	
Environmental category during operation According to IEC 60721	3M6, 3S2, 3B2, 3C3, 3K6 (with a relative air humidity of 10 ... 95%)	
Ambient temperature		
• During operation	°C	-25 ... +70
• During storage	°C	-40 ... +80

Type	3SU1.5.-2A 3SU1.5.-2B 3SU1.5.-2C 3SU1.5.-2D 3SU1.5.-2E		3SU1.0.-2A 3SU1.0.-2B 3SU1.0.-2C 3SU1.3.-2A 3SU1.3.-2B 3SU1.3.-2C	3SU1.0.-3E 3SU1.3.-3E 3SU1.5.-3E	3SU1.0.-4B 3SU1.0.-4C 3SU1.0.-4D 3SU1.0.-4F 3SU1.0.-4G 3SU1.0.-4H 3SU1.0.-4J 3SU1.0.-4L 3SU1.0.-5B 3SU1.0.-5H 3SU1.0.-5P 3SU1.0.-5Q 3SU1.0.-5R 3SU1.0.-5S 3SU1.0.-5T 3SU1.0.-5X	3SU1...-4B 3SU1...-4C 3SU1...-4D 3SU1...-4F 3SU1...-4G 3SU1...-4H 3SU1...-4J 3SU1...-4L 3SU1...-5B 3SU1...-5H 3SU1...-5K 3SU1...-5L 3SU1...-5P 3SU1...-5Q 3SU1...-5R 3SU1...-5S 3SU1...-5T 3SU1...-5X	3SU1.0.-7A 3SU1.0.-7B 3SU1.3.-7A 3SU1.3.-7B 3SU1.5.-7A 3SU1.5.-7B
Product version	Selector switches			Toggle switches	Key-operated switches		Coordinate switches
Mechanical endurance (operating cycles)	300 000	1 000 000				300 000	250 000
Switching frequency maximum	1/h	1 800					3 600
Shock resistance according to IEC 60068-2-27	Half-sine wave 50 g / 11 ms						
Vibration resistance according to IEC 60068-2-6	10 ... 500 Hz: 5 g						
Degree of protection	IP66, IP67, IP69 (IP69K)		IP66, IP67, IP69K	IP66, IP67, IP69 (IP69K)			IP65, IP67
Ambient temperature							
• During operation	°C	-25 ... +70					
• During storage	°C	-40 ... +80					

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Type		3SU1400- .AA10-1.A0	3SU1400- 1AA10-1GA0, 3SU1400- 1AA10-1RA0	3SU1400- 1AA10-1HA0	3SU1400- .AA10-3.A0	3SU1400- 1AA10-3HA0	3SU1400- 3AA10-5.A0
Product version		Contact modules					
Rated insulation voltage	V	500					
Pollution degree		3					
Impulse withstand voltage, rated value	kV	6					
Operational voltage type		AC/DC					
Operational voltage, rated value							
• At AC at 50 Hz	V	5 ... 500					
• At DC	V	5 ... 500					
Thermal current	A	10					
Operational current, rated value							
• At AC-12							
- At 24 V	A	10					
- At 230 V	A	8					
• At AC-15							
- At 24 V	A	6					
- At 230 V	A	6		4		6	
- At 400 V	A	3					
- At 500 V	A	1.4					
• At DC-12							
- At 24 V	A	10					
- At 48 V	A	5					
- At 110 V	A	2.5					
- At 230 V	A	1		0.3		1	
- At 400 V	A	0.3					
- At 500 V	A	0.3		0.2		0.3	
• At DC-13							
- At 24 V	A	3					
- At 48 V	A	1.5					
- At 110 V	A	0.7		0.6		0.7	
- At 230 V	A	0.3					
- At 400 V	A	0.1					
- At 500 V	A	0.1					
Contact reliability		One contact failure per 100 million switching operations (17 V, 5 mA), one contact failure per 10 million switching operations (5 V, 1 mA)					
Mechanical endurance (operating cycles) typical		10 000 000					
Switching frequency maximum	1/s	3 600					
Fuse link version required for short-circuit protection of the auxiliary switch with type of coordination 1		gG / Dz 10 A, quick-response / Dz 10 A					
Continuous current of miniature circuit breaker C characteristic	A	10					
Vibration resistance according to IEC 60068-2-6		10 ... 500 Hz: 5 g					
Shock resistance according to IEC 60068-2-27		Half-sine wave 50 g / 11 ms					
Climate class during operation according to IEC 60721		3M6, 3S2, 3B2, 3C3, 3K6 (with a relative air humidity of 10 ... 95%, no condensation permitted in operation)					
Ambient temperature							
• During operation	°C	-25 ... +70					
• During storage	°C	-40 ... +80					
Degree of protection							
• Of enclosure		IP40					
• Of the terminal		IP20					
Type of electrical connection		Screw terminals		Spring-type terminals		Socket terminals (THT)	
Type of connectable conductor cross-sections							
• Solid with end sleeve	mm²	2 x (0.5 ... 0.75)		--		--	
• Solid without end sleeve	mm²	2 x (1.0 ... 1.5)		2 x (0.25 ... 1.5)		--	
• Finely stranded with end sleeve	mm²	2 x (0.5 ... 1.5)		2 x (0.25 ... 0.75)		--	
• Finely stranded without end sleeve	mm²	2 x (1.0 ... 1.5)		2 x (0.25 ... 1.5)		--	
• For AWG cables		2 x (18 ... 14)		2 x (24 ... 16)		--	
Tightening torque for screw terminals	Nm	0.8 ... 0.9		--		--	

SIRIUS ACT Pushbuttons and Indicator Lights

General data

Type	3SU1401-.....-1		3SU1401-.....-3		3SU1401-.....-5			
Product version			LED module					
Light source integrated in product			Yes					
Type of light source			LED					
Rated insulation voltage		V	320					
Pollution degree			3					
Impulse withstand voltage, rated value		kV	4					
Relative positive tolerance of the operational voltage		%	20					
Relative negative tolerance of the operational voltage		%	20					
Operating time typical		h	100 000					
Vibration resistance according to IEC 60068-2-6			10 ... 500 Hz: 5 g					
Shock resistance according to IEC 60068-2-27			Half-sine wave 50 g / 11 ms					
Environmental category during operation According to IEC 60721			3M6, 3S2, 3B2, 3K6 (with a relative air humidity of 10 ... 95%, no condensation permitted in operation)					
Ambient temperature								
• During operation		°C	-25 ... +70					
• During storage		°C	-40 ... +80					
Degree of protection of the terminal			IP20					
Type of electrical connection			Screw terminals		Spring-type terminals		Socket terminals (THT)	






Type		3SU1400-1LK10-1AA1	3SU1400-1LK10-3AA1	3SU1400-1LL10-1BA1	3SU1400-1LL10-3BA1
Product designation		Interface module		Fail-safe interface module	
Operational voltage type		DC			
Supply voltage at DC rated value	V	24			
Current consumed, maximum	mA	150			
Product function at the interface 1 PROFINET IO-Device		Yes			
Type of interface		Yes			
Fast Ethernet interface					
Type of interface 1 RJ45 (Ethernet) interface		Yes			
Number of ports at the interface 1		1			
Number of modules per rack, maximum		20			
Number of digital outputs		0		1	
Number of digital inputs		0		4	
Software version required for STEP 7 in the TIA Portal		Integrated in the TIA Portal, version 14 SP1 or higher (HSP for V13 and V14)			
SIL response limit (subsystem) according to IEC 62061		--		SIL CL 3	
Performance level (PL) according to EN ISO 13849-1		--		e	
Ambient temperature					
• During operation	°C	60 ... -25			
• During storage	°C	80 ... -40			
Degree of protection		IP20			
Connectable conductor cross-section					
• Solid					
- With end sleeves	mm²	0.2 ... 2.5			
• Finely stranded					
- With end sleeves	mm²	0.25 ... 2.5			
- Without end sleeves	mm²	0.2 ... 2.5			

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Complete Units

Pushbuttons**Selection and ordering data**

Supply voltage for light source at		Color	Number of			SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG	
AC	DC		Contact modules	NO contacts	NC contacts							
V	V					d	Article No.	Price per PU				
Pushbuttons												
Pushbuttons with flat button, momentary contact												
	13	--	Black	1	1	0	▶	3SU1100-0AB10-1BA0		1	1 unit	41J
				0	0	1	▶	3SU1100-0AB10-1CA0		1	1 unit	41J
				1	1	1	▶	3SU1100-0AB10-1FA0		1	1 unit	41J
			Red	1	1	0	▶	3SU1100-0AB20-1BA0		1	1 unit	41J
				0	0	1	▶	3SU1100-0AB20-1CA0		1	1 unit	41J
					1	1	▶	3SU1100-0AB20-1FA0		1	1 unit	41J
			Yellow	1	1	0	3	3SU1100-0AB30-1BA0		1	1 unit	41J
					1	1	3	3SU1100-0AB30-1FA0		1	1 unit	41J
			Green	1	1	0	▶	3SU1100-0AB40-1BA0		1	1 unit	41J
					1	1	▶	3SU1100-0AB40-1FA0		1	1 unit	41J
			Blue	1	1	0	▶	3SU1100-0AB50-1BA0		1	1 unit	41J
					1	1	3	3SU1100-0AB50-1FA0		1	1 unit	41J
	--	--	Black	1	0	1	5	3SU1100-0BB10-1CA0		1	1 unit	41J
					1	1	5	3SU1100-0BB10-1FA0		1	1 unit	41J
			Red	1	0	1	5	3SU1100-0BB20-1CA0		1	1 unit	41J
					1	1	5	3SU1100-0BB20-1FA0		1	1 unit	41J
			Blue	1	1	0	5	3SU1100-0BB50-1BA0		1	1 unit	41J
Illuminated pushbuttons with flat button, momentary contact with integrated LED												
	24	24	Red	1	1	0	5	3SU1102-0AB20-1BA0		1	1 unit	41J
					0	1	▶	3SU1102-0AB20-1CA0		1	1 unit	41J
					1	1	▶	3SU1102-0AB20-1FA0		1	1 unit	41J
			Yellow	1	1	0	▶	3SU1102-0AB30-1BA0		1	1 unit	41J
					1	1	3	3SU1102-0AB30-1FA0		1	1 unit	41J
			Green	1	1	0	▶	3SU1102-0AB40-1BA0		1	1 unit	41J
					1	1	▶	3SU1102-0AB40-1FA0		1	1 unit	41J
			Blue	1	1	0	▶	3SU1102-0AB50-1BA0		1	1 unit	41J
					1	1	3	3SU1102-0AB50-1FA0		1	1 unit	41J
			White	1	1	0	▶	3SU1102-0AB60-1BA0		1	1 unit	41J
					1	1	▶	3SU1102-0AB60-1FA0		1	1 unit	41J
			Clear	1	1	0	▶	3SU1102-0AB70-1BA0		1	1 unit	41J
	1	1		3	3SU1102-0AB70-1FA0		1	1 unit	41J			
	110	--	Red	1	0	1	5	3SU1103-0AB20-1CA0		1	1 unit	41J
					1	1	3	3SU1103-0AB20-1FA0		1	1 unit	41J
			Yellow	1	1	0	5	3SU1103-0AB30-1BA0		1	1 unit	41J
					1	1	5	3SU1103-0AB30-1FA0		1	1 unit	41J
			Green	1	1	0	3	3SU1103-0AB40-1BA0		1	1 unit	41J
					1	1	3	3SU1103-0AB40-1FA0		1	1 unit	41J
			Blue	1	1	0	5	3SU1103-0AB50-1BA0		1	1 unit	41J
					1	1	5	3SU1103-0AB50-1FA0		1	1 unit	41J
			White	1	1	0	5	3SU1103-0AB60-1BA0		1	1 unit	41J
					1	1	5	3SU1103-0AB60-1FA0		1	1 unit	41J
			Clear	1	1	0	5	3SU1103-0AB70-1BA0		1	1 unit	41J
					1	1	5	3SU1103-0AB70-1FA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Complete Units

Pushbuttons

Supply voltage for light source		Color	Number of			SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
at AC	at DC	Contact modules	NO contacts	NC contacts							
V	V				d		Article No.	Price per PU			

Pushbuttons



3SU1106-0AB40-1BA0

Illuminated pushbuttons with flat button, momentary contact with integrated LED

230	--	Red	1	0	1	5	3SU1106-0AB20-1CA0 3SU1106-0AB20-1FA0	1 1	1 unit 1 unit	41J 41J
		Yellow	1	1	0	5	3SU1106-0AB30-1BA0 3SU1106-0AB30-1FA0	1 1	1 unit 1 unit	41J 41J
		Green	1	1	0	3	3SU1106-0AB40-1BA0 3SU1106-0AB40-1FA0	1 1	1 unit 1 unit	41J 41J
		Blue	1	1	0	5	3SU1106-0AB50-1BA0 3SU1106-0AB50-1FA0	1 1	1 unit 1 unit	41J 41J
		White	1	1	0	5	3SU1106-0AB60-1BA0 3SU1106-0AB60-1FA0	1 1	1 unit 1 unit	41J 41J
		Clear	1	1	0	5	3SU1106-0AB70-1BA0 3SU1106-0AB70-1FA0	1 1	1 unit 1 unit	41J 41J

Spring-type terminals



3SU1100-0AB30-3BA0

Pushbuttons with flat button, momentary contact

--	--	Black	1	1	0	3	3SU1100-0AB10-3BA0 3SU1100-0AB10-3CA0 3SU1100-0AB10-3FA0	1 1 1	1 unit 1 unit 1 unit	41J 41J 41J
		Red	1	0	1	5	3SU1100-0AB20-3CA0 3SU1100-0AB20-3FA0	1 1	1 unit 1 unit	41J 41J
		Yellow	1	1	0	5	3SU1100-0AB30-3BA0 3SU1100-0AB30-3FA0	1 1	1 unit 1 unit	41J 41J
		Green	1	1	0	5	3SU1100-0AB40-3BA0 3SU1100-0AB40-3FA0	1 1	1 unit 1 unit	41J 41J
		Blue	1	1	0	5	3SU1100-0AB50-3BA0 3SU1100-0AB50-3FA0	1 1	1 unit 1 unit	41J 41J
		White	1	1	0	5	3SU1100-0AB60-3BA0 3SU1100-0AB60-3FA0	1 1	1 unit 1 unit	41J 41J



3SU1102-0AB20-3CA0

Illuminated pushbuttons with flat button, momentary contact with integrated LED

24	24	Red	1	0	1	5	3SU1102-0AB20-3CA0 3SU1102-0AB20-3FA0	1 1	1 unit 1 unit	41J 41J
		Yellow	1	1	0	5	3SU1102-0AB30-3BA0 3SU1102-0AB30-3FA0	1 1	1 unit 1 unit	41J 41J
		Green	1	1	0	3	3SU1102-0AB40-3BA0 3SU1102-0AB40-3FA0	1 1	1 unit 1 unit	41J 41J
		Blue	1	1	0	5	3SU1102-0AB50-3BA0 3SU1102-0AB50-3FA0	1 1	1 unit 1 unit	41J 41J
		White	1	1	0	3	3SU1102-0AB60-3BA0 3SU1102-0AB60-3FA0	1 1	1 unit 1 unit	41J 41J
		Clear	1	1	0	5	3SU1102-0AB70-3BA0 3SU1102-0AB70-3FA0	1 1	1 unit 1 unit	41J 41J
110	--	Red	1	0	1	5	3SU1103-0AB20-3CA0 3SU1103-0AB20-3FA0	1 1	1 unit 1 unit	41J 41J
		Yellow	1	1	1	5	3SU1103-0AB30-3FA0	1	1 unit	41J
		Green	1	1	0	5	3SU1103-0AB40-3BA0 3SU1103-0AB40-3FA0	1 1	1 unit 1 unit	41J 41J
		Blue	1	1	1	5	3SU1103-0AB50-3FA0	1	1 unit	41J
		White	1	1	0	5	3SU1103-0AB60-3BA0 3SU1103-0AB60-3FA0	1 1	1 unit 1 unit	41J 41J
		Clear	1	1	0	5	3SU1103-0AB70-3BA0 3SU1103-0AB70-3FA0	1 1	1 unit 1 unit	41J 41J
230	--	Red	1	0	1	5	3SU1106-0AB20-3CA0 3SU1106-0AB20-3FA0	1 1	1 unit 1 unit	41J 41J
		Yellow	1	1	1	5	3SU1106-0AB30-3FA0	1	1 unit	41J
		Green	1	1	0	5	3SU1106-0AB40-3BA0 3SU1106-0AB40-3FA0	1 1	1 unit 1 unit	41J 41J
		Blue	1	1	1	5	3SU1106-0AB50-3FA0	1	1 unit	41J
		White	1	1	0	5	3SU1106-0AB60-3BA0 3SU1106-0AB60-3FA0	1 1	1 unit 1 unit	41J 41J
		Clear	1	1	0	5	3SU1106-0AB70-3BA0 3SU1106-0AB70-3FA0	1 1	1 unit 1 unit	41J 41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black
Complete Units

Mushroom pushbuttons/EMERGENCY STOP mushroom pushbuttons**Selection and ordering data**

Unlatching method	Number of Contact modules	NO contacts	NC contacts	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
				d	Article No.	Price per PU		

Mushroom pushbuttons

3SU1100-1BA20-3CA0

With red mushroom, diameter 40 mm, latching

Pull to unlatch	1	0	1	3	3SU1100-1BA20-1CA0	1	1 unit	41J
		1	1	3	3SU1100-1BA20-1FA0	1	1 unit	41J
					Spring-type terminals			
Pull to unlatch	1	0	1	5	3SU1100-1BA20-3CA0	1	1 unit	41J
		1	1	5	3SU1100-1BA20-3FA0	1	1 unit	41J

Selection and ordering data

Unlatching method	Number of Contact modules	NO contacts	NC contacts	Marking	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
					d	Article No.	Price per PU		

EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5

3SU1100-1HA20-1CH0



3SU1100-1HB20-1CH0

With red mushroom, diameter 40 mm, with positive latching

Pull to unlatch	1	0	1	NOT-HALT	⊖ 5	3SU1100-1HA20-1CH0	1	1 unit	41J
		1	1	EMERGENCY STOP	⊖ 5	3SU1100-1HA20-1FG0	1	1 unit	41J
		1	1	NOT-HALT	⊖ 5	3SU1100-1HA20-1FH0	1	1 unit	41J
Rotate to unlatch	1	0	1	None	⊖ 5	3SU1100-1HB20-1CF0	1	1 unit	41J
		0	1	EMERGENCY STOP	⊖ 5	3SU1100-1HB20-1CG0	1	1 unit	41J
		0	1	NOT-HALT	⊖ ▶	3SU1100-1HB20-1CH0	1	1 unit	41J
		0	2	EMERGENCY STOP	⊖ 5	3SU1100-1HB20-1PG0	1	1 unit	41J
		0	1	ARRET D'URGENCE	⊖ 5	3SU1100-1HB20-1CJ0	1	1 unit	41J
		1	1	EMERGENCY STOP	⊖ 5	3SU1100-1HB20-1FG0	1	1 unit	41J
		1	1	NOT-HALT	⊖ ▶	3SU1100-1HB20-1FH0	1	1 unit	41J
		1	1	ARRET D'URGENCE	⊖ 5	3SU1100-1HB20-1FJ0	1	1 unit	41J
						Spring-type terminals			
Rotate to unlatch	1	0	1	NOT-HALT	⊖ 5	3SU1100-1HB20-3CH0	1	1 unit	41J
		1	1	NOT-HALT	⊖ 5	3SU1100-1HB20-3FH0	1	1 unit	41J

With red mushroom, diameter 40 mm, with latching NEW

3SU1100-1LB20-1PH0

						Screw terminals			
Rotate to unlatch	2	0	2	NOT-HALT	5	3SU1100-1LB20-1PH0	1	1 unit	41J

⊖ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
see page 11/1 onwards.
Certificate:



SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black Complete Units

Selector switches

Selection and ordering data

Operating principle	Color	Number of Contact modules	NO contacts	NC contacts	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	Supply voltage for light source					Article No.	Price per PU		

Selector switches



3SU1100-2BF60-1BA0

Short black actuator, 2 switch positions, can be illuminated

Latching, 90°	White	1	1	0	▶	3SU1100-2BF60-1BA0	1	1 unit	41J
		2	1	1	▶	3SU1100-2BF60-1MA0	1	1 unit	41J
	White 110 V	1	1	0	5	3SU1103-2BF60-1BA0	1	1 unit	41J

Short black actuator, 3 switch positions, can be illuminated

Momentary contact, 2x45°, reset from left + right	White	2	2	2	3	3SU1100-2BM60-1LA0	1	1 unit	41J
			2	0	▶	3SU1100-2BM60-1NA0	1	1 unit	41J



Latching, 2x45°	White	2	2	2	▶	3SU1100-2BL60-1LA0	1	1 unit	41J
			2	0	▶	3SU1100-2BL60-1NA0	1	1 unit	41J



Spring-type terminals



Short black actuator, 2 switch positions, can be illuminated

Latching, 90°	White	1	1	0	5	3SU1100-2BF60-3BA0	1	1 unit	41J
		2	1	1	5	3SU1100-2BF60-3MA0	1	1 unit	41J

Short black actuator, 3 switch positions, can be illuminated

Momentary contact, 2x45°, reset from left + right	White	2	2	2	5	3SU1100-2BM60-3LA0	1	1 unit	41J
			2	0	5	3SU1100-2BM60-3NA0	1	1 unit	41J



Latching, 2x45°	White	2	2	2	5	3SU1100-2BL60-3LA0	1	1 unit	41J
			2	0	5	3SU1100-2BL60-3NA0	1	1 unit	41J




SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Complete Units

Key-operated switches

Selection and ordering data

Operating principle	Switch position for key removal	Number of Contact modules	NO contacts	NC contacts	Number of keys	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
							Article No.	Price per PU		

Key-operated switches



With RONIS lock, SB30, 2 switch positions

Latching, 90°
(10:30/
1:30 o'clock)



O+I	1	1	0	2
		1	1	2

▶	3SU1100-4BF11-1BA0	1	1 unit	41J
▶	3SU1100-4BF11-1FA0	1	1 unit	41J



With RONIS lock, SB30, 3 switch positions

Latching,
2x45°
(10:30/
1:30 o'clock)



I+O+II	2	2	0	2
--------	---	---	---	---

	3SU1100-4BL11-1NA0	1	1 unit	41J
--	---------------------------	---	--------	-----

Spring-type terminals

With RONIS lock, SB30, 2 switch positions

Latching, 90°
(10:30/
1:30 o'clock)



O+I	1	1	0	2
		1	1	2

	3SU1100-4BF11-3BA0	1	1 unit	41J
	3SU1100-4BF11-3FA0	1	1 unit	41J

With CES lock, SSG10, 2 switch positions

Latching, 90°
(10:30/
1:30 o'clock)



O+I	1	1	1	2
-----	---	---	---	---

	3SU1100-5BF11-3FA0	1	1 unit	41J
--	---------------------------	---	--------	-----


SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Complete Units

Coordinate switches

Selection and ordering data

Number of NO contacts (1 per direction)	Operating principle	Direction of actuation	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Coordinate switches

Without mechanical interlock, 2 switch positions

2	Momentary contact	Horizontal	5	3SU1100-7AC10-1NA0	1	1 unit	41J
		Vertical	5	3SU1100-7AD10-1NA0	1	1 unit	41J
	Latching	Horizontal	5	3SU1100-7AA10-1NA0	1	1 unit	41J
		Vertical	5	3SU1100-7AB10-1NA0	1	1 unit	41J



3SU1100-7AC10-1NA0

Without mechanical interlock, 4 switch positions

4	Momentary contact	Horizontal/Vertical	3	3SU1100-7AF10-1QA0	1	1 unit	41J
	Latching	Horizontal/Vertical	5	3SU1100-7AE10-1QA0	1	1 unit	41J



3SU1100-7AF10-1QA0

With mechanical interlock, 2 switch positions

2	Momentary contact	Horizontal	5	3SU1100-7BC10-1NA0	1	1 unit	41J
		Vertical	5	3SU1100-7BD10-1NA0	1	1 unit	41J
	Latching	Horizontal	5	3SU1100-7BA10-1NA0	1	1 unit	41J
		Vertical	5	3SU1100-7BB10-1NA0	1	1 unit	41J



3SU1100-7BA10-1NA0

With mechanical interlock, 4 switch positions

4	Momentary contact	Horizontal/Vertical	5	3SU1100-7BF10-1QA0	1	1 unit	41J
	Latching	Horizontal/Vertical	5	3SU1100-7BE10-1QA0	1	1 unit	41J










3SU1100-7BF10-1QA0

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black Complete Units

Indicator lights

Selection and ordering data

	Operational voltage		Color of actuating element	Color of light source	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG			
	at AC, rated value	at DC, rated value				Article No.				Price per PU		
Indicator lights												
With smooth lens and integrated LED												
	24	24	Red	Red	▶	3SU1102-6AA20-1AA0	1	1 unit	41J			
			Yellow	Yellow	▶	3SU1102-6AA30-1AA0	1	1 unit	41J			
			Green	Green	▶	3SU1102-6AA40-1AA0	1	1 unit	41J			
			Blue	Blue	▶	3SU1102-6AA50-1AA0	1	1 unit	41J			
			White	White	▶	3SU1102-6AA60-1AA0	1	1 unit	41J			
			Clear	White	▶	3SU1102-6AA70-1AA0	1	1 unit	41J			
3SU1102-6AA30-1AA0												
	110	--	Amber	Amber	5	3SU1103-6AA00-1AA0	1	1 unit	41J			
			Red	Red	▶	3SU1103-6AA20-1AA0	1	1 unit	41J			
			Yellow	Yellow	▶	3SU1103-6AA30-1AA0	1	1 unit	41J			
			Green	Green	▶	3SU1103-6AA40-1AA0	1	1 unit	41J			
			Blue	Blue	3	3SU1103-6AA50-1AA0	1	1 unit	41J			
			White	White	▶	3SU1103-6AA60-1AA0	1	1 unit	41J			
			Clear	White	3	3SU1103-6AA70-1AA0	1	1 unit	41J			
			3SU1106-6AA50-1AA0									
	230	--	Amber	Amber	5	3SU1106-6AA00-1AA0	1	1 unit	41J			
			Red	Red	▶	3SU1106-6AA20-1AA0	1	1 unit	41J			
			Yellow	Yellow	▶	3SU1106-6AA30-1AA0	1	1 unit	41J			
			Green	Green	▶	3SU1106-6AA40-1AA0	1	1 unit	41J			
			Blue	Blue	3	3SU1106-6AA50-1AA0	1	1 unit	41J			
			White	White	▶	3SU1106-6AA60-1AA0	1	1 unit	41J			
			Clear	White	3	3SU1106-6AA70-1AA0	1	1 unit	41J			
			3SU1106-6AA50-1AA0									
									Spring-type terminals			
				24	24	Red	Red	3	3SU1102-6AA20-3AA0	1	1 unit	41J
Yellow	Yellow	5				3SU1102-6AA30-3AA0	1	1 unit	41J			
Green	Green	3				3SU1102-6AA40-3AA0	1	1 unit	41J			
Blue	Blue	5				3SU1102-6AA50-3AA0	1	1 unit	41J			
White	White	3				3SU1102-6AA60-3AA0	1	1 unit	41J			
Clear	White	5				3SU1102-6AA70-3AA0	1	1 unit	41J			
3SU1102-6AA40-3AA0												
	110	--	Red	Red	5	3SU1103-6AA20-3AA0	1	1 unit	41J			
			Yellow	Yellow	5	3SU1103-6AA30-3AA0	1	1 unit	41J			
			Green	Green	5	3SU1103-6AA40-3AA0	1	1 unit	41J			
			Blue	Blue	5	3SU1103-6AA50-3AA0	1	1 unit	41J			
			White	White	5	3SU1103-6AA60-3AA0	1	1 unit	41J			
			Clear	White	5	3SU1103-6AA70-3AA0	1	1 unit	41J			
			3SU1106-6AA40-3AA0									
				230	--	Red	Red	5	3SU1106-6AA20-3AA0	1	1 unit	41J
Yellow	Yellow	5				3SU1106-6AA30-3AA0	1	1 unit	41J			
Green	Green	5				3SU1106-6AA40-3AA0	1	1 unit	41J			
Blue	Blue	5				3SU1106-6AA50-3AA0	1	1 unit	41J			
White	White	5				3SU1106-6AA60-3AA0	1	1 unit	41J			
Clear	White	5				3SU1106-6AA70-3AA0	1	1 unit	41J			
3SU1106-6AA60-3AA0												

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black Compact Units

Indicator lights


Selection and ordering data

	Operational voltage		Color of actuating element	Color of light source	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	at AC, rated value	at DC, rated value								
	V	V			d	Article No.	Price per PU			
Indicator lights NEW										
	24	24	Amber	Amber	3	3SU1201-6AB00-1AA0		1	1 unit	41J
			Red	Red	▶	3SU1201-6AB20-1AA0		1	1 unit	41J
			Yellow	Yellow	▶	3SU1201-6AB30-1AA0		1	1 unit	41J
			Green	Green	▶	3SU1201-6AB40-1AA0		1	1 unit	41J
			Blue	Blue	3	3SU1201-6AB50-1AA0		1	1 unit	41J
			White	White	▶	3SU1201-6AB60-1AA0		1	1 unit	41J
			Clear	Clear	▶	3SU1201-6AB70-1AA0		1	1 unit	41J
3SU1201-6AB50-1AA0										
	110	110	Amber	Amber	5	3SU1201-6AC00-1AA0		1	1 unit	41J
			Red	Red	3	3SU1201-6AC20-1AA0		1	1 unit	41J
			Yellow	Yellow	3	3SU1201-6AC30-1AA0		1	1 unit	41J
			Green	Green	3	3SU1201-6AC40-1AA0		1	1 unit	41J
			Blue	Blue	5	3SU1201-6AC50-1AA0		1	1 unit	41J
			White	White	3	3SU1201-6AC60-1AA0		1	1 unit	41J
			Clear	Clear	5	3SU1201-6AC70-1AA0		1	1 unit	41J
3SU1201-6AC30-1AA0										
	230	230	Amber	Amber	5	3SU1201-6AF00-1AA0		1	1 unit	41J
			Red	Red	3	3SU1201-6AF20-1AA0		1	1 unit	41J
			Yellow	Yellow	3	3SU1201-6AF30-1AA0		1	1 unit	41J
			Green	Green	3	3SU1201-6AF40-1AA0		1	1 unit	41J
			Blue	Blue	5	3SU1201-6AF50-1AA0		1	1 unit	41J
			White	White	3	3SU1201-6AF60-1AA0		1	1 unit	41J
			Clear	Clear	5	3SU1201-6AF70-1AA0		1	1 unit	41J
3SU1201-6AF30-1AA0										
Indicator lights with "traffic light" LED										
	6 ... 24	6 ... 24	Clear	Red/Yellow/ Green	▶	3SU1201-6AG24-1AA0		1	1 unit	41J
	110	--	Clear	Red/Yellow/ Green	▶	3SU1201-6AC24-1AA0		1	1 unit	41J
	230	--	Clear	Red/Yellow/ Green	▶	3SU1201-6AF24-1AA0		1	1 unit	41J
3SU1201-6AG24-1AA0										

SIRIUS ACT Pushbuttons and Indicator Lights


Actuators and Indicators, 22 mm, Round, Plastic, Black
Compact Units

Acoustic signaling devices/sensor switches/potentiometers**Selection and ordering data**

Operational voltage		Volume level	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
at AC, rated value	at DC, rated value						
V	V	dB	d	Article No.	Price per PU		
Acoustic signaling devices							
	24	24	90	5	3SU1200-6KB10-1AA0	1	1 unit 41J
	110	--	90	5	3SU1200-6KC10-1AA0	1	1 unit 41J
	230	--	90	5	3SU1200-6KF10-1AA0	1	1 unit 41J

3SU1200-6KB10-1AA0

Selection and ordering data


Operating principle	Number of NO contacts	Number of NC contacts	Color	SD	M12 connector, 4-pin	PU (UNIT, SET, M)	PS*	PG
				d	Article No.	Price per PU		
Sensor switches								
	Whether integrated in the two-hand operation console or installed as a door opening contact, the capacitive sensor switch is suitable for many different applications in industrial environments.							
	The switch is actuated by simple contact with the hand or other part of the body (i.e. without the application of pressure). As a result, these switches are rugged, extremely durable and have the highest possible degree of protection IP66, IP67, IP69 (IP69K).							
Without pressure	1	0	Black	►	3SU1200-1SK10-2SA0	1	1 unit	41J

3SU1200-1SK10-2SA0

Optional accessories

- "Protection for sensor switches", [see page 13/136](#)
- "Connectors for sensor switches, angled socket with screw terminal connection", [see page 13/144](#)

Selection and ordering data

Version of actuating element	Operating principle	Adjustable resistance	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
		kΩ	d	Article No.	Price per PU		
Potentiometers							
	Rotary knob	Stepless	1	►	3SU1200-2PQ10-1AA0	1	1 unit 41J
			2.2	5	3SU1200-2PW10-1AA0	1	1 unit 41J
			4.7	►	3SU1200-2PR10-1AA0	1	1 unit 41J
			10	►	3SU1200-2PS10-1AA0	1	1 unit 41J
			47	►	3SU1200-2PT10-1AA0	1	1 unit 41J
			100	►	3SU1200-2PU10-1AA0	1	1 unit 41J
			470	►	3SU1200-2PV10-1AA0	1	1 unit 41J

3SU1200-2PQ10-1AA0

Labeling plates for potentiometers, [see page 13/132](#).

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black Compact Units

Pushbuttons with extended stroke

Selection and ordering data

Version	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							

Pushbuttons with extended stroke

For actuating relays, can only be combined with extension plunger, no contact module or LED module required



3SU1200-0EB20-0AA0

Pushbuttons with flat button

Red
Green

5
5

3SU1200-0EB20-0AA0
3SU1200-0EB40-0AA0

1 1 unit 41J
1 1 unit 41J



3SU1200-0FB10-0AA0

Pushbuttons with raised button

Black
Red

►
5

3SU1200-0FB10-0AA0
3SU1200-0FB20-0AA0

1 1 unit 41J
1 1 unit 41J



3SU1201-0EB70-0AA0

Pushbuttons with flat transparent button for insertion of insert labels

Red
Clear

►
►

3SU1201-0EB20-0AA0
3SU1201-0EB70-0AA0

1 1 unit 41J
1 1 unit 41J

Version	Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								

Accessories

Extension plungers

Plastic

Gray

►

3SU1900-0KG10-0AA0

1 1 unit 41J

For compensation of the distance between the pushbutton and the unlatching button of an overload relay



3SU1900-0KG10-0AA0

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Pushbuttons**Selection and ordering data**






Version of actuating element		Operating principle		Color, marking	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Front ring version		Unlatching method								
d										
Pushbuttons										
	Pushbuttons with flat button Standard	Momentary contact	Black	▶	3SU1000-0AB10-0AA0	1	1 unit	41J		
			Black, "O"	▶	3SU1000-0AB10-0AD0	1	1 unit	41J		
			Red	▶	3SU1000-0AB20-0AA0	1	1 unit	41J		
			Red, "O"	▶	3SU1000-0AB20-0AD0	1	1 unit	41J		
			Yellow	▶	3SU1000-0AB30-0AA0	1	1 unit	41J		
			Green	▶	3SU1000-0AB40-0AA0	1	1 unit	41J		
			Green, "I"	▶	3SU1000-0AB40-0AC0	1	1 unit	41J		
			Blue	▶	3SU1000-0AB50-0AA0	1	1 unit	41J		
			Blue, "R"	5	3SU1000-0AB50-0AR0	1	1 unit	41J		
			White	▶	3SU1000-0AB60-0AA0	1	1 unit	41J		
			White, "I"	▶	3SU1000-0AB60-0AC0	1	1 unit	41J		
			Clear	▶	3SU1000-0AB70-0AA0	1	1 unit	41J		
			Gray	▶	3SU1000-0AB80-0AA0	1	1 unit	41J		
					Latching	Black	▶	3SU1000-0AA10-0AA0	1	1 unit
Push to unlatch	Red	▶			3SU1000-0AA20-0AA0	1	1 unit	41J		
	Yellow	3			3SU1000-0AA30-0AA0	1	1 unit	41J		
	Green	▶			3SU1000-0AA40-0AA0	1	1 unit	41J		
	Blue	▶			3SU1000-0AA50-0AA0	1	1 unit	41J		
	White	▶			3SU1000-0AA60-0AA0	1	1 unit	41J		
	Pushbuttons with raised button Standard	Momentary contact	Black	▶	3SU1000-0BB10-0AA0	1	1 unit	41J		
			Red	▶	3SU1000-0BB20-0AA0	1	1 unit	41J		
			Yellow	5	3SU1000-0BB30-0AA0	1	1 unit	41J		
			Green	▶	3SU1000-0BB40-0AA0	1	1 unit	41J		
			Blue	▶	3SU1000-0BB50-0AA0	1	1 unit	41J		
			White	▶	3SU1000-0BB60-0AA0	1	1 unit	41J		
				Pushbuttons with flat button Raised	Momentary contact	Black	3	3SU1000-0CB10-0AA0	1	1 unit
Red	5	3SU1000-0CB20-0AA0				1	1 unit	41J		
Yellow	5	3SU1000-0CB30-0AA0				1	1 unit	41J		
Green	5	3SU1000-0CB40-0AA0				1	1 unit	41J		
Blue	5	3SU1000-0CB50-0AA0				1	1 unit	41J		
White	5	3SU1000-0CB60-0AA0				1	1 unit	41J		
	Pushbuttons with flat button Raised, castellated	Momentary contact	Black	3	3SU1000-0DB10-0AA0	1	1 unit	41J		
			Red	5	3SU1000-0DB20-0AA0	1	1 unit	41J		
			Yellow	5	3SU1000-0DB30-0AA0	1	1 unit	41J		
			Green	5	3SU1000-0DB40-0AA0	1	1 unit	41J		
			Blue	5	3SU1000-0DB50-0AA0	1	1 unit	41J		
			White	5	3SU1000-0DB60-0AA0	1	1 unit	41J		

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Pushbuttons

Version of actuating element Front ring version		Operating principle Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									
Pushbuttons									
	Illuminated pushbuttons with flat button Standard	Momentary contact	Amber	5	3SU1001-0AB00-0AA0		1	1 unit	41J
			Red	▶	3SU1001-0AB20-0AA0		1	1 unit	41J
			Yellow	▶	3SU1001-0AB30-0AA0		1	1 unit	41J
			Green	▶	3SU1001-0AB40-0AA0		1	1 unit	41J
			Blue	▶	3SU1001-0AB50-0AA0		1	1 unit	41J
			White	▶	3SU1001-0AB60-0AA0		1	1 unit	41J
			Clear	▶	3SU1001-0AB70-0AA0		1	1 unit	41J
		Latching	Red	▶	3SU1001-0AA20-0AA0		1	1 unit	41J
		Push to unlatch	Yellow	▶	3SU1001-0AA30-0AA0		1	1 unit	41J
			Green	▶	3SU1001-0AA40-0AA0		1	1 unit	41J
			Blue	▶	3SU1001-0AA50-0AA0		1	1 unit	41J
			White	▶	3SU1001-0AA60-0AA0		1	1 unit	41J
			Clear	▶	3SU1001-0AA70-0AA0		1	1 unit	41J
	Illuminated pushbuttons with raised button Standard	Momentary contact	Red	▶	3SU1001-0BB20-0AA0		1	1 unit	41J
			Yellow	▶	3SU1001-0BB30-0AA0		1	1 unit	41J
			Green	▶	3SU1001-0BB40-0AA0		1	1 unit	41J
			Blue	▶	3SU1001-0BB50-0AA0		1	1 unit	41J
			Clear	3	3SU1001-0BB70-0AA0		1	1 unit	41J
	Illuminated pushbuttons with flat button Raised, castellated	Momentary contact	Blue	5	3SU1001-0DB50-0AA0		1	1 unit	41J
	Stop pushbuttons Standard	Momentary contact, latching by pressing in and turning to the right, rotate-to-unlatch to the left	Black	3	3SU1000-0HC10-0AA0		1	1 unit	41J
			Red	3	3SU1000-0HC20-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black
Actuating and Signaling Elements

Twin pushbuttons**Selection and ordering data**

Version of actuating element	Operating principle	Color	Marking Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Twin pushbuttons									
 3SU1000-3AB66-0AL0	Twin pushbuttons flat, flat	Green/Red	--	3	3SU1000-3AB42-0AA0		1	1 unit	41J
			"I"/"O"	▶	3SU1000-3AB42-0AK0		1	1 unit	41J
		White/Black	--	▶	3SU1000-3AB61-0AA0		1	1 unit	41J
			"I"/"O"	▶	3SU1000-3AB61-0AK0		1	1 unit	41J
		White/White	--	3	3SU1000-3AB66-0AA0		1	1 unit	41J
			"-"/"+"	5	3SU1000-3AB66-0AL0		1	1 unit	41J
			Arrows, hor.	5	3SU1000-3AB66-0AM0		1	1 unit	41J
			Arrows, vert.	5	3SU1000-3AB66-0AN0		1	1 unit	41J
		Black/Black	--	3	3SU1000-3AB11-0AA0		1	1 unit	41J
			○ ○ 5264/5265 (IEC 60417)	3	3SU1000-3AB11-0AQ0		1	1 unit	41J
 3SU1000-3BB42-0AK0	Twin pushbuttons flat, raised	Green/Red	--	3	3SU1000-3BB42-0AA0		1	1 unit	41J
		White/Black	--	▶	3SU1000-3BB42-0AK0		1	1 unit	41J
 3SU1001-3AB42-0AN0	Twin pushbuttons flat, flat, illuminated	Green/Red	--	▶	3SU1001-3AB42-0AA0		1	1 unit	41J
			"I"/"O"	▶	3SU1001-3AB42-0AK0		1	1 unit	41J
			Arrows, vert.	3	3SU1001-3AB42-0AN0		1	1 unit	41J
		White/Black	--	▶	3SU1001-3AB61-0AA0		1	1 unit	41J
			"I"/"O"	▶	3SU1001-3AB61-0AK0		1	1 unit	41J
		White/White	--	▶	3SU1001-3AB66-0AA0		1	1 unit	41J
			"-"/"+"	5	3SU1001-3AB66-0AL0		1	1 unit	41J
			Arrows, vert.	5	3SU1001-3AB66-0AN0		1	1 unit	41J
			Symbols	5	3SU1001-3AB66-0AP0		1	1 unit	41J
			"Circular saw blade"/ "Tilt tipper"				1	1 unit	41J
 3SU1001-3BB61-0AK0	Twin pushbuttons flat, raised, illuminated	Green/Red	--	3	3SU1001-3BB42-0AA0		1	1 unit	41J
			"I"/"O"	▶	3SU1001-3BB42-0AK0		1	1 unit	41J
		White/Black	--	▶	3SU1001-3BB61-0AA0		1	1 unit	41J
			"I"/"O"	3	3SU1001-3BB61-0AK0		1	1 unit	41J





SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Mushroom pushbuttons

Selection and ordering data






Version of actuating element		Operating principle Unlatching method	Color, marking	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
					d					
Mushroom pushbuttons										
	Mushroom pushbuttons 30 mm diameter, 2 positions	Momentary contact	Black	▶	3SU1000-1AD10-0AA0		1	1 unit	41J	
			Red	▶	3SU1000-1AD20-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1000-1AD30-0AA0		1	1 unit	41J	
			Green	▶	3SU1000-1AD40-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	Black	▶	3SU1000-1BD10-0AA0		1	1 unit	41J	
			Red	▶	3SU1000-1BD20-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1000-1BD30-0AA0		1	1 unit	41J	
			Green	▶	3SU1000-1BD40-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 60 mm diameter, 2 positions	Momentary contact	Black	▶	3SU1000-1BA10-0AA0		1	1 unit	41J	
			Red	▶	3SU1000-1BA20-0AA0		1	1 unit	41J	
			Red "O"	▶	3SU1000-1BA20-0AD0		1	1 unit	41J	
			Yellow	▶	3SU1000-1BA30-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 30 mm diameter, 2 positions, illuminated	Momentary contact	Green	▶	3SU1000-1BA40-0AA0		1	1 unit	41J	
			Blue	▶	3SU1000-1CD10-0AA0		1	1 unit	41J	
			White	▶	3SU1000-1CD20-0AA0		1	1 unit	41J	
			Clear	▶	3SU1000-1CD30-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 40 mm diameter, 2 positions, illuminated	Momentary contact	Red	▶	3SU1000-1CD40-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1000-1CA10-0AA0		1	1 unit	41J	
			Green	▶	3SU1000-1CA20-0AA0		1	1 unit	41J	
			Blue	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	Clear	▶	3SU1001-1AD20-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1001-1AD30-0AA0		1	1 unit	41J	
			Green	▶	3SU1001-1AD40-0AA0		1	1 unit	41J	
			Blue	▶	3SU1001-1AD50-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶	3SU1001-1AD60-0AA0		1	1 unit	41J	
			Clear	▶	3SU1001-1AD70-0AA0		1	1 unit	41J	
			Red	▶	3SU1001-1AA20-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1001-1AA30-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	Green	▶	3SU1001-1AA40-0AA0		1	1 unit	41J	
			Blue	▶	3SU1001-1AA50-0AA0		1	1 unit	41J	
			Clear	▶	3SU1001-1AA70-0AA0		1	1 unit	41J	
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶	3SU1001-1BD30-0AA0		1	1 unit	41J	
			Clear	▶	3SU1001-1BD40-0AA0		1	1 unit	41J	
			Red	▶	3SU1001-1BD60-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1001-1BD70-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	Green	▶	3SU1001-1BA20-0AA0		1	1 unit	41J	
			Blue	▶	3SU1001-1BA30-0AA0		1	1 unit	41J	
			Clear	▶	3SU1001-1BA40-0AA0		1	1 unit	41J	
			Yellow	▶	3SU1001-1BA50-0AA0		1	1 unit	41J	
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶	3SU1001-1BA70-0AA0		1	1 unit	41J	
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶	3SU1000-1HB10-0AA0		1	1 unit	41J	
			Clear	▶	3SU1000-1HB50-0AA0		1	1 unit	41J	
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact	White	▶						
			Clear	▶						
			Red	▶						
			Yellow	▶						
	Mushroom pushbuttons 40									

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

EMERGENCY STOP mushroom pushbuttons**Selection and ordering data**

Version of actuating element	Outer diameter of mushroom	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm		d					
EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5								
With pull-to-unlatch mechanism								
 3SU1000-1HA20-0AA0	With positive latching, 2 positions 40	Red	▶	3SU1000-1HA20-0AA0		1	1 unit	41J
With rotate-to-unlatch mechanism								
 3SU1000-1GB20-0AA0	With positive latching, 2 positions 33.8	Red	▶	3SU1000-1GB20-0AA0		1	1 unit	41J
 3SU1000-1HB20-0AA0	40	Red	▶	3SU1000-1HB20-0AA0		1	1 unit	41J
 3SU1000-1JB20-0AA0	60	Red	▶	3SU1000-1JB20-0AA0		1	1 unit	41J
 3SU1000-1LB20-0AA0	With latching, 2 positions 40	Red	NEW ▶	3SU1000-1LB20-0AA0		1	1 unit	41J
With rotate-to-unlatch mechanism, can be illuminated								
 3SU1001-1HB20-0AA0	With positive latching, 2 positions 33.8	Red	▶	3SU1001-1GB20-0AA0		1	1 unit	41J
	40	Red	▶	3SU1001-1HB20-0AA0		1	1 unit	41J
	60	Red	▶	3SU1001-1JB20-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

EMERGENCY STOP mushroom pushbuttons/Toggle switches

Version of actuating element	Outer diameter of mushroom mm	Make of lock	Color	Number of keys	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5

With key-operated release



3SU1000-1HF20-0AA0

With positive latching, 2 positions

RONIS SB30	Red	2	▶	3SU1000-1HF20-0AA0	1	1 unit	41J
RONIS 455	Red	2	3	3SU1000-1HG20-0AA0	1	1 unit	41J



3SU1000-1HK20-0AA0

BKS S1	Red	2	▶	3SU1000-1HK20-0AA0	1	1 unit	41J
BKS E7	Red	0	3	3SU1000-1HM20-0AA0	1	1 unit	41J
BKS E9	Red	0	3	3SU1000-1HN20-0AA0	1	1 unit	41J



3SU1000-1HQ20-0AA0

O.M.R. 73037	Red	2	▶	3SU1000-1HQ20-0AA0	1	1 unit	41J
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3SU1000-1HR20-0AA0

CES SSG10	Red	2	▶	3SU1000-1HR20-0AA0	1	1 unit	41J
CES SSP9	Red	2	▶	3SU1000-1HS20-0AA0	1	1 unit	41J
CES SMS1	Red	2	3	3SU1000-1HT20-0AA0	1	1 unit	41J

Selection and ordering data

Number of switching positions	Number of command points	Color of actuating element	Operating principle of the actuating element	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Toggle switches



3SU1000-3EA10-0AA0

Latching
Momentary contact, reset from above

3SU1000-3EA10-0AA0	1	1 unit	41J
3SU1000-3EC10-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Selector switches**Selection and ordering data**

Version of actuating element	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Selector switches								
2 switch positions, can be illuminated								
	Selector, short black actuator	Momentary contact, 45° (10:30/12 o'clock), reset from center to left 	Black ▶	3SU1002-2BC10-0AA0		1	1 unit	41J
				3SU1002-2BC20-0AA0		1	1 unit	41J
				3SU1002-2BC30-0AA0		1	1 unit	41J
				3SU1002-2BC40-0AA0		1	1 unit	41J
				3SU1002-2BC50-0AA0		1	1 unit	41J
				3SU1002-2BC60-0AA0		1	1 unit	41J
	Selector, short black actuator	Latching, 90° (10:30/1:30 o'clock) 	Black ▶	3SU1002-2BF10-0AA0		1	1 unit	41J
				3SU1002-2BF20-0AA0		1	1 unit	41J
				3SU1002-2BF30-0AA0		1	1 unit	41J
				3SU1002-2BF40-0AA0		1	1 unit	41J
				3SU1002-2BF50-0AA0		1	1 unit	41J
				3SU1002-2BF60-0AA0		1	1 unit	41J
	Selector, long black actuator	Latching, 90° (10:30/1:30 o'clock) 	Black 3	3SU1002-2CF10-0AA0		1	1 unit	41J
			Red 3	3SU1002-2CF20-0AA0		1	1 unit	41J
			White 3	3SU1002-2CF60-0AA0		1	1 unit	41J
	Rotary knob	Latching, 90° (10:30/1:30 o'clock) 	Red 3	3SU1002-2AF20-0AA0		1	1 unit	41J
			White ▶	3SU1002-2AF60-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Selector switches

Version of actuating element	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Selector switches

3 switch positions, can be illuminated



3SU1002-2BM20-0AA0

Selector, short black actuator

Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right



Black
Red
Yellow
Green
Blue
White

▶ 3SU1002-2BM10-0AA0
▶ 3SU1002-2BM20-0AA0
▶ 3SU1002-2BM30-0AA0
▶ 3SU1002-2BM40-0AA0
▶ 3SU1002-2BM50-0AA0
▶ 3SU1002-2BM60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1002-2BL60-0AA0

Latching, 2x45° (10:30/12/1:30 o'clock)



Black
Red
Yellow
Green
Blue
White

▶ 3SU1002-2BL10-0AA0
▶ 3SU1002-2BL20-0AA0
▶ 3SU1002-2BL30-0AA0
▶ 3SU1002-2BL40-0AA0
▶ 3SU1002-2BL50-0AA0
▶ 3SU1002-2BL60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1002-2BP50-0AA0

Momentary contact/latching, 2x45° (10:30/12/1:30 o'clock), reset from left, latching to the right



Black
Red
Yellow
Green
Blue
White

▶ 3SU1002-2BP10-0AA0
▶ 3SU1002-2BP20-0AA0
▶ 3SU1002-2BP30-0AA0
▶ 3SU1002-2BP40-0AA0
▶ 3SU1002-2BP50-0AA0
▶ 3SU1002-2BP60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1002-2BN30-0AA0

Latching/momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from right, latching to the left



Black
Red
Yellow
Green
Blue
White

▶ 3SU1002-2BN10-0AA0
▶ 3SU1002-2BN20-0AA0
▶ 3SU1002-2BN30-0AA0
▶ 3SU1002-2BN40-0AA0
▶ 3SU1002-2BN50-0AA0
▶ 3SU1002-2BN60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J

4 switch positions

Rotary knob

Latching, 4x90° (3/6/9/12 o'clock)



White

▶ 3SU1000-2AS60-0AA0

1 1 unit 41J



3SU1000-2AS60-0AA0

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Key-operated switches**Selection and ordering data**

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Key-operated switches**2 switch positions**

3SU1000-4JC01-0AA0

Momentary contact, 45° (10:30/12 o'clock), reset from center to left



RONIS, SB30	O	2	▶		3SU1000-4BC01-0AA0		1	1 unit	41J
RONIS, 455	O	2	5		3SU1000-4CC01-0AA0		1	1 unit	41J
O.M.R. 73037, red	O	2	3		3SU1000-4FC01-0AA0		1	1 unit	41J
O.M.R. 73038, light blue	O	2	3		3SU1000-4GC01-0AA0		1	1 unit	41J
O.M.R. 73034, black	O	2	3		3SU1000-4HC01-0AA0		1	1 unit	41J
O.M.R. 73033, yellow	O	2	3		3SU1000-4JC01-0AA0		1	1 unit	41J
CES, SSG10	O	2	▶		3SU1000-5BC01-0AA0		1	1 unit	41J
CES, LSG1		2	3		3SU1000-5HC01-0AA0		1	1 unit	41J
BKS, S1	O	2	▶		3SU1000-5PC01-0AA0		1	1 unit	41J
IKON, 360012K1	O	2	▶		3SU1000-5XC01-0AA0		1	1 unit	41J



3SU1000-4BF11-0AA0

Latching, 90° (10:30/1:30 o'clock)



RONIS, SB30	O	2	▶		3SU1000-4BF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1000-4BF11-0AA0		1	1 unit	41J
	I	2	▶		3SU1000-4BF21-0AA0		1	1 unit	41J
RONIS, 455	O	2	3		3SU1000-4CF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1000-4CF11-0AA0		1	1 unit	41J
RONIS, 421	O+I	2	5		3SU1000-4DF11-0AA0		1	1 unit	41J



3SU1000-4GF11-0AA0

O.M.R. 73037, red	O	2	3		3SU1000-4FF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1000-4FF11-0AA0		1	1 unit	41J
O.M.R. 73038, light blue	O	2	▶		3SU1000-4GF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1000-4GF11-0AA0		1	1 unit	41J
O.M.R. 73034, black	O	2	3		3SU1000-4HF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1000-4HF11-0AA0		1	1 unit	41J
	I	2	5		3SU1000-4HF21-0AA0		1	1 unit	41J
O.M.R. 73033, yellow	O	2	3		3SU1000-4JF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1000-4JF11-0AA0		1	1 unit	41J



3SU1000-5BF11-0AA0

CES, SSG10	O	2	▶		3SU1000-5BF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1000-5BF11-0AA0		1	1 unit	41J
	I	2	▶		3SU1000-5BF21-0AA0		1	1 unit	41J
CES, SSG10 with key monitoring	O	2	NEW ▶		3SU1000-5JF01-0AA0		1	1 unit	41J
CES, LSG1	O	2	▶		3SU1000-5HF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1000-5HF11-0AA0		1	1 unit	41J



3SU1000-5PF11-0AA0

BKS, S1	O	2	▶		3SU1000-5PF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1000-5PF11-0AA0		1	1 unit	41J
	I	2	3		3SU1000-5PF21-0AA0		1	1 unit	41J
BKS, E1	O	0	3		3SU1000-5QF01-0AA0		1	1 unit	41J
	O+I	0	3		3SU1000-5QF11-0AA0		1	1 unit	41J
BKS, E2	O	0	▶		3SU1000-5RF01-0AA0		1	1 unit	41J
	O+I	0	3		3SU1000-5RF11-0AA0		1	1 unit	41J
BKS, E7	O	0	▶		3SU1000-5SF01-0AA0		1	1 unit	41J
	O+I	0	▶		3SU1000-5SF11-0AA0		1	1 unit	41J
BKS, E9	O	0	▶		3SU1000-5TF01-0AA0		1	1 unit	41J
	O+I	0	3		3SU1000-5TF11-0AA0		1	1 unit	41J
IKON, 360012K1	O	2	▶		3SU1000-5XF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1000-5XF11-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Key-operated switches

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					

Key-operated switches

3 switch positions



3SU1000-4BM01-0AA0

Momentary contact, 2x45°
(10:30/12/
1:30 o'clock),
reset from
left + right



Latching, 2x45°
(10:30/12/
1:30 o'clock)





3SU1000-4FL01-0AA0



3SU1000-5BL01-0AA0



3SU1000-5JL01-0AA0

<div>Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right</div> <div></div>	RONIS, SB30	O	2	▶	3SU1000-4BM01-0AA0	1	1 unit	41J
	O.M.R. 73037, red	O	2	5	3SU1000-4FM01-0AA0	1	1 unit	41J
	O.M.R. 73034, black	O	2	5	3SU1000-4HM01-0AA0	1	1 unit	41J
	CES, SSG10	O	2	▶	3SU1000-5BM01-0AA0	1	1 unit	41J
	BKS, S1	O	2	3	3SU1000-5PM01-0AA0	1	1 unit	41J
	IKON, 360012K1	O	2	3	3SU1000-5XM01-0AA0	1	1 unit	41J
<div>Latching, 2x45° (10:30/12/1:30 o'clock)</div> <div></div>	RONIS, SB30	O	2	3	3SU1000-4BL01-0AA0	1	1 unit	41J
		I+O+II	2	▶	3SU1000-4BL11-0AA0	1	1 unit	41J
		I	2	5	3SU1000-4BL21-0AA0	1	1 unit	41J
		II	2	3	3SU1000-4BL31-0AA0	1	1 unit	41J
		I+II	2	3	3SU1000-4BL41-0AA0	1	1 unit	41J
		O+I	2	3	3SU1000-4BL51-0AA0	1	1 unit	41J
	RONIS, 455	O	2	5	3SU1000-4CL01-0AA0	1	1 unit	41J
		I+O+II	2	3	3SU1000-4CL11-0AA0	1	1 unit	41J
	O.M.R. 73037, red	O	2	5	3SU1000-4FL01-0AA0	1	1 unit	41J
		O+I	2	5	3SU1000-4FL51-0AA0	1	1 unit	41J
	O.M.R. 73038, light blue	O	2	3	3SU1000-4GL01-0AA0	1	1 unit	41J
		I+O+II	2	3	3SU1000-4GL11-0AA0	1	1 unit	41J
	O.M.R. 73034, black	O	2	5	3SU1000-4HL01-0AA0	1	1 unit	41J
		I+O+II	2	3	3SU1000-4HL11-0AA0	1	1 unit	41J
	O.M.R. 73033, yellow	I+O+II	2	5	3SU1000-4JL11-0AA0	1	1 unit	41J
	CES, SSG10	O	2	▶	3SU1000-5BL01-0AA0	1	1 unit	41J
		I+O+II	2	▶	3SU1000-5BL11-0AA0	1	1 unit	41J
		I	2	3	3SU1000-5BL21-0AA0	1	1 unit	41J
		II	2	▶	3SU1000-5BL31-0AA0	1	1 unit	41J
		I+II	2	3	3SU1000-5BL41-0AA0	1	1 unit	41J
O+I		2	3	3SU1000-5BL51-0AA0	1	1 unit	41J	
CES, SSG10 with key monitoring	O	2	NEW 3	3SU1000-5JL01-0AA0	1	1 unit	41J	
	BKS, S1	O	2	3	3SU1000-5PL01-0AA0	1	1 unit	41J
		I+O+II	2	3	3SU1000-5PL11-0AA0	1	1 unit	41J
		I	2	3	3SU1000-5PL21-0AA0	1	1 unit	41J
		II	2	3	3SU1000-5PL31-0AA0	1	1 unit	41J
		I+II	2	3	3SU1000-5PL41-0AA0	1	1 unit	41J
	BKS, E2	I+O+II	0	5	3SU1000-5RL11-0AA0	1	1 unit	41J
	BKS, E9	I+O+II	0	3	3SU1000-5TL11-0AA0	1	1 unit	41J
	IKON, 360012K1	O	2	3	3SU1000-5XL01-0AA0	1	1 unit	41J
		I+O+II	2	3	3SU1000-5XL11-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black

Actuating and Signaling Elements

Key-operated switches/ID key-operated switches

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									

Key-operated switches**3 switch positions**

Momentary contact/
latching, 2x45°
(10:30/12/
1:30 o'clock),
reset from left,
latching to the
right



RONIS, SB30
O
II
O+II

2
2
2

3
3
3

3SU1000-4BP01-0AA0
3SU1000-4BP31-0AA0
3SU1000-4BP61-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



CES, SSG10
O
II
O+II

2
2
2

3
5
3

3SU1000-5BP01-0AA0
3SU1000-5BP31-0AA0
3SU1000-5BP61-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



Latching/
momentary
contact, 2x45°
(10:30/12/
1:30 o'clock),
reset from right,
latching to the
left



RONIS, SB30
O
I
O+I

2
2
2

3
3
3

3SU1000-4BN01-0AA0
3SU1000-4BN21-0AA0
3SU1000-4BN51-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J

O.M.R. 73038,
light blue
O.M.R. 73034,
black
I

2
2

5
5

3SU1000-4GN01-0AA0
3SU1000-4HN21-0AA0

1 1 unit 41J
1 1 unit 41J

CES, SSG10
O
I
O+I

2
2
2

3
3
3

3SU1000-5BN01-0AA0
3SU1000-5BN21-0AA0
3SU1000-5BN51-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J

BKS, S1
I
O+I

2
2

5
3

3SU1000-5PN21-0AA0
3SU1000-5PN51-0AA0

1 1 unit 41J
1 1 unit 41J

IKON, 360012K1

O+I

2

3SU1000-5XN51-0AA0

1 1 unit 41J

Selection and ordering data

Operating angle	Operating principle	Switch position for key removal	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									

ID key-operated switches**4 switch positions**

45°

Latching

Key removal
possible in
all 4 positions

Black

3SU1000-4WS10-0AA0

1 1 unit 41J

3SU1000-4WS10-0AA0

For ID keys, see page 13/140.

For electronic modules for ID key-operated switches, see page 13/99.

For plastic holders for ID key-operated switches, see page 13/89.



SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Round, Plastic, Black



Actuating and Signaling Elements

Coordinate switches/indicator lights

Selection and ordering data

Product function Locking in zero position	Number of switching positions	Operating principle	Direction of actuation	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Coordinate switches									
 3SU1000-7AA10-0AA0	No	2	Momentary contact	Horizontal Vertical	▶ ▶		1 1	1 unit 1 unit	41J 41J
			Latching	Horizontal Vertical	▶ ▶		1 1	1 unit 1 unit	41J 41J
	4	Momentary contact	Horizontal/ Vertical	▶ ▶	3SU1000-7AF10-0AA0		1	1 unit	41J
	Latching	Horizontal/ Vertical	▶ ▶		3SU1000-7AE10-0AA0		1	1 unit	41J
 3SU1000-7BA10-0AA0	Yes	2	Momentary contact	Horizontal Vertical	▶ ▶		1 1	1 unit 1 unit	41J 41J
			Latching	Horizontal Vertical	▶ ▶		1 1	1 unit 1 unit	41J 41J
	4	Momentary contact	Horizontal/ Vertical	▶ ▶	3SU1000-7BF10-0AA0		1	1 unit	41J
	Latching	Horizontal/ Vertical	▶ ▶		3SU1000-7BE10-0AA0		1	1 unit	41J

Selection and ordering data

Type of product	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Indicator lights							
	With smooth lens	Amber	3	3SU1001-6AA00-0AA0	1	1 unit	41J
		Red	▶	3SU1001-6AA20-0AA0	1	1 unit	41J
		Yellow	▶	3SU1001-6AA30-0AA0	1	1 unit	41J
		Green	▶	3SU1001-6AA40-0AA0	1	1 unit	41J
		Blue	▶	3SU1001-6AA50-0AA0	1	1 unit	41J
		White	▶	3SU1001-6AA60-0AA0	1	1 unit	41J
		Clear	▶	3SU1001-6AA70-0AA0	1	1 unit	41J
Indicator lights in illuminated pushbutton design							
	--	Red	3	3SU1001-0AD20-0AA0	1	1 unit	41J
		Yellow	3	3SU1001-0AD30-0AA0	1	1 unit	41J
		Green	3	3SU1001-0AD40-0AA0	1	1 unit	41J
		Blue	3	3SU1001-0AD50-0AA0	1	1 unit	41J
		Clear	▶	3SU1001-0AD70-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Complete Units

Pushbuttons**Selection and ordering data**

Supply voltage for light source		Color	Number of			SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
at AC	at DC		Contact modules	NO contacts	NC contacts						
V	V					d	Article No.	Price per PU			
Pushbuttons											
Pushbuttons with flat button, momentary contact											
	--	--	Black	1	1	0	▶	3SU1130-0AB10-1BA0	1	1 unit	41J
				0	0	1	3	3SU1130-0AB10-1CA0	1	1 unit	41J
				1	1	1	▶	3SU1130-0AB10-1FA0	1	1 unit	41J
			Red	1	1	0	5	3SU1130-0AB20-1BA0	1	1 unit	41J
					0	1	▶	3SU1130-0AB20-1CA0	1	1 unit	41J
					1	1	▶	3SU1130-0AB20-1FA0	1	1 unit	41J
			Yellow	1	1	0	5	3SU1130-0AB30-1BA0	1	1 unit	41J
					1	1	5	3SU1130-0AB30-1FA0	1	1 unit	41J
			Green	1	1	0	▶	3SU1130-0AB40-1BA0	1	1 unit	41J
					1	1	▶	3SU1130-0AB40-1FA0	1	1 unit	41J
			Blue	1	1	0	3	3SU1130-0AB50-1BA0	1	1 unit	41J
					1	1	5	3SU1130-0AB50-1FA0	1	1 unit	41J
			White	1	1	0	3	3SU1130-0AB60-1BA0	1	1 unit	41J
					1	1	5	3SU1130-0AB60-1FA0	1	1 unit	41J
Pushbuttons with raised button, momentary contact											
	--	--	Red	1	0	1	5	3SU1130-0BB20-1CA0	1	1 unit	41J
Illuminated pushbuttons with flat button, momentary contact with integrated LED											
	24	24	Red	1	1	0	5	3SU1132-0AB20-1BA0	1	1 unit	41J
					0	1	3	3SU1132-0AB20-1CA0	1	1 unit	41J
					1	1	3	3SU1132-0AB20-1FA0	1	1 unit	41J
			Yellow	1	1	0	3	3SU1132-0AB30-1BA0	1	1 unit	41J
					1	1	5	3SU1132-0AB30-1FA0	1	1 unit	41J
			Green	1	1	0	▶	3SU1132-0AB40-1BA0	1	1 unit	41J
					1	1	3	3SU1132-0AB40-1FA0	1	1 unit	41J
			Blue	1	1	0	3	3SU1132-0AB50-1BA0	1	1 unit	41J
					1	1	5	3SU1132-0AB50-1FA0	1	1 unit	41J
	White	1	1	0	▶	3SU1132-0AB60-1BA0	1	1 unit	41J		
			1	1	3	3SU1132-0AB60-1FA0	1	1 unit	41J		
		Clear	1	1	0	3	3SU1132-0AB70-1BA0	1	1 unit	41J	
			1	1	5	3SU1132-0AB70-1FA0	1	1 unit	41J		
	110	--	Red	1	0	1	5	3SU1133-0AB20-1CA0	1	1 unit	41J
					1	1	5	3SU1133-0AB20-1FA0	1	1 unit	41J
			Yellow	1	1	0	5	3SU1133-0AB30-1BA0	1	1 unit	41J
					1	1	5	3SU1133-0AB30-1FA0	1	1 unit	41J
			Green	1	1	0	5	3SU1133-0AB40-1BA0	1	1 unit	41J
					1	1	5	3SU1133-0AB40-1FA0	1	1 unit	41J
			Blue	1	1	0	5	3SU1133-0AB50-1BA0	1	1 unit	41J
					1	1	5	3SU1133-0AB50-1FA0	1	1 unit	41J
			White	1	1	0	5	3SU1133-0AB60-1BA0	1	1 unit	41J
					1	1	5	3SU1133-0AB60-1FA0	1	1 unit	41J
			Clear	1	1	0	5	3SU1133-0AB70-1BA0	1	1 unit	41J
					1	1	5	3SU1133-0AB70-1FA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte Complete Units

Pushbuttons

Supply voltage for light source		Color	Number of			SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
at AC	at DC		Contact modules	NO contacts	NC contacts						
V	V					d	Article No.	Price per PU			

Pushbuttons



3SU1136-0AB40-1BA0

Illuminated pushbuttons with flat button, momentary contact with integrated LED

230	--	Red	1	0	1	5	3SU1136-0AB20-1CA0 3SU1136-0AB20-1FA0		1	1 unit	41J
		Yellow	1	1	0	5	3SU1136-0AB30-1BA0 3SU1136-0AB30-1FA0		1	1 unit	41J
		Green	1	1	0	5	3SU1136-0AB40-1BA0 3SU1136-0AB40-1FA0		1	1 unit	41J
		Blue	1	1	0	5	3SU1136-0AB50-1BA0 3SU1136-0AB50-1FA0		1	1 unit	41J
		White	1	1	0	5	3SU1136-0AB60-1BA0 3SU1136-0AB60-1FA0		1	1 unit	41J
		Clear	1	1	0	5	3SU1136-0AB70-1BA0 3SU1136-0AB70-1FA0		1	1 unit	41J

Spring-type terminals



3SU1130-0AB10-3BA0

Pushbuttons with flat button, momentary contact

--	--	Black	1	1	0	5	3SU1130-0AB10-3BA0 3SU1130-0AB10-3FA0		1	1 unit	41J
		Red	1	0	1	5	3SU1130-0AB20-3CA0		1	1 unit	41J
		Green	1	1	0	5	3SU1130-0AB40-3BA0		1	1 unit	41J
		White	1	1	1	5	3SU1130-0AB60-3FA0		1	1 unit	41J



3SU1132-0AB30-3BA0


Illuminated pushbuttons with flat button, momentary contact

24	24	Red	1	0	1	5	3SU1132-0AB20-3CA0 3SU1132-0AB20-3FA0		1	1 unit	41J
		Yellow	1	1	0	5	3SU1132-0AB30-3BA0 3SU1132-0AB30-3FA0		1	1 unit	41J
		Green	1	1	0	5	3SU1132-0AB40-3BA0 3SU1132-0AB40-3FA0		1	1 unit	41J
		Blue	1	1	0	5	3SU1132-0AB50-3BA0 3SU1132-0AB50-3FA0		1	1 unit	41J
		White	1	1	0	5	3SU1132-0AB60-3BA0 3SU1132-0AB60-3FA0		1	1 unit	41J
		Clear	1	1	0	5	3SU1132-0AB70-3BA0 3SU1132-0AB70-3FA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Complete Units

Mushroom pushbuttons/EMERGENCY STOP mushroom pushbuttons**Selection and ordering data**

Unlatching method	Number of Contact modules	NO contacts	NC contacts	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
				d	Article No.	Price per PU		


Mushroom pushbuttons

3SU1130-1BA20-1CA0

With red mushroom, diameter 40 mm, latching

Pull to unlatch	1	0	1	5	3SU1130-1BA20-1CA0	1	1 unit	41J
		1	1	5	3SU1130-1BA20-1FA0	1	1 unit	41J

Selection and ordering data

Unlatching method	Number of Contact modules	NO contacts	NC contacts	Marking	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
					d	Article No.	Price per PU		

EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5

3SU1100-1HA20-1CH0

With red mushroom, diameter 40 mm, with positive latching

Pull to unlatch	1	0	1	NOT-HALT	⊕ 5	3SU1100-1HA20-1CH0	1	1 unit	41J
		1	1	EMERGENCY STOP	⊖ 5	3SU1100-1HA20-1FG0	1	1 unit	41J
		1	1	NOT-HALT	⊕ 5	3SU1100-1HA20-1FH0	1	1 unit	41J
Rotate to unlatch	1	0	1	None	⊕ 5	3SU1100-1HB20-1CF0	1	1 unit	41J
		0	1	EMERGENCY STOP	⊖ 5	3SU1100-1HB20-1CG0	1	1 unit	41J
		0	1	NOT-HALT	⊕ ▶	3SU1100-1HB20-1CH0	1	1 unit	41J
		0	2	EMERGENCY STOP	⊖ 5	3SU1100-1HB20-1PG0	1	1 unit	41J
		0	1	ARRET D'URGENCE	⊕ 5	3SU1100-1HB20-1CJ0	1	1 unit	41J
		1	1	EMERGENCY STOP	⊖ 5	3SU1100-1HB20-1FG0	1	1 unit	41J
		1	1	NOT-HALT	⊕ ▶	3SU1100-1HB20-1FH0	1	1 unit	41J
		1	1	ARRET D'URGENCE	⊖ 5	3SU1100-1HB20-1FJ0	1	1 unit	41J

3SU1100-1HB20-1CH0



3SU1100-1LB20-1PH0

With red mushroom, diameter 40 mm, with latching NEW

Rotate to unlatch	2	0	2	NOT-HALT	5	3SU1100-1LB20-1PH0	1	1 unit	41J
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⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
see page siehe Seite 11/1 onwards.
Certificate:













SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte Complete Units

Selector switches






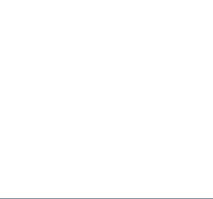


Selection and ordering data

Operating principle	Color	Number of		SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG	
		Contact modules	NO contacts							NC contacts
					Article No.	Price per PU				
Selector switches										
	Short black actuator, 2 switch positions, can be illuminated									
	Latching, 90° 	White	1	1	0	▶	3SU1130-2BF60-1BA0 3SU1130-2BF60-1MA0	1	1 unit	41J
				1	1	▶		1	1 unit	41J
3SU1130-2BF60-1BA0	Short black actuator, 3 switch positions, can be illuminated									
	Momentary contact, 2x45° 	White	2	2	2	5	3SU1130-2BM60-1LA0 3SU1130-2BM60-1NA0	1	1 unit	41J
				2	0	3		1	1 unit	41J
	Latching, 2x45° 	White	2	2	2	▶	3SU1130-2BL60-1LA0 3SU1130-2BL60-1NA0	1	1 unit	41J
				2	0			1	1 unit	41J
						Spring-type terminals 				
3SU1130-2BL60-1NA0	Short black actuator, 2 switch positions, can be illuminated									
	Latching, 90° 	White	1	1	0	5	3SU1130-2BF60-3BA0 3SU1130-2BF60-3MA0	1	1 unit	41J
				1	1	5		1	1 unit	41J
	Short black actuator, 3 switch positions, can be illuminated									
	Momentary contact, 2x45° 	White	2	2	0	5	3SU1130-2BM60-3NA0	1	1 unit	41J
	Latching, 2x45° 	White	2	2	2	5	3SU1130-2BL60-3LA0 3SU1130-2BL60-3NA0	1	1 unit	41J
				2	0	5		1	1 unit	41J




SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Complete Units

Key-operated switches/coordinate switches**Selection and ordering data**

Operating principle	Switch position for key removal	Number of Contact modules	NO contacts	NC contacts	Number of keys	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG	
						d	Article No.	Price per PU				
Key-operated switches												
With RONIS lock, SB30, 2 switch positions												
	Latching, 90°	O+I	1	1	0	2	3	3SU1130-4BF11-1BA0 3SU1130-4BF11-1FA0		1	1 unit	41J
	(10:30/ 1:30 o'clock)			1	1	2	3			1	1 unit	41J
												
3SU1130-4BF11-1BA0												
With RONIS lock, SB30, 3 switch positions												
	Latching, 2x45°	I+O+II	2	2	0	2	5	3SU1130-4BL11-1NA0		1	1 unit	41J
	(10:30/12/ 1:30 o'clock)											
												
3SU1130-4BL11-1NA0												
With RONIS lock, SB30, 2 switch positions												
	Latching, 90°	O+I	1	1	0	2	5	3SU1130-4BF11-3BA0		1	1 unit	41J
	(10:30/ 1:30 o'clock)											
												
3SU1130-4BF11-3BA0												
Spring-type terminals												
												

Selection and ordering data






Number of NO contacts (1 per direction)	Operating principle	Direction of actuation	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			
Coordinate switches								
	Without mechanical interlock, 2 switch positions							
	2	Momentary contact	Horizontal	5	3SU1130-7AC10-1NA0	1	1 unit	41J
			Vertical	5	3SU1130-7AD10-1NA0	1	1 unit	41J
	Latching	Horizontal	5	3SU1130-7AA10-1NA0	1	1 unit	41J	
		Vertical	5	3SU1130-7AB10-1NA0	1	1 unit	41J	
	Without mechanical interlock, 4 switch positions	4	Momentary contact	Horizontal/Vertical	5	3SU1130-7AF10-1QA0	1	1 unit
Latching			Horizontal/Vertical	5	3SU1130-7AE10-1QA0	1	1 unit	41J
With mechanical interlock, 2 switch positions								
		2	Momentary contact	Horizontal	5	3SU1130-7BC10-1NA0	1	1 unit
	Vertical			5	3SU1130-7BD10-1NA0	1	1 unit	41J
	Latching	Horizontal	5	3SU1130-7BA10-1NA0	1	1 unit	41J	
		Vertical	5	3SU1130-7BB10-1NA0	1	1 unit	41J	
With mechanical interlock, 4 switch positions								
4	Momentary contact	Horizontal/Vertical	5	3SU1130-7BF10-1QA0	1	1 unit	41J	
		Latching	Horizontal/Vertical	5	3SU1130-7BE10-1QA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte Complete Units

Indicator lights

Selection and ordering data

	Operational voltage		Color of actuating element	of light source	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	at AC, rated value	at DC, rated value							
	V	V			d	Article No.	Price per PU		
Indicator lights									
With smooth lens and integrated LED									
 3SU1102-6AA30-1AA0	24	24	Red	Red	▶	3SU1102-6AA20-1AA0	1	1 unit	41J
			Yellow	Yellow	▶	3SU1102-6AA30-1AA0	1	1 unit	41J
			Green	Green	▶	3SU1102-6AA40-1AA0	1	1 unit	41J
			Blue	Blue	▶	3SU1102-6AA50-1AA0	1	1 unit	41J
			White	White	▶	3SU1102-6AA60-1AA0	1	1 unit	41J
			Clear	White	▶	3SU1102-6AA70-1AA0	1	1 unit	41J
 3SU1106-6AA50-1AA0	110	--	Amber	Amber	5	3SU1103-6AA00-1AA0	1	1 unit	41J
			Red	Red	▶	3SU1103-6AA20-1AA0	1	1 unit	41J
			Yellow	Yellow	▶	3SU1103-6AA30-1AA0	1	1 unit	41J
			Green	Green	▶	3SU1103-6AA40-1AA0	1	1 unit	41J
			Blue	Blue	3	3SU1103-6AA50-1AA0	1	1 unit	41J
			White	White	▶	3SU1103-6AA60-1AA0	1	1 unit	41J
Clear	White	3	3SU1103-6AA70-1AA0	1	1 unit	41J			
	230	--	Amber	Amber	5	3SU1106-6AA00-1AA0	1	1 unit	41J
			Red	Red	▶	3SU1106-6AA20-1AA0	1	1 unit	41J
			Yellow	Yellow	▶	3SU1106-6AA30-1AA0	1	1 unit	41J
			Green	Green	▶	3SU1106-6AA40-1AA0	1	1 unit	41J
			Blue	Blue	3	3SU1106-6AA50-1AA0	1	1 unit	41J
			White	White	▶	3SU1106-6AA60-1AA0	1	1 unit	41J
Clear	White	3	3SU1106-6AA70-1AA0	1	1 unit	41J			
						Spring-type terminals			
 3SU1102-6AA40-3AA0	24	24	Red	Red	3	3SU1102-6AA20-3AA0	1	1 unit	41J
			Yellow	Yellow	5	3SU1102-6AA30-3AA0	1	1 unit	41J
			Green	Green	3	3SU1102-6AA40-3AA0	1	1 unit	41J
			Blue	Blue	5	3SU1102-6AA50-3AA0	1	1 unit	41J
			White	White	3	3SU1102-6AA60-3AA0	1	1 unit	41J
			Clear	White	5	3SU1102-6AA70-3AA0	1	1 unit	41J
 3SU1106-6AA60-3AA0	110	--	Red	Red	5	3SU1103-6AA20-3AA0	1	1 unit	41J
			Yellow	Yellow	5	3SU1103-6AA30-3AA0	1	1 unit	41J
			Green	Green	5	3SU1103-6AA40-3AA0	1	1 unit	41J
			Blue	Blue	5	3SU1103-6AA50-3AA0	1	1 unit	41J
			White	White	5	3SU1103-6AA60-3AA0	1	1 unit	41J
			Clear	White	5	3SU1103-6AA70-3AA0	1	1 unit	41J
	230	--	Red	Red	5	3SU1106-6AA20-3AA0	1	1 unit	41J
			Yellow	Yellow	5	3SU1106-6AA30-3AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Compact Units

Indicator lights**Selection and ordering data**


	Operational voltage		Color of actuating element	of light source	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
	at AC, rated value	at DC, rated value				Article No.			
	V	V			d		Price per PU		
Indicator lights NEW									
	24	24	Amber	Amber	3	3SU1201-6AB00-1AA0	1	1 unit	41J
			Red	Red	▶	3SU1201-6AB20-1AA0	1	1 unit	41J
			Yellow	Yellow	▶	3SU1201-6AB30-1AA0	1	1 unit	41J
			Green	Green	▶	3SU1201-6AB40-1AA0	1	1 unit	41J
			Blue	Blue	3	3SU1201-6AB50-1AA0	1	1 unit	41J
			White	White	▶	3SU1201-6AB60-1AA0	1	1 unit	41J
			Clear	Clear	▶	3SU1201-6AB70-1AA0	1	1 unit	41J
3SU1201-6AB50-1AA0									
	110	110	Amber	Amber	5	3SU1201-6AC00-1AA0	1	1 unit	41J
			Red	Red	3	3SU1201-6AC20-1AA0	1	1 unit	41J
			Yellow	Yellow	3	3SU1201-6AC30-1AA0	1	1 unit	41J
			Green	Green	3	3SU1201-6AC40-1AA0	1	1 unit	41J
			Blue	Blue	5	3SU1201-6AC50-1AA0	1	1 unit	41J
			White	White	3	3SU1201-6AC60-1AA0	1	1 unit	41J
			Clear	Clear	5	3SU1201-6AC70-1AA0	1	1 unit	41J
3SU1201-6AC30-1AA0									
	230	230	Amber	Amber	5	3SU1201-6AF00-1AA0	1	1 unit	41J
			Red	Red	3	3SU1201-6AF20-1AA0	1	1 unit	41J
			Yellow	Yellow	3	3SU1201-6AF30-1AA0	1	1 unit	41J
			Green	Green	3	3SU1201-6AF40-1AA0	1	1 unit	41J
			Blue	Blue	5	3SU1201-6AF50-1AA0	1	1 unit	41J
			White	White	3	3SU1201-6AF60-1AA0	1	1 unit	41J
			Clear	Clear	5	3SU1201-6AF70-1AA0	1	1 unit	41J
3SU1201-6AF30-1AA0									
Indicator lights with "traffic light" LED									
	6 ... 24	6 ... 24	Clear	Red/Yellow/ Green	▶	3SU1201-6AG24-1AA0	1	1 unit	41J
	110	--	Clear	Red/Yellow/ Green	▶	3SU1201-6AC24-1AA0	1	1 unit	41J
	230	--	Clear	Red/Yellow/ Green	▶	3SU1201-6AF24-1AA0	1	1 unit	41J
3SU1201-6AG24-1AA0									

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte Compact Units


Acoustic signaling devices/sensor switches

Selection and ordering data

Operational voltage at AC, rated value		at DC, rated value	Volume level	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
V	V	V	dB	d				
Acoustic signaling devices					Article No.	Price per PU		
	24	24	90	5	3SU1200-6KB10-1AA0		1	1 unit
	110	--	90	5	3SU1200-6KC10-1AA0		1	1 unit
	230	--	90	5	3SU1200-6KF10-1AA0		1	1 unit

3SU1200-6KB10-1AA0

Selection and ordering data

Operating principle	Number of NO contacts	Number of NC contacts	Color	SD	M12 connector, 4-pin	PU (UNIT, SET, M)	PS*	PG
					Article No.	Price per PU		
Sensor switches								
<div><p>Whether integrated in the two-hand operation console or installed as a door opening contact, the capacitive sensor switch is suitable for many different applications in industrial environments.</p><p>The switch is actuated by simple contact with the hand or other part of the body (i.e. without the application of pressure). As a result, these switches are rugged, extremely durable and have the highest possible degree of protection IP66, IP67, IP69 (IP69K).</p></div>								
Without pressure	1	0	Black	►	3SU1200-1SK10-2SA0	1	1 unit	41J

3SU1200-1SK10-2SA0


Optional accessories

- "Protection for sensor switches", [see page 13/136](#)
- "Connectors for sensor switches, angled socket with screw terminal connection", [see page 13/144](#)

SIRIUS ACT Pushbuttons and Indicator Lights




Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Compact Units

Potentiometers/pushbuttons with extended stroke**Selection and ordering data**

Version of actuating element	Operating principle	Adjustable resistance	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
		kΩ	d	Article No.	Price per PU		
Potentiometers							
	Rotary knob	Stepless	1	3SU1200-2PQ10-1AA0		1	1 unit 41J
			2.2	3SU1200-2PW10-1AA0		1	1 unit 41J
			4.7	3SU1200-2PR10-1AA0		1	1 unit 41J
			10	3SU1200-2PS10-1AA0		1	1 unit 41J
			47	3SU1200-2PT10-1AA0		1	1 unit 41J
			100	3SU1200-2PU10-1AA0		1	1 unit 41J
			470	3SU1200-2PV10-1AA0		1	1 unit 41J

3SU1200-2PQ10-1AA0

Labeling plates for potentiometers, [see page 13/132](#).**Selection and ordering data**

Version	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					
Pushbuttons with extended stroke							
For actuating relays, can only be combined with extension plunger, no contact module or LED module required							
	Pushbuttons with flat button		Red	5	3SU1230-0EB20-0AA0	1	1 unit 41J
			Green	5	3SU1230-0EB40-0AA0	1	1 unit 41J
	Pushbuttons with raised button		Black	3	3SU1230-0FB10-0AA0	1	1 unit 41J
	Pushbuttons with flat transparent button for insertion of insert labels		Red	3	3SU1231-0EB20-0AA0	1	1 unit 41J
			Clear	3	3SU1231-0EB70-0AA0	1	1 unit 41J

3SU1231-0EB20-0AA0

Version	Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d					

Accessories

	Extension plungers		Plastic	Gray	3SU1900-0KG10-0AA0	1	1 unit 41J
			For compensation of the distance between the pushbutton and the unlatching button of an overload relay				

3SU1900-0KG10-0AA0

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Actuating and Signaling Elements

Pushbuttons

Selection and ordering data

Version of actuating element Front ring version	Operating principle Unlatching method	Color, marking	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Pushbuttons				d				
 3SU1030-0AB50-0AR0	Pushbuttons with flat button Standard	Momentary contact	Black	▶	3SU1030-0AB10-0AA0	1	1 unit	41J
			Black, "O"	▶	3SU1030-0AB10-0AD0	1	1 unit	41J
			Red	▶	3SU1030-0AB20-0AA0	1	1 unit	41J
			Red, "O"	▶	3SU1030-0AB20-0AD0	1	1 unit	41J
			Red, "AUTO"	5	3SU1030-0AB20-0AQ0	1	1 unit	41J
			Yellow	▶	3SU1030-0AB30-0AA0	1	1 unit	41J
			Green	▶	3SU1030-0AB40-0AA0	1	1 unit	41J
			Green, "I"	▶	3SU1030-0AB40-0AC0	1	1 unit	41J
			Blue	▶	3SU1030-0AB50-0AA0	1	1 unit	41J
			Blue, "R"	5	3SU1030-0AB50-0AR0	1	1 unit	41J
			White	▶	3SU1030-0AB60-0AA0	1	1 unit	41J
			White, "I"	▶	3SU1030-0AB60-0AC0	1	1 unit	41J
			Clear	▶	3SU1030-0AB70-0AA0	1	1 unit	41J
			Gray	▶	3SU1030-0AB80-0AA0	1	1 unit	41J
		Latching	Black	▶	3SU1030-0AA10-0AA0	1	1 unit	41J
		Push to unlatch	Red	▶	3SU1030-0AA20-0AA0	1	1 unit	41J
			Yellow	▶	3SU1030-0AA30-0AA0	1	1 unit	41J
 3SU1030-0AA40-0AA0	Pushbuttons with raised button Standard	Momentary contact	Black	▶	3SU1030-0BB10-0AA0	1	1 unit	41J
			Red	▶	3SU1030-0BB20-0AA0	1	1 unit	41J
			Yellow	▶	3SU1030-0BB30-0AA0	1	1 unit	41J
			Green	▶	3SU1030-0BB40-0AA0	1	1 unit	41J
			Blue	▶	3SU1030-0BB50-0AA0	1	1 unit	41J
			White	▶	3SU1030-0BB60-0AA0	1	1 unit	41J
 3SU1030-0BB20-0AA0	Pushbuttons with flat button Raised	Momentary contact	Black	5	3SU1030-0CB10-0AA0	1	1 unit	41J
			Red	5	3SU1030-0CB20-0AA0	1	1 unit	41J
			Yellow	5	3SU1030-0CB30-0AA0	1	1 unit	41J
			Green	5	3SU1030-0CB40-0AA0	1	1 unit	41J
			Blue	5	3SU1030-0CB50-0AA0	1	1 unit	41J
			White	5	3SU1030-0CB60-0AA0	1	1 unit	41J
 3SU1030-0CB30-0AA0								

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

Pushbuttons

Version of actuating element Front ring version		Operating principle Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Pushbuttons					d				
 3SU1031-0AB20-0AA0	Illuminated pushbuttons with flat button Standard	Momentary contact	Amber	5	3SU1031-0AB00-0AA0		1	1 unit	41J
			Red	▶	3SU1031-0AB20-0AA0		1	1 unit	41J
			Yellow	▶	3SU1031-0AB30-0AA0		1	1 unit	41J
			Green	▶	3SU1031-0AB40-0AA0		1	1 unit	41J
			Blue	▶	3SU1031-0AB50-0AA0		1	1 unit	41J
			White	▶	3SU1031-0AB60-0AA0		1	1 unit	41J
			Clear	▶	3SU1031-0AB70-0AA0		1	1 unit	41J
 3SU1031-0AA50-0AA0		Latching	Red	▶	3SU1031-0AA20-0AA0		1	1 unit	41J
		Push to unlatch	Yellow	▶	3SU1031-0AA30-0AA0		1	1 unit	41J
			Green	▶	3SU1031-0AA40-0AA0		1	1 unit	41J
			Blue	▶	3SU1031-0AA50-0AA0		1	1 unit	41J
			White	▶	3SU1031-0AA60-0AA0		1	1 unit	41J
			Clear	▶	3SU1031-0AA70-0AA0		1	1 unit	41J
 3SU1031-0BB40-0AA0	Illuminated pushbuttons with raised button Standard	Momentary contact	Red	▶	3SU1031-0BB20-0AA0		1	1 unit	41J
			Yellow	▶	3SU1031-0BB30-0AA0		1	1 unit	41J
			Green	▶	3SU1031-0BB40-0AA0		1	1 unit	41J
			Blue	▶	3SU1031-0BB50-0AA0		1	1 unit	41J
			Clear	3	3SU1031-0BB70-0AA0		1	1 unit	41J
 3SU1031-0CB20-0AA0	Pushbuttons with flat button NEW Raised	Momentary contact	Red	25	3SU1031-0CB20-0AA0		1	100 units	41J
			Green	25	3SU1031-0CB40-0AA0		1	100 units	41J





SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

Twin pushbuttons

Selection and ordering data

Version of actuating element	Operating principle	Color	Marking Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Twin pushbuttons									
 3SU1030-3AB66-0AN0	Twin pushbuttons flat, flat	Momen- tary contact	Green/Red	-- "I"/"O"	3 ▶		1	1 unit	41J
			White/Black	-- "I"/"O"	3		1	1 unit	41J
			White/White	-- Arrows, vert.	3 5		1	1 unit	41J
			Black/Black	-- ○ ○ 5264/5265 (IEC 60417)	3 5		1	1 unit	41J
							1	1 unit	41J
 3SU1030-3BB42-0AK0	Twin pushbuttons flat, raised	Momen- tary contact	Green/Red	-- "I"/"O"	3 3		1	1 unit	41J
							1	1 unit	41J
 3SU1031-3AB42-0AN0	Twin pushbuttons flat, flat, illuminated	Momen- tary contact	Green/Red	-- "I"/"O"	▶ ▶		1	1 unit	41J
				Arrows, vert.	5		1	1 unit	41J
			White/Black	-- "I"/"O"	▶ ▶		1	1 unit	41J
			White/White	-- Arrows, vert.	3 5		1	1 unit	41J
							1	1 unit	41J
 3SU1031-3BB61-0AA0	Twin pushbuttons flat, raised, illuminated	Momen- tary contact	Green/Red	-- "I"/"O"	3 ▶		1	1 unit	41J
			White/Black	-- "I"/"O"	3 3		1	1 unit	41J
							1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Actuating and Signaling Elements

Mushroom pushbuttons

Selection and ordering data

		Version of actuating element	Operating principle Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d										
Mushroom pushbuttons										
	Mushroom pushbuttons 30 mm diameter, 2 positions	Momentary contact		Black	►	3SU1030-1AD10-0AA0		1	1 unit	41J
				Red	►	3SU1030-1AD20-0AA0		1	1 unit	41J
				Yellow	►	3SU1030-1AD30-0AA0		1	1 unit	41J
				Green	►	3SU1030-1AD40-0AA0		1	1 unit	41J
		Latching		Black	►	3SU1030-1AA10-0AA0		1	1 unit	41J
Pull to unlatch		Red	►	3SU1030-1AA20-0AA0		1	1 unit	41J		
3SU1030-1AD20-0AA0										
	Mushroom pushbuttons 40 mm diameter, 2 positions	Momentary contact		Black	3	3SU1030-1BD10-0AA0		1	1 unit	41J
				Red	3	3SU1030-1BD20-0AA0		1	1 unit	41J
				Yellow	3	3SU1030-1BD30-0AA0		1	1 unit	41J
				Green	3	3SU1030-1BD40-0AA0		1	1 unit	41J
		Latching		Black	►	3SU1030-1BA10-0AA0		1	1 unit	41J
Pull to unlatch		Red	►	3SU1030-1BA20-0AA0		1	1 unit	41J		
		Red, "O"	5	3SU1030-1BA20-0AD0		1	1 unit	41J		
3SU1030-1BD40-0AA0										
	Mushroom pushbuttons 30 mm diameter, 2 positions, illuminated	Momentary contact		Yellow	5	3SU1031-1AD30-0AA0		1	1 unit	41J
				Green	3	3SU1031-1AD40-0AA0		1	1 unit	41J
				Blue	NEW 5	3SU1031-1AD50-0AA0		1	1 unit	41J
				White	3	3SU1031-1AD60-0AA0		1	1 unit	41J
				Clear	5	3SU1031-1AD70-0AA0		1	1 unit	41J
Latching		Red	3	3SU1031-1AA20-0AA0		1	1 unit	41J		
Pull to unlatch		Yellow	5	3SU1031-1AA30-0AA0		1	1 unit	41J		
3SU1031-1AD30-0AA0										
	Mushroom pushbuttons 40 mm diameter, 2 positions, illuminated	Momentary contact		Yellow	5	3SU1031-1BD30-0AA0		1	1 unit	41J
				Green	5	3SU1031-1BD40-0AA0		1	1 unit	41J
				White	3	3SU1031-1BD60-0AA0		1	1 unit	41J
				Clear	5	3SU1031-1BD70-0AA0		1	1 unit	41J
		Latching		Red	3	3SU1031-1BA20-0AA0		1	1 unit	41J
Pull to unlatch		Yellow	3	3SU1031-1BA30-0AA0		1	1 unit	41J		
3SU1031-1BD60-0AA0										
	Mushroom pushbuttons 40 mm diameter, 2 positions	With positive latching		Black	►	3SU1000-1HB10-0AA0		1	1 unit	41J
		Rotate to unlatch		Blue	3	3SU1000-1HB50-0AA0		1	1 unit	41J
3SU1000-1HB50-0AA0										
	Mushroom pushbuttons 40 mm diameter, 2 positions RONIS SB30	With positive latching		Black	NEW 5	3SU1000-1HG10-0AA0		1	1 unit	41J
		Key-operated release								
	Mushroom pushbuttons , 60 mm diameter, 2 positions RONIS SB30	With positive latching		Black	NEW X	3SU1000-1JB10-0AA0		1	1 unit	41J
		Rotate to unlatch								
3SU1000-1HG10-0AA0										





SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

EMERGENCY STOP mushroom pushbuttons

Selection and ordering data




Version of actuating element	Outer diameter of mushroom	Make of lock	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm			d					
EMERGENCY STOP mushroom pushbuttons									
With pull-to-unlatch mechanism									
 3SU1000-1HA20-0AA0	With positive latching, 2 positions	40	--	Red	▶	3SU1000-1HA20-0AA0	1	1 unit	41J
With rotate-to-unlatch mechanism									
 3SU1000-1GB20-0AA0	With positive latching, 2 positions	33.8	--	Red	▶	3SU1000-1GB20-0AA0	1	1 unit	41J
 3SU1000-1HB20-0AA0		40	--	Red	▶	3SU1000-1HB20-0AA0	1	1 unit	41J
 3SU1000-1JB20-0AA0		60	--	Red	▶	3SU1000-1JB20-0AA0	1	1 unit	41J
 3SU1000-1LB20-0AA0	With latching, 2 positions	40	--	Red NEW	▶	3SU1000-1LB20-0AA0	1	1 unit	41J
With rotate-to-unlatch mechanism, can be illuminated									
 3SU1001-1HB20-0AA0	With positive latching, 2 positions	33.8	--	Red	▶	3SU1001-1GB20-0AA0	1	1 unit	41J
		40	--	Red	▶	3SU1001-1HB20-0AA0	1	1 unit	41J
		60	--	Red	▶	3SU1001-1JB20-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights


Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

EMERGENCY STOP mushroom pushbuttons/Toggle switches

Version of actuating element	Outer diameter of mushroom mm	Make of lock	Color	Number of keys	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
EMERGENCY STOP mushroom pushbuttons										
With key-operated release										
With positive latching, 2 positions	40	RONIS SB30	Red	2	▶	3SU1000-1HF20-0AA0		1	1 unit	41J
		RONIS 455	Red	2	3	3SU1000-1HG20-0AA0		1	1 unit	41J
		BKS S1	Red	2	▶	3SU1000-1HK20-0AA0		1	1 unit	41J
		BKS E7	Red	0	3	3SU1000-1HM20-0AA0		1	1 unit	41J
		BKS E9	Red	0	3	3SU1000-1HN20-0AA0		1	1 unit	41J
		O.M.R. 73037	Red	2	▶	3SU1000-1HQ20-0AA0		1	1 unit	41J
		CES SSG10	Red	2	▶	3SU1000-1HR20-0AA0		1	1 unit	41J
		CES SSP9	Red	2	▶	3SU1000-1HS20-0AA0		1	1 unit	41J
		CES SMS1	Red	2	3	3SU1000-1HT20-0AA0		1	1 unit	41J

Selection and ordering data

	Number of switching positions	Number of command points	Color of actuating element	Operating principle of the actuating element	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
 3SU1030-3EA10-0AA0	2	1	Black	Latching	3	3SU1030-3EA10-0AA0		1	1 unit	41J
				Momentary contact, reset from above	5	3SU1030-3EC10-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

Selector switches

Selection and ordering data

Version of actuating element	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Selector switches								
2 switch positions, can be illuminated								
	Selector, short black actuator	Momentary contact, 45° (10:30/12 o'clock), reset from center to left 	Black	3	3SU1032-2BC10-0AA0	1	1 unit	41J
				▶	3SU1032-2BC20-0AA0	1	1 unit	41J
				▶	3SU1032-2BC30-0AA0	1	1 unit	41J
				▶	3SU1032-2BC40-0AA0	1	1 unit	41J
				▶	3SU1032-2BC50-0AA0	1	1 unit	41J
				▶	3SU1032-2BC60-0AA0	1	1 unit	41J
	Selector, short black actuator	Latching, 90° (10:30/1:30 o'clock) 	Black	▶	3SU1032-2BF10-0AA0	1	1 unit	41J
				▶	3SU1032-2BF20-0AA0	1	1 unit	41J
				▶	3SU1032-2BF30-0AA0	1	1 unit	41J
				▶	3SU1032-2BF40-0AA0	1	1 unit	41J
				▶	3SU1032-2BF50-0AA0	1	1 unit	41J
				▶	3SU1032-2BF60-0AA0	1	1 unit	41J
	Selector, long black actuator	Latching, 90° (10:30/1:30 o'clock) 	Black	3	3SU1032-2CF10-0AA0	1	1 unit	41J
			Red	3	3SU1032-2CF20-0AA0	1	1 unit	41J
			White	3	3SU1032-2CF60-0AA0	1	1 unit	41J
	Rotary knob	Latching, 90° (10:30/1:30 o'clock) 	Red	3	3SU1032-2AF20-0AA0	1	1 unit	41J
			White	▶	3SU1032-2AF60-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

Selector switches

Version of actuating element	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
------------------------------	---------------------	-------	----	-------------	--------------	-------------------	-----	----

Selector switches

3 switch positions, can be illuminated



3SU1032-2BM60-0AA0

Selector, short black actuator

Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right



Black ►
Red ►
Yellow ►
Green ►
Blue ►
White ►

3SU1032-2BM10-0AA0
3SU1032-2BM20-0AA0
3SU1032-2BM30-0AA0
3SU1032-2BM40-0AA0
3SU1032-2BM50-0AA0
3SU1032-2BM60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1032-2BL20-0AA0

Latching, 2x45° (10:30/12/1:30 o'clock)



Black ►
Red ►
Yellow ►
Green ►
Blue ►
White ►

3SU1032-2BL10-0AA0
3SU1032-2BL20-0AA0
3SU1032-2BL30-0AA0
3SU1032-2BL40-0AA0
3SU1032-2BL50-0AA0
3SU1032-2BL60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1032-2BP40-0AA0

Momentary contact/latching, 2x45° (10:30/12/1:30 o'clock), reset from left, latching to the right



Black ►
Red ►
Yellow ►
Green ►
Blue ►
White ►

3SU1032-2BP10-0AA0
3SU1032-2BP20-0AA0
3SU1032-2BP30-0AA0
3SU1032-2BP40-0AA0
3SU1032-2BP50-0AA0
3SU1032-2BP60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1032-2BN30-0AA0

Latching/momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from right, latching to the left



Black ►
Red ►
Yellow ►
Green ►
Blue ►
White ►

3SU1032-2BN10-0AA0
3SU1032-2BN20-0AA0
3SU1032-2BN30-0AA0
3SU1032-2BN40-0AA0
3SU1032-2BN50-0AA0
3SU1032-2BN60-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J
1 1 unit 41J

4 switch positions



3SU1030-2AS60-0AA0

Rotary knob

Latching, 4x90° (3/6/9/12 o'clock)



White

3

3SU1030-2AS60-0AA0

1 1 unit 41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

Key-operated switches

Selection and ordering data

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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d

Key-operated switches

2 switch positions



3SU1030-4BC01-0AA0

Momentary contact, 45° (10:30/12 o'clock), reset from center to left



RONIS, SB30	O	2	▶		3SU1030-4BC01-0AA0		1	1 unit	41J
RONIS, 455	O	2	5		3SU1030-4CC01-0AA0		1	1 unit	41J
O.M.R. 73037, red	O	2	3		3SU1030-4FC01-0AA0		1	1 unit	41J
O.M.R. 73038, light blue	O	2	5		3SU1030-4GC01-0AA0		1	1 unit	41J
O.M.R. 73034, black	O	2	5		3SU1030-4HC01-0AA0		1	1 unit	41J
O.M.R. 73033, yellow	O	2	3		3SU1030-4JC01-0AA0		1	1 unit	41J
CES, SSG10	O	2	▶		3SU1030-5BC01-0AA0		1	1 unit	41J
CES, LSG1	O	2	3		3SU1030-5HC01-0AA0		1	1 unit	41J
BKS, S1	O	2	▶		3SU1030-5PC01-0AA0		1	1 unit	41J
IKON, 360012K1	O	2	3		3SU1030-5XC01-0AA0		1	1 unit	41J



3SU1030-4BF01-0AA0

Latching, 90° (10:30/1:30 o'clock)



RONIS, SB30	O	2	▶		3SU1030-4BF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1030-4BF11-0AA0		1	1 unit	41J
	I	2	3		3SU1030-4BF21-0AA0		1	1 unit	41J
RONIS, 455	O	2	3		3SU1030-4CF01-0AA0		1	1 unit	41J
	O+I	2	5		3SU1030-4CF11-0AA0		1	1 unit	41J



3SU1030-4FF01-0AA0

O.M.R. 73037, red	O	2	3		3SU1030-4FF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1030-4FF11-0AA0		1	1 unit	41J
O.M.R. 73038, light blue	O	2	3		3SU1030-4GF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1030-4GF11-0AA0		1	1 unit	41J
O.M.R. 73034, black	O	2	3		3SU1030-4HF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1030-4HF11-0AA0		1	1 unit	41J
	I	2	5		3SU1030-4HF21-0AA0		1	1 unit	41J
O.M.R. 73033, yellow	O	2	3		3SU1030-4JF01-0AA0		1	1 unit	41J
	O+I	2	5		3SU1030-4JF11-0AA0		1	1 unit	41J



3SU1030-5BF01-0AA0

CES, SSG10	O	2	▶		3SU1030-5BF01-0AA0		1	1 unit	41J
	O+I	2	▶		3SU1030-5BF11-0AA0		1	1 unit	41J
	I	2	3		3SU1030-5BF21-0AA0		1	1 unit	41J
CES, LSG1	O	2	3		3SU1030-5HF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1030-5HF11-0AA0		1	1 unit	41J



3SU1030-5PF01-0AA0

BKS, S1	O	2	3		3SU1030-5PF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1030-5PF11-0AA0		1	1 unit	41J
	I	2	5		3SU1030-5PF21-0AA0		1	1 unit	41J
BKS, E1	O	0	3		3SU1030-5QF01-0AA0		1	1 unit	41J
	O+I	0	5		3SU1030-5QF11-0AA0		1	1 unit	41J
BKS, E2	O	0	▶		3SU1030-5RF01-0AA0		1	1 unit	41J
	O+I	0	3		3SU1030-5RF11-0AA0		1	1 unit	41J
BKS, E7	O	0	▶		3SU1030-5SF01-0AA0		1	1 unit	41J
	O+I	0	▶		3SU1030-5SF11-0AA0		1	1 unit	41J
BKS, E9	O	0	3		3SU1030-5TF01-0AA0		1	1 unit	41J
	O+I	0	3		3SU1030-5TF11-0AA0		1	1 unit	41J
IKON, 360012K1	O	2	▶		3SU1030-5XF01-0AA0		1	1 unit	41J
	O+I	2	3		3SU1030-5XF11-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Actuating and Signaling Elements

Key-operated switches

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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d

Key-operated switches**3 switch positions**

3SU1030-4BM01-0AA0

Momentary contact, 2x45°
(10:30/12/
1:30 o'clock),
reset from left + right



RONIS, SB30	O	2	3		3SU1030-4BM01-0AA0		1	1 unit	41J
O.M.R. 73037, red	O	2	5		3SU1030-4FM01-0AA0		1	1 unit	41J
O.M.R. 73034, black	O	2	5		3SU1030-4HM01-0AA0		1	1 unit	41J
CES, SSG10	O	2	▶		3SU1030-5BM01-0AA0		1	1 unit	41J
BKS, S1	O	2	3		3SU1030-5PM01-0AA0		1	1 unit	41J
IKON, 360012K1	O	2	5		3SU1030-5XM01-0AA0		1	1 unit	41J

Latching, 2x45°
(10:30/12/
1:30 o'clock)



RONIS, SB30	O	2	3		3SU1030-4BL01-0AA0		1	1 unit	41J
I+O+II	2	▶			3SU1030-4BL11-0AA0		1	1 unit	41J
I	2	5			3SU1030-4BL21-0AA0		1	1 unit	41J
II	2	3			3SU1030-4BL31-0AA0		1	1 unit	41J
I+II	2	5			3SU1030-4BL41-0AA0		1	1 unit	41J
O+I	2	3			3SU1030-4BL51-0AA0		1	1 unit	41J
RONIS, 455	O	2	5		3SU1030-4CL01-0AA0		1	1 unit	41J
I+O+II	2	5			3SU1030-4CL11-0AA0		1	1 unit	41J
O.M.R. 73037, red	O	2	5		3SU1030-4FL01-0AA0		1	1 unit	41J
O+I	2	5			3SU1030-4FL51-0AA0		1	1 unit	41J
O.M.R. 73038, light blue	O	2	5		3SU1030-4GL01-0AA0		1	1 unit	41J
I+O+II	2	3			3SU1030-4GL11-0AA0		1	1 unit	41J
O.M.R. 73034, black	O	2	5		3SU1030-4HL01-0AA0		1	1 unit	41J
I+O+II	2	3			3SU1030-4HL11-0AA0		1	1 unit	41J
O.M.R. 73033, yellow	I+O+II	2	5		3SU1030-4JL11-0AA0		1	1 unit	41J



3SU1030-4JL11-0AA0



3SU1030-5BL41-0AA0

CES, SSG10	O	2	3		3SU1030-5BL01-0AA0		1	1 unit	41J
I+O+II	2	▶			3SU1030-5BL11-0AA0		1	1 unit	41J
I	2	3			3SU1030-5BL21-0AA0		1	1 unit	41J
II	2	3			3SU1030-5BL31-0AA0		1	1 unit	41J
I+II	2	3			3SU1030-5BL41-0AA0		1	1 unit	41J
O+I	2	5			3SU1030-5BL51-0AA0		1	1 unit	41J



3SU1030-5PL01-0AA0

BKS, S1	O	2	5		3SU1030-5PL01-0AA0		1	1 unit	41J
I+O+II	2	3			3SU1030-5PL11-0AA0		1	1 unit	41J
I	2	3			3SU1030-5PL21-0AA0		1	1 unit	41J
II	2	5			3SU1030-5PL31-0AA0		1	1 unit	41J
I+II	2	5			3SU1030-5PL41-0AA0		1	1 unit	41J
BKS, E2	I+O+II	0	5		3SU1030-5RL11-0AA0		1	1 unit	41J
BKS, E9	I+O+II	0	5		3SU1030-5TL11-0AA0		1	1 unit	41J
IKON, 360012K1	O	2	5		3SU1030-5XL01-0AA0		1	1 unit	41J
I+O+II	2	5			3SU1030-5XL11-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte

Actuating and Signaling Elements

Key-operated switches/ID key-operated switches

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									

Key-operated switches



3 switch positions

Momentary contact/
latching, 2x45°
(10:30/12/
1:30 o'clock),
reset from left,
latching to the right



RONIS, SB30	O	2	5	3SU1030-4BP01-0AA0	1	1 unit	41J
	II	2	5	3SU1030-4BP31-0AA0	1	1 unit	41J
	O+II	2	5	3SU1030-4BP61-0AA0	1	1 unit	41J
CES, SSG10	O	2	3	3SU1030-5BP01-0AA0	1	1 unit	41J
	II	2	5	3SU1030-5BP31-0AA0	1	1 unit	41J
	O+II	2	3	3SU1030-5BP61-0AA0	1	1 unit	41J

BKS, S1	O	2	3	3SU1030-5PP01-0AA0	1	1 unit	41J
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Latching/momentary
contact, 2x45°
(10:30/12/
1:30 o'clock),
reset from right,
latching to the left



RONIS, SB30	O	2	5	3SU1030-4BN01-0AA0	1	1 unit	41J
	I	2	5	3SU1030-4BN21-0AA0	1	1 unit	41J
	O+I	2	5	3SU1030-4BN51-0AA0	1	1 unit	41J
O.M.R. 73038, light blue	O	2	5	3SU1030-4GN01-0AA0	1	1 unit	41J
O.M.R. 73034, black	I	2	5	3SU1030-4HN21-0AA0	1	1 unit	41J

CES, SSG10	O	2	3	3SU1030-5BN01-0AA0	1	1 unit	41J
	I	2	3	3SU1030-5BN21-0AA0	1	1 unit	41J
	O+I	2	3	3SU1030-5BN51-0AA0	1	1 unit	41J



BKS, S1	I	2	5	3SU1030-5PN21-0AA0	1	1 unit	41J
	O+I	2	5	3SU1030-5PN51-0AA0	1	1 unit	41J
IKON, 360012K1	O+I	2	5	3SU1030-5XN51-0AA0	1	1 unit	41J

Selection and ordering data

Operating angle	Operating principle	Switch position for key removal	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									

ID key-operated switches



4 switch positions

45°

Latching

Key removal
possible in
all 4 positions

Black



3SU1030-4WS10-0AA0	1	1 unit	41J
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For ID keys, see page 13/140.



For electronic modules for ID key-operated switches, see page 13/99.

For plastic holders for ID key-operated switches, see page 13/89.



SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Plastic with Metal Front Ring, Matte
Actuating and Signaling Elements

Coordinate switches/indicator lights**Selection and ordering data**

	Product function Locking in zero position	Number of switching positions	Operating principle	Direction of actuation	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Coordinate switches										
	No	2	Momentary contact	Horizontal	▶	3SU1030-7AC10-0AA0		1	1 unit	41J
				Vertical	▶	3SU1030-7AD10-0AA0		1	1 unit	41J
		4	Latching	Horizontal	▶	3SU1030-7AA10-0AA0		1	1 unit	41J
				Vertical	▶	3SU1030-7AB10-0AA0		1	1 unit	41J
		4	Momentary contact	Horizontal/ Vertical	▶	3SU1030-7AF10-0AA0		1	1 unit	41J
				Latching	Horizontal/ Vertical	▶	3SU1030-7AE10-0AA0		1	1 unit
	Yes	2	Momentary contact	Horizontal	▶	3SU1030-7BC10-0AA0		1	1 unit	41J
				Vertical	▶	3SU1030-7BD10-0AA0		1	1 unit	41J
		4	Latching	Horizontal	▶	3SU1030-7BA10-0AA0		1	1 unit	41J
				Vertical	▶	3SU1030-7BB10-0AA0		1	1 unit	41J
		4	Momentary contact	Horizontal/ Vertical	▶	3SU1030-7BF10-0AA0		1	1 unit	41J
				Latching	Horizontal/ Vertical	▶	3SU1030-7BE10-0AA0		1	1 unit

Selection and ordering data

	Type of product	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d					
Indicator lights								
	With smooth lens	Amber	3	3SU1001-6AA00-0AA0		1	1 unit	41J
		Red	▶	3SU1001-6AA20-0AA0		1	1 unit	41J
		Yellow	▶	3SU1001-6AA30-0AA0		1	1 unit	41J
		Green	▶	3SU1001-6AA40-0AA0		1	1 unit	41J
		Blue	▶	3SU1001-6AA50-0AA0		1	1 unit	41J
		White	▶	3SU1001-6AA60-0AA0		1	1 unit	41J
		Clear	▶	3SU1001-6AA70-0AA0		1	1 unit	41J
3SU1001-6AA20-0AA0								
Indicator lights in illuminated pushbutton design								
	--	Red	3	3SU1031-0AD20-0AA0		1	1 unit	41J
		Yellow	5	3SU1031-0AD30-0AA0		1	1 unit	41J
		Green	3	3SU1031-0AD40-0AA0		1	1 unit	41J
		Blue	5	3SU1031-0AD50-0AA0		1	1 unit	41J
		Clear	3	3SU1031-0AD70-0AA0		1	1 unit	41J
3SU1031-0AD50-0AA0								







SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Complete Units

Pushbuttons

Selection and ordering data


Supply voltage for light source		Color	Number of			SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
at AC	at DC		Contact modules	NO contacts	NC contacts						
V	V					d	Article No.	Price per PU			
Pushbuttons											
Pushbuttons with flat button, momentary contact											
	--	Black	1	1	0	▶	3SU1150-0AB10-1BA0		1	1 unit	41J
				0	1	3	3SU1150-0AB10-1CA0		1	1 unit	41J
				1	1	▶	3SU1150-0AB10-1FA0		1	1 unit	41J
		Red	1	1	0	5	3SU1150-0AB20-1BA0		1	1 unit	41J
				0	1	▶	3SU1150-0AB20-1CA0		1	1 unit	41J
				1	1	▶	3SU1150-0AB20-1FA0		1	1 unit	41J
		Yellow	1	1	0	3	3SU1150-0AB30-1BA0		1	1 unit	41J
				1	1	5	3SU1150-0AB30-1FA0		1	1 unit	41J
Green	1	1	0	▶	3SU1150-0AB40-1BA0		1	1 unit	41J		
		1	1	▶	3SU1150-0AB40-1FA0		1	1 unit	41J		
Blue	1	1	0	3	3SU1150-0AB50-1BA0		1	1 unit	41J		
		1	1	5	3SU1150-0AB50-1FA0		1	1 unit	41J		
White	1	1	0	3	3SU1150-0AB60-1BA0		1	1 unit	41J		
		1	1	3	3SU1150-0AB60-1FA0		1	1 unit	41J		
Clear	1	1	0	5	3SU1150-0AB70-1BA0		1	1 unit	41J		
		1	1	5	3SU1150-0AB70-1FA0		1	1 unit	41J		
Pushbuttons with raised button, momentary contact											
	--	Black	1	1	0	5	3SU1150-0BB10-1BA0		1	1 unit	41J
				0	1	5	3SU1150-0BB10-1CA0		1	1 unit	41J
				1	1	5	3SU1150-0BB10-1FA0		1	1 unit	41J
		Red	1	0	1	3	3SU1150-0BB20-1CA0		1	1 unit	41J
1	1			5	3SU1150-0BB20-1FA0		1	1 unit	41J		
Green	1	1	1	5	3SU1150-0BB40-1FA0		1	1 unit	41J		
		Blue	1	1	0	5	3SU1150-0BB50-1BA0		1	1 unit	41J
1	1			5	3SU1150-0BB50-1FA0		1	1 unit	41J		
Illuminated pushbuttons with flat button, momentary contact, with integrated LED											
	24	Amber	1	1	0	5	3SU1152-0AB00-1BA0		1	1 unit	41J
				1	1	5	3SU1152-0AB00-1FA0		1	1 unit	41J
		Red	1	0	1	▶	3SU1152-0AB20-1CA0		1	1 unit	41J
				1	1	▶	3SU1152-0AB20-1FA0		1	1 unit	41J
		Yellow	1	1	0	▶	3SU1152-0AB30-1BA0		1	1 unit	41J
				1	1	3	3SU1152-0AB30-1FA0		1	1 unit	41J
		Green	1	1	0	▶	3SU1152-0AB40-1BA0		1	1 unit	41J
				1	1	▶	3SU1152-0AB40-1FA0		1	1 unit	41J
Blue	1	1	0	▶	3SU1152-0AB50-1BA0		1	1 unit	41J		
		1	1	5	3SU1152-0AB50-1FA0		1	1 unit	41J		
White	1	1	0	▶	3SU1152-0AB60-1BA0		1	1 unit	41J		
		1	1	▶	3SU1152-0AB60-1FA0		1	1 unit	41J		
Clear	1	1	0	▶	3SU1152-0AB70-1BA0		1	1 unit	41J		
		1	1	▶	3SU1152-0AB70-1FA0		1	1 unit	41J		
	110	Amber	1	1	0	5	3SU1153-0AB00-1BA0		1	1 unit	41J
				1	1	5	3SU1153-0AB00-1FA0		1	1 unit	41J
		Red	1	0	1	5	3SU1153-0AB20-1CA0		1	1 unit	41J
				1	1	5	3SU1153-0AB20-1FA0		1	1 unit	41J
		Yellow	1	1	0	5	3SU1153-0AB30-1BA0		1	1 unit	41J
				1	1	5	3SU1153-0AB30-1FA0		1	1 unit	41J
		Green	1	1	0	3	3SU1153-0AB40-1BA0		1	1 unit	41J
				1	1	5	3SU1153-0AB40-1FA0		1	1 unit	41J
Blue	1	1	0	5	3SU1153-0AB50-1BA0		1	1 unit	41J		
		1	1	5	3SU1153-0AB50-1FA0		1	1 unit	41J		
White	1	1	0	5	3SU1153-0AB60-1BA0		1	1 unit	41J		
		1	1	5	3SU1153-0AB60-1FA0		1	1 unit	41J		
Clear	1	1	0	5	3SU1153-0AB70-1BA0		1	1 unit	41J		
		1	1	5	3SU1153-0AB70-1FA0		1	1 unit	41J		
	230	Amber	1	1	0	5	3SU1156-0AB00-1BA0		1	1 unit	41J
				1	1	5	3SU1156-0AB00-1FA0		1	1 unit	41J
		Red	1	0	1	5	3SU1156-0AB20-1CA0		1	1 unit	41J
				1	1	5	3SU1156-0AB20-1FA0		1	1 unit	41J
		Yellow	1	1	0	5	3SU1156-0AB30-1BA0		1	1 unit	41J
				1	1	5	3SU1156-0AB30-1FA0		1	1 unit	41J
		Green	1	1	0	3	3SU1156-0AB40-1BA0		1	1 unit	41J
				1	1	5	3SU1156-0AB40-1FA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Complete Units

Pushbuttons

	Supply voltage for light source		Color	Number of			SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG				
	at AC	at DC		Contact modules	NO contacts	NC contacts										
	V	V											d	Article No.	Price per PU	
Pushbuttons																
	230	--	Blue	1	1	0	5	3SU1156-0AB50-1BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB50-1FA0	1	1 unit	41J
			White	1	1	0	5	3SU1156-0AB60-1BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB60-1FA0	1	1 unit	41J
			Clear	1	1	0	5	3SU1156-0AB70-1BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB70-1FA0	1	1 unit	41J
								Spring-type terminals								
Pushbuttons with flat button, momentary contact																
	--	--	Black	1	1	0	▶ 5	3SU1150-0AB10-3BA0		1	1 unit	41J				
					0	1	5						3SU1150-0AB10-3CA0	1	1 unit	41J
					1	1	5						3SU1150-0AB10-3FA0	1	1 unit	41J
			Red	1	1	0	5	3SU1150-0AB20-3CA0		1	1 unit	41J				
					0	1	5						3SU1150-0AB20-3FA0	1	1 unit	41J
			Yellow	1	1	0	5	3SU1150-0AB30-3BA0		1	1 unit	41J				
1	1	5			3SU1150-0AB30-3FA0	1	1 unit						41J			
	--	--	Green	1	1	0	5	3SU1150-0AB40-3BA0		1	1 unit	41J				
					1	1	5						3SU1150-0AB40-3FA0	1	1 unit	41J
			Blue	1	1	0	5	3SU1150-0AB50-3BA0		1	1 unit	41J				
					1	1	5						3SU1150-0AB50-3FA0	1	1 unit	41J
			White	1	1	0	5	3SU1150-0AB60-3BA0		1	1 unit	41J				
					1	1	5						3SU1150-0AB60-3FA0	1	1 unit	41J
Pushbuttons with raised button, momentary contact																
	--	--	Red	1	0	1	5	3SU1150-0BB20-3CA0		1	1 unit	41J				
Illuminated pushbuttons with flat button, momentary contact, with integrated LED																
	24	24	Red	1	0	1	5	3SU1152-0AB20-3CA0		1	1 unit	41J				
					1	1	5						3SU1152-0AB20-3FA0	1	1 unit	41J
			Yellow	1	1	0	5	3SU1152-0AB30-3BA0		1	1 unit	41J				
					1	1	5						3SU1152-0AB30-3FA0	1	1 unit	41J
			Green	1	1	0	5	3SU1152-0AB40-3BA0		1	1 unit	41J				
					1	1	3						3SU1152-0AB40-3FA0	1	1 unit	41J
			Blue	1	1	0	5	3SU1152-0AB50-3BA0		1	1 unit	41J				
					1	1	5						3SU1152-0AB50-3FA0	1	1 unit	41J
			White	1	1	0	3	3SU1152-0AB60-3BA0		1	1 unit	41J				
					1	1	5						3SU1152-0AB60-3FA0	1	1 unit	41J
			Clear	1	1	0	5	3SU1152-0AB70-3BA0		1	1 unit	41J				
					1	1	5						3SU1152-0AB70-3FA0	1	1 unit	41J
	110	--	Red	1	0	1	5	3SU1153-0AB20-3CA0		1	1 unit	41J				
					1	1	5						3SU1153-0AB20-3FA0	1	1 unit	41J
			Yellow	1	1	0	5	3SU1153-0AB30-3BA0		1	1 unit	41J				
					1	1	5						3SU1153-0AB30-3FA0	1	1 unit	41J
			Green	1	1	0	5	3SU1153-0AB40-3BA0		1	1 unit	41J				
					1	1	5						3SU1153-0AB40-3FA0	1	1 unit	41J
			Blue	1	1	0	5	3SU1153-0AB50-3BA0		1	1 unit	41J				
					1	1	5						3SU1153-0AB50-3FA0	1	1 unit	41J
			White	1	1	0	5	3SU1153-0AB60-3BA0		1	1 unit	41J				
					1	1	5						3SU1153-0AB60-3FA0	1	1 unit	41J
			Clear	1	1	0	5	3SU1153-0AB70-3BA0		1	1 unit	41J				
					1	1	5						3SU1153-0AB70-3FA0	1	1 unit	41J
	230	--	Red	1	0	1	5	3SU1156-0AB20-3CA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB20-3FA0	1	1 unit	41J
			Yellow	1	1	0	5	3SU1156-0AB30-3BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB30-3FA0	1	1 unit	41J
			Green	1	1	0	5	3SU1156-0AB40-3BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB40-3FA0	1	1 unit	41J
			Blue	1	1	0	5	3SU1156-0AB50-3BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB50-3FA0	1	1 unit	41J
			White	1	1	0	5	3SU1156-0AB60-3BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB60-3FA0	1	1 unit	41J
			Clear	1	1	0	5	3SU1156-0AB70-3BA0		1	1 unit	41J				
					1	1	5						3SU1156-0AB70-3FA0	1	1 unit	41J

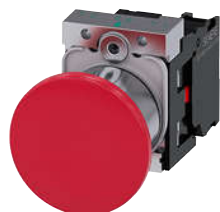
SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Complete Units

Mushroom pushbuttons/EMERGENCY STOP mushroom pushbuttons**Selection and ordering data**

Unlatching method	Number of Contact modules	NO contacts	NC contacts	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
				d	Article No.	Price per PU		

Mushroom pushbuttons

3SU1150-1BA20-1CA0

With red mushroom, diameter 40 mm, latching

Pull to unlatch	1	0	1	3	3SU1150-1BA20-1CA0 3SU1150-1BA20-1FA0	1 1	1 unit 1 unit	41J 41J
Pull to unlatch	1	0	1	5	3SU1150-1BA20-3CA0 3SU1150-1BA20-3FA0	1 1	1 unit 1 unit	41J 41J

Selection and ordering data

Unlatching method	Number of Contact modules	NO contacts	NC contacts	Marking	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
					d	Article No.	Price per PU		

EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5

3SU1150-1HB20-1CH0

With red mushroom, diameter 40 mm, with positive latching

Pull to unlatch	1	0	1	EMERGENCY STOP	⊕ 5	3SU1150-1HA20-1CG0	1	1 unit	41J
	1	0	1	NOT-HALT	⊕ 5	3SU1150-1HA20-1CH0	1	1 unit	41J
		1	1	EMERGENCY STOP	⊕ 5	3SU1150-1HA20-1FG0	1	1 unit	41J
		1	1	NOT-HALT	⊕ 5	3SU1150-1HA20-1FH0	1	1 unit	41J
		1	1	ARRET D'URGENCE	⊕ 5	3SU1150-1HA20-1FJ0	1	1 unit	41J
Rotate to unlatch	1	0	1	EMERGENCY STOP	⊕ 3	3SU1150-1HB20-1CG0	1	1 unit	41J
	1	0	1	NOT-HALT	⊕ ▶	3SU1150-1HB20-1CH0	1	1 unit	41J
	1	0	1	ARRET D'URGENCE	⊕ 5	3SU1150-1HB20-1CJ0	1	1 unit	41J
		1	1	EMERGENCY STOP	⊕ 5	3SU1150-1HB20-1FG0	1	1 unit	41J
		1	1	NOT-HALT	⊕ ▶	3SU1150-1HB20-1FH0	1	1 unit	41J
		1	1	ARRET D'URGENCE	⊕ 5	3SU1150-1HB20-1FJ0	1	1 unit	41J
Pull to unlatch	1	0	1	NOT-HALT	⊕ 5	3SU1150-1HA20-3CH0	1	1 unit	41J
	2	0	2	NOT-HALT	⊕ 5	3SU1150-1HA20-3FH0	1	1 unit	41J
	2	0	2	NOT-HALT	⊕ 5	3SU1150-1HA20-3PH0	1	1 unit	41J
Rotate to unlatch	1	0	1	NOT-HALT	⊕ 5	3SU1150-1HB20-3CH0	1	1 unit	41J
	2	0	2	NOT-HALT	⊕ 5	3SU1150-1HB20-3FH0	1	1 unit	41J
	2	0	2	NOT-HALT	⊕ 5	3SU1150-1HB20-3PH0	1	1 unit	41J

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
see page 11/1 onwards.
Certificate:



SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Complete Units

EMERGENCY STOP mushroom pushbuttons/selector switches

Un-latching method	Supply voltage for light source		Number of			Marking	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	at AC	at DC	Contact modules	NO contacts	NC contacts						
	V	V				d		Article No.	Price per PU		

EMERGENCY STOP mushroom pushbuttons, can be illuminated, in accordance with ISO 13850 and IEC 60947-5-5 **NEW**

With red mushroom, diameter 40 mm, with positive latching



3SU1158-1HB20-1PT0

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System, see page 11/1 onwards.
Certificate:



Rotate to unlatch	24 ... 240	24 ... 240	1	0	2	EMERGENCY STOP	⊕ 5	3SU1158-1HB20-1PT0	1	1 unit	41J
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Selection and ordering data

Operating principle	Color	Number of			SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
		Contact modules	NO contacts	NC contacts					
					d	Article No.	Price per PU		

Selector switches



3SU1150-2BF60-1BA0

Short black actuator, 2 switch positions

Latching, 90°	White	1	1	0	▶	3SU1150-2BF60-1BA0	1	1 unit	41J
			1	1	3	3SU1150-2BF60-1FA0	1	1 unit	41J
		2	1	1	▶	3SU1150-2BF60-1MA0	1	1 unit	41J

Short black actuator, 3 switch positions (I - O - II)

Momentary contact, 2x45°, reset from left + right	White	2	2	2	3	3SU1150-2BM60-1LA0	1	1 unit	41J
			2	0	▶	3SU1150-2BM60-1NA0	1	1 unit	41J

Latching, 2x45°	White	2	2	2	▶	3SU1150-2BL60-1LA0	1	1 unit	41J
			2	0	▶	3SU1150-2BL60-1NA0	1	1 unit	41J

Spring-type terminals



3SU1150-2BL60-3NA0

Short black actuator, 2 switch positions

Latching, 90°	White	1	1	0	5	3SU1150-2BF60-3BA0	1	1 unit	41J
		2	1	1	5	3SU1150-2BF60-3MA0	1	1 unit	41J

Short black actuator, 3 switch positions

Momentary contact, 2x45°, reset from left + right	White	2	2	2	5	3SU1150-2BM60-3LA0	1	1 unit	41J
			2	0	5	3SU1150-2BM60-3NA0	1	1 unit	41J

Latching, 2x45°	White	2	2	2	5	3SU1150-2BL60-3LA0	1	1 unit	41J
			2	0	5	3SU1150-2BL60-3NA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Complete Units

Key-operated switches/coordinate switches

Selection and ordering data

Operating principle	Switch position for key removal	Number of Contact modules	NO contacts	NC contacts	Number of keys	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
							Article No.	Price per PU		

Key-operated switches



3SU1150-4BF11-1BA0

With RONIS lock, SB30, 2 switch positions

Latching, 90°
(10:30/
1:30 o'clock)



All	1	1	0	2	3		3SU1150-4BF11-1BA0	1	1 unit	41J
All		1	1	2	3		3SU1150-4BF11-1FA0	1	1 unit	41J
							Spring-type terminals			
All	1	1	0	2	5		3SU1150-4BF11-3BA0	1	1 unit	41J
All		1	1	2	5		3SU1150-4BF11-3FA0	1	1 unit	41J
O	2	0	2	2	5		3SU1150-4BF01-3PA0	1	1 unit	41J

Selection and ordering data

Number of NO contacts (1 per direction)	Operating principle	Direction of actuation	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU		

Coordinate switches



3SU1150-7AF88-1QA0

Without mechanical interlock, 2 switch positions

2	Momentary contact	Horizontal	5	3SU1150-7AC88-1NA0	1	1 unit	41J
		Vertical	5	3SU1150-7AD88-1NA0	1	1 unit	41J
	Latching	Horizontal	5	3SU1150-7AA88-1NA0	1	1 unit	41J
		Vertical	5	3SU1150-7AB88-1NA0	1	1 unit	41J

Without mechanical interlock, 4 switch positions

4	Momentary contact	Horizontal/Vertical	3	3SU1150-7AF88-1QA0	1	1 unit	41J
	Latching	Horizontal/Vertical	5	3SU1150-7AE88-1QA0	1	1 unit	41J

With mechanical interlock, 2 switch positions

2	Momentary contact	Horizontal	5	3SU1150-7BC88-1NA0	1	1 unit	41J
		Vertical	5	3SU1150-7BD88-1NA0	1	1 unit	41J
	Latching	Horizontal	5	3SU1150-7BA88-1NA0	1	1 unit	41J
		Vertical	5	3SU1150-7BB88-1NA0	1	1 unit	41J

With mechanical interlock, 4 switch positions

4	Momentary contact	Horizontal/Vertical	5	3SU1150-7BF88-1QA0	1	1 unit	41J
	Latching	Horizontal/Vertical	5	3SU1150-7BE88-1QA0	1	1 unit	41J








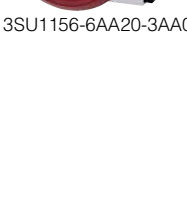
3SU1150-7BF88-1QA0

SIRIUS ACT Pushbuttons and Indicator Lights





Actuators and Indicators, 22 mm, Metal, Shiny

Complete Units

Indicator lights**Selection and ordering data**

Operational voltage at AC, rated value		at DC, rated value	Color of actuating element	of light source	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG			
V	V				d	Article No.	Price per PU						
Indicator lights													
With smooth lens and integrated LED													
 3SU1152-6AA50-1AA0	24	24	Amber	Amber	5	3SU1152-6AA00-1AA0		1	1 unit	41J			
			Red	Red	▶	3SU1152-6AA20-1AA0		1	1 unit	41J			
			Yellow	Yellow	▶	3SU1152-6AA30-1AA0		1	1 unit	41J			
			Green	Green	▶	3SU1152-6AA40-1AA0		1	1 unit	41J			
			Blue	Blue	3	3SU1152-6AA50-1AA0		1	1 unit	41J			
			White	White	▶	3SU1152-6AA60-1AA0		1	1 unit	41J			
			Clear	White	5	3SU1152-6AA70-1AA0		1	1 unit	41J			
			 3SU1156-6AA60-1AA0	110	--	Amber	Amber	5	3SU1153-6AA00-1AA0		1	1 unit	41J
Red	Red	▶				3SU1153-6AA20-1AA0		1	1 unit	41J			
Yellow	Yellow	3				3SU1153-6AA30-1AA0		1	1 unit	41J			
Green	Green	▶				3SU1153-6AA40-1AA0		1	1 unit	41J			
Blue	Blue	5				3SU1153-6AA50-1AA0		1	1 unit	41J			
White	White	3				3SU1153-6AA60-1AA0		1	1 unit	41J			
Clear	White	5				3SU1153-6AA70-1AA0		1	1 unit	41J			
 3SU1156-6AA60-1AA0	230	--				Red	Red	▶	3SU1156-6AA20-1AA0		1	1 unit	41J
			Yellow	Yellow	3	3SU1156-6AA30-1AA0		1	1 unit	41J			
			Green	Green	▶	3SU1156-6AA40-1AA0		1	1 unit	41J			
			Blue	Blue	5	3SU1156-6AA50-1AA0		1	1 unit	41J			
			White	White	3	3SU1156-6AA60-1AA0		1	1 unit	41J			
			Clear	White	5	3SU1156-6AA70-1AA0		1	1 unit	41J			
									Spring-type terminals				
			 3SU1152-6AA40-3AA0	24	24	Red	Red	3	3SU1152-6AA20-3AA0		1	1 unit	41J
Yellow	Yellow	5				3SU1152-6AA30-3AA0		1	1 unit	41J			
Green	Green	3				3SU1152-6AA40-3AA0		1	1 unit	41J			
Blue	Blue	3				3SU1152-6AA50-3AA0		1	1 unit	41J			
White	White	5				3SU1152-6AA60-3AA0		1	1 unit	41J			
Clear	White	5				3SU1152-6AA70-3AA0		1	1 unit	41J			
 3SU1156-6AA40-3AA0	110	--				Red	Red	5	3SU1153-6AA20-3AA0		1	1 unit	41J
						Yellow	Yellow	5	3SU1153-6AA30-3AA0		1	1 unit	41J
			Green	Green	5	3SU1153-6AA40-3AA0		1	1 unit	41J			
			Blue	Blue	5	3SU1153-6AA50-3AA0		1	1 unit	41J			
			White	White	5	3SU1153-6AA60-3AA0		1	1 unit	41J			
			Clear	White	5	3SU1153-6AA70-3AA0		1	1 unit	41J			
			 3SU1156-6AA20-3AA0	230	--	Red	Red	5	3SU1156-6AA20-3AA0		1	1 unit	41J
						Yellow	Yellow	5	3SU1156-6AA30-3AA0		1	1 unit	41J
Green	Green	5				3SU1156-6AA40-3AA0		1	1 unit	41J			
Blue	Blue	5				3SU1156-6AA50-3AA0		1	1 unit	41J			
White	White	5				3SU1156-6AA60-3AA0		1	1 unit	41J			
Clear	White	5				3SU1156-6AA70-3AA0		1	1 unit	41J			

SIRIUS ACT Pushbuttons and Indicator LightsActuators and Indicators, 22 mm, Metal, Shiny
Compact Units**Indicator lights****Selection and ordering data**


	Operational voltage		Color of actuating element	of light source	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	at AC, rated value	at DC, rated value								
	V	V			d	Article No.	Price per PU			
Indicator lights NEW										
	24	24	Amber	Amber	5	3SU1251-6AB00-1AA0		1	1 unit	41J
			Red	Red	▶	3SU1251-6AB20-1AA0		1	1 unit	41J
			Yellow	Yellow	▶	3SU1251-6AB30-1AA0		1	1 unit	41J
			Green	Green	▶	3SU1251-6AB40-1AA0		1	1 unit	41J
			Blue	Blue	5	3SU1251-6AB50-1AA0		1	1 unit	41J
			White	White	▶	3SU1251-6AB60-1AA0		1	1 unit	41J
			Clear	Clear	3	3SU1251-6AB70-1AA0		1	1 unit	41J
	110	110	Amber	Amber	5	3SU1251-6AC00-1AA0		1	1 unit	41J
			Red	Red	3	3SU1251-6AC20-1AA0		1	1 unit	41J
			Yellow	Yellow	5	3SU1251-6AC30-1AA0		1	1 unit	41J
			Green	Green	5	3SU1251-6AC40-1AA0		1	1 unit	41J
			Blue	Blue	5	3SU1251-6AC50-1AA0		1	1 unit	41J
			White	White	5	3SU1251-6AC60-1AA0		1	1 unit	41J
			Clear	Clear	5	3SU1251-6AC70-1AA0		1	1 unit	41J
	230	230	Amber	Amber	5	3SU1251-6AF00-1AA0		1	1 unit	41J
			Red	Red	3	3SU1251-6AF20-1AA0		1	1 unit	41J
			Yellow	Yellow	5	3SU1251-6AF30-1AA0		1	1 unit	41J
			Green	Green	5	3SU1251-6AF40-1AA0		1	1 unit	41J
			Blue	Blue	5	3SU1251-6AF50-1AA0		1	1 unit	41J
			White	White	5	3SU1251-6AF60-1AA0		1	1 unit	41J
			Clear	Clear	5	3SU1251-6AF70-1AA0		1	1 unit	41J
Indicator lights with "traffic light" LED										
	6 ... 24	6 ... 24	Clear	Red/Yellow/ Green	▶	3SU1251-6AG24-1AA0		1	1 unit	41J
	110	--	Clear	Red/Yellow/ Green	▶	3SU1251-6AC24-1AA0		1	1 unit	41J
	230	--	Clear	Red/Yellow/ Green	▶	3SU1251-6AF24-1AA0		1	1 unit	41J
3SU1251-6AG24-1AA0										

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny



Compact Units

Acoustic signaling devices/potentiometers**Selection and ordering data**

Operational voltage at AC, rated value		Volume level dB	SD d	Screw terminals	PU (UNIT, SET, M)	PS*	PG
at DC, rated value							
V	V			Article No.	Price per PU		
Acoustic signaling devices							
	24	24	90	5	3SU1250-6KB10-1AA0	1	1 unit 41J
	110	--	90	5	3SU1250-6KC10-1AA0	1	1 unit 41J
	230	--	90	5	3SU1250-6KF10-1AA0	1	1 unit 41J

3SU1250-6KB10-1AA0

Selection and ordering data

	Version of actuating element	Operating principle	Adjustable resistance	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
			kΩ	d	Article No.	Price per PU			
Potentiometers									
	Rotary knob	Stepless	1	▶	3SU1250-2PQ10-1AA0		1	1 unit	41J
			4.7	▶	3SU1250-2PR10-1AA0		1	1 unit	41J
			10	▶	3SU1250-2PS10-1AA0		1	1 unit	41J
			47	▶	3SU1250-2PT10-1AA0		1	1 unit	41J
			100	▶	3SU1250-2PU10-1AA0		1	1 unit	41J
			470	▶	3SU1250-2PV10-1AA0		1	1 unit	41J

3SU1250-2PQ10-1AA0

3SU1250-2PQ10-1AA0

Labeling plates for potentiometers, [see page 13/132](#).

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Compact Units

Pushbuttons with extended stroke**Selection and ordering data**

Version	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							

Pushbuttons with extended stroke

For actuating relays, can only be combined with extension plunger, no contact module or LED module required

Pushbuttons with flat button

3SU1250-0EB40-0AA0

Red 5
Green 5
Blue 7

3SU1250-0EB20-0AA0
3SU1250-0EB40-0AA0
3SU1250-0EB50-0AA0

1 1 unit 41J
1 1 unit 41J
1 1 unit 41J



3SU1250-0FB10-0AA0

Pushbuttons with raised button

Black ▶

3SU1250-0FB10-0AA0

1 1 unit 41J



3SU1251-0EB20-0AA0

Pushbuttons with flat transparent button for insertion of insert labels

Red 3
Clear 3

3SU1251-0EB20-0AA0
3SU1251-0EB70-0AA0

1 1 unit 41J
1 1 unit 41J

Version	Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								

Accessories**Extension plungers**

Plastic

Gray ▶

3SU1900-0KG10-0AA0

1 1 unit 41J



3SU1900-0KG10-0AA0






For compensation of the distance between the pushbutton and the unlatching button of an overload relay

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Pushbuttons**Selection and ordering data**




Version of actuating element		Operating principle	Color, marking	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Front ring version		Unlatching method		d					
Pushbuttons									
	Pushbuttons with flat button Standard	Momentary contact	Black	▶	3SU1050-0AB10-0AA0		1	1 unit	41J
			Black, "O"	▶	3SU1050-0AB10-0AD0		1	1 unit	41J
			Red	▶	3SU1050-0AB20-0AA0		1	1 unit	41J
			Red, "O"	▶	3SU1050-0AB20-0AD0		1	1 unit	41J
			Yellow	3	3SU1050-0AB30-0AA0		1	1 unit	41J
			Green	▶	3SU1050-0AB40-0AA0		1	1 unit	41J
			Green, "I"	▶	3SU1050-0AB40-0AC0		1	1 unit	41J
			Blue	3	3SU1050-0AB50-0AA0		1	1 unit	41J
			Blue, "R"	5	3SU1050-0AB50-0AR0		1	1 unit	41J
			White	3	3SU1050-0AB60-0AA0		1	1 unit	41J
			White, "G"	5	3SU1050-0AB60-0AB0		1	1 unit	41J
			White, "I"	▶	3SU1050-0AB60-0AC0		1	1 unit	41J
			Clear	3	3SU1050-0AB70-0AA0		1	1 unit	41J
			Gray	▶	3SU1050-0AB80-0AA0		1	1 unit	41J
		Latching	Black	▶	3SU1050-0AA10-0AA0		1	1 unit	41J
		Push to unlatch	Red	▶	3SU1050-0AA20-0AA0		1	1 unit	41J
			Yellow	▶	3SU1050-0AA30-0AA0		1	1 unit	41J
			Green	▶	3SU1050-0AA40-0AA0		1	1 unit	41J
			Blue	▶	3SU1050-0AA50-0AA0		1	1 unit	41J
			White	▶	3SU1050-0AA60-0AA0		1	1 unit	41J
				Pushbuttons with raised button Standard	Momentary contact	Black	3	3SU1050-0BB10-0AA0	
Red	▶	3SU1050-0BB20-0AA0					1	1 unit	41J
Yellow	▶	3SU1050-0BB30-0AA0					1	1 unit	41J
Green	▶	3SU1050-0BB40-0AA0					1	1 unit	41J
Blue	▶	3SU1050-0BB50-0AA0					1	1 unit	41J
White	▶	3SU1050-0BB60-0AA0					1	1 unit	41J
Latching	Red	5			3SU1050-0BA20-0AA0		1	1 unit	41J
	Pushbuttons with flat button Raised	Momentary contact	Black	5	3SU1050-0CB10-0AA0		1	1 unit	41J
			Red	5	3SU1050-0CB20-0AA0		1	1 unit	41J
			Yellow	5	3SU1050-0CB30-0AA0		1	1 unit	41J
			Green	5	3SU1050-0CB40-0AA0		1	1 unit	41J
			Blue	5	3SU1050-0CB50-0AA0		1	1 unit	41J
			White	5	3SU1050-0CB60-0AA0		1	1 unit	41J
				Illuminated pushbuttons with flat button Raised	Momentary contact	Green	X	3SU1051-0CB40-0AA0	

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Pushbuttons

Version of actuating element Front ring version	Operating principle Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Pushbuttons								
	Illuminated pushbuttons with flat button Standard	Momentary contact	Amber	5	3SU1051-0AB00-0AA0	1	1 unit	41J
			Red	▶	3SU1051-0AB20-0AA0	1	1 unit	41J
			Yellow	3	3SU1051-0AB30-0AA0	1	1 unit	41J
			Green	▶	3SU1051-0AB40-0AA0	1	1 unit	41J
			Blue	3	3SU1051-0AB50-0AA0	1	1 unit	41J
			White	▶	3SU1051-0AB60-0AA0	1	1 unit	41J
			Clear	▶	3SU1051-0AB70-0AA0	1	1 unit	41J
		Latching	Red	▶	3SU1051-0AA20-0AA0	1	1 unit	41J
		Push to unlatch	Yellow	▶	3SU1051-0AA30-0AA0	1	1 unit	41J
			Green	▶	3SU1051-0AA40-0AA0	1	1 unit	41J
			Blue	▶	3SU1051-0AA50-0AA0	1	1 unit	41J
			White	▶	3SU1051-0AA60-0AA0	1	1 unit	41J
			Clear	5	3SU1051-0AA70-0AA0	1	1 unit	41J
	Illuminated pushbuttons with raised button Standard	Momentary contact	Amber	5	3SU1051-0BB00-0AA0	1	1 unit	41J
			Red	▶	3SU1051-0BB20-0AA0	1	1 unit	41J
			Yellow	▶	3SU1051-0BB30-0AA0	1	1 unit	41J
			Green	▶	3SU1051-0BB40-0AA0	1	1 unit	41J
			Blue	▶	3SU1051-0BB50-0AA0	1	1 unit	41J
			White	5	3SU1051-0BB60-0AA0	1	1 unit	41J
			Clear	3	3SU1051-0BB70-0AA0	1	1 unit	41J





SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Twin pushbuttons

Selection and ordering data

Version of actuating element	Operating principle	Color	Marking Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Twin pushbuttons									
 3SU1050-3AB66-0AL0	Twin pushbuttons flat, flat	Green/Red	--	3	3SU1050-3AB42-0AA0		1	1 unit	41J
			"I"/"O"	3	3SU1050-3AB42-0AK0		1	1 unit	41J
		White/Black	--	3	3SU1050-3AB61-0AA0		1	1 unit	41J
			"I"/"O"	3	3SU1050-3AB61-0AK0		1	1 unit	41J
		White/White	--	3	3SU1050-3AB66-0AA0		1	1 unit	41J
			"-"/"+"	5	3SU1050-3AB66-0AL0		1	1 unit	41J
			Arrows, hor.	5	3SU1050-3AB66-0AM0		1	1 unit	41J
		Black/Black	--	3	3SU1050-3AB11-0AA0		1	1 unit	41J
			⊙ ⊙ 5264/5265 (IEC 60417)	5	3SU1050-3AB11-0AQ0		1	1 unit	41J
 3SU1050-3BB42-0AK0	Twin pushbuttons flat, raised	Green/Red	--	3	3SU1050-3BB42-0AA0		1	1 unit	41J
			"I"/"O"	3	3SU1050-3BB42-0AK0		1	1 unit	41J
		White/Black	--	3	3SU1050-3BB61-0AA0		1	1 unit	41J
			"I"/"O"	5	3SU1050-3BB61-0AK0		1	1 unit	41J
 3SU1051-3AB42-0AN0	Twin pushbuttons flat, flat, illuminated	Green/Red	--	▶ 3	3SU1051-3AB42-0AA0		1	1 unit	41J
			"I"/"O"	▶ 3	3SU1051-3AB42-0AK0		1	1 unit	41J
			Arrows, vert.	5	3SU1051-3AB42-0AN0		1	1 unit	41J
		White/Black	--	▶ 3	3SU1051-3AB61-0AA0		1	1 unit	41J
			"I"/"O"	3	3SU1051-3AB61-0AK0		1	1 unit	41J
 3SU1051-3BB61-0AA0	Twin pushbuttons flat, raised, illuminated	Green/Red	--	3	3SU1051-3BB42-0AA0		1	1 unit	41J
			"I"/"O"	▶ 3	3SU1051-3BB42-0AK0		1	1 unit	41J
		White/Black	--	3	3SU1051-3BB61-0AA0		1	1 unit	41J
			"I"/"O"	5	3SU1051-3BB61-0AK0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Mushroom pushbuttons**Selection and ordering data**










Version of actuating element	Operating principle Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Mushroom pushbuttons								
	2 switch positions							
	Momentary contact	Black	▶	3SU1050-1AD10-0AA0		1	1 unit	41J
		Red	▶	3SU1050-1AD20-0AA0		1	1 unit	41J
		Yellow	▶	3SU1050-1AD30-0AA0		1	1 unit	41J
		Green	▶	3SU1050-1AD40-0AA0		1	1 unit	41J
3SU1050-1AD20-0AA0	Latching	Black	▶	3SU1050-1AA10-0AA0		1	1 unit	41J
	Pull to unlatch	Red	▶	3SU1050-1AA20-0AA0		1	1 unit	41J
	Momentary contact	Black	3	3SU1050-1BD10-0AA0		1	1 unit	41J
		Red	5	3SU1050-1BD20-0AA0		1	1 unit	41J
		Yellow	5	3SU1050-1BD30-0AA0		1	1 unit	41J
		Green	5	3SU1050-1BD40-0AA0		1	1 unit	41J
	3SU1050-1BD30-0AA0	Latching	Black	3	3SU1050-1BA10-0AA0		1	1 unit
	Pull to unlatch	Red	3	3SU1050-1BA20-0AA0		1	1 unit	41J
		Yellow	5	3SU1050-1BA30-0AA0		1	1 unit	41J
	Momentary contact	Black	5	3SU1050-1CD10-0AA0		1	1 unit	41J
		Red	5	3SU1050-1CD20-0AA0		1	1 unit	41J
		Yellow	5	3SU1050-1CD30-0AA0		1	1 unit	41J
		Green	5	3SU1050-1CD40-0AA0		1	1 unit	41J
	3SU1050-1CD40-0AA0	Latching	Black	5	3SU1050-1CA10-0AA0		1	1 unit
	Pull to unlatch	Red	5	3SU1050-1CA20-0AA0		1	1 unit	41J
	Momentary contact	Yellow	5	3SU1051-1AD30-0AA0		1	1 unit	41J
		Green	5	3SU1051-1AD40-0AA0		1	1 unit	41J
		Blue	NEW 5	3SU1051-1AD50-0AA0		1	1 unit	41J
		White	5	3SU1051-1AD60-0AA0		1	1 unit	41J
	3SU1051-1AD60-0AA0	Latching	Amber	5	3SU1051-1AA00-0AA0		1	1 unit
	Pull to unlatch	Red	5	3SU1051-1AA20-0AA0		1	1 unit	41J
		Yellow	5	3SU1051-1AA30-0AA0		1	1 unit	41J
		Green	5	3SU1051-1AA40-0AA0		1	1 unit	41J
		Blue	5	3SU1051-1AA50-0AA0		1	1 unit	41J
		Clear	5	3SU1051-1AA70-0AA0		1	1 unit	41J
	Momentary contact	Amber	5	3SU1051-1BD00-0AA0		1	1 unit	41J
		Yellow	5	3SU1051-1BD30-0AA0		1	1 unit	41J
		Green	5	3SU1051-1BD40-0AA0		1	1 unit	41J
		White	5	3SU1051-1BD60-0AA0		1	1 unit	41J
	3SU1051-1BD40-0AA0	Latching	Amber	5	3SU1051-1BA00-0AA0		1	1 unit
	Pull to unlatch	Red	3	3SU1051-1BA20-0AA0		1	1 unit	41J
		Yellow	5	3SU1051-1BA30-0AA0		1	1 unit	41J
		Green	5	3SU1051-1BA40-0AA0		1	1 unit	41J
		Blue	5	3SU1051-1BA50-0AA0		1	1 unit	41J
		Clear	5	3SU1051-1BA70-0AA0		1	1 unit	41J
	Momentary contact	Amber	5	3SU1051-1CD00-0AA0		1	1 unit	41J
		Yellow	5	3SU1051-1CD30-0AA0		1	1 unit	41J
		Green	5	3SU1051-1CD40-0AA0		1	1 unit	41J
		White	5	3SU1051-1CD60-0AA0		1	1 unit	41J
	3SU1051-1CA50-0AA0	Latching	Red	5	3SU1051-1CA20-0AA0		1	1 unit
	Pull to unlatch	Yellow	5	3SU1051-1CA30-0AA0		1	1 unit	41J
		Green	5	3SU1051-1CA40-0AA0		1	1 unit	41J
		Blue	5	3SU1051-1CA50-0AA0		1	1 unit	41J
		Clear	5	3SU1051-1CA70-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights



Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Mushroom pushbuttons/EMERGENCY STOP mushroom pushbuttons

Version of actuating element	Operating principle Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Mushroom pushbuttons								
2 switch positions								
	Mushroom pushbuttons with raised mushroom, 40 mm diameter, 2 positions	With positive latching	Black	5	3SU1050-1HB10-0AA0	1	1 unit	41J
		Rotate to unlatch	Yellow	5	3SU1050-1HB30-0AA0	1	1 unit	41J
3SU1050-1HB10-0AA0								
3 switch positions								
	Mushroom pushbuttons 40 mm diameter, 3 positions	Momentary contact 	Black	5	3SU1050-1ED10-0AA0	1	1 unit	41J
			Red	5	3SU1050-1ED20-0AA0	1	1 unit	41J
	Mushroom pushbuttons 40 mm diameter, 3 positions, illuminated	Latching 	Black	5	3SU1050-1EA10-0AA0	1	1 unit	41J
			Red	5	3SU1050-1EA20-0AA0	1	1 unit	41J
Pull to unlatch								
	Mushroom pushbuttons 40 mm diameter, 3 positions, illuminated	Momentary contact 	Red	5	3SU1051-1ED20-0AA0	1	1 unit	41J
			White	5	3SU1051-1ED60-0AA0	1	1 unit	41J
	Mushroom pushbuttons 40 mm diameter, 3 positions, illuminated	Latching 	Red	5	3SU1051-1EA20-0AA0	1	1 unit	41J
			Green	5	3SU1051-1EA40-0AA0	1	1 unit	41J
Pull to unlatch								
3SU1051-1EA40-0AA0								

Selection and ordering data

Version of actuating element	Outer diameter of mushroom	Make of lock	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
					d				
EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5									
With pull-to-unlatch mechanism									
	With positive latching, 2 positions	40	--	Red	3	3SU1050-1HA20-0AA0	1	1 unit	41J
With rotate-to-unlatch mechanism									
	With positive latching, 2 positions	33.8	--	Red	3	3SU1050-1GB20-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

EMERGENCY STOP mushroom pushbuttons

Version of actuating element	Outer diameter of mushroom	Make of lock	Color	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
------------------------------	----------------------------	--------------	-------	----------------	----	-------------	--------------	-------------------	-----	----

EMERGENCY STOP mushroom pushbuttons, in accordance with ISO 13850 and IEC 60947-5-5**With rotate-to-unlatch mechanism**

3SU1050-1HB20-0AA0



3SU1050-1JB20-0AA0

With positive latching, 2 positions	40	--	Red	--	▶	3SU1050-1HB20-0AA0		1	1 unit	41J
	60	--	Red	--	5	3SU1050-1JB20-0AA0		1	1 unit	41J
With latching, 2 positions	40	--	Red	--	NEW 3	3SU1050-1LB20-0AA0		1	1 unit	41J

With rotate-to-unlatch mechanism, can be illuminated

3SU1051-1HB20-0AA0

With positive latching, 2 positions	33.8	--	Red	--	▶	3SU1051-1GB20-0AA0		1	1 unit	41J
	40				▶	3SU1051-1HB20-0AA0		1	1 unit	41J
	60				▶	3SU1051-1JB20-0AA0		1	1 unit	41J

With key-operated release

3SU1050-1HF20-0AA0



3SU1050-1HQ20-0AA0



3SU1050-1HR20-0AA0










With positive latching, 2 positions	40	RONIS SB30	Red	2	3	3SU1050-1HF20-0AA0		1	1 unit	41J
		RONIS 455		2	5	3SU1050-1HG20-0AA0		1	1 unit	41J
		RONIS 421		2	5	3SU1050-1HH20-0AA0		1	1 unit	41J
		BKS S1	Red	2	5	3SU1050-1HK20-0AA0		1	1 unit	41J
		BKS E7		0	5	3SU1050-1HM20-0AA0		1	1 unit	41J
		BKS E9		0	5	3SU1050-1HN20-0AA0		1	1 unit	41J
		O.M.R. 73037	Red	2	5	3SU1050-1HQ20-0AA0		1	1 unit	41J
		CES SSG10	Red	2	3	3SU1050-1HR20-0AA0		1	1 unit	41J
		CES SSP9		2	5	3SU1050-1HS20-0AA0		1	1 unit	41J
		CES VL5	Black	2	5	3SU1050-1HU10-0AA0		1	1 unit	41J
			Red	2	5	3SU1050-1HU20-0AA0		1	1 unit	41J
		CES VL1		2	5	3SU1050-1HV20-0AA0		1	1 unit	41J
		IKON 360012K1	Red	2	5	3SU1050-1HX20-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements



Selector switches

Version of actuating element	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Selector switches								
 3SU1052-2BM50-0AA0	3 switch positions, can be illuminated Selector, short black actuator	Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right 	Amber Black	5 ▶	3SU1052-2BM00-0AA0 3SU1052-2BM10-0AA0	1 1	1 unit 1 unit	41J 41J
		Red Yellow Green Blue White	5 5 ▶ ▶ ▶	3SU1052-2BM20-0AA0 3SU1052-2BM30-0AA0 3SU1052-2BM40-0AA0 3SU1052-2BM50-0AA0 3SU1052-2BM60-0AA0	1 1 1 1 1	1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J 41J
		Latching, 2x45° (10:30/12/1:30 o'clock) 	Amber Black Red Yellow Green White	5 ▶ ▶ ▶ 3 ▶	3SU1052-2BL00-0AA0 3SU1052-2BL10-0AA0 3SU1052-2BL20-0AA0 3SU1052-2BL30-0AA0 3SU1052-2BL40-0AA0 3SU1052-2BL60-0AA0	1 1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J 41J 41J
		Momentary contact/latching, 2x45° (10:30/12/1:30 o'clock), reset from left, latching to the right 	Black Red Green White	5 5 5 5	3SU1052-2BP10-0AA0 3SU1052-2BP20-0AA0 3SU1052-2BP40-0AA0 3SU1052-2BP60-0AA0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J
		Latching/momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from right, latching to the left 	Black Red Green White	3 5 ▶ 3	3SU1052-2BN10-0AA0 3SU1052-2BN20-0AA0 3SU1052-2BN40-0AA0 3SU1052-2BN60-0AA0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J
		Selector, long black actuator Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right 	Black Red Green White	3 5 5 3	3SU1052-2CM10-0AA0 3SU1052-2CM20-0AA0 3SU1052-2CM40-0AA0 3SU1052-2CM60-0AA0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J
		Latching, 2x45° (10:30/12/1:30 o'clock) 	Black Red Green White	5 5 5 5	3SU1052-2CL10-0AA0 3SU1052-2CL20-0AA0 3SU1052-2CL40-0AA0 3SU1052-2CL60-0AA0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J
		Momentary contact/latching, 2x45° (10:30/12/1:30 o'clock), reset from left, latching to the right 	Black Red White	5 5 5	3SU1052-2CP10-0AA0 3SU1052-2CP20-0AA0 3SU1052-2CP60-0AA0	1 1 1	1 unit 1 unit 1 unit	41J 41J 41J
		Latching/momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from right, latching to the left 	Black Red White Black	5 5 5 NEW 5	3SU1052-2CN10-0AA0 3SU1052-2CN20-0AA0 3SU1052-2CN60-0AA0 3SU1042-2GL10-0AA0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny
Actuating and Signaling Elements

Selector switches



Version of actuating element	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Selector switches								
4 switch positions								
	Rotary knob	Latching, 4x90° (3/6/9/12 o'clock)	White	3	3SU1050-2AS60-0AA0	1	1 unit	41J
3SU1050-2AS60-0AA0								

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Key-operated switches**Selection and ordering data**

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
es					d				
2 switch positions									
	Momentary contact, 45° (10:30/12 o'clock), reset from center to left	RONIS, SB30	O	2	3	3SU1050-4BC01-0AA0	1	1 unit	41J
		RONIS, 455	O	2	5	3SU1050-4CC01-0AA0	1	1 unit	41J
		O.M.R. 73037, red	O	2	5	3SU1050-4FC01-0AA0	1	1 unit	41J
		O.M.R. 73038, light blue	O	2	5	3SU1050-4GC01-0AA0	1	1 unit	41J
		O.M.R. 73034, black	O	2	5	3SU1050-4HC01-0AA0	1	1 unit	41J
		O.M.R. 73033, yellow	O	2	5	3SU1050-4JC01-0AA0	1	1 unit	41J
		CES, SSG10	O	2	3	3SU1050-5BC01-0AA0	1	1 unit	41J
		CES, LSG1	O	2	5	3SU1050-5HC01-0AA0	1	1 unit	41J
		CES, VL5	O	2	5	3SU1050-5KC01-0AA0	1	1 unit	41J
		CES, STGH10	O	2	5	3SU1050-5LC01-0AA0	1	1 unit	41J
		BKS, S1	O	2	5	3SU1050-5PC01-0AA0	1	1 unit	41J
		IKON, 360012K1	O	2	5	3SU1050-5XC01-0AA0	1	1 unit	41J
		RONIS, SB30	O	2	3	3SU1050-4BF01-0AA0	1	1 unit	41J
			O+I	2	3	3SU1050-4BF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-4BF21-0AA0	1	1 unit	41J
		RONIS, 455	O	2	5	3SU1050-4CF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-4CF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-4CF21-0AA0	1	1 unit	41J
		RONIS, 421	O+I	2	5	3SU1050-4DF11-0AA0	1	1 unit	41J
		O.M.R. 73037, red	O	2	5	3SU1050-4FF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-4FF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-4FF21-0AA0	1	1 unit	41J
		O.M.R. 73038, light blue	O	2	5	3SU1050-4GF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-4GF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-4GF21-0AA0	1	1 unit	41J
		O.M.R. 73034, black	O	2	5	3SU1050-4HF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-4HF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-4HF21-0AA0	1	1 unit	41J
		O.M.R. 73033, yellow	O	2	5	3SU1050-4JF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-4JF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-4JF21-0AA0	1	1 unit	41J
		CES, SSG10	O	2	3	3SU1050-5BF01-0AA0	1	1 unit	41J
			O+I	2	3	3SU1050-5BF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-5BF21-0AA0	1	1 unit	41J
		CES, SSG10 with key monitoring	O	2	NEW 5	3SU1050-5JF01-0AA0	1	1 unit	41J
		CES, LSG1	O	2	5	3SU1050-5HF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-5HF11-0AA0	1	1 unit	41J
		CES, VL5	O	2	5	3SU1050-5KF01-0AA0	1	1 unit	41J
		CES, STGH10	O+I	2	5	3SU1050-5LF11-0AA0	1	1 unit	41J
		BKS, S1	O	2	5	3SU1050-5PF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-5PF11-0AA0	1	1 unit	41J
			I	2	5	3SU1050-5PF21-0AA0	1	1 unit	41J
		BKS, E1	O	0	5	3SU1050-5QF01-0AA0	1	1 unit	41J
			O+I	0	5	3SU1050-5QF11-0AA0	1	1 unit	41J
		BKS, E2	O	0	3	3SU1050-5RF01-0AA0	1	1 unit	41J
			O+I	0	5	3SU1050-5RF11-0AA0	1	1 unit	41J
		BKS, E7	O	0	5	3SU1050-5SF01-0AA0	1	1 unit	41J
			O+I	0	5	3SU1050-5SF11-0AA0	1	1 unit	41J
		BKS, E9	O	0	5	3SU1050-5TF01-0AA0	1	1 unit	41J
			O+I	0	5	3SU1050-5TF11-0AA0	1	1 unit	41J
		IKON, 360012K1	O	2	5	3SU1050-5XF01-0AA0	1	1 unit	41J
			O+I	2	5	3SU1050-5XF11-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, 22 mm, Metal, Shiny

Actuating and Signaling Elements

Key-operated switches

Operating principle	Make of lock	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Key-operated switches



3SU1050-4BM01-0AA0

3 switch positions

Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right



Latching, 2x45° (10:30/12/1:30 o'clock)



3SU1050-4FL11-0AA0



3SU1050-5BL01-0AA0



3SU1050-4BP01-0AA0

Momentary contact/latching, 2x45° (10:30/12/1:30 o'clock), reset from left, latching to the right




Latching/momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from right, latching to the left



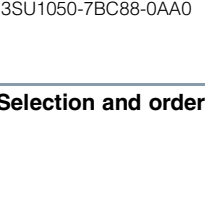


RONIS, SB30	O	2	5	3SU1050-4BM01-0AA0	1	1 unit	41J
RONIS, 455	O	2	5	3SU1050-4CM01-0AA0	1	1 unit	41J
O.M.R. 73034, black	O	2	5	3SU1050-4HM01-0AA0	1	1 unit	41J
CES, SSG10	O	2	5	3SU1050-5BM01-0AA0	1	1 unit	41J
CES, STGH10	O	2	5	3SU1050-5LM01-0AA0	1	1 unit	41J
BKS, S1	O	2	5	3SU1050-5PM01-0AA0	1	1 unit	41J
IKON, 360012K1	O	2	5	3SU1050-5XM01-0AA0	1	1 unit	41J
RONIS, SB30	O	2	5	3SU1050-4BL01-0AA0	1	1 unit	41J
	I+O+II	2	3	3SU1050-4BL11-0AA0	1	1 unit	41J
	I	2	5	3SU1050-4BL21-0AA0	1	1 unit	41J
	II	2	5	3SU1050-4BL31-0AA0	1	1 unit	41J
	I+II	2	5	3SU1050-4BL41-0AA0	1	1 unit	41J
	O+I	2	5	3SU1050-4BL51-0AA0	1	1 unit	41J
RONIS, 455	O	2	5	3SU1050-4CL01-0AA0	1	1 unit	41J
	I+O+II	2	5	3SU1050-4CL11-0AA0	1	1 unit	41J
RONIS, 421		2	5	3SU1050-4DL11-0AA0	1	1 unit	41J
O.M.R. 73037, red	I+O+II	2	5	3SU1050-4FL11-0AA0	1	1 unit	41J
O.M.R. 73038, light blue	O	2	5	3SU1050-4GL01-0AA0	1	1 unit	41J
	I+O+III	2	5	3SU1050-4GL11-0AA0	1	1 unit	41J
O.M.R. 73034, black	O	2	5	3SU1050-4HL01-0AA0	1	1 unit	41J
	I+O+II	2	5	3SU1050-4HL11-0AA0	1	1 unit	41J
CES, SSG10	O	2	5	3SU1050-5BL01-0AA0	1	1 unit	41J
	I+O+II	2	3	3SU1050-5BL11-0AA0	1	1 unit	41J
	I	2	5	3SU1050-5BL21-0AA0	1	1 unit	41J
	II	2	5	3SU1050-5BL31-0AA0	1	1 unit	41J
	I+II	2	5	3SU1050-5BL41-0AA0	1	1 unit	41J
CES, SSG10 with key monitoring	O	2	NEW 5	3SU1050-5JL01-0AA0	1	1 unit	41J
BKS, S1	O	2	5	3SU1050-5PL01-0AA0	1	1 unit	41J
	I+O+II	2	5	3SU1050-5PL11-0AA0	1	1 unit	41J
	I	2	5	3SU1050-5PL21-0AA0	1	1 unit	41J
	I+II	2	5	3SU1050-5PL41-0AA0	1	1 unit	41J
IKON, 360012K1	O	2	5	3SU1050-5XL01-0AA0	1	1 unit	41J
	I+O+II	2	5	3SU1050-5XL11-0AA0	1	1 unit	41J
RONIS, SB30	O	2	5	3SU1050-4BP01-0AA0	1	1 unit	41J
	O+II	2	5	3SU1050-4BP61-0AA0	1	1 unit	41J
O.M.R. 73034, black	II	2	5	3SU1050-4HP31-0AA0	1	1 unit	41J
O.M.R. 73033, yellow	II	2	5	3SU1050-4JP31-0AA0	1	1 unit	41J
CES, SSG10	O	2	5	3SU1050-5BP01-0AA0	1	1 unit	41J
	II	2	5	3SU1050-5BP31-0AA0	1	1 unit	41J
	O+II	2	5	3SU1050-5BP61-0AA0	1	1 unit	41J
BKS, S1	O	2	5	3SU1050-5PP01-0AA0	1	1 unit	41J
RONIS, SB30	O	2	5	3SU1050-4BN01-0AA0	1	1 unit	41J
	I	2	5	3SU1050-4BN21-0AA0	1	1 unit	41J
	O+IO+I	2	5	3SU1050-4BN51-0AA0	1	1 unit	41J
CES, SSG10	O	2	5	3SU1050-5BN01-0AA0	1	1 unit	41J
	I	2	5	3SU1050-5BN21-0AA0	1	1 unit	41J
	O+I	2	5	3SU1050-5BN51-0AA0	1	1 unit	41J
CES, STGH10	O+I	2	5	3SU1050-5LN51-0AA0	1	1 unit	41J
BKS, S1	O	2	5	3SU1050-5PN01-0AA0	1	1 unit	41J
	I	2	5	3SU1050-5PN21-0AA0	1	1 unit	41J
	O+I	2	5	3SU1050-5PN51-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator LightsActuators and Indicators, 22 mm, Metal, Shiny
Actuating and Signaling Elements**Coordinate switches/indicator lights****Selection and ordering data**

Number of NO contacts (1 per direction)	Operating principle	Direction of actuation	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			


Coordinate switches

	Without mechanical interlock, 2 switch positions							
	2	Momentary contact	Horizontal	▶	3SU1050-7AC88-0AA0	1	1 unit	41J
			Vertical		3SU1050-7AD88-0AA0	1	1 unit	41J
		Latching	Horizontal	▶	3SU1050-7AA88-0AA0	1	1 unit	41J
			Vertical	▶	3SU1050-7AB88-0AA0	1	1 unit	41J
Without mechanical interlock, 4 switch positions								
	4	Momentary contact	Horizontal/Vertical	▶	3SU1050-7AF88-0AA0	1	1 unit	41J
		Latching	Horizontal/Vertical	▶	3SU1050-7AE88-0AA0	1	1 unit	41J
	With mechanical interlock, 2 switch positions							
	2	Momentary contact	Horizontal	▶	3SU1050-7BC88-0AA0	1	1 unit	41J
			Vertical		3SU1050-7BD88-0AA0	1	1 unit	41J
		Latching	Horizontal	▶	3SU1050-7BA88-0AA0	1	1 unit	41J
			Vertical	▶	3SU1050-7BB88-0AA0	1	1 unit	41J
With mechanical interlock, 4 switch positions								
	4	Momentary contact	Horizontal/Vertical	▶	3SU1050-7BF88-0AA0	1	1 unit	41J
		Latching	Horizontal/Vertical	▶	3SU1050-7BE88-0AA0	1	1 unit	41J

Selection and ordering data

Type of product	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					

Indicator lights

	With smooth lens		3	3SU1051-6AA00-0AA0	1	1 unit	41J
		Amber	▶	3SU1051-6AA20-0AA0	1	1 unit	41J
		Red	▶	3SU1051-6AA30-0AA0	1	1 unit	41J
		Yellow	▶	3SU1051-6AA40-0AA0	1	1 unit	41J
		Green	▶	3SU1051-6AA50-0AA0	1	1 unit	41J
		Blue	3	3SU1051-6AA60-0AA0	1	1 unit	41J
		White	▶	3SU1051-6AA70-0AA0	1	1 unit	41J
		Clear	3				

3SU1051-6AA40-0AA0

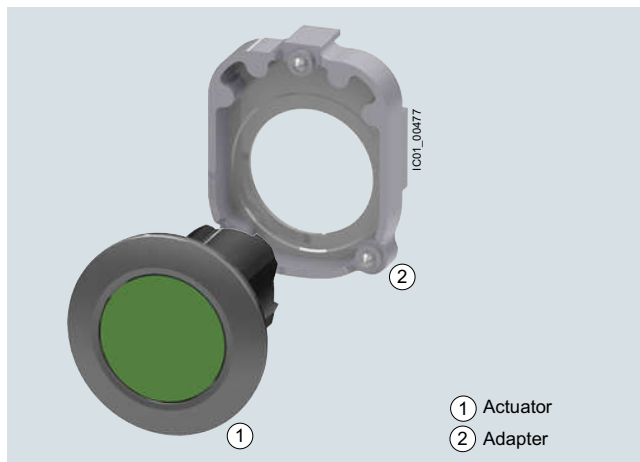
SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, Flat, 30 mm, Metal, Matte

Actuating and Signaling Elements

Pushbuttons

Overview



Actuators and indicators, flat, 30 mm, metal, matte, including adapter (adapter included in scope of supply)

Selection and ordering data

	Version	Operating principle	Unlatching method	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG			
	d												
Pushbuttons													
	Pushbuttons with flat button	Momentary contact	--	Black	3	3SU1060-0JB10-0AA0		1	1 unit	41J			
				Red	3	3SU1060-0JB20-0AA0		1	1 unit	41J			
				Yellow	3	3SU1060-0JB30-0AA0		1	1 unit	41J			
				Green	3	3SU1060-0JB40-0AA0		1	1 unit	41J			
				Blue	3	3SU1060-0JB50-0AA0		1	1 unit	41J			
				White	3	3SU1060-0JB60-0AA0		1	1 unit	41J			
				Gray	X	3SU1060-0JB80-0AA0		1	10 units	41J			
3SU1060-0JB50-0AA0													
	Latching	Push to unlatch		Black	5	3SU1060-0JA10-0AA0		1	1 unit	41J			
				Red	5	3SU1060-0JA20-0AA0		1	1 unit	41J			
				Yellow	5	3SU1060-0JA30-0AA0		1	1 unit	41J			
				Green	5	3SU1060-0JA40-0AA0		1	1 unit	41J			
				Blue	5	3SU1060-0JA50-0AA0		1	1 unit	41J			
				White	5	3SU1060-0JA60-0AA0		1	1 unit	41J			
3SU1060-0JA20-0AA0													
	Illuminated pushbuttons with flat button	Momentary contact	--	Red	3	3SU1061-0JB20-0AA0		1	1 unit	41J			
				Yellow	3	3SU1061-0JB30-0AA0		1	1 unit	41J			
				Green	3	3SU1061-0JB40-0AA0		1	1 unit	41J			
				Blue	3	3SU1061-0JB50-0AA0		1	1 unit	41J			
				Clear	3	3SU1061-0JB70-0AA0		1	1 unit	41J			
				3SU1061-0JB40-0AA0									
	Latching	Push to unlatch		Red	5	3SU1061-0JA20-0AA0		1	1 unit	41J			
				Yellow	5	3SU1061-0JA30-0AA0		1	1 unit	41J			
				Green	5	3SU1061-0JA40-0AA0		1	1 unit	41J			
				Blue	5	3SU1061-0JA50-0AA0		1	1 unit	41J			
				Clear	5	3SU1061-0JA70-0AA0		1	1 unit	41J			
				3SU1061-0JA30-0AA0									



















SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, Flat, 30 mm, Metal, Matte

Actuating and Signaling Elements

Selector switches

Selection and ordering data

Version	Operating principle	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Selector switches								
	2 switch positions, can be illuminated							
	Selector, short black actuator and front ring for flat mounting	Momentary contact, 45° (10:30/12 o'clock), reset from center to left	Black	5	3SU1062-2DC10-0AA0	1	1 unit	41J
			Red	5	3SU1062-2DC20-0AA0	1	1 unit	41J
			Green	5	3SU1062-2DC40-0AA0	1	1 unit	41J
			White	5	3SU1062-2DC60-0AA0	1	1 unit	41J
								
	Latching, 90° (10:30/1:30 o'clock)	Black	3	3SU1062-2DF10-0AA0	1	1 unit	41J	
		Red	5	3SU1062-2DF20-0AA0	1	1 unit	41J	
		Green	5	3SU1062-2DF40-0AA0	1	1 unit	41J	
		Blue	5	3SU1062-2DF50-0AA0	1	1 unit	41J	
		White	3	3SU1062-2DF60-0AA0	1	1 unit	41J	
								
	Selector, long black actuator and front ring for flat mounting	Momentary contact, 45° (10:30/12 o'clock), reset from center to left	Black	5	3SU1062-2EC10-0AA0	1	1 unit	41J
			Red	5	3SU1062-2EC20-0AA0	1	1 unit	41J
			Green	5	3SU1062-2EC40-0AA0	1	1 unit	41J
			White	5	3SU1062-2EC60-0AA0	1	1 unit	41J
								
	Latching, 90° (10:30/1:30 o'clock)	Black	3	3SU1062-2EF10-0AA0	1	1 unit	41J	
		Red	5	3SU1062-2EF20-0AA0	1	1 unit	41J	
		Green	5	3SU1062-2EF40-0AA0	1	1 unit	41J	
		White	3	3SU1062-2EF60-0AA0	1	1 unit	41J	
								
3 switch positions (I+O+II), can be illuminated								
	Selector, short black actuator and front ring for flat mounting	Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right	Black	3	3SU1062-2DM10-0AA0	1	1 unit	41J
			Red	5	3SU1062-2DM20-0AA0	1	1 unit	41J
			Green	5	3SU1062-2DM40-0AA0	1	1 unit	41J
			White	3	3SU1062-2DM60-0AA0	1	1 unit	41J
								
	Latching, 2x45° (10:30/12/1:30 o'clock)	Black	3	3SU1062-2DL10-0AA0	1	1 unit	41J	
		Red	5	3SU1062-2DL20-0AA0	1	1 unit	41J	
		Yellow	5	3SU1062-2DL30-0AA0	1	1 unit	41J	
		Green	5	3SU1062-2DL40-0AA0	1	1 unit	41J	
		White	3	3SU1062-2DL60-0AA0	1	1 unit	41J	
								
	Momentary contact to the right, latching to the left, 2x45° (10:30/12/1:30 o'clock)	Black	NEW 5	3SU1062-2DN60-0AA0	1	1 unit	41J	
								
	Selector, long black actuator and front ring for flat mounting	Momentary contact, 2x45° (10:30/12/1:30 o'clock), reset from left + right	Black	3	3SU1062-2EM10-0AA0	1	1 unit	41J
			Red	5	3SU1062-2EM20-0AA0	1	1 unit	41J
			Green	5	3SU1062-2EM40-0AA0	1	1 unit	41J
			White	3	3SU1062-2EM60-0AA0	1	1 unit	41J
								
	Latching, 2x45° (10:30/12/1:30 o'clock)	Black	3	3SU1062-2EL10-0AA0	1	1 unit	41J	
		Red	5	3SU1062-2EL20-0AA0	1	1 unit	41J	
		Green	5	3SU1062-2EL40-0AA0	1	1 unit	41J	
		White	3	3SU1062-2EL60-0AA0	1	1 unit	41J	
								









SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, Flat, 30 mm, Metal, Matte


Actuating and Signaling Elements

Key-operated switches/indicator lights

Selection and ordering data

Make of lock	Operating principle	Switch position for key removal	Number of keys	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d									
Key-operated switches									
 3SU1060-4LF11-0AA0	2 switch positions								
	RONIS, SB30 and front ring for flat installation	Momentary contact, 45° (10:30/12 o'clock), reset from center to left	O	2	5	3SU1060-4LC01-0AA0	1	1 unit	41J
									
		Latching, 90° (10:30/1:30 o'clock)	O+I I	2 2	3 3	3SU1060-4LF11-0AA0 3SU1060-4LF21-0AA0	1 1	1 unit 1 unit	41J 41J
									
 3SU1060-4LL11-0AA0	3 switch positions								
	RONIS, SB30 and front ring for flat installation	Latching, 2x45° (10:30/12/1:30 o'clock)	I+O+II	2	5	3SU1060-4LL11-0AA0	1	1 unit	41J
									
 3SU1060-4LL11-0AA0	3 switch positions								
	RONIS, SB30 and front ring for flat installation	Latching, 2x45° (10:30/12/1:30 o'clock)	I+O+II	2	5	3SU1060-4LL11-0AA0	1	1 unit	41J
									
		Momentary contact, 2x45° (10:30/12/1:30 o'clock)	O	2	NEW 5	3SU1060-4LM01-0AA0	1	1 unit	41J
									

Selection and ordering data

Version	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
Indicator lights							
 3SU1061-0JD40-0AA0	With flat lens	Red	3	3SU1061-0JD20-0AA0	1	1 unit	41J
		Yellow	3	3SU1061-0JD30-0AA0	1	1 unit	41J
		Green	3	3SU1061-0JD40-0AA0	1	1 unit	41J
		Blue	3	3SU1061-0JD50-0AA0	1	1 unit	41J
		Clear	3	3SU1061-0JD70-0AA0	1	1 unit	41J

Options

Special locks for key-operated switches

The plastic and metal key-operated switches of type RONIS, BKS, CES and IKON can be optionally ordered with additional locks.

In this case **"-Z"**, the order code **"Y01"** and the required lock number must be added to the article number of the relevant key-operated switch for standard locking.

Order code	Y01
Standard delivery time	25 working days
Additional price per unit	On request
Ordering example	3SU1000-5BF01-0AA0-Z Y01 Z = SSG18

Ordering notes

- For all special locks, an additional price applies.
- The order code **"Y01"** must be quoted in accordance with the above table. Automated processing of the order with a defined delivery time can be guaranteed only for correctly submitted orders.
- For applications in which access security is important and several lock numbers are used, we recommend the use of BKS or CES key-operated switches.
- Special locks for VW (E1, E2, ...) will be delivered without keys, all others with 2 keys.
- With RONIS, the special locks SB31, 421 and 455 are possible.

Master and master-pass key systems

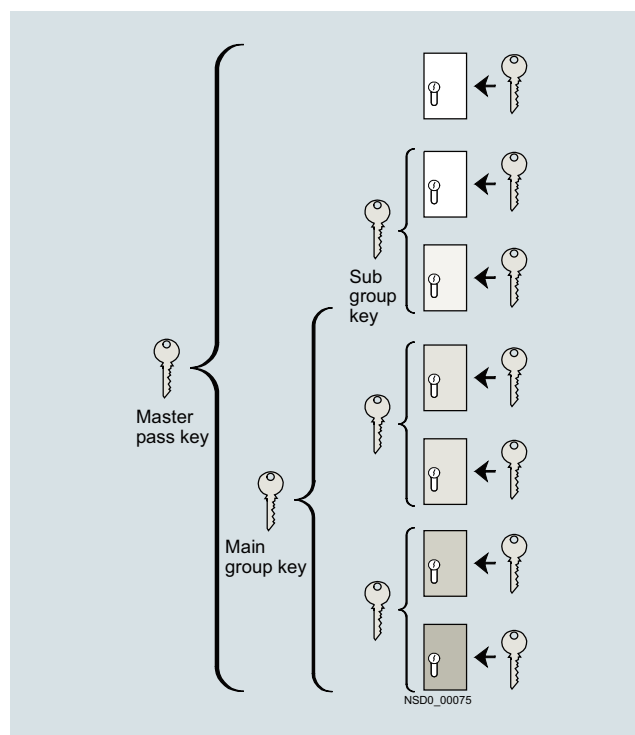
The following key systems can be supplied with BKS, CES or IKON key-operated switches:

- Central lock systems
- Master key systems
- Central master key systems
- Master-pass key systems

When placing an order you must supplement the article number of the matching key-operated switches with **"-Z"** and quote the order code **"Y03"**.

Price and delivery time on request.

Email: sirius-attach.aud@siemens.com



Example of master-pass key system

SIRIUS ACT Pushbuttons and Indicator Lights

Actuators and Indicators, Customized Designs

Laser inscriptions

Options

Inscription of actuating and signaling elements

Actuators and indicators of plastic as well as metal version can be optionally inscribed with a laser.



Example of laser inscription

The actuators of the pushbuttons, illuminated pushbuttons, twin pushbuttons, mushroom pushbuttons, illuminated mushroom pushbuttons, EMERGENCY STOP mushroom pushbuttons (without lock), the lenses of the indicator lights, and the acoustic signaling devices can all be inscribed.

Version

The default typeface used for inscriptions with text is Arial and the text is centered.

The font size for illuminated actuators is 2.5 mm, for non illuminated actuators 3 mm.

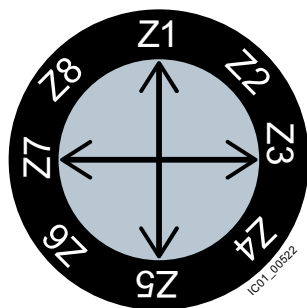
Up to 8 characters per line are possible.

Note:

Selected pushbuttons and twin pushbuttons can be supplied as standard with inscribed letters or symbols.

Selector switches, key-operated switches and toggle switches can only be inscribed on the front ring in the plastic version and in the flat, 30 mm, metal, matte version (only one text line and the supplement Y19).

Assignment of the positions on the actuator



Ordering notes

To order, the inscribed actuating and signaling elements can be selected via the SIRIUS ACT Configurator. An electronic order form is then generated.

For configurator, see

- www.siemens.com/sirius-act/configurator
- Electronic Catalog CA 01 on DVD or
- Industry Mall: www.siemens.com/industrymall

When ordering, add "-Z" and an order code to the article number of the actuator element or the indicator light:

- **Y10:** Text in upper/lower case, always upper case for beginning of line, e.g. Z1=Lift Z2=Lower
- **Y11:** Text in upper case, e.g. Z1=LIFT Z2=LOWER
- **Y12:** Text line(s) in lower case, e.g. Z1=lift off Z2=lower off
- **Y15:** Text in upper/lower case, all words begin with upper case letters, e.g. Z1=Lift Off Z2=Lower Off
- **Y13:** Symbol with number according to ISO 7000 or IEC 60417
- **Y19:** Inscription of choice, text or symbol, can only be ordered via SIRIUS ACT Configurator with a Configuration Identification Number (CIN)

When ordering, specify the required inscription in plain text without spaces, in addition to the article number and order code.

In the case of symbols, specify the symbol No. and the standard (ordering example 2)

In the case of multi-line inscriptions, the text must be assigned to the respective line, e.g. Z1=Lift, Z2=Lower. (see ordering examples 1 and 3)

The SIRIUS ACT Configurator must be used to select special inscriptions and symbols (order code Y19). In this case a CIN (Configuration Identification Number) is generated for placement of future orders. It is then possible to place an order directly using the CIN and the SIRIUS ACT Configurator (shopping cart in the Industry Mall) or via the standard ordering channels.

Ordering example 1

A round pushbutton with the inscription Reset is required:

3SU1030-0AB20-0AA0-Z

Y10

Z1=Lift
Z2=Lower

Ordering example 2

A pushbutton inscribed with symbol No. 5389 according to IEC 60417 is required:

3SU1030-0AB20-0AA0-Z

Y13

Z=5389 IEC

Ordering example 3

A selector switch with 2 switch positions and multi-line inscription on the front ring is required:

3SU1002-2BF10-0AA0-Z

Y11

Z8=0
Z2=I

SIRIUS ACT Pushbuttons and Indicator Lights Holders

Holders without module

Overview

Holders made of plastic can only be attached to actuators and indicators made of plastic (3SU100) or plastic with metal front ring (3SU103).

Metal holders can be attached to all versions of actuators and indicators, with the exception of ID key-operated switches.

Metal holders are automatically grounded by their fastening screw, but a grounding stud can also be fitted.

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Holders without module, plastic

3x without module



3SU1500-0AA10-0AA0

▶ 3SU1500-0AA10-0AA0 1 1 unit 41J

4x without module

For selector switch with 4 switch positions and for coordinate switches



3SU1500-0BA10-0AA0

▶ 3SU1500-0BA10-0AA0 1 1 unit 41J

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Holders without module, metal

3x without module



3SU1550-0AA10-0AA0

▶ 3SU1550-0AA10-0AA0 1 1 unit 41J

4x without module

For selector switch with 4 switch positions and for coordinate switches



3SU1550-0BA10-0AA0
































▶ 3SU1550-0BA10-0AA0 1 1 unit 41J

SIRIUS ACT Pushbuttons and Indicator Lights








Holders

Holders with module

Selection and ordering data

Number of Contact modules		LED modules	NO contacts	NC contacts	Color of light source	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
							Article No.	Price per PU			
Holders with module, plastic											
3x with module											
	1	0	1	0	--	▶	3SU1500-1AA10-1BA0		1	1 unit	41J
			0	1		▶	3SU1500-1AA10-1CA0	1	1 unit	41J	
			1	1		3	3SU1500-1AA10-1FA0	1	1 unit	41J	
	2	0	2	0	--		3	3SU1500-1AA10-1NA0	1	1 unit	41J
			0	2		3	3SU1500-1AA10-1PA0	1	1 unit	41J	
			2	2		3	3SU1500-1AA10-1LA0	1	1 unit	41J	
3x with contact and LED module¹⁾ (6 ... 24 V AC/DC)											
	1	1	1	0	Amber	3	3SU1501-1AG00-1BA0		1	1 unit	41J
					Red	3	3SU1501-1AG20-1BA0	1	1 unit	41J	
					Yellow	3	3SU1501-1AG30-1BA0	1	1 unit	41J	
					Green	3	3SU1501-1AG40-1BA0	1	1 unit	41J	
					Blue	3	3SU1501-1AG50-1BA0	1	1 unit	41J	
					White	3	3SU1501-1AG60-1BA0	1	1 unit	41J	
	0	1		Amber		3	3SU1501-1AG00-1CA0		1	1 unit	41J
				Red		3	3SU1501-1AG20-1CA0	1	1 unit	41J	
				Yellow		3	3SU1501-1AG30-1CA0	1	1 unit	41J	
				Green		3	3SU1501-1AG40-1CA0	1	1 unit	41J	
				Blue		3	3SU1501-1AG50-1CA0	1	1 unit	41J	
				White		3	3SU1501-1AG60-1CA0	1	1 unit	41J	
	1	1		Amber		3	3SU1501-1AG00-1FA0		1	1 unit	41J
				Red		3	3SU1501-1AG20-1FA0	1	1 unit	41J	
				Yellow		3	3SU1501-1AG30-1FA0	1	1 unit	41J	
				Green		3	3SU1501-1AG40-1FA0	1	1 unit	41J	
				Blue		3	3SU1501-1AG50-1FA0	1	1 unit	41J	
				White		3	3SU1501-1AG60-1FA0	1	1 unit	41J	
	2	1	2	0	Amber		3	3SU1501-1AG00-1NA0	1	1 unit	41J
					Red		3	3SU1501-1AG20-1NA0	1	1 unit	41J
					Yellow		3	3SU1501-1AG30-1NA0	1	1 unit	41J
					Green		3	3SU1501-1AG40-1NA0	1	1 unit	41J
					Blue		3	3SU1501-1AG50-1NA0	1	1 unit	41J
					White		3	3SU1501-1AG60-1NA0	1	1 unit	41J
	2	2	2	2	Amber		3	3SU1501-1AG00-1LA0	1	1 unit	41J
					Red		3	3SU1501-1AG20-1LA0	1	1 unit	41J
					Yellow		3	3SU1501-1AG30-1LA0	1	1 unit	41J
					Green		3	3SU1501-1AG40-1LA0	1	1 unit	41J
					Blue		3	3SU1501-1AG50-1LA0	1	1 unit	41J
					White		3	3SU1501-1AG60-1LA0	1	1 unit	41J

¹⁾ Only for use with SIRIUS commanding and signaling devices.

Number of Contact modules			NO contacts	NC contacts	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG	
						Article No.	Price per PU				
Holders with module, metal											
	3x with module										
	1	1	0		3	3SU1550-1AA10-1BA0		1	1 unit	41J	
			0	1		3	3SU1550-1AA10-1CA0		1	1 unit	41J
			1	1		3	3SU1550-1AA10-1FA0		1	1 unit	41J
	2	2	0		3	3SU1550-1AA10-1NA0		1	1 unit	41J	
			0	2		3	3SU1550-1AA10-1PA0		1	1 unit	41J
			2	2		3	3SU1550-1AA10-1LA0		1	1 unit	41J

3SU1550-1AA10-1BA0

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
see page 11/1 onwards.

Certificate:



SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

Contact modules

Overview

Contact modules and LED modules

The contact modules are fitted with slow-action contacts (NO contacts or NC contacts). These ensure a high switching reliability even with small voltages and currents, such as 5 V/1 mA. They are suitable for use in electronic systems as well as conventional controls. The contact pieces of the NC contacts are positively driven.

Only LED modules with permanently integrated LEDs are available for illumination.

Contact modules and LED modules bear terminal designations according to EN 50013.

Mounting the modules


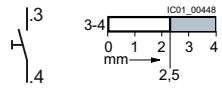
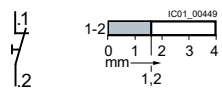
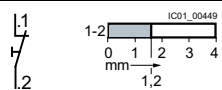

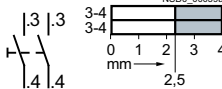
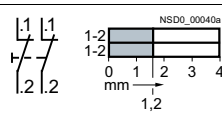
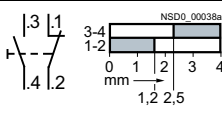

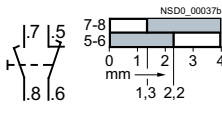
With SIRIUS ACT, the modules are mounted on the holder without any further accessories. Holders in plastic or metal versions are available for mounting three modules.

Connection methods

The modules are available with:

- Screw terminals
- Spring-type terminals or
- Solder pin connections (0.8 mm × 0.8 mm solder pins) for assembly on printed circuit boards

Selection and ordering data

Contact version	Number of NO contacts	NC contacts	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU		
Contact modules for front plate mounting							
	Silver alloy	1	0		3SU1400-1AA10-1BA0	1	1 unit 41J
		0	1		3SU1400-1AA10-1CA0	1	1 unit 41J
		0	1 with installation monitoring ¹⁾		3SU1400-1AA10-1HA0	1	1 unit 41J
		2	0		3SU1400-1AA10-1DA0	1	1 unit 41J
		0	2		3SU1400-1AA10-1EA0	1	1 unit 41J
		1	1		3SU1400-1AA10-1FA0	1	1 unit 41J
		1 leading switching	1 lagging switching		3SU1400-1AA10-1GA0	1	1 unit 41J

¹⁾ The contact module has 1 NO internal contact + 1 NC internal contact. The NO contact is connected in series with the NC contact and brought out at terminal 1-2. When the module is snapped onto the holder, the NO contact closes. It opens when the module is detached from the holder again (the NC contact remains closed). The NC contact opens when the EMERGENCY STOP device is actuated (the NO contact remains closed). The contact is closed only when both the NC and NO contacts are closed. Unsuitable for mounting in 3SU18 enclosure.



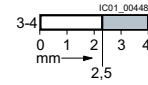

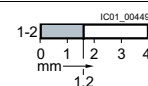

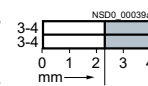

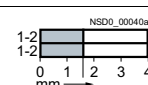

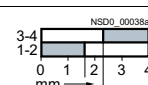

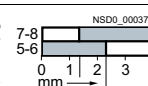
⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System, see page 11/1 onwards.
Certificate:



SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

Contact modules

	Contact version	Number of		SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
		NO contacts	NC contacts					
				d	Article No.	Price per PU		
Contact modules for front plate mounting								
	Gold-plated	1	0			3	3SU1400-1AA10-1LA0	1 1 unit 41J
		0	1			5	3SU1400-1AA10-1MA0	1 1 unit 41J
		2	0			5	3SU1400-1AA10-1NA0	1 1 unit 41J
		0	2			5	3SU1400-1AA10-1PA0	1 1 unit 41J
		1	1			5	3SU1400-1AA10-1QA0	1 1 unit 41J
		1 leading	1 lagging			5	3SU1400-1AA10-1RA0	1 1 unit 41J

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
[see page 11/1 onwards](#).
Certificate:



SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

Contact modules

	Contact version	Number of		SD	Spring-type terminals	PU (UNIT, SET, M)	PS*	PG
		NO contacts	NC contacts					
				d	Article No.	Price per PU		
Contact modules for front plate mounting								
	Silver alloy	1	0			3SU1400-1AA10-3BA0	1	1 unit 41J
		0	1			3SU1400-1AA10-3CA0	1	1 unit 41J
		0	1 with installation monitoring ¹⁾			3SU1400-1AA10-3HA0	1	1 unit 41J
		2	0			3SU1400-1AA10-3DA0	1	1 unit 41J
		0	2			3SU1400-1AA10-3EA0	1	1 unit 41J
		1	1			3SU1400-1AA10-3FA0	1	1 unit 41J
		1 leading	1 lagging			3SU1400-1AA10-3GA0	1	1 unit 41J

¹⁾ The contact module has 1 NO internal contact + 1 NC internal contact. The NO contact is connected in series with the NC contact and brought out at terminal 1-2. When the module is snapped onto the holder, the NO contact closes. It opens when the module is detached from the holder again (the NC contact remains closed). The NC contact opens when the EMERGENCY STOP device is actuated (the NO contact remains closed). The contact is closed only when both the NC and NO contacts are closed. Not suitable for installation in 3SU18 enclosure.


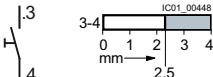
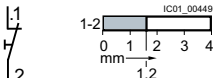
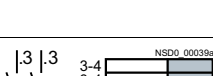
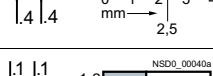
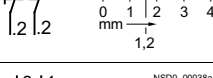
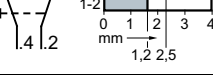
⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System, see page 11/1 onwards.
Certificate:



SIRIUS ACT Pushbuttons and Indicator Lights


Modules for Actuators and Indicators

Contact modules

Contact version	Number of		SD	Spring-type terminals	PU (UNIT, SET, M)	PS*	PG		
	NO contacts	NC contacts							
				Article No.	Price per PU				
Contact modules for front plate mounting									
	Gold-plated	1	0		5	3SU1400-1AA10-3LA0	1	1 unit	41J
		0	1		5	3SU1400-1AA10-3MA0	1	1 unit	41J
		2	0		5	3SU1400-1AA10-3NA0	1	1 unit	41J
		0	2		5	3SU1400-1AA10-3PA0	1	1 unit	41J
		1	1		5	3SU1400-1AA10-3QA0	1	1 unit	41J
		1 leading	1 lagging		5	3SU1400-1AA10-3RA0	1	1 unit	41J

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
[see page 11/1 onwards](#).
Certificate:



Contact version	Number of		SD	Socket terminals (THT)		PU (UNIT, SET, M)	PS*	PG
	NO contacts	NC contacts						
				d	Article No.	Price per PU		
Contact modules for mounting on printed-circuit boards NEW								
	Silver alloy	1	0	▶	3SU1400-3AA10-5BA0		1	1 unit 41J
	Gold-plated	0	1	⊖	3SU1400-3AA10-5CA0		1	1 unit 41J

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
[see page 11/1 onwards](#).
Certificate:







SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

LED modules

Selection and ordering data




	Operational voltage at AC	Operational voltage at DC	Color	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	V	V		d	Article No.	Price per PU			
LED modules ¹⁾ for front plate mounting									
 3SU1401-1BB30-1AA0	24	24	Amber	▶	3SU1401-1BB00-1AA0		1	1 unit	41J
			Red	▶	3SU1401-1BB20-1AA0		1	1 unit	41J
			Yellow	▶	3SU1401-1BB30-1AA0		1	1 unit	41J
			Green	▶	3SU1401-1BB40-1AA0		1	1 unit	41J
			Blue	▶	3SU1401-1BB50-1AA0		1	1 unit	41J
			White	▶	3SU1401-1BB60-1AA0		1	1 unit	41J
	110	--	Amber	▶	3SU1401-1BC00-1AA0		1	1 unit	41J
			Red	▶	3SU1401-1BC20-1AA0		1	1 unit	41J
			Yellow	3	3SU1401-1BC30-1AA0		1	1 unit	41J
			Green	▶	3SU1401-1BC40-1AA0		1	1 unit	41J
			Blue	▶	3SU1401-1BC50-1AA0		1	1 unit	41J
			White	▶	3SU1401-1BC60-1AA0		1	1 unit	41J
	230	--	Amber	▶	3SU1401-1BF00-1AA0		1	1 unit	41J
			Red	▶	3SU1401-1BF20-1AA0		1	1 unit	41J
			Yellow	3	3SU1401-1BF30-1AA0		1	1 unit	41J
			Green	▶	3SU1401-1BF40-1AA0		1	1 unit	41J
			Blue	▶	3SU1401-1BF50-1AA0		1	1 unit	41J
			White	▶	3SU1401-1BF60-1AA0		1	1 unit	41J
					Spring-type terminals				
 3SU1401-1BB30-3AA0	24	24	Amber	3	3SU1401-1BB00-3AA0		1	1 unit	41J
			Red	▶	3SU1401-1BB20-3AA0		1	1 unit	41J
			Yellow	3	3SU1401-1BB30-3AA0		1	1 unit	41J
			Green	▶	3SU1401-1BB40-3AA0		1	1 unit	41J
			Blue	▶	3SU1401-1BB50-3AA0		1	1 unit	41J
			White	▶	3SU1401-1BB60-3AA0		1	1 unit	41J
	110	--	Amber	▶	3SU1401-1BC00-3AA0		1	1 unit	41J
			Red	▶	3SU1401-1BC20-3AA0		1	1 unit	41J
			Yellow	5	3SU1401-1BC30-3AA0		1	1 unit	41J
			Green	▶	3SU1401-1BC40-3AA0		1	1 unit	41J
			Blue	▶	3SU1401-1BC50-3AA0		1	1 unit	41J
			White	▶	3SU1401-1BC60-3AA0		1	1 unit	41J
	230	--	Amber	▶	3SU1401-1BF00-3AA0		1	1 unit	41J
			Red	▶	3SU1401-1BF20-3AA0		1	1 unit	41J
			Yellow	5	3SU1401-1BF30-3AA0		1	1 unit	41J
			Green	▶	3SU1401-1BF40-3AA0		1	1 unit	41J
			Blue	▶	3SU1401-1BF50-3AA0		1	1 unit	41J
			White	▶	3SU1401-1BF60-3AA0		1	1 unit	41J

¹⁾ Only for use with SIRIUS commanding and signaling devices.



SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators


LED modules

	Operational voltage at AC	Operational voltage at DC	Color	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	V	V		d	Article No.	Price per PU		
LED modules ¹⁾ for front plate mounting								
	6 ... 24	6 ... 24	Amber	▶	3SU1401-1BG00-1AA0	1	1 unit	41J
			Red	▶	3SU1401-1BG20-1AA0	1	1 unit	41J
			Yellow	▶	3SU1401-1BG30-1AA0	1	1 unit	41J
			Green	▶	3SU1401-1BG40-1AA0	1	1 unit	41J
			Blue	▶	3SU1401-1BG50-1AA0	1	1 unit	41J
			White	▶	3SU1401-1BG60-1AA0	1	1 unit	41J
3SU1401-1BG30-1AA0	24 ... 240	24 ... 240	Amber	5	3SU1401-1BH00-1AA0	1	1 unit	41J
			Red	▶	3SU1401-1BH20-1AA0	1	1 unit	41J
			Yellow	3	3SU1401-1BH30-1AA0	1	1 unit	41J
			Green	▶	3SU1401-1BH40-1AA0	1	1 unit	41J
			Blue	▶	3SU1401-1BH50-1AA0	1	1 unit	41J
			White	▶	3SU1401-1BH60-1AA0	1	1 unit	41J
					Spring-type terminals			
	6 ... 24	6 ... 24	Amber	3	3SU1401-1BG00-3AA0	1	1 unit	41J
			Red	▶	3SU1401-1BG20-3AA0	1	1 unit	41J
			Yellow	5	3SU1401-1BG30-3AA0	1	1 unit	41J
			Green	▶	3SU1401-1BG40-3AA0	1	1 unit	41J
			Blue	▶	3SU1401-1BG50-3AA0	1	1 unit	41J
			White	▶	3SU1401-1BG60-3AA0	1	1 unit	41J
3SU1401-1BG30-3AA0	24 ... 240	24 ... 240	Amber	5	3SU1401-1BH00-3AA0	1	1 unit	41J
			Red	▶	3SU1401-1BH20-3AA0	1	1 unit	41J
			Yellow	5	3SU1401-1BH30-3AA0	1	1 unit	41J
			Green	▶	3SU1401-1BH40-3AA0	1	1 unit	41J
			Blue	▶	3SU1401-1BH50-3AA0	1	1 unit	41J
			White	▶	3SU1401-1BH60-3AA0	1	1 unit	41J

¹⁾ Only for use with SIRIUS commanding and signaling devices.

	Operational voltage at AC	Operational voltage at DC	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	V	V	d	Article No.	Price per PU			
LED test modules ¹⁾ for front plate mounting								
	6 ... 240	6 ... 240	3	3SU1400-1CK10-1AA0		1	1 unit	41J
3SU1400-1CK10-1AA0								

¹⁾ Only to be used for SIRIUS ACT LED modules
(6 ... 24 V AC/DC, 24 V AC/DC, 24 ... 240 V AC/DC).

	Operational voltage at AC	Operational voltage at DC	Color	SD	Socket terminals (THT)	PU (UNIT, SET, M)	PS*	PG
	V	V		d	Article No.	Price per PU		
LED modules¹⁾ for mounting on printed-circuit boards								
	--	5	Amber	5	3SU1401-3BA00-5AA0	1	1 unit	41J
			Red	5	3SU1401-3BA20-5AA0	1	1 unit	41J
			Yellow	5	3SU1401-3BA30-5AA0	1	1 unit	41J
			Green	3	3SU1401-3BA40-5AA0	1	1 unit	41J
			Blue	5	3SU1401-3BA50-5AA0	1	1 unit	41J
			White	3	3SU1401-3BA60-5AA0	1	1 unit	41J
3SU1401-3BA20-5AA0								

¹⁾ Only for use with SIRIUS commanding and signaling devices.

SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

AS-Interface modules

Selection and ordering data

	Operational voltage	Slave type	Number of digital inputs		Number of digital outputs	SD	Screw terminals + Spring-type terminals		PU (UNIT, SET, M)	PS*	PG
			Standard	Safety-related							
	V					d	Article No.	Price per PU			
AS-Interface modules for front plate mounting											
	30	2 F-DI	--	2	--	5	3SU1400-1EA10-2AA0	1	1 unit	41J	
		2 F-DI + 1 LED	--	2	1	5	3SU1401-1EE20-2AA0	1	1 unit	41J	
		2 F-DI + 1 DQ	--	2	1	5	3SU1400-1EC10-2AA0	1	1 unit	41J	
		2 F-DI	--	2	--	5	Insulation piercing method 				
		2 F-DI + 1 LED	--	2	1	▶	3SU1400-1EA10-4AA0	1	1 unit	41J	
							3SU1401-1EE20-4AA0	1	1 unit	41J	
		2 F-DI + 1 DQ	--	2	1	5	Spring-type terminals + Insulation piercing method  				
							3SU1400-1EC10-4AA0	1	1 unit	41J	
	30	4 DI/3 DQ AB	4	--	3	5	Spring-type terminals (push-in) 				
		4 DI/4 DQ	4	--	4	5	3SU1400-1EJ10-6AA0	1	1 unit	41J	
							3SU1400-1EK10-6AA0	1	1 unit	41J	

SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

Electronic modules for IO-Link/support terminals

Selection and ordering data

Operational voltage	Slave type	Number of digital inputs	Number of digital outputs	SD	Spring-type terminals (push-in)	PU (UNIT, SET, M)	PS*	PG
V				d	Article No.	Price per PU		
Electronic modules for IO-Link, front panel mounting								
24	Freely programmable (default (6 DI/2 DQ))	0 ... 8	0 ... 8	5	3SU1400-1HL10-6AA0		1	1 unit 41J



3SU1400-1HL10-6AA0

Selection and ordering data


Color	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU		
Support terminals					
 3SU1400-1DA10-1AA0	Black	3	3SU1400-1DA10-1AA0	1	1 unit 41J
	Blue	5	3SU1400-1DA50-1AA0	1	1 unit 41J
	Green/Yellow	3	3SU1400-1DA43-1AA0	1	1 unit 41J
 3SU1400-1DA50-3AA0	Spring-type terminals				
	Black	5	3SU1400-1DA10-3AA0	1	1 unit 41J
	Blue	5	3SU1400-1DA50-3AA0	1	1 unit 41J
	Green/Yellow	5	3SU1400-1DA43-3AA0	1	1 unit 41J

SIRIUS ACT Pushbuttons and Indicator Lights



Modules for Actuators and Indicators

Electronic modules for ID key-operated switches

Technical specifications

		3SU1400-1GC10-1AA0	3SU1400-1GD10-1AA0
Communication/protocol			
Protocol is supported by IO-Link protocol		No	Yes
Product function		Group ID 24 V DC	IO-Link 24 V DC
IO-Link transfer rate		--	COM2 (38.4 kBaud)
Point-to-point cycle time between the master and the IO-Link device, minimum		ms	10
Type of power supply via IO-Link master		--	Yes
Data volume			
• Of the address area of the inputs with cyclic transfer total	bytes	--	2
• Of the address area of the outputs with cyclic transfer total	bytes	--	0
Number of NO contacts		5	
General data			
Impulse withstand voltage, rated value		kV	0.8
Rated insulation voltage		V	30
Pollution degree		3	
Type of voltage			
• Of operational voltage		DC	
• Of input voltage		DC	
Operational voltage			
• At DC, rated value	V	24	
• Rated value	V	18 ... 30	
Current consumed, maximum		mA	49
Ambient temperature			
• During operation	°C	-25 ... +70	
• During storage	°C	-40 ... +80	
Degree of protection		IP20	
Touch protection against electric shock		Finger-safe	
Connections			
Type of electrical connection		Screw terminals 	
Connectable conductor cross-section for auxiliary contacts			
• Solid			
- With end sleeves	mm²	1 x (0.2 ... 2.5), 2 x (0.2 ... 0.75)	
- Without end sleeves	mm²	1 x (0.2 ... 2.5), 2 x (0.2 ... 0.75)	
• Finely stranded			
- With end sleeves	mm²	1 x (0.2 ... 2.5), 2 x (0.25 ... 0.75)	
- Without end sleeves	mm²	1 x (0.2 ... 2.5), 2 x (0.2 ... 0.75)	
AWG number as coded connectable conductor cross-section		26 ... 14	
Tightening torque for screw terminals		Nm	0.35 ... 0.4

Selection and ordering data

Type of power supply via IO-Link master	Protocol is supported IO-Link protocol	Number of NO contacts	IO-Link transfer rate	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG	
				d	Article No.	Price per PU			
Electronic modules for ID key-operated switches ¹⁾									
	--	No	5	--	▶	3SU1400-1GC10-1AA0	1	1 unit	41J
3SU1400-1GC10-1AA0									
	Yes	Yes	5	COM2 (38.4 kBaud)	▶	3SU1400-1GD10-1AA0	1	1 unit	41J
3SU1400-1GD10-1AA0									

¹⁾ Only use in conjunction with plastic holder 3SU1500-0AA10-0AA0.

SIRIUS ACT Pushbuttons and Indicator Lights

Modules for Actuators and Indicators

Interface modules for PROFINET/terminal modules

Selection and ordering data

Supply voltage at DC	Number of interfaces according to PROFINET SIL claim limit acc. to EN 62061	Number of digital inputs Standard Safety-related	Number of digital outputs	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
V				d					

Interface modules for PROFINET



3SU1400-1LK10-1AA1

Interface modules

24	1	0	0	0	5	3SU1400-1LK10-1AA1	1	1 unit	41J
--	--								

Screw terminals



Spring-type terminals



24	1	0	0	0	5	3SU1400-1LK10-3AA1	1	1 unit	41J
--	--								

Screw terminals



Fail-safe interface modules

24	1	4	0	1	5	3SU1400-1LL10-1BA1	1	1 unit	41J
	SIL CL 3								

Spring-type terminals



24	1	4	0	1	5	3SU1400-1LL10-3BA1	1	1 unit	41J
	SIL CL 3								



3SU1400-1LL10-3BA1

Selection and ordering data

Type of product	Color of light source	SD	Insulation displacement connection	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU		

Terminal modules



3SU1401-1ME60-1DA1

With 2 contacts	--	5	3SU1400-1MA10-1BA1	1	1 unit	41J
With 2 contacts and integrated LED	Amber	5	3SU1401-1MC00-1CA1	1	1 unit	41J
	Red	5	3SU1401-1MC20-1CA1	1	1 unit	41J
	Yellow	5	3SU1401-1MC30-1CA1	1	1 unit	41J
	Green	5	3SU1401-1MC40-1CA1	1	1 unit	41J
	Blue	5	3SU1401-1MC50-1CA1	1	1 unit	41J
	White	5	3SU1401-1MC60-1CA1	1	1 unit	41J
With integrated LED	Amber	5	3SU1401-1ME00-1DA1	1	1 unit	41J
	Red	5	3SU1401-1ME20-1DA1	1	1 unit	41J
	Yellow	5	3SU1401-1ME30-1DA1	1	1 unit	41J
	Green	5	3SU1401-1ME40-1DA1	1	1 unit	41J
	Blue	5	3SU1401-1ME50-1DA1	1	1 unit	41J
	White	5	3SU1401-1ME60-1DA1	1	1 unit	41J

Type of product	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Memory modules for 3SK2



3RK3931-0AA00

For backing up the complete parameterization of the 3SK2 safety system without a PC/PG through the system interface	2	3RK3931-0AA00		1	1 unit	42C
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Flat ribbon cable, [see page 13/144 onwards](#).

LED modules for mounting on printed-circuit boards, [see page 13/96 onwards](#).

SIRIUS ACT Pushbuttons and Indicator Lights Enclosures

General data

Overview

Design



Enclosures with standard fittings

Enclosed SIRIUS ACT pushbuttons and indicator lights are used as hand-operated control devices for separately allocated control units and cabinets. The devices are suitable for use in any climate and all have IP66, IP67, IP69 (IP69K) degree of protection, including those with cable glands.

Standards

IEC/EN 60947-5-1

Versions

The enclosed pushbuttons and indicator lights are available with conventional controls as well as for connection to AS-Interface. The following versions are available:

- Empty enclosures with between 1 and 6 command points (the installed components must be ordered separately; modules for base mounting or 1-pole contact and LED modules can be used)
- Enclosures with standard fittings with 1 to 3 command points, e.g. EMERGENCY STOP enclosure with EMERGENCY STOP mushroom pushbutton
- Enclosures with customized fittings with 1 to 6 command points
- Special enclosure for 4-position selector switches, coordinate switches, ID key-operated switches and sensor switches

Color of the enclosures

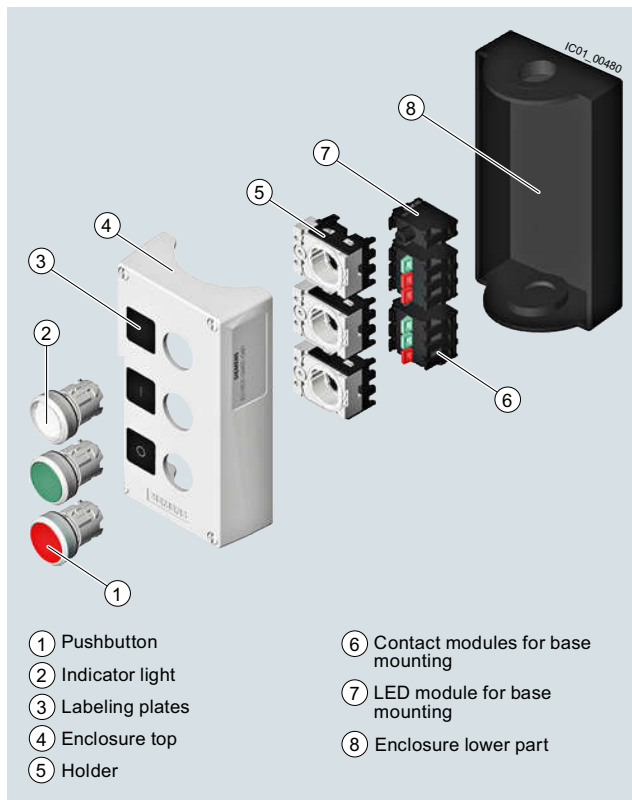
Top:

- Gray, RAL 7035
- Yellow, RAL 1004 for EMERGENCY STOP

Base:

- Black, RAL 9005

Enclosures with standard fittings



Pushbuttons and indicator lights in the enclosure

Customized enclosures

The fittings and labeling of the command point can be chosen using the Configurator on the Internet. The prices depend on the equipment selected, [see www.siemens.com/sirius-act/configurator](http://www.siemens.com/sirius-act/configurator).

Application

The enclosures are climate-proof (KTW 24) according to EN ISO 6270-2 and suitable for stationary use, and for use in marine applications.

SIRIUS ACT Pushbuttons and Indicator Lights




Enclosures

Empty enclosures


Selection and ordering data

Color of enclosure top	Number of command points	Enclosure version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
------------------------	--------------------------	-------------------	----	-------------	--------------	-------------------	-----	----

Enclosures for surface mounting

Plastic								
	Yellow	1	Center command point	▶	3SU1801-0AA00-0AA2		1	1 unit 41J
			With protective collar	▶	3SU1801-0AA00-0AC2		1	1 unit 41J
			With recess for labeling plate	▶	3SU1801-0AA00-0AB2		1	1 unit 41J
	Gray	2	With recess for labeling plate	▶	3SU1802-0AA00-0AB2		1	1 unit 41J
		1	With recess for labeling plate	▶	3SU1801-0AA00-0AB1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1802-0AA00-0AB1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1803-0AA00-0AB1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1804-0AA00-0AB1		1	1 unit 41J
	Yellow	1	Center command point	▶	3SU1851-0AA00-0AA2		1	1 unit 41J
			With protective collar	3	3SU1851-0AA00-0AC2		1	1 unit 41J
			With recess for labeling plate	▶	3SU1851-0AA00-0AB2		1	1 unit 41J
			With protective collar for 5 padlocks, mushroom 40 mm	3	3SU1851-0AA00-0AF2		1	1 unit 41J
			With protective collar for 5 padlocks, mushroom 40 mm with key-operated release	3	3SU1851-0AA00-0AG2		1	1 unit 41J
		1	With protective collar for 5 padlocks, mushroom 60 mm	3	3SU1851-0AA00-0AH2		1	1 unit 41J
			With protective collar for 5 padlocks, mushroom 60 mm NEW	5	3SU1851-0AA00-0AJ2		1	1 unit 41J
		Gray	With protective collar for 5 padlocks, mushroom 60 mm	3	3SU1851-0AA00-0AH1		1	1 unit 41J
			With protective collar for 5 padlocks, mushroom 60 mm NEW	5	3SU1851-0AA00-0AJ1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1851-0AA00-0AB1		1	1 unit 41J
		2	With protective collar	5	3SU1851-0AA00-0AC1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1852-0AA00-0AB1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1853-0AA00-0AB1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1854-0AA00-0AB1		1	1 unit 41J
			With recess for labeling plate	▶	3SU1856-0AA00-0AB1		1	1 unit 41J

Enclosure for 4-position selector switches, coordinate switches, ID key-operated switches and sensor switches



3SU1801-1AA00-1AA1

Plastic, front plate mounting								
Gray	1	Center command point	3	3SU1801-1AA00-1AA1		1	1 unit	41J
Metal, front plate mounting								
Gray	1	Center command point	5	3SU1851-1AA00-1AA1		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights Enclosures

Pushbuttons and indicator lights in the enclosure

Overview

Pushbuttons and indicator lights in the enclosure (standard fittings) are available with:

- 1 to 3 command points (equipped, for example, with A, B, C, in each case from bottom to top)
- Operational voltage up to 400 V
- Vertical mounting type
- Plastic enclosures are equipped with plastic actuators and indicators, metal enclosures are equipped with metal actuators and indicators

- Contact modules and LED modules for base mounting (are snapped into the enclosure base); screw terminals as standard; some versions also with spring-type terminals

Palm pushbuttons

Palm pushbuttons have a particularly large button surface. This means that they can be actuated quickly and easily with the hand, arm or foot.

Selection and ordering data

Color of enclosure top	Number of command points	Enclosure version Pushbutton and signaling device equipment	Color of actuating element Marking	Number of NC contacts	Number of NO contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
------------------------	--------------------------	---	------------------------------------	-----------------------	-----------------------	----	-------------	--------------	-------------------	-----	----

d

Enclosures with standard fittings

Screw terminals



3SU1801-0NA00-2AA2

Plastic

Yellow 1

Center command point
A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch

Red

1

0

▶

3SU1801-0NA00-2AA2

1

1 unit

41J

2

0

NEW 5

3SU1801-0NB00-2AA2

1

1 unit

41J

1

1

NEW X

3SU1801-0NP00-2AA2

1

1 unit

41J

Center command point
A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, with RONIS SB30 lock with key-operated release

Red

1

1

NEW X

3SU1801-0NN00-2AA2

1

1 unit

41J

With protective collar
A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch

Red

A = I

1

0

▶

3SU1801-0NA00-2AC2

1

1 unit

41J

2

0

▶

3SU1801-0NB00-2AC2

1

1 unit

41J



3SU1801-0NA00-2AC2



3SU1802-0NA00-2AB2

2

With recess for labeling plate
A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch
B = Indicator light 24 V AC/DC

A = Red

B = Red

A = Emergency Stop
B = "without inscription"

1

1

NEW 5

3SU1802-0NA00-2AB2

1

1 unit

41J

A = Red

B = Red

A = "Without inscription"
B = "Without inscription"

2

1

NEW 3

3SU1802-0NB00-2AB2

1

1 unit

41J

1

Center command point
A = EMERGENCY STOP palm pushbuttons with positive latching acc. to ISO 13850, pull to unlatch

Red

1

1

3

3SU1801-2NG00-2AA2

1

1 unit

41J



3SU1801-2NG00-2AA2

Spring-type terminals



With recess for labeling plate
A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch

Red

A = I

2

1

5

3SU1801-0NE00-4AB2

1









1 unit

41J

SIRIUS ACT Pushbuttons and Indicator Lights

Enclosures








Pushbuttons and indicator lights in the enclosure

	Color of enclosure top	Number of command points	Enclosure version Pushbutton and signaling device equipment	Color of actuating element Marking		Number of NC contacts	Number of NO contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG					
									d									
Enclosures with standard fittings																		
	Plastic	Gray 1	With recess for labeling plate A = Pushbutton	Green	A = I	0	1	3	3SU1801-0AB00-2AB1		1	1 unit	41J					
				Red	A = O	1	0	▶	3SU1801-0AC00-2AB1		1	1 unit	41J					
				White	A = I	0	1	5	3SU1801-0AD00-2AB1		1	1 unit	41J					
				Black	A = O	1	0	5	3SU1801-0AE00-2AB1		1	1 unit	41J					
												Screw terminals						
			With recess for labeling plate A = Selector switch	Black		0	2	NEW 5	3SU1801-0BA00-4AB1		1	1 unit	41J					
						0	1	NEW 5	3SU1801-0BE00-4AB1		1	1 unit	41J					
													Spring-type terminals					
				With recess for labeling plate A = Pushbutton	Green	A = I	1	0	NEW 5	3SU1801-0BC00-4AB1		1	1 unit	41J				
					0	1	NEW 5	3SU1801-0BD00-4AB1		1	1 unit	41J						
		2	With recess for labeling plate A = Pushbutton/ B = Pushbutton	A = Red/ B = Green		1	1	3	3SU1802-0AB00-2AB1		1	1 unit	41J					
				A = O/ B = I														
				A = Black/ B = Black		1	1	5	3SU1802-0AC00-2AB1		1	1 unit	41J					
				A = O/ B = I														
												Screw terminals						
			With recess for labeling plate A = Pushbutton/ B = Pushbutton/ C = Indicator light	A = Red/ B = Green/ C = Clear		1	1	▶	3SU1803-0AB00-2AB1		1	1 unit	41J					
				A = O/ B = I/ C = "Without inscription"														
				A = Black/ B = White/ C = Clear		1	1	5	3SU1803-0AC00-2AB1		1	1 unit	41J					
				A = O/ B = I/ C = "Without inscription"														
					3	With recess for labeling plate A = Pushbutton/ B = Pushbutton/ C = Pushbutton	A = Red/ B = Black/ C = Black		1	2	5	3SU1803-0AD00-2AB1		1	1 unit	41J		
A = O/ B = I/ C = II																		
									Screw terminals									
		1				Center command point A = Palm pushbutton, momentary-contact type	Black		0	1	3	3SU1801-2GA00-2AA1		1	1 unit	41J		

SIRIUS ACT Pushbuttons and Indicator Lights



Enclosures

Pushbuttons and indicator lights in the enclosure

Color of enclosure top	Number of command points	Enclosure version Pushbutton and signaling device equipment	Color of actuating element Marking	Number of		SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
				NC contacts	NO contacts							
							d					
Enclosures with standard fittings												
							Screw terminals					
	Metal Yellow	1	Center command point	Red	1	0	3	3SU1851-0NA00-2AA2 3SU1851-0NB00-2AA2	1	1 unit	41J	
3SU1851-0NA00-2AA2			A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch		2	0	5		1	1 unit	41J	
			With protective collar	Red	1	0	3		1	1 unit	41J	
3SU1851-0NA00-2AC2			A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch		2	0	5		1	1 unit	41J	
		1	Center command point	Red	1	1	3	3SU1851-0NC00-2AC2 3SU1851-0ND00-2AC2	1	1 unit	41J	
3SU1851-0NA00-2AC2			A = EMERGENCY STOP palm pushbuttons with positive latching acc. to ISO 13850		2	1	5		1	1 unit	41J	
			Pull to unlatch									
3SU1851-2NG00-2AA2												
	Gray	1	With recess for labeling plate	Green	A = I	0	1	5	3SU1851-0AB00-2AB1 3SU1851-0AC00-2AB1 3SU1851-0AD00-2AB1 3SU1851-0AE00-2AB1	1	1 unit	41J
3SU1851-0AC00-2AB1			A = Pushbutton	Red	A = O	1	0	5		1	1 unit	41J
				White	A = I	0	1	5		1	1 unit	41J
				Black	A = O	1	0	5		1	1 unit	41J
		2	With recess for labeling plate	A = Red/ B = Green		1	1	5	3SU1852-0AB00-2AB1	1	1 unit	41J
3SU1852-0AB00-2AB1			A = Pushbutton/ B = Pushbutton	A = O/ B = I								
				A = Black/ B = White		1	1	5	3SU1852-0AC00-2AB1	1	1 unit	41J
				A = O/ B = I								
		3	With recess for labeling plate	A = Red/ B = Green/ C = Clear		1	1	5	3SU1853-0AB00-2AB1	1	1 unit	41J
3SU1853-0AB00-2AB1			A = Pushbutton/ B = Pushbutton/ C = Indicator light	A = O/ B = I/ C = "Without inscription"								
				A = Red/ B = Black/ C = Black		1	2	5	3SU1853-0AD00-2AB1	1	1 unit	41J
				A = O/ B = I/ C = II								
		1	Center command point	Black		0	1	3	3SU1851-2GA00-2AA1	1	1 unit	41J
3SU1851-2GA00-2AA1			A = Palm pushbutton, momentary-contact type									

SIRIUS ACT Pushbuttons and Indicator Lights Enclosures

Pushbuttons and indicator lights in the enclosure

Number of command points	Product function/ EMERGENCY STOP function	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
Customized enclosures¹⁾							
Plastic							
 3SU1801-0AZ00 K0Y	1	No Yes	3SU1801-0AZ00 K0Y 3SU1801-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	2	No Yes	3SU1802-0AZ00 K0Y 3SU1802-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	3	No Yes	3SU1803-0AZ00 K0Y 3SU1803-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	4	No Yes	3SU1804-0AZ00 K0Y 3SU1804-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	6	No Yes	3SU1806-0AZ00 K0Y 3SU1806-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
Metal							
 3SU1851-0AZ00 K0Y	1	No Yes	3SU1851-0AZ00 K0Y 3SU1851-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	2	No Yes	3SU1852-0AZ00 K0Y 3SU1852-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	3	No Yes	3SU1853-0AZ00 K0Y 3SU1853-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	4	No Yes	3SU1854-0AZ00 K0Y 3SU1854-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J
	6	No Yes	3SU1856-0AZ00 K0Y 3SU1856-0NZ00 K0Y		1 1	1 unit 1 unit	41J 41J

¹⁾ The fittings and labeling of the command point can be chosen using the Configurator on the Internet. The prices depend on the equipment selected. When ordering, always add the article number and the code K0Y and the CIN number from the Configurator.
Ordering example:
3SU1801-0AZ00 K0Y, CIN20150609140858154554,
see www.siemens.com/sirius-act/configurator.

SIRIUS ACT Pushbuttons and Indicator Lights Enclosures

Pushbuttons and indicator lights in the enclosure for AS-Interface

Overview

With AS-Interface enclosures, distributed SIRIUS ACT pushbuttons and indicator lights can be quickly connected to the AS-Interface communication system. Using suitable components you can make your own enclosures with integrated AS-Interface or flexibly modify existing enclosures.



Enclosures for AS-Interface

Enclosures

Color of enclosure top:

- Gray, RAL 7035
- Yellow, RAL 1004 for EMERGENCY STOP

Color of enclosure base:

- Black, RAL 9005

Equipping with AS-Interface slaves

The following slaves are available for connecting the command points:

- Slave in A/B technology with 4 digital inputs and 3 digital outputs (4 DI/3 DQ)
- Slave with 4 digital inputs and 4 digital outputs (4 DI/4 DQ)
- F slave with 2 safe inputs for EMERGENCY STOP mushroom pushbutton (2 F-DI), also with integrated red LED for the illuminated EMERGENCY STOP mushroom pushbutton.

The following table shows the maximum number of slaves possible:

Number of command points	Number of slaves for enclosures without EMERGENCY STOP	Number of slaves for enclosures with EMERGENCY STOP
1	--	1 x F slave 2 F-DI
2	1 x slave 4 DI/4 DQ or 4 DI/3 DQ	--
3	1 x slave 4 DI/4 DQ or 4 DI/3 DQ	1 x slave 4 DI/4 DQ or 4 DI/3 DQ + 1 x F slave
4	2 x slave 4 DI/4 DQ or 4 DI/3 DQ	2 x slave 4 DI/4 DQ or 4 DI/3 DQ + 1 x F slave
6	2 x slave 4 DI/4 DQ or 4 DI/3 DQ	2 x slave 4 DI/4 DQ or 4 DI/3 DQ + 1 x F slave

Connection

One set of links is required in each case to connect a slave to contact modules, LED modules, and the connection element.

The connection elements are mounted in the front-end cable glands and are used to connect the AS-Interface or bring unused inputs or outputs out of the enclosure.

For connection to AS-Interface, the following options are available:

- Terminal for shaped AS-Interface cable. The cable is contacted by the insulation piercing method and routed past the enclosure on the outside (possible only with plastic enclosure).
- Cable gland for the shaped AS-Interface cable or round cable. The cable is routed into the enclosure (preferable for metal enclosure).
- Connection using M12 plug.

If less than all inputs/outputs of the installed slaves in an enclosure are used for connecting the command devices, free inputs and outputs can be routed on request to the outside through an M12 socket on the top or bottom side of the enclosure.

To supply inputs with power, the S+ connection of the slave must be assigned to the socket, for outputs the OUT- connection must be assigned. Addressing is performed using the AS-Interface connections or the integrated addressing socket. An external power supply is not required.

Enclosures with standard fittings

Enclosures with standard fittings are available with:

- 1 to 3 command points
- Operational voltage through AS-Interface (approx. 30 V)
- Vertical mounting type
- Plastic enclosures are equipped with plastic actuators and indicators, metal enclosures are equipped with metal actuators and indicators

The enclosures without EMERGENCY STOP each have one module with 4I/3O; the enclosures with EMERGENCY STOP mushroom pushbuttons have a safe AS-Interface slave integrated in the enclosure. Enclosures with EMERGENCY STOP mushroom pushbuttons are fitted with two NC contact modules, which are wired to the safe F slave.

The contact modules and LED modules (with spring-type terminals) of the command devices and the AS-Interface slaves are mounted in the base of the enclosure and connected using cables. The plastic enclosures are designed with a connection for the AS-Interface flat cable (the cable is run along the outside of the enclosure). For metal enclosures, the AS-Interface cable is run inside the enclosure.

The enclosures with EMERGENCY STOP mushroom pushbuttons are also available with an M12 connector.

Customized enclosures (selection by configurator)

To order customized 3SU18 AS-Interface enclosures with pushbuttons and indicator lights, the configurator must be used to select the fittings.

An electronic order form will be generated for the options.







For the Configurator, see www.siemens.com/sirius-act/configurator.

SIRIUS ACT Pushbuttons and Indicator Lights

Enclosures

Pushbuttons and indicator lights in the enclosure for AS-Interface

Selection and ordering data

Color of enclosure top	Number of command points	Enclosure version Command point fittings	Color Marking	SD	Insulation piercing method	PU (UNIT, SET, M)	PS*	PG
					Article No.			
					d			
Enclosures with standard fittings								
Plastic								
	Yellow	1	With recess for labeling plate A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch	Red	5	3SU1801-0NB10-4HB2	1	1 unit 41J
3SU1801-0NB10-4HB2			With protective collar A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch	Red A = I	NEW 3	3SU1801-0NB10-4HC2	1	1 unit 41J
								
3SU1801-0NB10-4HC2								
	Gray	2	With recess for labeling plate A = Pushbutton/ B = Pushbutton	A = Red/ B = Green A = O/ B = I	5	3SU1802-0AB10-4HB1	1	1 unit 41J
3SU1802-0AB10-4HB1				A = Black/ B = White A = O/ B = I	5	3SU1802-0AC10-4HB1	1	1 unit 41J
		3	With recess for labeling plate A = Pushbutton/ B = Pushbutton/ C = Indicator light	A = Red/ B = Green/ C = Clear A = O/ B = I/ C = "Without inscription"	5	3SU1803-0AB10-4HB1	1	1 unit 41J
3SU1803-0AB10-4HB1								
Metal								
	Yellow	1	With recess for labeling plate A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch	Red A = I	NEW 5	3SU1851-0NB10-4GB2	1	1 unit 41J
3SU1851-0NB10-4GB2			With protective collar A = EMERGENCY STOP mushroom pushbuttons, 40 mm, with positive latching acc. to ISO 13850, rotate to unlatch	Red A = I	NEW 5	3SU1851-0NB10-4GC2	1	1 unit 41J
								
3SU1851-0NB10-4GC2								

SIRIUS ACT Pushbuttons and Indicator Lights

Enclosures

Pushbuttons and indicator lights in the enclosure for AS-Interface

Number of command points	Product function/ EMERGENCY STOP function	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					

Customized enclosures for AS-Interface¹⁾



3SU1801-0NZ10 K0Y

Plastic

1	Yes		3SU1801-0NZ10 K0Y		1	1 unit	41J
2	No		3SU1802-0AZ10 K0Y		1	1 unit	41J
	No		3SU1802-0NZ10 K0Y		1	1 unit	41J
3	No		3SU1803-0AZ10 K0Y		1	1 unit	41J
	Yes		3SU1803-0NZ10 K0Y		1	1 unit	41J
4	No		3SU1804-0AZ10 K0Y		1	1 unit	41J
	Yes		3SU1804-0NZ10 K0Y		1	1 unit	41J
6	No		3SU1806-0AZ10 K0Y		1	1 unit	41J
	Yes		3SU1806-0NZ10 K0Y		1	1 unit	41J

Metal

1	Yes		3SU1851-0NZ10 K0Y		1	1 unit	41J
2	No		3SU1852-0AZ10 K0Y		1	1 unit	41J
	No		3SU1852-0NZ10 K0Y		1	1 unit	41J
3	No		3SU1853-0AZ10 K0Y		1	1 unit	41J
	Yes		3SU1853-0NZ10 K0Y		1	1 unit	41J
4	No		3SU1854-0AZ10 K0Y		1	1 unit	41J
	Yes		3SU1854-0NZ10 K0Y		1	1 unit	41J
6	No		3SU1856-0AZ10 K0Y		1	1 unit	41J
	Yes		3SU1856-0NZ10 K0Y		1	1 unit	41J



3SU1851-0NZ10 K0Y


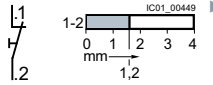

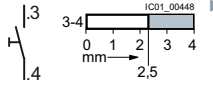

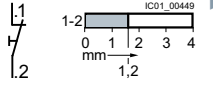

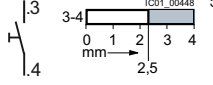
¹⁾ The fittings and labeling of the command point can be chosen using the Configurator on the Internet. The prices depend on the equipment selected, see www.siemens.com/sirius-act/configurator.

SIRIUS ACT Pushbuttons and Indicator Lights

Enclosures

Modules for enclosures

Selection and ordering data

Contact version	Number of		SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	NO contacts	NC contacts					
Article No.				Price per PU			
Contact modules for base mounting							
	Silver alloy	1 0		3SU1400-2AA10-1BA0	1	1 unit	41J
		0 1					
	Gold-plated	1 0		3SU1400-2AA10-1LA0	1	1 unit	41J
		0 1					
	Silver alloy	1 0		Spring-type terminals 	1	1 unit	41J
		0 1		3SU1400-2AA10-3CA0			
	Gold-plated	1 0		3SU1400-2AA10-3LA0	1	1 unit	41J


⊖ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
[see page 11/1 onwards](#).
Certificate:




SIRIUS ACT Pushbuttons and Indicator Lights

Enclosures

Modules for enclosures

	Operational voltage at AC	Operational voltage at DC	Color	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	V	V		d	Article No.	Price per PU		
LED modules¹⁾ for base mounting								
 3SU1401-2BB60-1AA0	24	24	Amber	3	3SU1401-2BB00-1AA0	1	1 unit	41J
			Red	3	3SU1401-2BB20-1AA0	1	1 unit	41J
			Yellow	3	3SU1401-2BB30-1AA0	1	1 unit	41J
			Green	3	3SU1401-2BB40-1AA0	1	1 unit	41J
			Blue	▶	3SU1401-2BB50-1AA0	1	1 unit	41J
			White	3	3SU1401-2BB60-1AA0	1	1 unit	41J
	110	--	Amber	5	3SU1401-2BC00-1AA0	1	1 unit	41J
			Red	▶	3SU1401-2BC20-1AA0	1	1 unit	41J
			Yellow	5	3SU1401-2BC30-1AA0	1	1 unit	41J
			Green	▶	3SU1401-2BC40-1AA0	1	1 unit	41J
			Blue	▶	3SU1401-2BC50-1AA0	1	1 unit	41J
			White	▶	3SU1401-2BC60-1AA0	1	1 unit	41J
	230	--	Amber	5	3SU1401-2BF00-1AA0	1	1 unit	41J
			Red	▶	3SU1401-2BF20-1AA0	1	1 unit	41J
			Yellow	5	3SU1401-2BF30-1AA0	1	1 unit	41J
			Green	▶	3SU1401-2BF40-1AA0	1	1 unit	41J
			Blue	▶	3SU1401-2BF50-1AA0	1	1 unit	41J
			White	▶	3SU1401-2BF60-1AA0	1	1 unit	41J

¹⁾ Only for use with SIRIUS commanding and signaling devices.





	Operational voltage at AC	Operational voltage at DC	Color	SD	Spring-type terminals	PU (UNIT, SET, M)	PS*	PG
	V	V		d	Article No.	Price per PU		
LED modules¹⁾ for base mounting								
 3SU1401-2BB20-3AA0	24	24	Amber	5	3SU1401-2BB00-3AA0	1	1 unit	41J
			Red	▶	3SU1401-2BB20-3AA0	1	1 unit	41J
			Yellow	5	3SU1401-2BB30-3AA0	1	1 unit	41J
			Green	▶	3SU1401-2BB40-3AA0	1	1 unit	41J
			Blue	▶	3SU1401-2BB50-3AA0	1	1 unit	41J
			White	▶	3SU1401-2BB60-3AA0	1	1 unit	41J
	110	--	Amber	5	3SU1401-2BC00-3AA0	1	1 unit	41J
			Red	▶	3SU1401-2BC20-3AA0	1	1 unit	41J
			Yellow	5	3SU1401-2BC30-3AA0	1	1 unit	41J
			Green	▶	3SU1401-2BC40-3AA0	1	1 unit	41J
			Blue	▶	3SU1401-2BC50-3AA0	1	1 unit	41J
			White	▶	3SU1401-2BC60-3AA0	1	1 unit	41J
	230	--	Amber	5	3SU1401-2BF00-3AA0	1	1 unit	41J
			Red	▶	3SU1401-2BF20-3AA0	1	1 unit	41J
			Yellow	5	3SU1401-2BF30-3AA0	1	1 unit	41J
			Green	▶	3SU1401-2BF40-3AA0	1	1 unit	41J
			Blue	▶	3SU1401-2BF50-3AA0	1	1 unit	41J
			White	▶	3SU1401-2BF60-3AA0	1	1 unit	41J

¹⁾ Only for use with SIRIUS commanding and signaling devices.



SIRIUS ACT Pushbuttons and Indicator Lights

Enclosures

Modules for enclosures

	Operational voltage at AC	Operational voltage at DC	Color	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	V	V		d	Article No.	Price per PU			
LED modules ¹⁾ for base mounting · wide voltage range									
 3SU1401-2BG60-1AA0	6 ... 24	6 ... 24	Amber	3	3SU1401-2BG00-1AA0		1	1 unit	41J
			Red	▶	3SU1401-2BG20-1AA0		1	1 unit	41J
			Yellow	5	3SU1401-2BG30-1AA0		1	1 unit	41J
			Green	▶	3SU1401-2BG40-1AA0		1	1 unit	41J
			Blue	▶	3SU1401-2BG50-1AA0		1	1 unit	41J
			White	▶	3SU1401-2BG60-1AA0		1	1 unit	41J
	24 ... 240	24 ... 240	Amber	5	3SU1401-2BH00-1AA0		1	1 unit	41J
			Red	▶	3SU1401-2BH20-1AA0		1	1 unit	41J
			Yellow	5	3SU1401-2BH30-1AA0		1	1 unit	41J
			Green	▶	3SU1401-2BH40-1AA0		1	1 unit	41J
			Blue	▶	3SU1401-2BH50-1AA0		1	1 unit	41J
			White	▶	3SU1401-2BH60-1AA0		1	1 unit	41J
					Spring-type terminals				
 3SU1401-2BG20-3AA0	6 ... 24	6 ... 24	Amber	5	3SU1401-2BG00-3AA0		1	1 unit	41J
			Red	▶	3SU1401-2BG20-3AA0		1	1 unit	41J
			Yellow	5	3SU1401-2BG30-3AA0		1	1 unit	41J
			Green	▶	3SU1401-2BG40-3AA0		1	1 unit	41J
			Blue	▶	3SU1401-2BG50-3AA0		1	1 unit	41J
			White	▶	3SU1401-2BG60-3AA0		1	1 unit	41J
	24 ... 240	24 ... 240	Amber	5	3SU1401-2BH00-3AA0		1	1 unit	41J
			Red	▶	3SU1401-2BH20-3AA0		1	1 unit	41J
			Yellow	5	3SU1401-2BH30-3AA0		1	1 unit	41J
			Green	▶	3SU1401-2BH40-3AA0		1	1 unit	41J
			Blue	▶	3SU1401-2BH50-3AA0		1	1 unit	41J
			White	▶	3SU1401-2BH60-3AA0		1	1 unit	41J

¹⁾ Only for use with SIRIUS commanding and signaling devices.

	Operational voltage at AC	Operational voltage at DC	SD	Screw terminals 	PU (UNIT, SET, M)	PS*	PG
	V	V	d	Article No.	Price per PU		
LED test modules¹⁾ for base mounting							
 3SU1400-2CK10-1AA0	6 ... 240	6 ... 240	▶	3SU1400-2CK10-1AA0	1	1 unit	41J

¹⁾ Only to be used for SIRIUS ACT LED modules
(6 ... 24 V AC/DC, 24 V AC/DC, 24 ... 240 V AC/DC).

SIRIUS ACT Pushbuttons and Indicator Lights Enclosures

Modules for enclosures

Operational voltage	Slave type	Number of digital inputs		Number of digital outputs	SD	Spring-type terminals (push-in)		PU (UNIT, SET, M)	PS*	PG	
		Standard	Safety-related								
V					d	Article No.	Price per PU				
AS-Interface modules, base mounting											
	30	4 DI/3 DQ AB	4	0	3	5	3SU1400-2EJ10-6AA0 3SU1400-2EK10-6AA0 3SU1400-2EA10-6AA0 3SU1401-2EE20-6AA0	1	1 unit	41J	
		4 DI/4 DQ	4	0	4	►		1	1 unit	41J	
		2 F-DI	0	2	0	5		1	1 unit	41J	
		2 F-DI + 1 LED	0	2	1	5		1	1 unit	41J	
					For controlling the LEDs						
Electronic module for IO-Link, base mounting											
	24	Freely programmable (default 6 DI/2 DQ)	0-8	0	0-8	5	3SU1400-2HL10-6AA0	1	1 unit	41J	
Color						SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
						d	Article No.	Price per PU			
Support terminals											
	Black				3	3SU1400-2DA10-1AA0	1	1 unit	41J		
	Blue				5	3SU1400-2DA50-1AA0	1	1 unit	41J		
	Green/Yellow				3	3SU1400-2DA43-1AA0	1	1 unit	41J		
						Spring-type terminals					
	Black				5	3SU1400-2DA10-3AA0	1	1 unit	41J		
	Blue				5	3SU1400-2DA50-3AA0	1	1 unit	41J		
	Green/Yellow				5	3SU1400-2DA43-3AA0	1	1 unit	41J		

SIRIUS ACT Pushbuttons and Indicator Lights Enclosures

Two-hand operation consoles

Overview

Equipment

The two-hand operation consoles are pre-equipped with commanding devices. In the case of plastic enclosures the command points are equipped as standard with actuators and indicators made of plastic and in the case of metal enclosures they are equipped with actuators and indicators made of metal.

The standard equipment comprises:

- 2 black mushroom pushbuttons, diameter 40 mm, 1 NO + 1 NC
- 1 red EMERGENCY STOP mushroom pushbutton according to ISO 13850, diameter 40 mm, with positive latching, 2 NC

The plastic version can be retrofitted with up to 8 customized command points. The surface of the console has premachined breaking points for this purpose.

Application

The two-hand operation consoles are required for use with machines and systems that have hazardous areas, in order to direct both hands of the operator to one position.

The operation consoles are primarily used on presses, stamping machines, printing presses and paper converting machines, in the chemical industry and in the rubber and plastics industries.





The control command is given by pressing the two mushroom pushbuttons on the sides simultaneously (within 0.5 s of each other) and must be maintained for as long as a hazard exists.

For the further processing of control commands, evaluation units are used, e.g. 3SK11 safety relays or the 3RK3, 3SK2 Modular Safety System.

Standards

The two-hand operation consoles comply with the requirements of EN 574.

Selection and ordering data

	Version of actuating element/ unlatching method/ operating principle	Color of actuating element	Number of		SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			NO contacts	NC contacts	d					
Two-hand operation consoles										
	Plastic									
 3SU1803-3NB00-1AE1	None	--	0	0	5	3SU1803-3AA00-0AA1		1	1 unit	41J
	A = Mushroom pushbutton/ momentary contact	A = Black/ B = Red/ C = Black	2	4	5	3SU1803-3NB00-1AE1		1	1 unit	41J
	B = EMERGENCY STOP mushroom pushbutton/ rotate to unlatch									
	C = Mushroom pushbutton/ momentary contact									
	Metal									
 3SU1853-3AA00-0AA1	None	--	0	0	5	3SU1853-3AA00-0AA1		1	1 unit	41J
	A = Mushroom pushbutton/ momentary contact	A = Black/ B = Red/ C = Black	2	4	5	3SU1853-3NB00-1AA1		1	1 unit	41J
 3SU1853-3NB00-1AA1	B = EMERGENCY STOP mushroom pushbutton/ rotate to unlatch									
	C = Mushroom pushbutton/ momentary contact									
 3SU1853-3NB00-1AD1			2	4	5	3SU1853-3NB00-1AD1		1	1 unit	41J
	Version	Material	Color		SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
					d					

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Insert labels

Overview

Labels can be inserted for identification purposes in pushbuttons (clear) and in illuminated pushbuttons with a flat button. These insert labels are made of transparent plastic with black inscription; they can be fitted in any 90° angle.

Inscription

The inscription is in upper/lower case, all words begin with upper case letters. Graphic symbols, including those not listed in the catalog, are according to ISO 7000 or IEC 60417.

The insert labels without inscription are suitable for user marking with permanent pen.

For customized inscriptions, see "Options", page 13/117.

Selection and ordering data

Color	Marking	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					

Insert labels

For self-inscription

Milky white/black (label/lettering)

None



3SU1900-0AB71-0AA0

100 10 units

41J

With customized inscription

Milky white/black (label/lettering)

For inscriptions or symbols, see "Options", page 13/117.

3SU1900-0AB71-0AZ0

1 1 unit

41J

3SU1900-0AB71-0AA0

3SU1900-0AB71-0AB0

3SU1900-0AB71-0DN0

Inscription in German

Milky white/black (label/lettering)

Ein
Aus
Auf
Ab
Vor
Zurück
Rechts
Links
Halt
Zu
Schnell
Langsam
Betrieb
Störung
Einrichten

5
5
5
5
5
5
5
5
5
5
5
5
5
5
5
5
5

3SU1900-0AB71-0AB0
3SU1900-0AB71-0AC0
3SU1900-0AB71-0AD0
3SU1900-0AB71-0AE0
3SU1900-0AB71-0AF0
3SU1900-0AB71-0AG0
3SU1900-0AB71-0AH0
3SU1900-0AB71-0AJ0
3SU1900-0AB71-0AK0
3SU1900-0AB71-0AL0
3SU1900-0AB71-0AM0
3SU1900-0AB71-0AN0
3SU1900-0AB71-0AP0
3SU1900-0AB71-0AQ0
3SU1900-0AB71-0AR0

100 10 units
100 10 units
100 10 units
100 10 units
100 10 units
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100 10 units
100 10 units

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41J
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41J
41J
41J
41J
41J
41J
41J
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41J
41J
41J
41J
41J
41J

Inscription in English

Milky white/black (label/lettering)

On
Off
Up
Down
Forward
Right
Left
Stop
Start
Reset
Test
Open
Close
Running
Fast
Slow

5
5
5
5
5
5
5
5
5
5
5
5
5
5
5
5
5

3SU1900-0AB71-0DJ0
3SU1900-0AB71-0DK0
3SU1900-0AB71-0DL0
3SU1900-0AB71-0DM0
3SU1900-0AB71-0DN0
3SU1900-0AB71-0DQ0
3SU1900-0AB71-0DR0
3SU1900-0AB71-0DS0
3SU1900-0AB71-0DT0
3SU1900-0AB71-0DU0
3SU1900-0AB71-0DV0
3SU1900-0AB71-0DW0
3SU1900-0AB71-0DX0
3SU1900-0AB71-0EB0
3SU1900-0AB71-0EE0
3SU1900-0AB71-0EF0

100 10 units
100 10 units
100 10 units
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100 10 units





41J
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SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Insert labels

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d				
Insert labels								
	With symbol (ON/OFF)							
	Milky white/black (label/lettering)	O	5008 IEC ▶	3SU1900-0AB71-0QA0	100	10 units	41J	
		I	5007 IEC ▶	3SU1900-0AB71-0QB0	100	10 units	41J	
		II	-- 5	3SU1900-0AB71-0QC0	100	10 units	41J	
		III	-- 5	3SU1900-0AB71-0QD0	100	10 units	41J	
3SU1900-0AB71-0QC0								
	With symbol (graphic)							
	Milky white/black (label/lettering)	→ ARROW DIRECTION TO RIGHT	5022 IEC ▶	3SU1900-0AB71-0QR0	100	10 units	41J	
		↗ ARROW DIRECTION UP AND TO LEFT	-- ▶	3SU1900-0AB71-0QS0	100	10 units	41J	
		↻ CLOCKWISE ROTATION	0004 ISO 5	3SU1900-0AB71-0QT0	100	10 units	41J	
		↺ COUNTERCLOCKWISE ROTATION	-- 5	3SU1900-0AB71-0QU0	100	10 units	41J	
3SU1900-0AB71-0QT0								
		⚡ RAPID TRAVERSE	0266 ISO 5	3SU1900-0AB71-0QV0	100	10 units	41J	
		⚡ FEED	0259 ISO 5	3SU1900-0AB71-0QW0	100	10 units	41J	
		+ INCREASE, PLUS	5005 IEC 5	3SU1900-0AB71-0QX0	100	10 units	41J	
		- DECREASE, MINUS	5006 IEC 5	3SU1900-0AB71-0QY0	100	10 units	41J	
		🏠 ELECTRIC MOTOR	0011 ISO 5	3SU1900-0AB71-0RA0	100	10 units	41J	
3SU1900-0AB71-0RB0								
		📢 HORN	5014 IEC 5	3SU1900-0AB71-0RB0	100	10 units	41J	
		🚰 WATER INLET	-- 5	3SU1900-0AB71-0RC0	100	10 units	41J	
		🔧 PUMP	0134 ISO 5	3SU1900-0AB71-0RD0	100	10 units	41J	
		⚙️ COOLANT PUMP	0355 ISO 5	3SU1900-0AB71-0RE0	100	10 units	41J	
3SU1900-0AB71-0RN0								
		🔒 LOCK, TIGHTEN	5653 IEC 5	3SU1900-0AB71-0RF0	100	10 units	41J	
		🔓 UNLOCK, UNCLAMP	5652 IEC 5	3SU1900-0AB71-0RG0	100	10 units	41J	
		🛑 BRAKE	-- 5	3SU1900-0AB71-0RH0	100	10 units	41J	
		🔧 RELEASE BRAKE	0021 ISO 5	3SU1900-0AB71-0RJ0	100	10 units	41J	
		🔒 INTERLOCK	0022 ISO 5	3SU1900-0AB71-0RK0	100	10 units	41J	
		🔓 UNLOCK	0023 ISO 5	3SU1900-0AB71-0RL0	100	10 units	41J	
		⬛ SET UP	0910 ISO 5	3SU1900-0AB71-0RM0	100	10 units	41J	
		⊕ ON/OFF, MOMENTARY CONTACT TYPE	5011 IEC 5	3SU1900-0AB71-0RN0	100	10 units	41J	
		👤 MANUAL OPERATION	0096 ISO 5	3SU1900-0AB71-0RP0	100	10 units	41J	
		🔄 AUTOMATIC CYCLE	0017 ISO ▶	3SU1900-0AB71-0RQ0	100	10 units	41J	
		🌬️ SUCTION	-- 5	3SU1900-0AB71-0RR0	100	10 units	41J	
		🌬️ BLOWING	-- 5	3SU1900-0AB71-0RS0	100	10 units	41J	

Options

Customized inscriptions

The labels can be inscribed with text and symbols not listed in the ordering data.

The default typeface used for inscriptions with text is Arial and the text is centered.

The font height is 2.5 mm.

Up to 6 characters per line are possible.

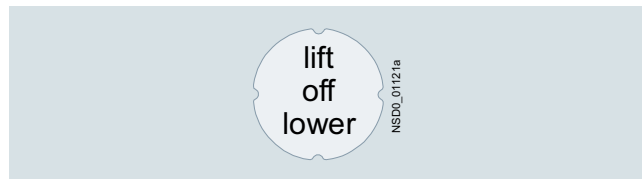
Examples for customized inscription



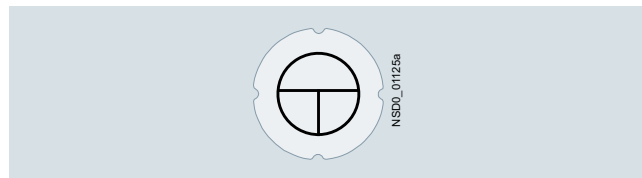
Two-line inscription in upper/lower case lettering (Q0Y)



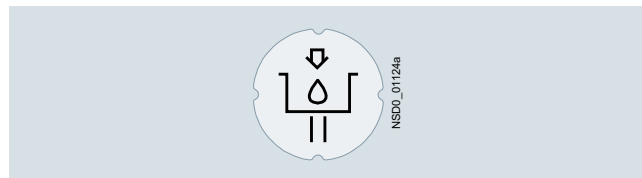
Single-line inscription in upper case lettering (Q1Y)



Three-line inscription in lower case letters (Q2Y)



Symbol number 5011 according to IEC 60417 (Q3Y)



Any symbol according to order form supplement (Q9Y)

Ordering notes

Append the following order codes to the article number:

- **Q0Y:** Text line(s) in upper/lower case, always upper case for beginning of line, e.g. Z1=Lift Z2=Lower
- **Q1Y:** Text line(s) in upper case, e.g. Z1=LIFT Z2=LOWER
- **Q2Y:** Text line(s) in lower case, e.g. Z1=lift off Z2=lower off
- **Q5Y:** Text line(s) in upper/lower case, all words begin with upper case letters, e.g. Z1=Lift Off Z2=Lower Off
- **Q3Y:** Symbol with number according to ISO 7000 or IEC 60417
- **Q9Y:** Inscription of choice, text or symbol, can only be ordered via SIRIUS ACT Configurator with a Configuration Identification Number (CIN)

When ordering, specify the required inscription in plain text without spaces, in addition to the article number and order code.

In the case of multi-line inscriptions, the text must be assigned to the respective line, e.g. Z1=LIFT Z2=LOWER, [see ordering example 1](#).

Symbols can also be ordered with numbers according to ISO 7000 or IEC 60417, [see ordering examples 2 and 3](#).

The SIRIUS ACT Configurator must be used to select special inscriptions and symbols (order code Q9Y). In this case a CIN (Configuration Identification Number) is generated for placement of future orders. It is then possible to place an order directly using the CIN and the SIRIUS ACT Configurator (Mall shopping cart) or via the standard ordering channels.

Standard ordering channels:

- Configurator: www.siemens.com/sirius-act/configurator
- Electronic Catalog CA 01 on DVD
- Industry Mall: www.siemens.com/industrymall

Ordering example 1

A label with 2 lines of text is required:

3SU1900-0AB71-0AZ0

Q1Y

Z1=LIFT

Z2=LOWER

Ordering example 2

A label inscribed with symbol No. 5011 according to IEC 60417 is required:

3SU1900-0AB71-0AZ0

Q3Y

Z=5011 IEC

Ordering example 3

A label inscribed with symbol No. 1118 according to ISO 7000 is required:

3SU1900-0AB71-0AZ0

Q3Y

Z=1118 ISO


SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Label holders for labeling plates

Selection and ordering data



	Material Label holder shape	Label holder color	Label fastening method	Labeling plate size		SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				Height mm	Width mm	d					
Label holders for labeling plates											
	Plastic With rounded bottom	Black	Self-adhesive	12.5	27	▶	3SU1900-0AG10-0AA0		100	10 units	41J
				17.5	27	▶	3SU1900-0AH10-0AA0		100	10 units	41J
				27	27	▶	3SU1900-0AJ10-0AA0		100	10 units	41J
			Snap-on	12.5	27	▶	3SU1900-0AR10-0AA0		100	10 units	41J
				17.5	27	▶	3SU1900-0AS10-0AA0		100	10 units	41J
				27	27	▶	3SU1900-0AT10-0AA0		100	10 units	41J
3SU1900-0AG10-0AA0											
	Plastic, with square bottom	Black	Self-adhesive	12.5	27	3	3SU1900-0AN10-0AA0		100	10 units	41J
				17.5	27	5	3SU1900-0AP10-0AA0		100	10 units	41J
				27	27	5	3SU1900-0AQ10-0AA0		100	10 units	41J
3SU1900-0AN10-0AA0											
For 2 labeling plates											
	Plastic, with rounded bottom	Black	Self-adhesive	17.5	27	▶	3SU1900-0BQ10-0AA0		1	1 unit	41J
			Snap-on	17.5	27	▶	3SU1900-0BR10-0AA0		1	1 unit	41J
3SU1900-0BQ10-0AA0											
For 4 labeling plates											
	Plastic, with rounded bottom	Black	Self-adhesive	17.5	27	▶	3SU1900-0BS10-0AA0		1	1 unit	41J
			Snap-on	17.5	27	▶	3SU1900-0BT10-0AA0		1	1 unit	41J
3SU1900-0BT10-0AA0											
For actuators and indicators, 30 mm NEW											
	Metal, matte With rounded bottom	Black	Self-adhesive	17.5	27	▶	3SU1960-0AH10-0AA0		1	10 units	41J
			Snap-on	17.5	27	▶	3SU1960-0AS10-0AA0		1	10 units	41J
3SU1960-0AH10-0AA0											
Label holders for labeling plates, coordinate switches											
	Plastic, with square bottom	Black	Self-adhesive	27	27	▶	3SU1900-0AL10-0AA0		1	1 unit	41J
				27	27	▶	3SU1900-0AM10-0AA0		1	1 unit	41J
3SU1900-0AL10-0AA0											
	Plastic, cross	Black	Self-adhesive	27	27	▶	3SU1900-0AM10-0AA0		1	1 unit	41J
				27	27	▶	3SU1900-0AM10-0AA0		1	1 unit	41J
3SU1900-0AM10-0AA0											

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Label holders for labeling plates

	Material Label holder shape	Label holder color	Label fastening method	Labeling plate size		SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				Height	Width						
				mm	mm						
Label holders for labeling plates, twin pushbuttons											
	Plastic, rectangular	Black	Self- adhesive	12.5	27	▶	3SU1900-0AK10-0AA0		100	10 units	41J
3SU1900-0AK10-0AA0											
Single frames											
	Plastic, square	Black	--	29.8	29.8	▶	3SU1900-0AX10-0AA0		1	10 units	41J
3SU1900-0AX10-0AA0											

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates

Overview

Label holders of black plastic, and labeling plates (black with white print or silver-colored with black print) for sticking or snapping in place, are available for labeling. They are not suitable for EMERGENCY STOP buttons. Note mounting dimensions!

The label holders cannot be used in conjunction with sealing plugs, protective caps, protective collars and locking devices.

Inscription

The inscription is in upper/lower case, all words begin with upper case letters. Graphic symbols, including those not listed in the catalog, are according to ISO 7000 or IEC 60417.

For customized inscriptions, see "Options", page 13/126.




Labeling plates for sticking/snapping in place

The labels are available in three sizes:

- 12.5 mm × 27 mm
- 17.5 mm × 27 mm
- 27 mm × 27 mm

For mounting the labeling plates, you can choose between label holders for stick-on or snap-on mounting.

Selection and ordering data

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Labeling plates 12.5 mm x 27 mm								
For self-inscription								
	Black/white (label/lettering)	None	--	3SU1900-0AC16-0AA0		100	10 units	41J
With customized inscription								
3SU1900-0AC16-0AA0	Black/white (label/lettering)	For inscriptions or symbols, see "Options", page 13/126.		3SU1900-0AC16-0AZ0		1	1 unit	41J
Inscription in German								
	Black/white (label/lettering)	Ein	--	3SU1900-0AC16-0AB0		100	10 units	41J
		Aus	--	3SU1900-0AC16-0AC0		100	10 units	41J
		Auf	--	3SU1900-0AC16-0AD0		100	10 units	41J
		Ab	--	3SU1900-0AC16-0AE0		100	10 units	41J
3SU1900-0AC16-0AG0		Vor	--	3SU1900-0AC16-0AF0		100	10 units	41J
		Zurück	--	3SU1900-0AC16-0AG0		100	10 units	41J
		Rechts	--	3SU1900-0AC16-0AH0		100	10 units	41J
		Links	--	3SU1900-0AC16-0AJ0		100	10 units	41J
		Halt	--	3SU1900-0AC16-0AK0		100	10 units	41J
		Zu	--	3SU1900-0AC16-0AL0		100	10 units	41J
		Betrieb	--	3SU1900-0AC16-0AP0		100	10 units	41J
		Störung	--	3SU1900-0AC16-0AQ0		100	10 units	41J
		Hand Auto	--	3SU1900-0AC16-0DB0		100	10 units	41J
		Hand O Auto	--	3SU1900-0AC16-0DD0		100	10 units	41J
Inscription in English								
	Black/white (label/lettering)	On	--	3SU1900-0AC16-0DJ0		100	10 units	41J
		Off	--	3SU1900-0AC16-0DK0		100	10 units	41J
		Up	--	3SU1900-0AC16-0DL0		100	10 units	41J
		Down	--	3SU1900-0AC16-0DM0		100	10 units	41J
3SU1900-0AC16-0DN0		Forward	--	3SU1900-0AC16-0DN0		100	10 units	41J
		Reverse	--	3SU1900-0AC16-0DP0		100	10 units	41J
		Right	--	3SU1900-0AC16-0DQ0		100	10 units	41J
		Left	--	3SU1900-0AC16-0DR0		100	10 units	41J
		Stop	--	3SU1900-0AC16-0DS0		100	10 units	41J
		Start	--	3SU1900-0AC16-0DT0		100	10 units	41J
		Reset	--	3SU1900-0AC16-0DU0		100	10 units	41J
		Test	--	3SU1900-0AC16-0DV0		100	10 units	41J
		Open	--	3SU1900-0AC16-0DW0		100	10 units	41J
		Close	--	3SU1900-0AC16-0DX0		100	10 units	41J
		Jog	--	3SU1900-0AC16-0DE0		100	10 units	41J
		Running	--	3SU1900-0AC16-0EB0		100	10 units	41J
		Fault	--	3SU1900-0AC16-0EC0		100	10 units	41J
		Run	--	3SU1900-0AC16-0ED0		100	10 units	41J
		Stop Start	--	3SU1900-0AC16-0DC0		100	10 units	41J
		Off On	--	3SU1900-0AC16-0DH0		100	10 units	41J
		Power off	--	3SU1900-0AC16-0DF0		100	10 units	41J
		Power on	--	3SU1900-0AC16-0DG0		100	10 units	41J
		Man O Auto	--	3SU1900-0AC16-0DY0		100	10 units	41J
		Man Auto	--	3SU1900-0AC16-0EA0		100	10 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Labeling plates 12.5 mm x 27 mm

Inscription in French



3SU1900-0AC16-0GA0

Black/white (label/lettering)	Marche	--	5	3SU1900-0AC16-0GA0	100	10 units	41J
	Arrêt	--	5	3SU1900-0AC16-0GB0	100	10 units	41J
	Montée	--	5	3SU1900-0AC16-0GC0	100	10 units	41J
	Descente	--	5	3SU1900-0AC16-0GD0	100	10 units	41J
	Avant	--	5	3SU1900-0AC16-0GE0	100	10 units	41J
	Retour	--	5	3SU1900-0AC16-0GF0	100	10 units	41J
	Droite	--	5	3SU1900-0AC16-0GG0	100	10 units	41J
	Gauche	--	5	3SU1900-0AC16-0GH0	100	10 units	41J
	Ouvert	--	5	3SU1900-0AC16-0GJ0	100	10 units	41J
	Fermé	--	5	3SU1900-0AC16-0GK0	100	10 units	41J
	Rapide	--	5	3SU1900-0AC16-0GL0	100	10 units	41J
	En Service	--	5	3SU1900-0AC16-0GM0	100	10 units	41J
	Défaut	--	5	3SU1900-0AC16-0GN0	100	10 units	41J
	Réglage	--	5	3SU1900-0AC16-0GP0	100	10 units	41J
	Arrêt d'urgence	--	5	3SU1900-0AC16-0GQ0	100	10 units	41J
	Hors Service	--	5	3SU1900-0AC16-0GR0	100	10 units	41J
	Sous tension	--	5	3SU1900-0AC16-0GS0	100	10 units	41J
	Manu Auto	--	5	3SU1900-0AC16-0GT0	100	10 units	41J
	Marche Arrêt	--	5	3SU1900-0AC16-0GU0	100	10 units	41J
	Réarmement	--	5	3SU1900-0AC16-0GV0	100	10 units	41J

With symbol



3SU1900-0AC16-0QG0

Black/white (label/lettering)	O	--	5	3SU1900-0AC16-0QA0	100	10 units	41J
	I	--	5	3SU1900-0AC16-0QB0	100	10 units	41J
	O I	--	3	3SU1900-0AC16-0QG0	100	10 units	41J
	1 2	--	5	3SU1900-0AC16-0QJ0	100	10 units	41J
	↑ ARROW DIRECTION UP	--	5	3SU1900-0AC16-0QS0	100	10 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
-------	---------	------------	----	-------------	--------------	-------------------	-----	----

Labeling plates 12.5 mm x 27 mm

For self-inscription

Silver/black
(label/lettering)

None



3SU1900-0AC81-0AA0

100

10 units

41J

With customized inscription

3SU1900-0AC81-0AA0

Silver/black
(label/lettering)

For inscriptions or symbols,
see "Options", page 13/126.

3SU1900-0AC81-0AZ0

1

1 unit

41J

Inscription in German

3SU1900-0AC81-0AB0

Silver/black
(label/lettering)

Ein

Aus

Auf

Ab

Vor

Zurück

Rechts

Links

Halt

Zu

Schnell

Langsam

Betrieb

Störung

Einrichten

Hand Auto

Stop Start

Hand O Auto

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3SU1900-0AC81-0AB0

100

10 units

41J

3SU1900-0AC81-0AC0

100

10 units

41J

3SU1900-0AC81-0AD0

100

10 units

41J

3SU1900-0AC81-0AE0

100

10 units

41J

3SU1900-0AC81-0AF0

100

10 units

41J

3SU1900-0AC81-0AG0

100

10 units

41J

3SU1900-0AC81-0AH0

100

10 units

41J

3SU1900-0AC81-0AJ0

100

10 units

41J

3SU1900-0AC81-0AK0

100

10 units

41J

3SU1900-0AC81-0AL0

100

10 units

41J

3SU1900-0AC81-0AM0

100

10 units

41J

3SU1900-0AC81-0AN0

100

10 units

41J

3SU1900-0AC81-0AP0

100

10 units

41J

3SU1900-0AC81-0AQ0

100

10 units

41J

3SU1900-0AC81-0AR0

100

10 units

41J

3SU1900-0AC81-0DB0

100

10 units

41J

3SU1900-0AC81-0DC0

100

10 units

41J

3SU1900-0AC81-0DD0

100

10 units

41J

Inscription in English

3SU1900-0AC81-0DK0

Silver/black
(label/lettering)

On

Off

Up

Down

Stop

Start

Reset

Test

Open

Close

Man O Auto

Man Auto

Running

Fault

Fast

Slow

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3SU1900-0AC81-0DJ0

100

10 units

41J

3SU1900-0AC81-0DK0

100

10 units

41J

3SU1900-0AC81-0DL0

100

10 units

41J

3SU1900-0AC81-0DM0

100

10 units

41J

3SU1900-0AC81-0DS0

100

10 units

41J

3SU1900-0AC81-0DT0

100

10 units

41J

3SU1900-0AC81-0DU0

100

10 units

41J

3SU1900-0AC81-0DV0

100

10 units

41J

3SU1900-0AC81-0DW0

100

10 units

41J

3SU1900-0AC81-0DX0

100

10 units

41J

3SU1900-0AC81-0DY0

100

10 units

41J

3SU1900-0AC81-0EA0

100

10 units

41J

3SU1900-0AC81-0EB0

100

10 units

41J

SIRIUS ACT Pushbuttons and Indicator Lights

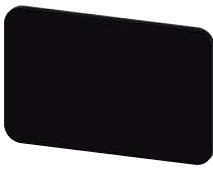




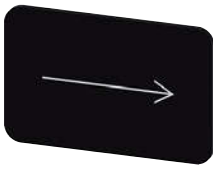
Accessories

Labels

Labeling plates

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
-------	---------	------------	----	-------------	--------------	-------------------	-----	----

Labeling plates 17.5 mm x 27 mm

	For self-inscription							
	Black/white (label/lettering)	None	--	▶	3SU1900-0AD16-0AA0	100	10 units	41J
	With customized inscription							
	Black/white (label/lettering)	For inscriptions or symbols, see "Options", page 13/126.			3SU1900-0AD16-0AZ0	1	1 unit	41J
Inscription in German								
	Black/white (label/lettering)	Ein	--	▶	3SU1900-0AD16-0AB0	100	10 units	41J
		Aus	--	▶	3SU1900-0AD16-0AC0	100	10 units	41J
		Auf	--	5	3SU1900-0AD16-0AD0	100	10 units	41J
		Ab	--	5	3SU1900-0AD16-0AE0	100	10 units	41J
		Vor	--	5	3SU1900-0AD16-0AF0	100	10 units	41J
		Zurück	--	5	3SU1900-0AD16-0AG0	100	10 units	41J
		Halt	--	5	3SU1900-0AD16-0AK0	100	10 units	41J
		Zu	--	5	3SU1900-0AD16-0AL0	100	10 units	41J
		Betrieb	--	▶	3SU1900-0AD16-0AP0	100	10 units	41J
		Störung	--	▶	3SU1900-0AD16-0AQ0	100	10 units	41J
		Hand Auto	--	▶	3SU1900-0AD16-0DB0	100	10 units	41J
Inscription in English								
	Black/white (label/lettering)	Stop Start	--	5	3SU1900-0AD16-0DC0	100	10 units	41J
		On	--	5	3SU1900-0AD16-0DJ0	100	10 units	41J
		Off	--	5	3SU1900-0AD16-0DK0	100	10 units	41J
		Up	--	5	3SU1900-0AD16-0DL0	100	10 units	41J
		Down	--	5	3SU1900-0AD16-0DM0	100	10 units	41J
		Forward	--	5	3SU1900-0AD16-0DN0	100	10 units	41J
		Reverse	--	5	3SU1900-0AD16-0DP0	100	10 units	41J
		Right	--	5	3SU1900-0AD16-0DQ0	100	10 units	41J
		Stop	--	5	3SU1900-0AD16-0DS0	100	10 units	41J
		Start	--	5	3SU1900-0AD16-0DT0	100	10 units	41J
		Open	--	5	3SU1900-0AD16-0DW0	100	10 units	41J
		Close	--	5	3SU1900-0AD16-0DX0	100	10 units	41J
		Man Auto	--	5	3SU1900-0AD16-0EA0	100	10 units	41J
		Running	--	5	3SU1900-0AD16-0EB0	100	10 units	41J
		Fault	--	▶	3SU1900-0AD16-0EC0	100	10 units	41J
Inscription in French								
	Black/white (label/lettering)	Marche	--	5	3SU1900-0AD16-0GA0	100	10 units	41J
		Arrêt	--	5	3SU1900-0AD16-0GB0	100	10 units	41J
		Droite	--	5	3SU1900-0AD16-0GG0	100	10 units	41J
		Gauche	--	5	3SU1900-0AD16-0GH0	100	10 units	41J
		En Service	--	5	3SU1900-0AD16-0GM0	100	10 units	41J
		Défaut	--	5	3SU1900-0AD16-0GN0	100	10 units	41J
		Sous tension	--	5	3SU1900-0AD16-0GS0	100	10 units	41J
		Manu Auto	--	5	3SU1900-0AD16-0GT0	100	10 units	41J
		Marche Arrêt	--	5	3SU1900-0AD16-0GU0	100	10 units	41J
		Réarmement	--	5	3SU1900-0AD16-0GV0	100	10 units	41J
With symbol								
	Black/white (label/lettering)	O	5008 IEC	5	3SU1900-0AD16-0QA0	100	10 units	41J
		I	5007 IEC	5	3SU1900-0AD16-0QB0	100	10 units	41J
		O I	--	5	3SU1900-0AD16-0QG0	100	10 units	41J
		→ ARROW DIRECTION TO RIGHT	5022 IEC	5	3SU1900-0AD16-0QR0	100	10 units	41J
		↑ ARROW DIRECTION UP	--	5	3SU1900-0AD16-0QS0	100	10 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights





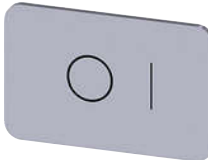
Accessories

Labels

Labeling plates

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Labeling plates 17.5 mm x 27 mm

	For self-inscription								
	Silver/black (label/lettering)	None	--	▶	3SU1900-0AD81-0AA0	100	10 units	41J	
	With customized inscription								
	Silver/black (label/lettering)	For inscriptions or symbols, see "Options", page 13/126.			3SU1900-0AD81-0AZ0	1	1 unit	41J	
Inscription in German									
	Silver/black (label/lettering)	Ein	--	5	3SU1900-0AD81-0AB0	100	10 units	41J	
		Aus	--	5	3SU1900-0AD81-0AC0	100	10 units	41J	
		Auf	--	5	3SU1900-0AD81-0AD0	100	10 units	41J	
		Ab	--	5	3SU1900-0AD81-0AE0	100	10 units	41J	
		Vor	--	5	3SU1900-0AD81-0AF0	100	10 units	41J	
		Zurück	--	5	3SU1900-0AD81-0AG0	100	10 units	41J	
		Rechts	--	5	3SU1900-0AD81-0AH0	100	10 units	41J	
		Halt	--	5	3SU1900-0AD81-0AK0	100	10 units	41J	
		Zu	--	5	3SU1900-0AD81-0AL0	100	10 units	41J	
		Betrieb	--	▶	3SU1900-0AD81-0AP0	100	10 units	41J	
		Störung	--	5	3SU1900-0AD81-0AQ0	100	10 units	41J	
		Hand Auto	--	5	3SU1900-0AD81-0DB0	100	10 units	41J	
		Hand	--	5	3SU1900-0AD81-0DD0	100	10 units	41J	
		O							
		Auto							
Inscription in English									
	Silver/black (label/lettering)	On	--	5	3SU1900-0AD81-0DJ0	100	10 units	41J	
		Off	--	5	3SU1900-0AD81-0DK0	100	10 units	41J	
		Stop	--	5	3SU1900-0AD81-0DS0	100	10 units	41J	
		Start	--	5	3SU1900-0AD81-0DT0	100	10 units	41J	
		Reset	--	5	3SU1900-0AD81-0DU0	100	10 units	41J	
		Man	--	5	3SU1900-0AD81-0DY0	100	10 units	41J	
		O							
		Auto							
		Fault	--	5	3SU1900-0AD81-0EC0	100	10 units	41J	
With symbol									
	Silver/black (label/lettering)	O	5008 IEC	5	3SU1900-0AD81-0QA0	100	10 units	41J	
		I	5007 IEC	5	3SU1900-0AD81-0QB0	100	10 units	41J	
		O I	--	5	3SU1900-0AD81-0QG0	100	10 units	41J	
		I O II	--	▶	3SU1900-0AD81-0QK0	100	10 units	41J	
		1 O 2	--	5	3SU1900-0AD81-0QL0	100	10 units	41J	
		→	ARROW DIRECTION TO RIGHT	5022 IEC	5	3SU1900-0AD81-0QR0	100	10 units	41J
		↑	ARROW DIRECTION UP	--	5	3SU1900-0AD81-0QS0	100	10 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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Labeling plates 27 mm x 27 mm

For self-inscription

Black/white (label/lettering)	None	--	▶	3SU1900-0AE16-0AA0		100	10 units	41J
Silver/black (label/lettering)	None	--	▶	3SU1900-0AE81-0AA0		100	10 units	41J

With customized inscription

Black/white (label/lettering)	For inscriptions or symbols, see "Options", page 13/126.			3SU1900-0AE16-0AZ0		1	1 unit	41J
Silver/black (label/lettering)				3SU1900-0AE81-0AZ0		1	1 unit	41J

3SU1900-0AE16-0AA0

3SU1900-0AE81-0AA0

Inscription in German

Black/white (label/lettering)	Ein	--	5	3SU1900-0AE16-0AB0		100	10 units	41J
	Aus	--	5	3SU1900-0AE16-0AC0		100	10 units	41J
	Auf	--	5	3SU1900-0AE16-0AD0		100	10 units	41J
	Ab	--	5	3SU1900-0AE16-0AE0		100	10 units	41J
	Vor	--	5	3SU1900-0AE16-0AF0		100	10 units	41J
	Zurück	--	5	3SU1900-0AE16-0AG0		100	10 units	41J
	Rechts	--	5	3SU1900-0AE16-0AH0		100	10 units	41J
	Links	--	5	3SU1900-0AE16-0AJ0		100	10 units	41J
	Halt	--	5	3SU1900-0AE16-0AK0		100	10 units	41J
	Zu	--	5	3SU1900-0AE16-0AL0		100	10 units	41J
	Betrieb	--	5	3SU1900-0AE16-0AP0		100	10 units	41J
	Störung	--	5	3SU1900-0AE16-0AQ0		100	10 units	41J
	Hand Auto	--	5	3SU1900-0AE16-0DB0		100	10 units	41J

3SU1900-0AE16-0AD0

Inscription in English

Black/white (label/lettering)	On	--	5	3SU1900-0AE16-0DJ0		100	10 units	41J
	Off	--	5	3SU1900-0AE16-0DK0		100	10 units	41J
	Up	--	5	3SU1900-0AE16-0DL0		100	10 units	41J
	Down	--	5	3SU1900-0AE16-0DM0		100	10 units	41J
	Forward	--	5	3SU1900-0AE16-0DN0		100	10 units	41J
	Reverse	--	5	3SU1900-0AE16-0DP0		100	10 units	41J
	Stop	--	5	3SU1900-0AE16-0DS0		100	10 units	41J
	Start	--	5	3SU1900-0AE16-0DT0		100	10 units	41J
	EMERGENCY STOP	--	5	3SU1900-0AE16-0DA0		100	10 units	41J
	Stop Start	--	5	3SU1900-0AE16-0DC0		100	10 units	41J

3SU1900-0AE16-0DK0

Inscription in French

Black/white (label/lettering)	Marche	--	5	3SU1900-0AE16-0GA0		100	10 units	41J
	Arrêt	--	5	3SU1900-0AE16-0GB0		100	10 units	41J
	Montée	--	5	3SU1900-0AE16-0GC0		100	10 units	41J
	Descente	--	5	3SU1900-0AE16-0GD0		100	10 units	41J
	En Service	--	5	3SU1900-0AE16-0GM0		100	10 units	41J
	Défaut	--	5	3SU1900-0AE16-0GN0		100	10 units	41J
	Sous tension	--	5	3SU1900-0AE16-0GS0		100	10 units	41J
	Manu Auto	--	5	3SU1900-0AE16-0GT0		100	10 units	41J
	Marche Arrêt	--	5	3SU1900-0AE16-0GU0		100	10 units	41J

3SU1900-0AE16-0GB0

With symbol

Black/white (label/lettering)	O I	--	5	3SU1900-0AE16-0QG0		100	10 units	41J
	→ ARROW DIRECTION TO RIGHT	5022 IEC	5	3SU1900-0AE16-0QR0		100	10 units	41J

3SU1900-0AE16-0QG0

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates

Options

Customized inscriptions

The labels can be inscribed with text and symbols not listed in the ordering data.

The default typeface used for inscriptions with text is Arial and the text is centered.

Up to 11 characters per line are possible.

Font height

Label size 12.5 mm × 27 mm, max. 3 lines:

Font height	1-line	4 mm
	2-line	3 mm
	3-line	1.75 mm

Label size 17.5 mm × 27 mm, max. 3 lines:

Font height	1- to 2-line	4 mm
	3-line	3 mm

Label size 27 mm × 27 mm, max. 5 lines:

Font height	1- to 3-line	4 mm
	4-line	3.5 mm
	5-line	3 mm

Examples for customized inscription



Two-line inscription in upper/lower case lettering (Q0Y)



Single-line inscription in upper case lettering (Q1Y)



Three-line inscription in lower case letters (Q2Y)



Symbol number 5011 according to IEC 60417 (Q3Y)



Any symbol according to order form supplement (Q9Y)

Ordering notes

Append the following order codes to the article number:

- **Q0Y:** Text line(s) in upper/lower case, always upper case for beginning of line, e.g. Z1=Lift Z2=Lower
- **Q1Y:** Text line(s) in upper case, e.g. Z1=LIFT Z2=LOWER
- **Q2Y:** Text line(s) in lower case, e.g. Z1=lift off Z2=lower off
- **Q5Y:** Text line(s) in upper/lower case, all words begin with upper case letters, e.g. Z1=Lift Off Z2=Lower Off
- **Q3Y:** Symbol with number according to ISO 7000 or IEC 60417
- **Q9Y:** Inscription of choice, text or symbol, can only be ordered via SIRIUS ACT Configurator with a Configuration Identification Number (CIN)

When ordering, specify the required inscription in plain text without spaces, in addition to the article number and order code.

In the case of multi-line inscriptions, the text must be assigned to the respective line, e.g. Z1=LIFT Z2=LOWER, [see ordering example 1](#).

Symbols can also be ordered with numbers according to ISO 7000 or IEC 60417, [see ordering examples 2 and 3](#).

The SIRIUS ACT Configurator must be used to select special inscriptions and symbols (order code Q9Y). In this case a CIN (Configuration Identification Number) is generated for placement of future orders. It is then possible to place an order directly using the CIN and the SIRIUS ACT Configurator (Mall shopping cart) or via the standard ordering channels.

Standard ordering channels:

- Configurator: www.siemens.com/sirius-act/configurator
- Electronic Catalog CA 01 on DVD
- Industry Mall: www.siemens.com/industrymall

Ordering example 1

A label with 2 lines of text is required:

3SU1900-0AC16-0AZ0

Q1Y

Z1=LIFT

Z2=LOWER

Ordering example 2

A label inscribed with symbol No. 5011 according to IEC 60417 is required:

3SU1900-0AC16-0AZ0

Q3Y

Z=5011 IEC

Ordering example 3

A label inscribed with symbol No. 1118 according to ISO 7000 is required:

3SU1900-0AC16-0AZ0

Q3Y

Z=1118 ISO

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates for enclosures

Overview

The labeling plates in size 22 mm x 22 mm can be attached to enclosures with cutouts for labels. There are versions in black with white print or silver-colored with black print.

Inscription

The inscription is in upper/lower case, all words begin with upper case letters. Graphic symbols, including those not listed in the catalog, are according to ISO 7000 or IEC 60417.

For customized inscriptions, see "Options", page 13/130.

Selection and ordering data

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d					

Labeling plates 22 mm x 22 mm



3SU1900-0AF16-0AA0

For self-inscription

Black/white (label/lettering)	None	--	▶	3SU1900-0AF16-0AA0	100	10 units	41J
-------------------------------	------	----	---	--------------------	-----	----------	-----

With customized inscription

Black/white (label/lettering)	For inscriptions or symbols, see "Options", page 13/130.			3SU1900-0AF16-0AZ0	1	1 unit	41J
-------------------------------	--	--	--	--------------------	---	--------	-----



3SU1900-0AF16-0AB0

Inscription in German

Black/white (label/lettering)	Ein	--	5	3SU1900-0AF16-0AB0	1	10 units	41J
	Aus	--	5	3SU1900-0AF16-0AC0	1	10 units	41J
	Auf	--	5	3SU1900-0AF16-0AD0	1	10 units	41J
	Ab	--	5	3SU1900-0AF16-0AE0	1	10 units	41J
	Vor	--	5	3SU1900-0AF16-0AF0	1	10 units	41J
	Zurück	--	5	3SU1900-0AF16-0AG0	1	10 units	41J
	Rechts	--	5	3SU1900-0AF16-0AH0	1	10 units	41J
	Links	--	5	3SU1900-0AF16-0AJ0	1	10 units	41J
	Halt	--	5	3SU1900-0AF16-0AK0	1	10 units	41J
	Zu	--	5	3SU1900-0AF16-0AL0	1	10 units	41J
	Schnell	--	5	3SU1900-0AF16-0AM0	1	10 units	41J
	Langsam	--	5	3SU1900-0AF16-0AN0	1	10 units	41J
	Betrieb	--	5	3SU1900-0AF16-0AP0	1	10 units	41J
	Störung	--	5	3SU1900-0AF16-0AQ0	1	10 units	41J
	Einrichten	--	5	3SU1900-0AF16-0AR0	1	10 units	41J
	NOT AUS	--	5	3SU1900-0AF16-0AS0	1	10 units	41J



3SU1900-0AF16-0AP0

Inscription in English

Black/white (label/lettering)	On	--	5	3SU1900-0AF16-0DJ0	1	10 units	41J
	Off	--	5	3SU1900-0AF16-0DK0	1	10 units	41J
	Up	--	5	3SU1900-0AF16-0DL0	1	10 units	41J
	Down	--	5	3SU1900-0AF16-0DM0	1	10 units	41J
	Forward	--	5	3SU1900-0AF16-0DN0	1	10 units	41J
	Right	--	5	3SU1900-0AF16-0DQ0	1	10 units	41J
	Left	--	5	3SU1900-0AF16-0DR0	1	10 units	41J
	Stop	--	5	3SU1900-0AF16-0DS0	1	10 units	41J
	Start	--	5	3SU1900-0AF16-0DT0	1	10 units	41J
	Reset	--	5	3SU1900-0AF16-0DU0	1	10 units	41J
	Test	--	5	3SU1900-0AF16-0DV0	1	10 units	41J
	Open	--	5	3SU1900-0AF16-0DW0	1	10 units	41J
	Close	--	5	3SU1900-0AF16-0DX0	1	10 units	41J
	Running	--	5	3SU1900-0AF16-0EB0	1	10 units	41J
	Fault	--	5	3SU1900-0AF16-0EC0	1	10 units	41J
	Fast	--	5	3SU1900-0AF16-0EE0	1	10 units	41J
	Slow	--	5	3SU1900-0AF16-0EF0	1	10 units	41J
	EMERGENCY STOP	--	5	3SU1900-0AF16-0DA0	1	10 units	41J



3SU1900-0AF16-0DM0







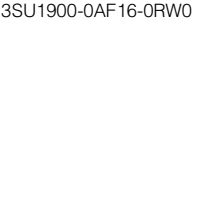
3SU1900-0AF16-0EC0

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates for enclosures






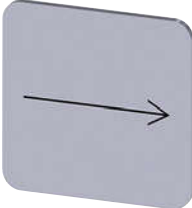
Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Labeling plates 22 mm x 22 mm								
Inscription in French								
	Black/white (label/lettering)	Marche	--	5	3SU1900-0AF16-0GA0	1	10 units	41J
		Arrêt	--	5	3SU1900-0AF16-0GB0	1	10 units	41J
		Montée	--	5	3SU1900-0AF16-0GC0	1	10 units	41J
		Descente	--	5	3SU1900-0AF16-0GD0	1	10 units	41J
		Retour	--	5	3SU1900-0AF16-0GF0	1	10 units	41J
		Droite	--	5	3SU1900-0AF16-0GG0	1	10 units	41J
		Gauche	--	5	3SU1900-0AF16-0GH0	1	10 units	41J
		Ouvert	--	5	3SU1900-0AF16-0GJ0	1	10 units	41J
		Fermé	--	5	3SU1900-0AF16-0GK0	1	10 units	41J
		Rapide	--	5	3SU1900-0AF16-0GL0	1	10 units	41J
		En Service	--	5	3SU1900-0AF16-0GM0	1	10 units	41J
		Défaut	--	5	3SU1900-0AF16-0GN0	1	10 units	41J
		Sous tension	--	5	3SU1900-0AF16-0GS0	1	10 units	41J
		Manu Auto	--	5	3SU1900-0AF16-0GT0	1	10 units	41J
		Marche Arrêt	--	5	3SU1900-0AF16-0GU0	1	10 units	41J
		Réarmement	--	5	3SU1900-0AF16-0GV0	1	10 units	41J
		Lent	--	5	3SU1900-0AF16-0GW0	1	10 units	41J
		Arrêt d'urgence	--	5	3SU1900-0AF16-0GQ0	1	10 units	41J
With symbol (ON/OFF)								
	Black/white (label/lettering)	O	5008 IEC	5	3SU1900-0AF16-0QA0	1	10 units	41J
		I	5007 IEC	5	3SU1900-0AF16-0QB0	1	10 units	41J
		II	--	5	3SU1900-0AF16-0QC0	1	10 units	41J
		III	--	5	3SU1900-0AF16-0QD0	1	10 units	41J
		O I	--	5	3SU1900-0AF16-0QG0	1	10 units	41J
		I O II	--	5	3SU1900-0AF16-0QK0	1	10 units	41J
		I	--	5	3SU1900-0AF16-0QP0	1	10 units	41J
		O						
		(below each other)						
		II	--	5	3SU1900-0AF16-0QQ0	1	10 units	41J
		O						
		I						
		(below each other)						
With symbol (graphic)								
	Black/white (label/lettering)	→ ARROW DIRECTION TO RIGHT	5022 IEC	5	3SU1900-0AF16-0QR0	1	10 units	41J
		PUMP	0134 ISO	5	3SU1900-0AF16-0RD0	1	10 units	41J
		FAN	--	5	3SU1900-0AF16-0RV0	1	10 units	41J
		COOLING	--	5	3SU1900-0AF16-0RW0	1	10 units	41J
		ILLUMINATION	--	5	3SU1900-0AF16-0RX0	1	10 units	41J
		MOTOR	--	5	3SU1900-0AF16-0RY0	1	10 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates for enclosures

Color	Marking	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Labeling plates 22 mm x 22 mm								
For self-inscription								
	Silver/black (label/lettering)	None	--	▶ 3SU1900-0AF81-0AA0		100	10 units	41J
With customized inscription								
	Silver/black (label/lettering)	For inscriptions or symbols, see "Options", page 13/130.		3SU1900-0AF81-0AZ0		1	1 unit	41J
Inscription in German								
	Silver/black (label/lettering)	Ein	--	5 3SU1900-0AF81-0AB0		1	10 units	41J
		Aus	--	5 3SU1900-0AF81-0AC0		1	10 units	41J
		Auf	--	5 3SU1900-0AF81-0AD0		1	10 units	41J
		Ab	--	5 3SU1900-0AF81-0AE0		1	10 units	41J
		Vor	--	5 3SU1900-0AF81-0AF0		1	10 units	41J
		Zurück	--	5 3SU1900-0AF81-0AG0		1	10 units	41J
		Rechts	--	5 3SU1900-0AF81-0AH0		1	10 units	41J
		Links	--	5 3SU1900-0AF81-0AJ0		1	10 units	41J
		Halt	--	5 3SU1900-0AF81-0AK0		1	10 units	41J
		Zu	--	5 3SU1900-0AF81-0AL0		1	10 units	41J
		Schnell	--	5 3SU1900-0AF81-0AM0		1	10 units	41J
		Langsam	--	5 3SU1900-0AF81-0AN0		1	10 units	41J
		Betrieb	--	5 3SU1900-0AF81-0AP0		1	10 units	41J
		Störung	--	5 3SU1900-0AF81-0AQ0		1	10 units	41J
		Einrichten	--	5 3SU1900-0AF81-0AR0		1	10 units	41J
		NOT AUS	--	5 3SU1900-0AF81-0AS0		1	10 units	41J
		NOT-HALT	--	5 3SU1900-0AF81-0AT0		1	10 units	41J
		Hand O Auto	--	5 3SU1900-0AF81-0DD0		1	10 units	41J
Inscription in English								
	Silver/black (label/lettering)	Stop	--	5 3SU1900-0AF81-0DS0		1	10 units	41J
		Start	--	5 3SU1900-0AF81-0DT0		1	10 units	41J
		Reset	--	5 3SU1900-0AF81-0DU0		1	10 units	41J
		Test	--	5 3SU1900-0AF81-0DV0		1	10 units	41J
		Open	--	5 3SU1900-0AF81-0DW0		1	10 units	41J
With symbol (ON/OFF)								
	Silver/black (label/lettering)	O	5008 IEC	5 3SU1900-0AF81-0QA0		1	10 units	41J
		I	5007 IEC	5 3SU1900-0AF81-0QB0		1	10 units	41J
		II	--	5 3SU1900-0AF81-0QC0		1	10 units	41J
		III	--	5 3SU1900-0AF81-0QD0		1	10 units	41J
		O I	--	5 3SU1900-0AF81-0QG0		1	10 units	41J
		I O II	--	5 3SU1900-0AF81-0QK0		1	10 units	41J
		I O	--	5 3SU1900-0AF81-0QP0		1	10 units	41J
		(below each other)						
		II O	--	5 3SU1900-0AF81-0QQ0		1	10 units	41J
		(below each other)						
With symbol (graphic)								
	Silver/black (label/lettering)	→ ARROW DIRECTION TO RIGHT	5022 IEC	5 3SU1900-0AF81-0QR0		1	10 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labeling plates for enclosures

Options

Customized inscriptions

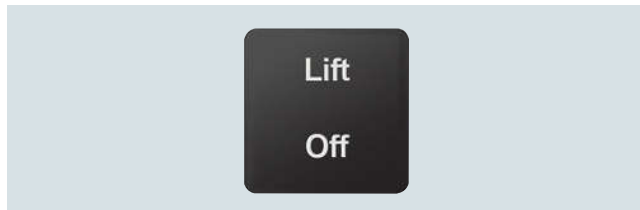
The labels can be inscribed with texts and symbols not listed in the ordering data.

The default typeface used for inscriptions with text is Arial and the text is centered.

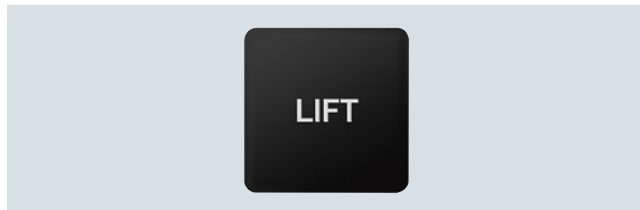
The font height is 4 mm (1- and 2-line) and 3.5 mm (3-line).

Up to 8 characters per line are possible.

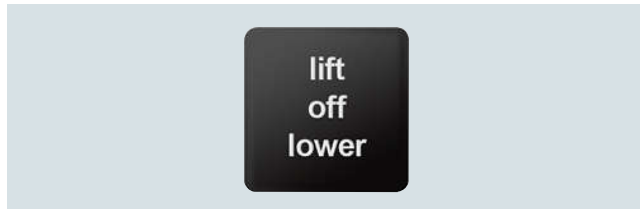
Examples for customized inscription



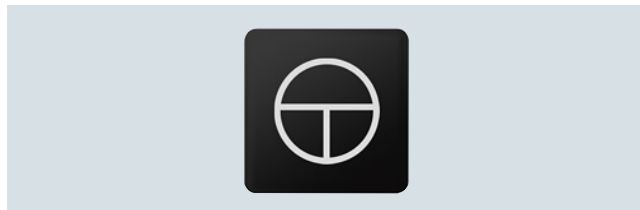
Two-line inscription in upper/lower case lettering (Q0Y)



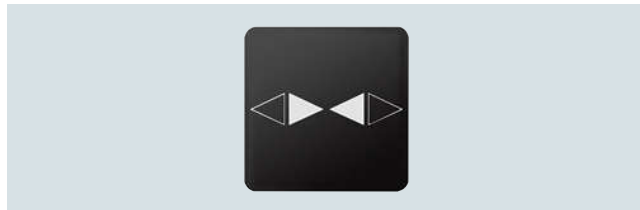
Single-line inscription in upper case lettering (Q1Y)



Backing plate for enclosures, customized inscription (Q2Y)



Symbol number 5011 according to IEC 60417 (Q3Y)



Any symbol according to order form supplement (Q9Y)

Ordering notes

Append the following order codes to the article number:

- **Q0Y:** Text line(s) in upper/lower case, always upper case for beginning of line,
e.g. Z1=Lift Z2=Lower
- **Q1Y:** Text line(s) in upper case,
e.g. Z1=LIFT Z2=LOWER
- **Q2Y:** Text line(s) in lower case,
e.g. Z1=lift off Z2=lower off
- **Q5Y:** Text line(s) in upper/lower case, all words begin with upper case letters,
e.g. Z1=Lift Off Z2=Lower Off
- **Q3Y:** Symbol with number according to ISO 7000 or IEC 60417
- **Q9Y:** Inscription of choice, text or symbol, can only be ordered via SIRIUS ACT Configurator with a Configuration Identification Number (CIN)

When ordering, specify the required inscription in plain text without spaces, in addition to the article number and order code.

In the case of multi-line inscriptions, the text must be assigned to the respective line,
e.g. Z1=LIFT Z2=LOWER, [see ordering example 1](#).

Symbols can also be ordered with numbers according to ISO 7000 or IEC 60417 ([see ordering example 2 and 3](#)).

The SIRIUS ACT Configurator must be used to select special inscriptions and symbols (order code Q9Y). In this case a CIN (Configuration Identification Number) is generated for placement of future orders. It is then possible to place an order directly using the CIN and the SIRIUS ACT Configurator (Mall shopping cart) or via the standard ordering channels.

Standard ordering channels:

- Configurator: www.siemens.com/sirius-act/configurator
- [Electronic Catalog CA 01 on DVD](#)
- Industry Mall: www.siemens.com/industrymall

Ordering example 1

A label with 2 lines of text is required:

3SU1900-0AF16-0AZ0

Q1Y

Z1=LIFT

Z2=LOWER

Ordering example 2

A label inscribed with symbol No. 5011 according to IEC 60417 is required:

3SU1900-0AF16-0AZ0

Q3Y

Z=5011 IEC

Ordering example 3

A label inscribed with symbol No. 1118 according to ISO 7000 is required:

3SU1900-0AF16-0AZ0

Q3Y

Z=1118 ISO

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Labels for laser printers

Overview

Label inscriptions

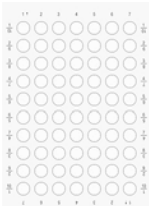

Using the *Label Designer* software, which can be downloaded from the Internet, and the labeling plates for laser inscription you can create your own customized labels with a standard laser printer. The self-adhesive or snap-on labels can be stuck or snapped onto the corresponding label holders. Round labels are provided for inserting in illuminated pushbuttons and switches.

The labels are suitable for inscription with one to three lines of text or symbols.

For applications with more exacting requirements we recommend factory-printed labeling plates and insert labels (laser-printed or engraved depending on the type).

For the *Label Designer* software, see www.siemens.com/sirius-label-designer.

Selection and ordering data

	Type of mounting	Height	Width	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		mm	mm	d					
Labels for printing – insert labels									
	Insert	--	--	3	3SU1900-0BH60-0AA0		100	490 units	41J
3SU1900-0BH60-0AA0									
Labels for printing – labeling plates									
	Self-adhesive	12.5	27.5	▶	3SU1900-0BJ61-0AA0		100	480 units	41J
		17.5	27	▶	3SU1900-0BK61-0AA0		100	720 units	41J
		27	27	▶	3SU1900-0BL61-0AA0		100	480 units	41J
		22	22	▶	3SU1900-0BM61-0AA0		100	700 units	41J
3SU1900-0BJ61-0AA0									





SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Labels

Other labels

Selection and ordering data

	Color	Fastening method	Outer diameter	Marking	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG				
			mm		d									
EMERGENCY STOP backing plates														
	Yellow/black (label/lettering)	None	45	None	▶	3SU1900-0BA31-0AA0		1	10 units	41J				
			45	EMERGENCY STOP (pl) NEW	5	3SU1900-0BA31-0ND0		1	10 units	41J				
			60	NOT-HALT, EMERGENCY STOP, ARRÊT D'URGENCE, EMERGENZA (de, en, fr, it)	5	3SU1900-0BN31-0NC0		1	10 units	41J				
	75	None	▶	3SU1900-0BB31-0AA0		1	10 units	41J						
			3	3SU1900-0BB31-0AS0		1	10 units	41J						
			3	3SU1900-0BB31-0AT0		1	10 units	41J						
75	EMERGENCY STOP	5	3SU1900-0BB31-0DA0		1	10 units	41J							
		5	3SU1900-0BB31-0ND0		1	10 units	41J							
3SU1900-0BB31-0AT0														
With customized inscription														
	Yellow/black (label/lettering)	None	45	For inscriptions or symbols, see "Options", page 13/133.		3SU1900-0BA31-0AZ0		1	1 unit	41J				
			75			3SU1900-0BB31-0AZ0		1	1 unit	41J				
EMERGENCY STOP backing plates, illuminated (24 V AC/DC) NEW														
	Yellow/black (label/lettering)	Self-adhesive	60	None	5	3SU1901-0BD31-0AA0		1	1 unit	41J				
				NOT-AUS	5	3SU1901-0BD31-0AS0		1	1 unit	41J				
				NOT-HALT	5	3SU1901-0BD31-0AT0		1	1 unit	41J				
				EMERGENCY STOP	5	3SU1901-0BD31-0DA0		1	1 unit	41J				
				NOT-HALT, EMERGENCY STOP, EMERGENZA, EMERGENCIA (de, en, it, sp)	5	3SU1901-0BD31-0NB0		1	1 unit	41J				
			3SU1901-0BD31-0AA0											
			With customized inscription											
	Yellow/black (label/lettering)	None	60	For inscriptions or symbols, see "Options", page 13/133.		3SU1901-0BD31-0AZ0		1	1 unit	41J				
EMERGENCY STOP backing plates														
	Yellow/black (label/lettering)	Self-adhesive	75	None	▶	3SU1900-0BC31-0AA0		1	10 units	41J				
				NOT-AUS	3	3SU1900-0BC31-0AS0		1	10 units	41J				
				NOT-HALT	▶	3SU1900-0BC31-0AT0		1	10 units	41J				
				EMERGENCY STOP	▶	3SU1900-0BC31-0DA0		1	10 units	41J				
				ARRÊT D'URGENCE	3	3SU1900-0BC31-0GQ0		1	10 units	41J				
				EMERGENZA	3	3SU1900-0BC31-0JA0		1	10 units	41J				
				Nodstop	5	3SU1900-0BC31-0LA0		1	10 units	41J				
				EMERGENCY STOP in Chinese	5	3SU1900-0BC31-0MA0		1	10 units	41J				
				NOT-HALT, EMERGENCY STOP, EMERGENZA, EMERGENCIA (de, en, it, sp)	▶	3SU1900-0BC31-0NB0		1	10 units	41J				
				3SU1900-0BC31-0NB0										
				With customized inscription										
					Yellow/black (label/lettering)	Self-adhesive	75	For inscriptions or symbols, see "Options", page 13/133.		3SU1900-0BC31-0AZ0		1	1 unit	41J
				Labeling plates for potentiometers										
					Black/white (label/lettering)	None	40	--	▶	3SU1900-0BG16-0AA0		1	10 units	41J
								SYMBOL: 0 ...9	▶	3SU1900-0BG16-0RT0		1	10 units	41J
SYMBOL: 0 ... 10	3	3SU1900-0BG16-0SA0						1	10 units	41J				
SYMBOL: Power up	▶	3SU1900-0BG16-0RU0						1	10 units	41J				
3SU1900-0BG16-0RU0														

Options**Customized inscriptions**

The labels can be inscribed with text and symbols not listed in the ordering data.

The EMERGENCY STOP backing plates can be divided into as many as four radial segments. Each segment can be custom-labeled.

The default typeface used for inscriptions with text is Arial and the text is centered.

EMERGENCY STOP backing plate 75 mm:

The font height is 5 mm.

With two radial segments up to 20 characters are permissible.

With four radial segments up to 10 characters are permissible.

EMERGENCY STOP backing plate 60 mm:

The font height is 4 mm.

With two radial segments up to 16 characters are permissible.

With four radial segments up to 8 characters are permissible.

EMERGENCY STOP backing plate 45 mm:

The font height is 4 mm.

With two radial segments up to 10 characters are permissible.

Ordering notes

Append the following order codes to the article number:

- **Q0Y:** Segment(s) in upper/lower case, always upper case for beginning of segment, e.g. Z1=Not halt Z2=Emergency stop
- **Q1Y:** Segment(s) in upper case, e.g. Z1=NOT HALT Z2=EMERGENCY STOP
- **Q2Y:** Segment(s) in lower case, e.g. Z1=not halt Z2=emergency stop
- **Q5Y:** Segment(s) in upper/lower case, all words begin with upper case letters, e.g. Z1=Not Halt Z2=Emergency Stop
- **Q3Y:** Symbol with number according to ISO 7000 or IEC 60417
- **Q9Y:** Inscription of choice, text or symbol, can only be ordered via SIRIUS ACT Configurator with a Configuration Identification Number (CIN)

When ordering, specify the required inscription in plain text without spaces, in addition to the article number and order code.

The SIRIUS ACT Configurator must be used to select special inscriptions and symbols (order code Q9Y). In this case a CIN (Configuration Identification Number) is generated for placement of future orders. It is then possible to place an order directly using the CIN and the SIRIUS ACT Configurator (Mall shopping cart) or via the standard ordering channels.

Standard ordering channels:

- Configurator: www.siemens.com/sirius-act/configurator
- Electronic Catalog CA 01 on DVD
- Industry Mall: www.siemens.com/industrymall

With ordering options Q0Y, Q1Y, Q2Y, Q3Y and Q5Y a single-line inscription of two or four radial segments can be implemented. The text or symbol must be assigned to the respective radial segments as follows:

Ordering example 1, two radial segments

An EMERGENCY STOP backing plate, diameter 75 mm, with two radial segments is required

**3SU1900-0BB31-0AZ0****Q1Y**

Z1=EMERGENCY

Z2=STOP

Ordering example 2, four radial segments

An EMERGENCY STOP backing plate, diameter 75 mm, with four radial segments is required

**3SU1900-0BB31-0AZ0****Q1Y**

Z1=E-STOP

Z2=EMERGENCIA

Z3=NOT-HALT

Z4=EMERGENZA

SIRIUS ACT Pushbuttons and Indicator Lights







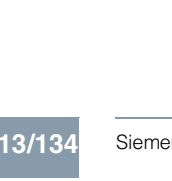
Accessories

Protection/access protection

Overview

- Protection and access protection are for actuators and indicators with diameter 22 mm.
- The protective collars cannot be used in conjunction with label holders or single frames.

Selection and ordering data

Product designation Product version		Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					
Protective caps									
	Sealable caps for pushbuttons, flat and raised	Plastic	Black	3	3SU1900-0DA10-0AA0		1	1 unit	41J
				3			1	1 unit	41J
	Sealable caps for • Pushbuttons, raised • Pushbuttons with front ring, raised • Pushbuttons with front ring, raised, castellated	Plastic	Black	3	3SU1900-0EL10-0AA0		1	1 unit	41J
				3			1	1 unit	41J
	Silicone protective caps for pushbuttons, flat	Plastic	Clear	▶	3SU1900-0DB70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone-free protective caps for pushbuttons, flat	Plastic	Clear	▶	3SU1900-0ED70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone protective caps for pushbuttons, raised	Plastic	Clear	▶	3SU1900-0DC70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone-free protective caps for pushbuttons, raised	Plastic	Clear	▶	3SU1900-0EE70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone protective caps for selectors, short	Plastic	Clear	3	3SU1900-0DD70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone-free protective caps for selectors, short	Plastic	Clear	▶	3SU1900-0EF70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone protective caps for mushroom pushbuttons 40 mm	Plastic	Clear	5	3SU1900-0DE70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J
	Silicone-free protective caps for mushroom pushbuttons 40 mm	Plastic	Clear	▶	3SU1900-0EG70-0AA0		1	1 unit	41J
				▶			1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Protection/access protection

Product designation Product version		Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					
Protective caps									
 3SU1900-0DF70-0AA0	Silicone protective caps for EMERGENCY STOP, 40 mm	Plastic	Clear	5	3SU1900-0DF70-0AA0		1	1 unit	41J
	Silicone protective caps for twin pushbuttons, flat	Plastic	Clear	▶	3SU1900-0DG70-0AA0		1	1 unit	41J
	Silicone protective caps for twin pushbuttons, raised	Plastic	Clear	▶	3SU1900-0DH70-0AA0		1	1 unit	41J
	Silicone-free protective caps for twin pushbuttons, raised	Plastic	Clear	▶	3SU1900-0EK70-0AA0		1	1 unit	41J
 3SU1900-0DG70-0AA0									
 3SU1900-0EB10-0AA0	Dust caps for key-operated switches	Plastic	Clear	▶	3SU1900-0EB10-0AA0		1	1 unit	41J
 3SU1900-0EM70-0AA0	Protective caps for ID key-operated switches	Plastic	Clear	NEW 5	3SU1900-0EM70-0AA0		1	1 unit	41J
	Covers for modules	Plastic	Clear	NEW 5	3SU1900-0EW70-0AA0		1	1 unit	41J
Protective collars									
 3SU1900-0DJ10-0AA0	Sun collar for illuminated pushbuttons	Plastic	Black	5	3SU1900-0DJ10-0AA0		1	1 unit	41J
 3SU1900-0DW10-0AA0	360° protective collars for pushbuttons and selectors, short	Plastic	Black	3	3SU1900-0DW10-0AA0		1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Protection/access protection

Product designation Product version		Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					
Protective collars									
	360° protective collars for pushbuttons, visibility from the side	Metal	Silver	5	3SU1950-0DK80-0AA0		1	1 unit	41J
3SU1950-0DK80-0AA0									
	360° protective collars for mushroom pushbuttons 40 mm, visibility from the side	Metal	Silver	5	3SU1950-0DL80-0AA0		1	1 unit	41J
3SU1950-0DL80-0AA0									
	Protective collars for EMERGENCY STOP mushroom pushbuttons without lock or with RONIS lock	Plastic	Yellow Gray	▶ ▶	3SU1900-0DY30-0AA0 3SU1900-0DY80-0AA0		1 1	1 unit 1 unit	41J 41J
3SU1900-0DY30-0AA0									
	Protective collars for EMERGENCY STOP mushroom pushbuttons for mounting on enclosures	Plastic	Yellow	NEW 5	3SU1900-0JH30-0AA0		1	1 unit	41J
3SU1900-0JH30-0AA0									
	Protective collars for EMERGENCY STOP mushroom pushbuttons 40 mm for 5 padlocks	Metal	Yellow Gray	3 5	3SU1950-0DX30-0AA0 3SU1950-0DX80-0AA0		1 1	1 unit 1 unit	41J 41J
3SU1950-0DX30-0AA0									
	Protective collars for EMERGENCY STOP mushroom pushbuttons 60 mm for 3 padlocks	Plastic	Yellow	NEW 5	3SU1900-0EX30-0AA0		1	1 unit	41J
3SU1900-0EX30-0AA0									
	360° protective collars	Plastic	Yellow	5	3SU1900-0EA30-0AA0		1	1 unit	41J
3SU1900-0EA30-0AA0									
	Protection for sensor switches	Plastic	Black	▶	3SU1900-0EC10-0AA0		1	1 unit	41J
3SU1900-0EC10-0AA0									

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories





Protection/access protection

Product version	Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Locking devices								
 3SU1950-0DM80-0AA0	Locking devices for pushbuttons Flat, for raised front ring and raised, castellated front ring	Metal	Silver	5	3SU1950-0DM80-0AA0	1	1 unit	41J
 3SU1950-0DN80-0AA0	Locking devices for pushbuttons Raised	Metal	Silver	5	3SU1950-0DN80-0AA0	1	1 unit	41J
 3SU1950-0DP80-0AA0	Locking devices for mushroom pushbuttons D30, D40	Metal	Silver	5	3SU1950-0DP80-0AA0	1	1 unit	41J
 3SU1950-0DQ80-0AA0	Locking devices for selectors Short/long actuator, in the left position	Metal	Silver	5	3SU1950-0DQ80-0AA0	1	1 unit	41J
 3SU1950-0DR80-0AA0	Locking devices for selectors Short/long actuator, in the center position	Metal	Silver	5	3SU1950-0DR80-0AA0	1	1 unit	41J
 3SU1950-0DS80-0AA0	Locking devices for selectors Short/long actuator, in the right position	Metal	Silver	5	3SU1950-0DS80-0AA0	1	1 unit	41J
 3SU1950-0DT80-0AA0	Locking devices for selectors Short/long actuator, window from center to right, blocked on left	Metal	Silver	5	3SU1950-0DT80-0AA0	1	1 unit	41J
 3SU1950-0DU80-0AA0	Locking devices for selectors Short/long actuator, window from center to left, blocked on right	Metal	Silver	5	3SU1950-0DU80-0AA0	1	1 unit	41J
 3SU1950-0DV80-0AA0	Locking device with cover	Metal	Silver	5	3SU1950-0DV80-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Actuators








	Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Buttons, flat ¹⁾								
	For pushbuttons							
	Plastic	Black	▶	3SU1900-0FT10-0AA0		100	10 units	41J
		Red	▶	3SU1900-0FT20-0AA0		100	10 units	41J
		Yellow	▶	3SU1900-0FT30-0AA0		100	10 units	41J
		Green	▶	3SU1900-0FT40-0AA0		100	10 units	41J
		Blue	▶	3SU1900-0FT50-0AA0		100	10 units	41J
		White	▶	3SU1900-0FT60-0AA0		100	10 units	41J
3SU1900-0FT20-0AA0								
	For illuminated pushbuttons							
	Plastic	Amber	5	3SU1901-0FT00-0AA0		100	10 units	41J
		Red	▶	3SU1901-0FT20-0AA0		100	10 units	41J
		Yellow	▶	3SU1901-0FT30-0AA0		100	10 units	41J
		Green	▶	3SU1901-0FT40-0AA0		100	10 units	41J
		Blue	▶	3SU1901-0FT50-0AA0		100	10 units	41J
		White	▶	3SU1901-0FT60-0AA0		100	10 units	41J
Clear	▶	3SU1901-0FT70-0AA0		100	10 units	41J		
3SU1901-0FT30-0AA0								
Buttons, raised ¹⁾								
	For pushbuttons							
	Plastic	Black	5	3SU1900-0FS10-0AA0		1	10 units	41J
		Red	5	3SU1900-0FS20-0AA0		1	10 units	41J
		Yellow	5	3SU1900-0FS30-0AA0		1	10 units	41J
Green	5	3SU1900-0FS40-0AA0		1	10 units	41J		
3SU1900-0FS30-0AA0								
	For illuminated pushbuttons							
	Plastic	Red	▶	3SU1901-0FS20-0AA0		1	10 units	41J
		Yellow	5	3SU1901-0FS30-0AA0		1	10 units	41J
		Green	5	3SU1901-0FS40-0AA0		1	10 units	41J
		Blue	5	3SU1901-0FS50-0AA0		1	10 units	41J
Clear	5	3SU1901-0FS70-0AA0		1	10 units	41J		
3SU1901-0FS40-0AA0								

¹⁾ Buttons are not interchangeable between pushbuttons and illuminated pushbuttons with a raised front ring and with a raised front ring, castellated.

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Actuators

	Material	Key number	Version of RFID coding	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
RONIS keys										
 3SU1950-0FB80-0AA0	Metal	SB30 ¹⁾ 455	--	Silver	▶ 5	3SU1950-0FB80-0AA0 3SU1950-0FC80-0AA0		1 1	1 unit 1 unit	41J 41J
BKS keys										
 3SU1950-0FD80-0AA0	Metal	S1 ¹⁾	--	Silver	5	3SU1950-0FD80-0AA0		1	1 unit	41J
O.M.R. keys										
 3SU1950-0FJ50-0AA0	Metal	73038 73037 73034 73033	--	Blue Red Black Yellow	3 5 5 5	3SU1950-0FJ50-0AA0 3SU1950-0FK20-0AA0 3SU1950-0FL10-0AA0 3SU1950-0FM30-0AA0		1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J
CES keys										
 3SU1950-0FP80-0AA0	Metal	LSG1 SSG10 ¹⁾ VL5	--	Silver	5 ▶ 5	3SU1950-0FN80-0AA0 3SU1950-0FP80-0AA0 3SU1950-0FQ80-0AA0		1 1 1	1 unit 1 unit 1 unit	41J 41J 41J
IKON keys										
 3SU1950-0FR80-0AA0	Metal	360012K1 ¹⁾	--	Silver	5	3SU1950-0FR80-0AA0		1	1 unit	41J
ID keys ID group individual										
 3SU1900-0FU60-0AA0	Plastic	--	Individually coded, programmable several times	White	▶	3SU1900-0FU60-0AA0		1	1 unit	41J
ID keys										
 3SU1900-0FV40-0AA0	Plastic	--	ID group 1 ID group 2 ID group 3 ID group 4	Green Yellow Red Blue	▶ ▶ ▶ ▶	3SU1900-0FV40-0AA0 3SU1900-0FW30-0AA0 3SU1900-0FX20-0AA0 3SU1900-0FY50-0AA0		1 1 1 1	1 unit 1 unit 1 unit 1 unit	41J 41J 41J 41J


¹⁾ Also available with special lock. Supplement the Article No. with "-Z" and the order code "Y04" and specify the required lock in plain text. Additional price on request.

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Enclosures






Selection and ordering data

Product version	Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Metric cable glands								
 3SU1900-0HG10-0AA0	M20 for round cable and enclosures With 1 to 3 command points	Plastic	Black	▶	3SU1900-0HG10-0AA0	1	1 unit	41J
	M25 for round cable and enclosure With 4 and 6 command points	Plastic	Black	5	3SU1900-0HH10-0AA0	1	1 unit	41J
	M20 for round cable and AS-i enclosure With 1 to 3 command points with 2-pin connector plug for AS-i module	Plastic	Black	3	3SU1900-0JA10-0AA0	1	1 unit	41J
	M25 for round cable and AS-i enclosure With 4 and 6 command points with 2-pin connector plug for AS-i module	Plastic	Black	3	3SU1900-0JB10-0AA0	1	1 unit	41J
	M20 for round cable and IO-Link enclosure With 1 to 3 command points with 10-pin connector plug for IO-Link	Plastic	Black	▶	3SU1900-0JC10-0AA0	1	1 unit	41J
	M25 for round cable and IO-Link enclosure With 4 and 6 command points with 10-pin connector plug for IO-Link	Plastic	Black	▶	3SU1900-0JD10-0AA0	1	1 unit	41J
	M20 for AS-i profile cable and AS-i enclosure With 1 to 3 command points with 2-pin connector plug for AS-i module	Plastic	Black	5	3SU1900-0HE10-0AA0	1	1 unit	41J
	M25 for AS-i profile cable and AS-i enclosure With 4 and 6 command points with 2-pin connector plug for AS-i module	Plastic	Black	5	3SU1900-0HF10-0AA0	1	1 unit	41J
Connection pieces								
For plastic enclosures								
 3SU1900-0HJ10-0AA0	M20/M20 connection piece For connecting 2 enclosures	Plastic	Black	▶	3SU1900-0HJ10-0AA0	1	1 unit	41J
	M20/M25 connection piece For connecting 2 enclosures	Plastic	Black	5	3SU1900-0HK10-0AA0	1	1 unit	41J
	M25/M25 connection piece For connecting 2 enclosures	Plastic	Black	5	3SU1900-0HL10-0AA0	1	1 unit	41J
For metal enclosures								
 3SU1950-0HJ10-0AA0	M20/M20 connection piece For connecting 2 enclosures	Metal	Silver	5	3SU1950-0HJ10-0AA0	1	1 unit	41J
	M20/M25 connection piece For connecting 2 enclosures	Plastic	Silver	5	3SU1950-0HK10-0AA0	1	1 unit	41J
	M25/M25 connection piece For connecting 2 enclosures	Plastic	Silver	5	3SU1950-0HL10-0AA0	1	1 unit	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Enclosures

	Product version	Material	Color	SD	Insulation piercing method		PU (UNIT, SET, M)	PS*	PG
				d	Article No.	Price per PU			
	M20	Plastic	Black	3	3SU1900-0HX10-0AA0 3SU1900-0HY10-0AA0		1	1 unit	41J
	M25			3			1	1 unit	41J
	3SU1900-0HX10-0AA0								
Adapters for tab connection									
	For plastic enclosures								
	Adapter, M12 socket, 4-pin	Plastic	Black	5	3SU1930-0HA10-0AA0 3SU1930-0HB10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 connector, 4-pin	Plastic	Black	5	3SU1930-0HC10-0AA0 3SU1930-0HD10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 socket, 5-pin	Plastic	Black	5	3SU1930-0HP10-0AA0 3SU1930-0HQ10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 connector, 5-pin	Plastic	Black	5	3SU1930-0HR10-0AA0 3SU1930-0HS10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 socket, 8-pin	Plastic	Black	5	3SU1930-0HT10-0AA0 3SU1930-0HU10-0AA0		1	1 unit	41J
M20 cable entry M25 cable entry	5			1			1 unit	41J	
	Adapter, M12 connector, 8-pin	Plastic	Black	5	3SU1930-0HV10-0AA0 3SU1930-0HW10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	For metal enclosures								
	Adapter, M12 socket, 4-pin	Plastic	Black	5	3SU1950-0HA10-0AA0 3SU1950-0HB10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 connector, 4-pin	Plastic	Black	5	3SU1950-0HC10-0AA0 3SU1950-0HD10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 socket, 5-pin	Plastic	Black	5	3SU1950-0HP10-0AA0 3SU1950-0HQ10-0AA0		1	1 unit	41J
	M20 cable entry M25 cable entry			5			1	1 unit	41J
	Adapter, M12 connector, 5-pin	Plastic	Black	5	3SU1950-0HR10-0AA0 3SU1950-0HS10-0AA0		1	1 unit	41J
M20 cable entry M25 cable entry	5			1			1 unit	41J	
Adapter, M12 socket, 8-pin	Plastic	Black	5	3SU1950-0HT10-0AA0 3SU1950-0HU10-0AA0		1	1 unit	41J	
M20 cable entry M25 cable entry			5			1	1 unit	41J	
Enclosure cover monitoring ¹⁾									
	Module with extension plunger	Plastic	Black	3	3SU1900-0HM10-0AA0		1	1 unit	41J
3SU1900-0HM10-0AA0									

3SU1900-0HM10-0AA0








¹⁾ In addition, a 3SU1400-2AA10-.BA0 contact module is required.

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Miscellaneous accessories




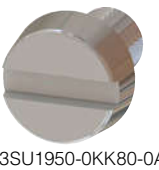


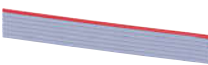
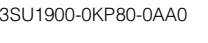
Selection and ordering data

Product designation Product version		Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					
Miscellaneous accessories									
	PCB carriers	Plastic	Black	5	3SU1900-0KA10-0AA0		100	10 units	41J
	Pressure plates for selectors and locks	Plastic	White	▶	3SU1900-0KC10-0AA0		100	10 units	41J
	Drilling template for grid	Plastic	Black	5	3SU1900-0KF10-0AA0		1	1 unit	41J
	30 x 40, horizontal								
	Extension plungers	Plastic	Gray	▶	3SU1900-0KG10-0AA0		1	1 unit	41J
	For compensation of the distance between the pushbutton and the unlatching button of an overload relay								
	Strut profile mounting adapters	Metal	Sand gray	3	3SU1950-0JE80-0AA0		1	1 unit	41J
	Adapters for enclosures with 1 command point	Plastic	Black	5	3SU1900-0JF10-0AA0		1	1 unit	41J
	Between enclosure top and bottom, for installation of 2-pole or two 1-pole contact modules with front plate mounting. Not suitable for 3SU1801-1AA00-1AA1.								
	Adapters for modules with base mounting	Plastic	Black	30	3SU1900-0JG10-0AA0		1	100 units	41J

SIRIUS ACT Pushbuttons and Indicator Lights

Accessories

Miscellaneous accessories

Product designation Product version		Material	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					
Miscellaneous accessories									
	Adapters for standard rail mounting	Plastic	Black	▶	3SU1900-0KH80-0AA0		1	1 unit	41J
	Covers for modules	Plastic	Clear	5	3SU1900-0EW70-0AA0		1	1 unit	41J
	Degree of protection IP54								
	Adapters for actuators and indicators	Metal	Silver	▶	3SU1950-0KJ80-0AA0		1	1 unit	41J
	With front ring for flat mounting								
	Adapters for 30.5 mm to 22.5 mm mounting hole	Metal, shiny	Silver	▶	3SU1950-0KB10-0AA0		1	1 unit	41J
		Metal, matte	Sand gray	▶	3SU1960-0KB10-0AA0		1	1 unit	41J
	Grounding studs	Metal	Silver	5	3SU1950-0KK80-0AA0		100	50 units	41J
	Connectors for sensor switches, angled socket with screw terminal connection	Plastic	Black	▶	3SU1900-0KL10-0AA0		1	1 unit	41J
	Flat ribbon cable								
	7 cores								
	• Length 5 m	Plastic	Gray	5	3SU1900-0KQ80-0AA0		1	1 unit	41J
	• Length 10 m	Plastic	Gray	5	3SU1900-0KP80-0AA0		1	1 unit	41J

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

General data

Overview

More information

Homepage, see www.siemens.com/sirius-commanding

Industry Mall, see www.siemens.com/product?3SB2

Manual, see <https://support.industry.siemens.com/cs/ww/en/view/107194954>

The 3SB2 pushbuttons and indicator lights are provided for front plate mounting and rear connection with flat connectors. For use on printed circuit boards, contact blocks and lampholders with solder pins are also available.

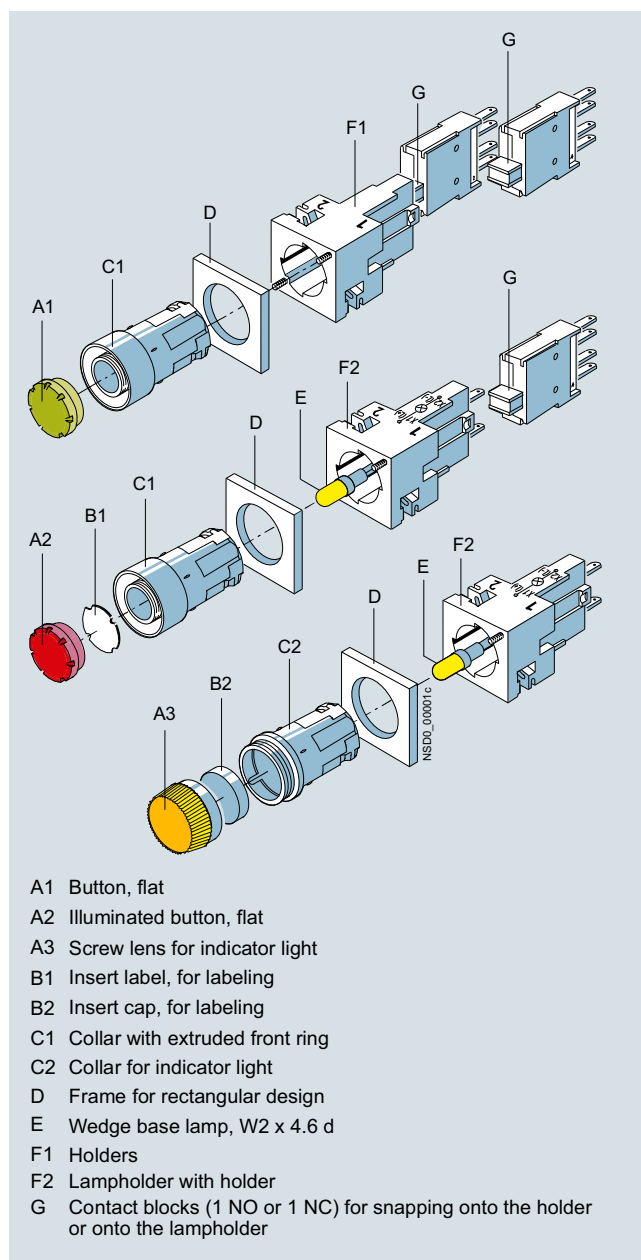
Standards

IEC/EN 60947-1

IEC/EN 60947-5-1

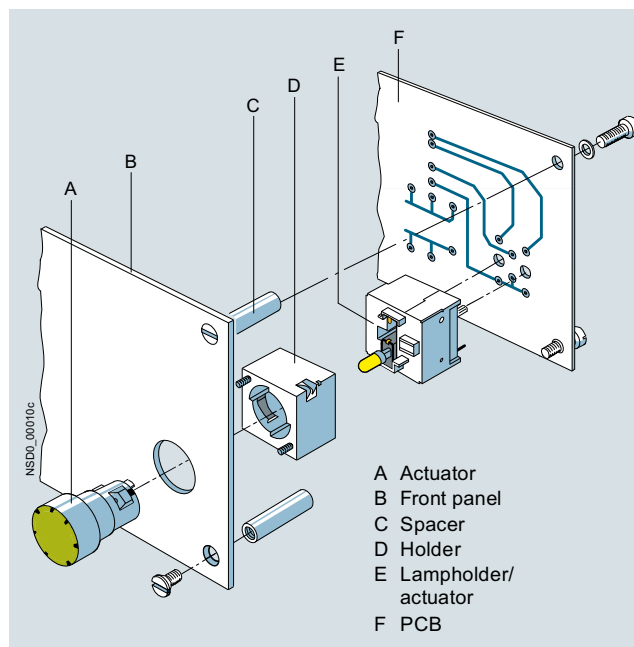
IEC/EN 60947-5-5 for EMERGENCY STOP mushroom pushbuttons

Version with flat connector



PCB mounting

For use on printed circuit boards, special contact blocks and lampholders for soldering into the printed circuit board are available. For this purpose, the contact blocks and lampholders are fitted with 0.8 mm x 0.8 mm solder pins of length 3.5 mm.



Connection methods



Flat connectors



Solder pin connections

The terminals are indicated in the corresponding tables by the symbols shown on orange backgrounds.

Application

The devices are climate-proof and suitable for marine applications.

Safety EMERGENCY STOP pushbuttons according to ISO 13850

For controls according to IEC/EN 60204-1, the mushroom pushbuttons of the 3SB2 series are suitable for use as safety EMERGENCY STOP pushbuttons.

Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening. This means that for the purpose of personal safety, the reliable opening of NC contacts in all safety circuits is expressly prescribed for the electrical equipment of machines and is designated according to IEC 60947-5-1 with the symbol ☞.

Category 4 according to EN ISO 13849-1 can be attained with the EMERGENCY STOP mushroom pushbuttons if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK11 safety relays, the 3RK3 Modular Safety System (see "Safety Technology", page 11/1 onwards) or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

General data

Technical specifications

Type	3SB2	
Contact blocks and lampholders		
Standards		IEC/EN 60947-5-1 IEC/EN 60947-5-5
Rated insulation voltage U_i	V	250
Conventional thermal current I_{th}	A	10
Rated operational currents I_e at rated operational voltage U_e		
• Alternating current AC-12 - At $U_e = 24 \dots 230$ V	A	10
• Alternating current AC-15 - At $U_e = 24 \dots 230$ V	A	4
• Direct current DC-12 - At $U_e = 24$ V	A	6
- At $U_e = 60$ V	A	5
- At $U_e = 110$ V	A	2.5
- At $U_e = 230$ V	A	1
• Direct current DC-13 - At $U_e = 24$ V	A	3
- At $U_e = 60$ V	A	1.5
- At $U_e = 110$ V	A	0.7
- At $U_e = 230$ V	A	0.3
Contact stability		
• Test voltage/test current		5 V/1 mA
Lamps		
• Bases		Wedge base W2 x 4.6 d
• Rated voltage	V	6, 12, 24, 30, 48, 60
• Rated power, max.	W	1
Short-circuit protection weld-free according to IEC 60947-5-1		
• DIAZED fuse links, utilization category gG		10 A TDz, 16 A Dz
• Miniature circuit breaker with C characteristic according to IEC 60898		10 A
Electrical endurance		
• For utilization category AC-15 with 3RT10 15 to 3RT10 26 contactors		10 x 10 ⁶ operating cycles
Mechanical endurance		10 x 10 ⁶ operating cycles
Degree of protection acc. to IEC 60529		
• Connection of contact blocks and lampholders behind the front plate		IP00
• Contact chambers of the contact blocks behind the front plate		IP40
Finger safe acc. to IEC 60529 and DGUV Regulation 3		With voltages > 50 V AC or 120 V DC, insulating sleeves must be fitted to the unassigned tab connections.
Data according to UL and CSA		
Rated voltage		
• Contact blocks	V	250 AC
• Indicator lights (lamp with wedge base W2 x 4.6 d)	V	60; 1 W
Uninterrupted current	A	5
Switching capacity		B 300, R 300
Actuating and signaling elements		
Mechanical endurance		
• Pushbuttons		10 x 10 ⁶ operating cycles
• Actuators, rotary or latching		3 x 10 ⁵ operating cycles
• Illuminated pushbuttons		3 x 10 ⁶ operating cycles
Climatic withstand capability		Climate-proof; suitable for marine applications
Ambient temperature		
• During operation, non-illuminated devices and complete with LED	°C	-25 ... +70
• During operation, devices with incandescent lamp	°C	-25 ... +60
• During storage, transport	°C	-40 ... +80
Degree of protection acc. to IEC 60529		
• Actuators and indicators		IP65
• Actuators and indicators with protective cap		IP67
Protective measures		
• For mounting in metal front plates and enclosures		The actuators and lens assemblies must not be included in the protective measures.
• For fitting into enclosures with total insulation		The protective measure "Total insulation" is retained.
Shock resistance acc. to IEC 60068-2-27		
• Shock amplitude	ms	≤ 50 g
• Shock duration		11
• Shock form		Half-sine

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

General data

Configuration

Design

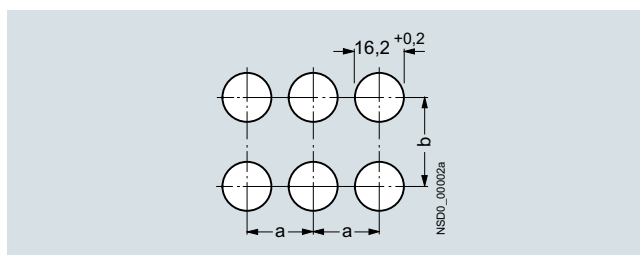
Two design versions can be mounted:

- Round design: The 3SB2 pushbuttons and indicator lights are assembled with the modules – actuator, holder, contact block and lampholder. Depending on the specific application, various versions can be assembled. Complete units are offered for the most commonly used applications.
- Square design: With square, black frames the round units can be given a square look. The frames are inserted underneath the round actuators. Further mounting is the same as for the round version.

Mounting and fixing:

Mounting dimensions according to EN 50007

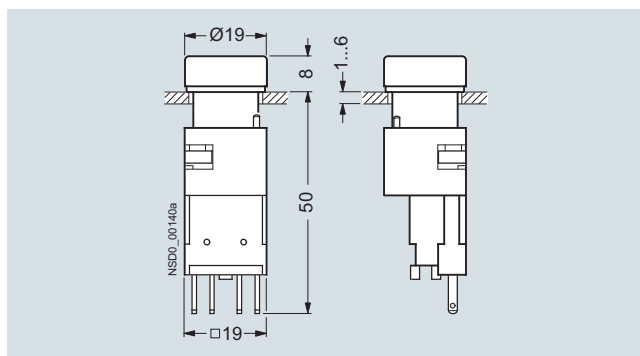
(does not apply to EMERGENCY STOP mushroom pushbuttons)



Minimum clearance	a	b
Round design	19	19
Square design without labeling plate	21	21
Round and square design with labeling plate	21	32
For 2 selector switches with 3 switch positions, latching, side by side	21	21

For mounting, the actuator or the lens assembly is inserted from the front into the hole in the front plate. Four small nubs ensure a secure fitting in the hole. The holder is plugged on from the back and snaps automatically into place. The module is fixed to the holder with two screws so that it is immune to vibrations.

One or two contact blocks can be mounted on the holder. They are inserted into the holder with slide slots and held down with two snap brackets.



Pushbutton (flat) with holder and contact block

If a command point is fitted with an indicator light or illuminated pushbutton, a lamp socket with lampholder must be used instead of a holder. It is suitable for incandescent lamps or LEDs with bases of type W2 x 4.6d.

PCB mounting

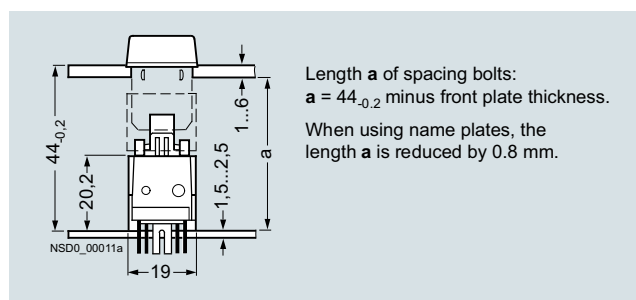
The command point comprises the actuator – e.g. 3SB2 pushbutton, illuminated pushbutton or indicator light –, which is mounted in the front plate, and a contact block and a lampholder which are soldered to the PCB. For this purpose, the contact blocks and lampholders are fitted with 0.8 mm x 0.8 mm solder pins of length 3.5 mm.

Mounting and fixing:

Mounting dimensions according to EN 50007

The actuators are mounted in the same way as 3SB2 front plate mounting devices.

The contact blocks and lampholders are plugged into the printed circuit board by means of their solder pins and can be flow-soldered. After soldering, the devices must be flush with the board and perpendicular to it. The printed circuit board must be supported on spacing bolts so that it cannot sag or bend more than 0.1 mm.

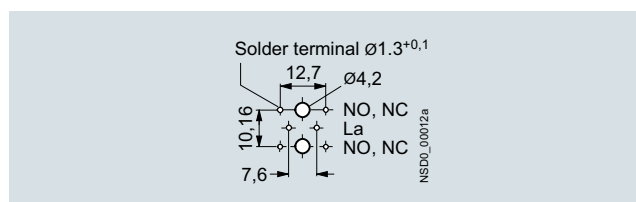


Illuminated pushbutton with solder pin connection

To avoid bending the PCB when the control device is operated, sufficient spacing bolts must be provided as shown in the table below:

PCB thickness	Max. distance between spacing bolts
1.5 mm	80 mm
2.5 mm	150 mm
When using EMERGENCY STOP pushbuttons	Always 50 mm

These details are based on epoxy resin glass fiber mat.




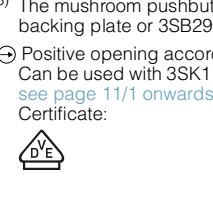



Solder pin spacing

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Complete units

Selection and ordering data

Version	Contact blocks	Color of actuator	SD	Flat connectors		PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU			
 3SB2202-0AE01	Pushbuttons with flat button	1 NO	Black	2	3SB2202-0AB01	1	1 unit	41J
		1 NC	Black	10	3SB2203-0AB01	1	1 unit	41J
		1 NC	Red	2	3SB2203-0AC01	1	1 unit	41J
		1 NO	Yellow	10	3SB2202-0AD01	1	1 unit	41J
		1 NO	Green	2	3SB2202-0AE01	1	1 unit	41J
		1 NO	Blue	10	3SB2202-0AF01	1	1 unit	41J
		1 NO	White	2	3SB2202-0AG01	1	1 unit	41J
		1 NO	Clear ¹⁾	10	3SB2202-0AH01	1	1 unit	41J
		1 NC	Red	2	3SB2207-0AC01	1	1 unit	41J
		1 NO	Yellow ¹⁾	10	3SB2206-0AD01	1	1 unit	41J
 3SB2207-0LC01	Illuminated pushbuttons with flat button Lampholders W2 x 4.6 d without lamp ²⁾	1 NO	Green	2	3SB2206-0AE01	1	1 unit	41J
		1 NO	Blue	10	3SB2206-0AF01	1	1 unit	41J
		1 NO	Clear ¹⁾	2	3SB2206-0AH01	1	1 unit	41J
		1 NC	Red	2	3SB2227-0AC01	1	1 unit	41J
		1 NO	Yellow ¹⁾	10	3SB2226-0AD01	1	1 unit	41J
		1 NO	Green	2	3SB2226-0AE01	1	1 unit	41J
		1 NO	Blue	10	3SB2226-0AF01	1	1 unit	41J
		1 NO	Clear ¹⁾	2	3SB2226-0AH01	1	1 unit	41J
		1 NO	Black	10	3SB2202-0LB01	1	1 unit	41J
		1 NC	Red	10	3SB2203-0LC01	1	1 unit	41J
 3SB2207-0LC01	Pushbuttons with raised button	1 NO	Yellow	10	3SB2202-0LD01	1	1 unit	41J
		1 NO	Blue	10	3SB2202-0LF01	1	1 unit	41J
		1 NO	Clear ¹⁾	10	3SB2202-0LH01	1	1 unit	41J
		1 NC	Red	10	3SB2207-0LC01	1	1 unit	41J
		1 NO	Yellow ¹⁾	10	3SB2206-0LD01	1	1 unit	41J
		1 NO	Green	10	3SB2206-0LE01	1	1 unit	41J
		1 NO	Blue	10	3SB2206-0LF01	1	1 unit	41J
		1 NO	Clear ¹⁾	10	3SB2206-0LH01	1	1 unit	41J
		1 NC	Red	10	3SB2227-0LC01	1	1 unit	41J
		1 NO	Yellow ¹⁾	10	3SB2226-0LD01	1	1 unit	41J
 3SB2203-1AC01	Illuminated pushbuttons with raised button Lampholder W2 x 4.6 d with 24 V incandescent lamp	1 NO	Green	10	3SB2226-0LE01	1	1 unit	41J
		1 NO	Blue	10	3SB2226-0LF01	1	1 unit	41J
		1 NO	Clear ¹⁾	10	3SB2226-0LH01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
 3SB2203-1AC01	EMERGENCY STOP mushroom pushbuttons acc. to ISO 13850, latching³⁾ Latches automatically when pressed; unlatches by turning the mushroom head counterclockwise, with yellow backing plate with inscription "NOT-HALT"	1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J
		1 NC	Red	2	3SB2203-1AC01	1	1 unit	41J

¹⁾ Inscription is possible by inserting a label.

²⁾ Wedge base lamps, see [Accessories](#), page 13/159.


³⁾ The mushroom pushbutton cannot be combined with 3SB2902-0AB backing plate or 3SB2902-0AA single frame.

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System, see page 11/1 onwards.
Certificate:




SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Complete units


Version	Contact blocks	Color of actuator	SD	Flat connectors		PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU			
 3SB2202-2AC01	Selector switches, 2 switch positions	1 NO	Black	2	3SB2202-2AB01 3SB2202-2AC01 3SB2202-2AE01 3SB2202-2AG01	1	1 unit	41J
		1 NO	Red	10		1	1 unit	41J
		Switching sequence O-I, operating angle 62°, latching	Green	10		1	1 unit	41J
		1 NO	White	10		1	1 unit	41J
	Selector switches, 3 switch positions	1 NO, 1 NO	Black	2	3SB2210-2DB01 3SB2210-2DC01 3SB2210-2DE01 3SB2210-2DG01	1	1 unit	41J
		1 NO, 1 NO	Red	10		1	1 unit	41J
		Switching sequence I-O-II, 2 x operating angle 62°, latching	Green	10		1	1 unit	41J
		1 NO, 1 NO	White	10		1	1 unit	41J
	Selector switches, 3 switch positions	1 NO, 1 NO	Black	2	3SB2210-2EB01 3SB2210-2EC01 3SB2210-2EE01 3SB2210-2EG01	1	1 unit	41J
		1 NO, 1 NO	Red	10		1	1 unit	41J
		Switching sequence I-O-II, 2 x operating angle 50°, momentary contact	Green	10		1	1 unit	41J
		1 NO, 1 NO	White	10		1	1 unit	41J



Version	Contact blocks	Lock No.	Key removal position	SD	Flat connectors		PU (UNIT, SET, M)	PS*	PG
					Article No.	Price per PU			
 3SB2202-4LB01	CES key-operated switches¹⁾, 2 switch positions	1 NO	SB2	O	2	3SB2202-4LA01 3SB2202-4LB01	1	1 unit	41J
		1 NO	SB2	O + I	10		1	1 unit	41J
		Switching sequence O-I, operating angle 62°, latching							
	CES key-operated switches¹⁾, 3 switch positions	1 NO, 1 NO	SB2	O	10	3SB2210-4PA01 3SB2210-4PB01	1	1 unit	41J
		1 NO, 1 NO	SB2	I + O + II	10		1	1 unit	41J
		Switching sequence I-O-II, 2 x operating angle 62°, latching							
	CES key-operated switches¹⁾, 3 switch positions	1 NO, 1 NO	SB2	O	10	3SB2210-4QA01	1	1 unit	41J
		Switching sequence I-O-II, 2 x operating angle 50°, momentary contact							



¹⁾ Also available with additional locking systems. The article number must be supplemented with "-Z", the order code "Y01" and the required lock number.




Version	Color of screw lens	SD	Flat connectors		PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU			
 3SB2224-6BE06	Indicator lights Lampholders W2 x 4.6 d without lamp ¹⁾	Red	2	3SB2204-6BC06 3SB2204-6BD06 3SB2204-6BE06 3SB2204-6BG06 3SB2204-6BH06	1	1 unit	41J
		Yellow	10		1	1 unit	41J
		Green	2		1	1 unit	41J
		White	2		1	1 unit	41J
		Clear	10		1	1 unit	41J
	Indicator lights Lampholders W2 x 4.6 d with 24 V incandescent lamp	Red	2	3SB2224-6BC06 3SB2224-6BD06 3SB2224-6BE06 3SB2224-6BG06 3SB2224-6BH06	1	1 unit	41J
		Yellow	10		1	1 unit	41J
		Green	2		1	1 unit	41J
		White	2		1	1 unit	41J
		Clear	10		1	1 unit	41J

¹⁾ For wedge base lamps, see [Accessories](#), page 13/159.

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm








Actuating and signaling elements

Selection and ordering data

Version	Color of actuator	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
Pushbuttons							
	Pushbuttons with flat button	Black	2	3SB2000-0AB01	1	1 unit	41J
		Red	2	3SB2000-0AC01	1	1 unit	41J
		Yellow	10	3SB2000-0AD01	1	1 unit	41J
		Green	2	3SB2000-0AE01	1	1 unit	41J
		Blue	2	3SB2000-0AF01	1	1 unit	41J
		White	2	3SB2000-0AG01	1	1 unit	41J
		Clear ¹⁾	10	3SB2000-0AH01	1	1 unit	41J
	Illuminated pushbuttons with flat button	Red	2	3SB2001-0AC01	1	1 unit	41J
		Yellow ¹⁾	10	3SB2001-0AD01	1	1 unit	41J
		Green	2	3SB2001-0AE01	1	1 unit	41J
		Blue	10	3SB2001-0AF01	1	1 unit	41J
		White	2	3SB2000-0AG01	1	1 unit	41J
		Clear ¹⁾	10	3SB2000-0AH01	1	1 unit	41J
	Pushbuttons with raised button	Black	10	3SB2000-0LB01	1	1 unit	41J
		Red	10	3SB2000-0LC01	1	1 unit	41J
		Yellow	10	3SB2000-0LD01	1	1 unit	41J
		Blue	10	3SB2000-0LF01	1	1 unit	41J
		White	10	3SB2000-0LG01	1	1 unit	41J
		Clear ¹⁾	10	3SB2000-0LH01	1	1 unit	41J
	Illuminated pushbuttons with raised button	Red	10	3SB2001-0LC01	1	1 unit	41J
		Yellow ¹⁾	10	3SB2001-0LD01	1	1 unit	41J
		Green	2	3SB2001-0LE01	1	1 unit	41J
		Blue	10	3SB2001-0LF01	1	1 unit	41J
		Clear ¹⁾	10	3SB2000-0LH01	1	1 unit	41J
	EMERGENCY STOP mushroom pushbuttons acc. to ISO 13850, latching²⁾ Latches automatically when pressed; unlatches by turning the mushroom head counterclockwise	Red	2	3SB2000-1AC01	1	1 unit	41J


¹⁾ Inscription is possible by inserting a label.

²⁾ The mushroom pushbutton cannot be combined with 3SB2902-0AB backing plate or 3SB2902-0AA single frame.


Version			Color of actuator	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
					d				
Selector switches									
 3SB2000-2AC01	Selector switches with 2 switch positions Switching sequence O-I, operating angle 62°, latching		Black	2	3SB2000-2AB01		1	1 unit	41J
			Red	10	3SB2000-2AC01		1	1 unit	41J
			Green	10	3SB2000-2AE01		1	1 unit	41J
			White	10	3SB2000-2AG01		1	1 unit	41J
	Selector switches with 2 switch positions Switching sequence O-I, operating angle 50°, momentary contact (reset from the right)		Black	10	3SB2000-2BB01		1	1 unit	41J
			Red	10	3SB2000-2BC01		1	1 unit	41J
			Green	10	3SB2000-2BE01		1	1 unit	41J
	Selector switches with 2 switch positions Switching sequence O-I, operating angle 90°, latching		Black	10	3SB2000-2HB01		1	1 unit	41J
			Red	10	3SB2000-2HC01		1	1 unit	41J
			Green	10	3SB2000-2HE01		1	1 unit	41J
White			10	3SB2000-2HG01		1	1 unit	41J	
Selector switches with 3 switch positions Switching sequence I-O-II, operating angle 2 x 62°, latching		Black	2	3SB2000-2DB01		1	1 unit	41J	
		Red	10	3SB2000-2DC01		1	1 unit	41J	
		Green	10	3SB2000-2DE01		1	1 unit	41J	
		White	10	3SB2000-2DG01		1	1 unit	41J	
Selector switches with 3 switch positions Switching sequence I-O-II, operating angle 2 x 50°, momentary contact		Black	2	3SB2000-2EB01		1	1 unit	41J	
		Red	10	3SB2000-2EC01		1	1 unit	41J	
		Green	10	3SB2000-2EE01		1	1 unit	41J	
		White	10	3SB2000-2EG01		1	1 unit	41J	
Selector switches with 3 switch positions Switching sequence I-O-II, operating angle 2 x 90°, latching		Black	10	3SB2000-2JB01		1	1 unit	41J	

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Actuating and signaling elements

Version	Lock No.	Key removal position	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d								
Key-operated switches								
 3SB2000-4LB01	CES key-operated switches¹⁾ with 2 keys, 2 switch positions Switching sequence O-I, operating angle 62°, latching		SB2	O+I O	10 2	3SB2000-4LB01 3SB2000-4LA01	1 1	1 unit 1 unit 41J 41J
	CES key-operated switches¹⁾ with 2 keys, 2 switch positions Switching sequence O-I, operating angle 50°, momentary contact		SB2	O	2	3SB2000-4MA01	1	1 unit 41J
	CES key-operated switches¹⁾ with 2 keys, 3 switch positions Switching sequence I-O-II, operating angle 2 x 62°, latching		SB2	I+O+II O	10 10	3SB2000-4PB01 3SB2000-4PA01	1 1	1 unit 1 unit 41J 41J
	CES key-operated switches¹⁾ with 2 keys, 3 switch positions Switching sequence I-O-II, operating angle 2 x 50°, momentary contact		SB2	O	10	3SB2000-4QA01	1	1 unit 41J

¹⁾ Also available with additional locking systems. The article number must be supplemented with "-Z", the order code "Y01" and the required lock number.



Version	Color of screw lens	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
Indicator lights							
 3SB2001-6BD06	Indicator lights with concentric rings (Inscription with insert caps is not possible)		Red	2	3SB2001-6BC06	1	1 unit 41J
			Yellow	10	3SB2001-6BD06	1	1 unit 41J
			Green	2	3SB2001-6BE06	1	1 unit 41J
			Blue	10	3SB2001-6BF06	1	1 unit 41J
			White	2	3SB2001-6BG06	1	1 unit 41J
			Clear	10	3SB2001-6BH06	1	1 unit 41J
	Indicator lights, smooth For inscription with insert caps ¹⁾		Red	10	3SB2001-6CC06	1	1 unit 41J
			Yellow	10	3SB2001-6CD06	1	1 unit 41J
			Green	10	3SB2001-6CE06	1	1 unit 41J
			Blue	10	3SB2001-6CF06	1	1 unit 41J
			Clear	10	3SB2001-6CH06	1	1 unit 41J

¹⁾ For insert caps, see [Accessories](#), page 13/156.

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Contact blocks and lampholders

Selection and ordering data

Version	Graphic symbols	Operating travel	SD	Flat connectors	PU (UNIT, SET, M)	PS*	PG
		 Contact closed  Contact open					
			d	Article No.	Price per PU		

Contact blocks and lampholders with flat connectors 2 × 2.8-0.8 mm according to IEC 60760

Holders for fixing the actuator and the contact blocks



3SB2908-0AA

Holders for 2 contact blocks
Inscription with identification number 1-2

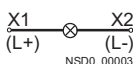
2 **3SB2908-0AA** 1 5 units 41J

Lampholders with holder for fixing the actuator and the contact blocks



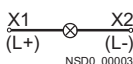
3SB2304-2A

Lampholders
W2 x 4.6 d
without lamp



2 **3SB2304-2A** 1 1 unit 41J

Lampholders
W2 x 4.6 d



- With 6 V incandescent lamp
- With 24 V incandescent lamp

10 **3SB2304-2F** 1 1 unit 41J

10 **3SB2304-2H** 1 1 unit 41J

Contact blocks for fixing in the holder or lampholder

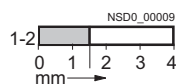
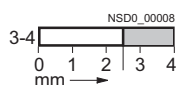
Contact blocks with one contact¹⁾



3SB2404-0B

1 NO

1 NC ⊕



2 **3SB2404-0B** 1 1 unit 41J

2 **3SB2404-0C** 1 1 unit 41J

¹⁾ For plug-in and insulating sleeves, see Accessories, page 13/160.

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System, see page 11/1 onwards.

Certificate:



SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Contact blocks and lampholders

Version	Graphic symbols	Operating travel	SD	Solder pin connections	PU (UNIT, SET, M)	PS*	PG
		<div><div></div>Contact closed</div> <div><div></div>Contact open</div>		<div><div></div></div>			
			d	Article No.	Price per PU		
nd lampholders with solder pins							
Holders for contact block with solder pins For mounting the actuators in the front panel			10	3SB2908-0AB	1	5 units	41J
Lampholders Wedge base W2 x 4.6 d ¹⁾	<div><div>(L+) X1</div><div><div></div></div><div>(L-) X2</div></div>		10	3SB2455-2A	1	1 unit	41J
Contact blocks							
1 NO	<div><div></div><div>1.3</div><div></div><div>1.4</div></div>	<div><div>NSD0_00015</div><div>3-4</div><div>0 1 2 3 4</div><div>mm</div><div>2,3</div></div>	10	3SB2455-0B	1	1 unit	41J
1 NC	<div><div></div><div>1.1</div><div></div><div>1.2</div></div>	<div><div>NSD0_00017</div><div>1-2</div><div>0 1 2 3 4</div><div>mm</div><div>1,6</div></div>	10	3SB2455-0C	1	1 unit	41J
1 NO + 1 NC	<div><div></div><div>13 21</div><div></div><div>14 22</div></div>	<div><div>NSD0_00019</div><div>21-22</div><div>0 1 2 3 4</div><div>mm</div><div>1,6</div></div>	10	3SB2455-0J	1	1 unit	41J
1 NO + 1 NO	<div><div></div><div>13 23</div><div></div><div>14 24</div></div>	<div><div>NSD0_00021</div><div>13-14</div><div>23-24</div><div>0 1 2 3 4</div><div>mm</div><div>2,3</div></div>	10	3SB2455-0E	1	1 unit	41J
1 NC + 1 NC	<div><div></div><div>11 21</div><div></div><div>12 22</div></div>	<div><div>NSD0_00023</div><div>21-22</div><div>11-12</div><div>0 1 2 3 4</div><div>mm</div><div>1,6</div></div>	10	3SB2455-0F	1	1 unit	41J
Contact blocks and lampholders, wedge base W2 x 4.6 d¹⁾							
1 NO	<div><div></div><div>13 X1</div><div></div><div>14 X2</div></div>	<div><div>NSD0_01082</div><div>13-14</div><div>0 1 2 3 4</div><div>mm</div><div>2,3</div></div>	10	3SB2455-1B	1	1 unit	41J
1 NC	<div><div></div><div>21 X1</div><div></div><div>22 X2</div></div>	<div><div>NSD0_01083</div><div>21-22</div><div>0 1 2 3 4</div><div>mm</div><div>1,6</div></div>	10	3SB2455-1C	1	1 unit	41J
1 NO + 1 NC	<div><div></div><div>13 21 X1</div><div></div><div>14 22 X2</div></div>	<div><div>NSD0_00019</div><div>21-22</div><div>0 1 2 3 4</div><div>mm</div><div>1,6</div></div>	10	3SB2455-1J	1	1 unit	41J
1 NO + 1 NO	<div><div></div><div>13 23 X1</div><div></div><div>14 24 X2</div></div>	<div><div>NSD0_00021</div><div>13-14</div><div>23-24</div><div>0 1 2 3 4</div><div>mm</div><div>2,3</div></div>	10	3SB2455-1E	1	1 unit	41J
1 NC + 1 NC	<div><div></div><div>11 21 X1</div><div></div><div>12 22 X2</div></div>	<div><div>NSD0_00023</div><div>21-22</div><div>11-12</div><div>0 1 2 3 4</div><div>mm</div><div>1,6</div></div>	10	3SB2455-1F	1	1 unit	41J

¹⁾ The lamp is not included in the scope of supply.

⊕ Positive opening according to IEC 60947-5-1, Annex K.
Can be used with 3SK11 safety relays or the 3RK3 Modular Safety System,
see page 11/1 onwards. Certificate:



* You can order this quantity or a multiple thereof.
Illustrations are approximate

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts

Insert labels and insert caps

Overview

Clear pushbuttons, illuminated pushbuttons and indicator lights can be fitted with insert labels and caps for identification purposes.








The insert labels and insert caps are made of a milky-transparent plastic with black lettering; they can be fitted in any 90° angle.

Inscription

The inscriptions have upper case initial letters. Graphic symbols, including those not listed in the catalog, are according to ISO 7000 or IEC 60417.

For customized inscriptions, see "Options", page 13/157.
























Selection and ordering data

Inscription/symbol		Symbol No.	SD	Insert labels For pushbuttons and illuminated pushbuttons, flat	PU (UNIT, SET, M)	PS*	PG	
			d	Article No.	Price per PU			
For self-inscription								
	Blank	--	10	3SB2901-4AA	100	10 units	41J	
3SB2901-4AA								
With inscription								
	Ein	--	10	3SB2901-4AB	100	10 units	41J	
	Aus	--	10	3SB2901-4AC	100	10 units	41J	
	Auf	--	10	3SB2901-4AD	100	10 units	41J	
	Ab	--	10	3SB2901-4AE	100	10 units	41J	
	3SB2901-4AB							
	Vor	--	10	3SB2901-4AF	100	10 units	41J	
	Zurück	--	10	3SB2901-4AG	100	10 units	41J	
	Rechts	--	10	3SB2901-4AH	100	10 units	41J	
	Links	--	10	3SB2901-4AJ	100	10 units	41J	
	Halt	--	10	3SB2901-4AK	100	10 units	41J	
	Zu	--	10	3SB2901-4AL	100	10 units	41J	
	Langsam	--	10	3SB2901-4AN	100	10 units	41J	
Störung	--	10	3SB2901-4AQ	100	10 units	41J		
	On	--	10	3SB2901-4EB	100	10 units	41J	
	Start	--	10	3SB2901-4EK	100	10 units	41J	
	Stop	--	10	3SB2901-4EL	100	10 units	41J	
	Reset	--	10	3SB2901-4EM	100	10 units	41J	
	Test	--	10	3SB2901-4EN	100	10 units	41J	
	3SB2901-4EB							
	0	--	10	3SB2901-4RA	100	10 units	41J	
	1	--	10	3SB2901-4RB	100	10 units	41J	
	2	--	10	3SB2901-4RC	100	10 units	41J	
	3	--	10	3SB2901-4RD	100	10 units	41J	
	4	--	10	3SB2901-4RE	100	10 units	41J	
	5	--	10	3SB2901-4RF	100	10 units	41J	
6	--	10	3SB2901-4RG	100	10 units	41J		
7	--	10	3SB2901-4RH	100	10 units	41J		
8	--	10	3SB2901-4RJ	100	10 units	41J		
9	--	10	3SB2901-4RK	100	10 units	41J		
Graphic ON/OFF symbols								
	O (Off)		5008 IEC	10	3SB2901-4MB	100	10 units	41J
	I (On)		5007 IEC	10	3SB2901-4MC	100	10 units	41J
	II (On)		--	10	3SB2901-4MD	100	10 units	41J

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts















Insert labels and insert caps

Inscription/symbol		Symbol No.	SD	Insert labels For pushbuttons and illuminated pushbuttons, flat Article No.		Price per PU	PU (UNIT, SET, M)	PS*	PG
Graphic equipment symbols									
 3SB2901-4PA	Electric motor		0011 ISO	10	3SB2901-4PA		100	10 units	41J
	Horn		5014 IEC	10	3SB2901-4PB		100	10 units	41J
	Pump		0134 ISO	10	3SB2901-4PD		100	10 units	41J
	Coolant pump		0355 ISO	10	3SB2901-4PE		100	10 units	41J
Graphic motion symbols									
 3SB2901-4NA	Motion in direction of arrow (straight)		5022 IEC	10	3SB2901-4NA		100	10 units	41J
	Motion in direction of arrow (diagonal)		--	10	3SB2901-4NB		100	10 units	41J
	Clockwise rotation		0004 ISO	10	3SB2901-4NC		100	10 units	41J
	Counterclockwise rotation		--	10	3SB2901-4ND		100	10 units	41J
	Fast motion		0266 ISO	10	3SB2901-4NE		100	10 units	41J
	Increase (plus)		5005 IEC	10	3SB2901-4NG		100	10 units	41J
	Decrease (minus)		5006 IEC	10	3SB2901-4MC		100	10 units	41J
Graphic control symbols									
 3SB2901-4QK	Clamp		--	10	3SB2901-4QB		100	10 units	41J
	Release		--	10	3SB2901-4QC		100	10 units	41J
	Brake off		0021 ISO	10	3SB2901-4QE		100	10 units	41J
	Lock		0022 ISO	10	3SB2901-4QF		100	10 units	41J
	Unlock		0023 ISO	10	3SB2901-4QG		100	10 units	41J
	On/Off, momentary contact type		5011 IEC	10	3SB2901-4QJ		100	10 units	41J
	Manual operation		0096 ISO	10	3SB2901-4QK		100	10 units	41J
	Automatic sequence		0017 ISO	10	3SB2901-4QL		100	10 units	41J
Customized inscriptions									
	Any inscription 1 line of text with up to 6 characters with 3 mm font height. Please add the appropriate order code to the article number and specify the line of text required.			3SB2901-4AZ K0Y K1Y or K2Y K5Y					
	Other graphic symbols Please add the order code "K3Y" to the article number and specify the serial number and the applied standard (ISO 7000 or IEC 60417).			3SB2901-4AZ K3Y					
	Any inscription or symbol Please add the order code "K9Y" to the article number and specify the inscription or the symbol required.			3SB2901-4AZ K9Y					

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts






Insert labels and insert caps

Inscription/symbol	Symbol No.	SD	Insert caps For pushbuttons and illuminated pushbuttons, raised Article No. Price per PU	PU (UNIT, SET, M)	PS*	PG
For self-inscription						
 Blank	--	10	3SB2901-5AA	100	10 units	41J
With inscription						
 3SB2901-5EB	On	--	3SB2901-5EB	100	10 units	41J
	Aus	--	3SB2901-5AC	100	10 units	41J
	Auf	--	3SB2901-5AD	100	10 units	41J
	Zu	--	3SB2901-5AL	100	10 units	41J
 3SB2901-5AC	0	--	3SB2901-5RA	100	10 units	41J
	1	--	3SB2901-5RB	100	10 units	41J
	2	--	3SB2901-5RC	100	10 units	41J
	3	--	3SB2901-5RD	100	10 units	41J
	4	--	3SB2901-5RE	100	10 units	41J
	5	--	3SB2901-5RF	100	10 units	41J
	6	--	3SB2901-5RG	100	10 units	41J
	7	--	3SB2901-5RH	100	10 units	41J
	8	--	3SB2901-5RJ	100	10 units	41J
	9	--	3SB2901-5RK	100	10 units	41J
Graphic ON/OFF symbols						
 O (Off)		5008 IEC	3SB2901-5MB	100	10 units	41J
I (On)		5007 IEC	3SB2901-5MC	100	10 units	41J
Graphic motion symbols						
 3SB2901-5NA	Motion in direction of arrow		3SB2901-5NA	100	10 units	41J
	Motion in direction of arrow		3SB2901-5NB	100	10 units	41J
	Increase (plus)		3SB2901-5NG	100	10 units	41J
	Decrease (minus)		3SB2901-5MC	100	10 units	41J
Graphic control symbols						
Clamp		--	3SB2901-5QB	100	10 units	41J
Release		--	3SB2901-5QC	100	10 units	41J
Customized inscriptions						
	Any inscription 1 line of text with up to 6 characters with 3 mm font height. Please add the appropriate order code to the article number and specify the line of text required.		3SB2901-5AZ K0Y K1Y or K2Y K5Y			
	Other graphic symbols Please add the order code " K3Y " to the article number and specify the serial number and the applied standard (ISO 7000 or IEC 60417).		3SB2901-5AZ K3Y			
	Any inscription or symbol Please add the order code " K9Y " to the article number and specify the inscription or the symbol required.		3SB2901-5AZ K9Y			

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts

Insert labels and insert caps

Inscription/symbol	Symbol No.	SD	Insert caps For indicator lights	PU (UNIT, SET, M)	PS*	PG
		d	Article No.	Price per PU		
For self-inscription						
 Blank	--	10	3SB2901-7AA	100	10 units	41J
With inscription						
 Betrieb	--	10	3SB2901-7AP	100	1 unit	41J
Störung	--	10	3SB2901-7AQ	100	10 units	41J
Graphic symbols						
 Pump	 0134 ISO	10	3SB2901-7PD	100	10 units	41J
Manual operation	 0096 ISO	10	3SB2901-7QK	100	10 units	41J
Customized inscriptions						
Any inscription 1 line of text with up to 6 characters with 3 mm font height. Please add the appropriate order code to the article number and specify the line of text required.			3SB2901-7AZ K0Y K1Y or K2Y K5Y			
Other graphic symbols Please add the order code " K3Y " to the article number and specify the serial number and the applied standard (ISO 7000 or IEC 60417).			3SB2901-7AZ K3Y			
Any inscription or symbol Please add the order code " K9Y " to the article number and specify the inscription or the symbol required.			3SB2901-7AZ K9Y			

Options

Customized inscriptions

Labels and caps can be inscribed with text and symbols not listed in the ordering data. Append the following order codes to the article number:

- Text line in upper/lower case, always upper case for beginning of line (e.g. "Lift"): **K0Y**
- Text line in upper case (e.g. "LIFT"): **K1Y**
- Text line in lower case (e.g. "lift"): **K2Y**
- Text line in upper/lower case, all words begin with upper case letters (e.g. "Lift Out"): **K5Y**
- Symbol with number according to ISO 7000 or IEC 60417: **K3Y**
- Any inscription or symbols according to order form supplement: **K9Y**

When ordering, specify the required inscription in plain text in addition to the article number and order code. In the case of special inscriptions with words in languages other than German, give the exact spelling and specify the language.

One line with up to 6 characters with 3 mm font height is possible for the inscription (see [ordering example 1](#)).

Symbols can also be ordered with numbers according to ISO 7000 or IEC 60417 (see [ordering example 2 and 3](#)).

For special symbols (order code K9Y), a CAD drawing in DXF format can be submitted.

Ordering example 1

3SB2901-4AZ
K1Y
Z1=Pump

Ordering example 2

3SB2901-4AZ
K3Y
Z=5008 IEC

Ordering example 3

3SB2901-4AZ
K3Y
Z=1118 ISO

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts

Backing plates

Overview



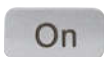





The backing plates consist of a black plastic label holder and a labeling plate (silver with black print) for sticking in place.

Note mounting dimensions!

Inscription

The inscriptions (also special inscriptions) are lower case with upper case initial letters. Graphic symbols, including those not listed in the catalog, are according to ISO 7000 or IEC 60417.

Selection and ordering data

Inscription/symbol	Symbol No.	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
			d					
Labeling plates, self-adhesive, 9.5 mm x 18.5 mm								
	Blank	2	3SB2901-2AA		100	10 units	41J	
3SB2901-2AA	Ein	10	3SB2901-2AB		100	10 units	41J	
	Aus	10	3SB2901-2AC		100	10 units	41J	
	Auf	10	3SB2901-2AD		100	10 units	41J	
	Zu	10	3SB2901-2AL		100	10 units	41J	
	Vor	10	3SB2901-2AF		100	10 units	41J	
	Zurück	10	3SB2901-2AG		100	10 units	41J	
	Schnell	10	3SB2901-2AM		100	10 units	41J	
	Langsam	10	3SB2901-2AN		100	10 units	41J	
3SB2901-2AB	Betrieb	10	3SB2901-2AP		100	10 units	41J	
	Störung	10	3SB2901-2AQ		100	10 units	41J	
	Einrichten	10	3SB2901-2AR		100	10 units	41J	
	On	10	3SB2901-2EB		100	10 units	41J	
	Off	10	3SB2901-2EC		100	10 units	41J	
	Start	10	3SB2901-2EL		100	10 units	41J	
	Reset	10	3SB2901-2EM		100	10 units	41J	
	Fault	10	3SB2901-2EW		100	10 units	41J	
3SB2901-2EB	Hand Auto	10	3SB2901-2BA		100	10 units	41J	
	Manual 0 Auto	10	3SB2901-2BE		100	10 units	41J	
	Man 0 Auto	10	3SB2901-2ET		100	10 units	41J	
	Graphic symbols							
	O (Off)	 5008 IEC	10	3SB2901-2MB		100	10 units	41J
	I (On)	 5007 IEC	10	3SB2901-2MC		100	10 units	41J
	O I (horizontal)	--	10	3SB2901-2MF		100	10 units	41J
	Motion in direction of arrow	 5002 IEC	10	3SB2901-2NA		100	10 units	41J
3SB2901-2NA								
Customized inscriptions or symbols (see Options)			3SB2901-2XZ K0Y K1Y, K2Y or K3Y K5Y K9Y					
Label holders								
	Label holders for labeling plates The label holders must not be used with the 3SB2...-1AC01 EMERGENCY STOP mushroom pushbutton.	10	3SB2902-0AB		100	10 units	41J	
3SB2902-0AB								

Options

Customized inscriptions

The labels can be inscribed with text and symbols not listed in the ordering data. Append the following order codes to the article number:

- Text line(s) in upper/lower case, all lines begin with upper case (e.g. "Lift out"): **K0Y**
- Text line(s) in upper case (e.g. "LIFT OUT"): **K1Y**
- Text line(s) in lower case (e.g. "lift out"): **K2Y**
- Text line(s) in upper/lower case, all words begin with upper case letters (e.g. "Lift Out"): **K5Y**
- Symbol with number according to ISO 7000 or IEC 60417: **K3Y**
- Any inscription or symbols according to order form supplement: **K9Y**

When ordering, specify the required inscription in plain text in addition to the article number and order code. In the case of special inscriptions with words in languages other than German, give the exact spelling and specify the language.

Two lines of 11 characters per line are permitted with 4 mm font height (1 line) or 3 mm (2 lines).

Symbols can also be ordered with numbers according to ISO 7000 or IEC 60417 (see ordering example).

For special symbols (order code K9Y), a CAD drawing in DXF format can be submitted.

Ordering example












3SB2901-2XZ
K3Y
Z=1118 ISO

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts

Mounting parts and components

Selection and ordering data

Version	Lamp voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG				
			V	d								
Buttons and lenses ¹⁾												
 3SB2910-0AF	Buttons, flat For pushbuttons	Black	10	3SB2910-0AB		100	10 units	41J				
		Red	10	3SB2910-0AC		100	10 units	41J				
		Yellow	10	3SB2910-0AD		100	10 units	41J				
		Green	10	3SB2910-0AE		100	10 units	41J				
		Blue	10	3SB2910-0AF		100	10 units	41J				
		White	10	3SB2910-0AG		100	10 units	41J				
		Clear	10	3SB2910-0AH		100	10 units	41J				
 3SB2910-0CF	Buttons, flat For illuminated pushbuttons	Red	10	3SB2910-0CC		100	10 units	41J				
		Yellow	10	3SB2910-0CD		100	10 units	41J				
		Green	10	3SB2910-0CE		100	10 units	41J				
		Blue	10	3SB2910-0CF		100	10 units	41J				
		White	10	3SB2910-0AG		100	10 units	41J				
		Clear	10	3SB2910-0AH		100	10 units	41J				
		 3SB2910-0BD	Buttons, raised For pushbuttons	Black		10	3SB2910-0BB		1	10 units	41J	
Red	10			3SB2910-0BC	1	10 units	41J					
Yellow	10			3SB2910-0BD	1	10 units	41J					
Clear	10			3SB2910-0BH	1	10 units	41J					
 3SB2910-0DD	Buttons, raised For illuminated pushbuttons	Red	10	3SB2910-0DC		1	10 units	41J				
		Yellow	10	3SB2910-0DD		1	10 units	41J				
		Clear	10	3SB2910-0BH		1	10 units	41J				
 3SB2910-1AD	Screw lenses With concentric rings	Red	10	3SB2910-1AC		100	10 units	41J				
		Yellow	10	3SB2910-1AD		100	10 units	41J				
		Green	10	3SB2910-1AE		100	10 units	41J				
		Blue	10	3SB2910-1AF		100	10 units	41J				
		White	10	3SB2910-1AG		100	10 units	41J				
		Clear	10	3SB2910-1AH		100	10 units	41J				
 3SB2910-1BE	Screw lenses Smooth, for inscription with insert cap	Red	10	3SB2910-1BC		100	10 units	41J				
		Yellow	10	3SB2910-1BD		100	10 units	41J				
		Green	10	3SB2910-1BE		100	10 units	41J				
		Blue	10	3SB2910-1BF		100	10 units	41J				
		Clear	10	3SB2910-1BH		100	10 units	41J				
Keys for actuators												
 3SB2908-2AJ	Keys For CES key-operated switch, Lock No. SB2		10	3SB2908-2AJ		1	1 unit	41J				
Lamps, wedge bases ²⁾												
 3SB2908-1AE	Incandescent lamps Wedge base W2 x 4.6 d, 1.0 W	AC/DC	Clear									
		6	20						3SB2908-1AA	100	10 units	41J
		12	10						3SB2908-1AB	100	10 units	41J
		24	10						3SB2908-1AC	100	10 units	41J
		30	5						3SB2908-1AD	100	10 units	41J
		48	10						3SB2908-1AE	1	10 units	41J
		60	10						3SB2908-1AF	1	10 units	41J
 3SB3901-1SB	LED lamps, super-bright Wedge base W2 x 4.6 d	24 AC/DC	Red	10	3SB3901-1SB	1	10 units	41J				
			Yellow	10	3SB3901-1RB	1	10 units	41J				
			Green	10	3SB3901-1TB	1	10 units	41J				
			White	10	3SB3901-1UB	1	10 units	41J				
			Blue	10	3SB2908-1BD	1	10 units	41J				
		28 AC/DC	Red	10	3SB3901-1SE	1	10 units	41J				
			Yellow	10	3SB3901-1RE	1	10 units	41J				
 3SB2908-1BD			Green	10	3SB3901-1TE	1	10 units	41J				
			White	10	3SB3901-1UE	1	10 units	41J				
			Blue	20	3SB3901-1VE	1	10 units	41J				
 3SB2908-2AB	Lamp extractors For lamps with bases W2 x 4.6 d		5	3SB2908-2AB		1	1 unit	41J				


¹⁾ Included in the scope of supply of actuators or indicator lights.

²⁾ Included in the scope of supply of some complete units.

SIRIUS 3SB2 Pushbuttons and Indicator Lights, 16 mm

Accessories and Spare Parts

Mounting parts and components

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Accessories for command points						
	Single frames for square design ¹⁾	2	3SB2902-0AA	100	10 units	41J
	Backing plates, yellow, diameter 50 mm As high-contrast background for EMERGENCY STOP, self-adhesive	2	3SB2908-2AF	1	1 unit	41J
		2	3SB2908-2AG	1	1 unit	41J
		2	3SB2908-2AK	1	1 unit	41J
	Blanking plugs Plastic, black (degree of protection IP65)	10	3SB2908-3AA	1	1 unit	41J
	Protective caps, clear Silicone, for pushbuttons with flat and raised buttons	10	3SB2908-3AB	1	1 unit	41J
Flat connectors						
	Plug-in sleeves For flat connectors 2.8 × 0.8 mm, cross-section 0.5 ... 1.5 mm ²	5	3SB2908-8AA	100	250 units	41J
	Insulating sleeves For flat connectors, attachable from the front	20	3SB2908-8AB	100	250 units	41J
	Complete connectors²⁾ For connecting contact blocks and lampholders (up to 10 connections) Ensures finger-safety acc. to IEC 60529 and DGUV Regulation 3	10	3SB2908-8AD	1	1 unit	41J
	Plug-in sleeves For flat connectors 2.8 × 0.8 mm, with locating spring for latching in complete connector	10	3SB2908-8AE	100	10 units	41J
Tools						
	Dismantling tools For holders and lampholders with holder	5	3SB2908-2AA	1	1 unit	41J
	Mounting tools For buttons and screw lenses	5	3SB2908-2AC	1	1 unit	41J
	Crimping tools for non-insulated connections, type KRBC 0560 For plug-in sleeves (both versions) Manufacturer: Lapp Kabel, Stuttgart, Germany Email: info@lappkabel.com Website: www.lappkabel.com		6179 0950			

¹⁾ Not suitable for EMERGENCY STOP mushroom pushbuttons.

²⁾ Required 3SB2908-8AE plug-in sleeves for flat connectors 2.8 × 0.8 mm are not included in the scope of supply.

Overview



3SE7 cable-operated switches

More information

Homepage, see www.siemens.com/sirius-commanding

Industry Mall see www.siemens.com/product?3SE7

Manual, see <https://support.industry.siemens.com/cs/ww/en/view/107194954>

The cable-operated switches are used for monitoring or as EMERGENCY STOP devices on particularly endangered system components.

As the effective range of a cable-operated switch is only limited by the length of the trip-wire, large systems can also be protected. Cable-operated switches (requiring pulling at both ends) and conveyor belt unbalance trackers are used primarily for monitoring very long belt systems.

Contact blocks

The switches for wire lengths up to 50 m are supplied with 1 NO + 1 NC or 2 NC contacts and those up to 75 m with 1 NO + 3 NC contacts. The switches for wire lengths of 2 x 75 m and the conveyor belt unbalance tracker are supplied with 2 NO + 2 NC contacts.

The NC contacts of the cable-break or cable-pull signaling are positive opening. The NO contact can be used, for example, for signaling purposes.

Free position and display

Cable-operated switches with one-side operation are held in free position by the pre-tension on the turnbuckle.

On switches with interlocking, with a pre-tensioned cable, the locking must be deactivated beforehand in order to return the cable-operated switch to its original position.

The cable-operated switch and the conveyor belt unbalance tracker can be supplied optionally with a factory-fitted LED (red, 24 V DC). This light in innovative chip-on-board technology allows the operating state of the switch to be visible at a distance of at least 50 m.

Application

Standards

The switches are equipped with latching mechanism and positive NC contacts and are thus suitable for operation in EMERGENCY STOP devices according to EN ISO 13850.

Technical specifications

Type		3SE7120	3SE7150	3SE7140	3SE7141	3SE7160	3SE7310	
General data								
Standards		IEC/EN 60947-5-1 IEC/EN 60204-1, EN ISO 13850						
Approvals		UL/CSA						
Electrical design		Contacts electrically isolated from each other						
Electrical load								
• 2-pole, at AC-15		400 V AC, 6 A		400 V AC, 6 A	240 V AC, 2 A	400 V AC, 6 A	--	
• 3-pole, at AC-15		240 V AC, 2 A		--	--	--	--	
• 4-pole, at AC-15		--		--	--	400 V AC, 6 A	400 V AC, 6 A	
• Minimum		24 V AC/DC, 10 mA						
Short-circuit protection		A	6 (slow)					
Mechanical endurance		> 100 000 operating cycles						
Contact material		Fine silver						
Operation		By pulling or breaking of wire						
Wire length, maximum		m	10	25	50	75	2 x 100	--
Distance between wire supports, max.		m	3		5		4	--
Enclosures								
Enclosure material		GD Al alloy, coated (color), dark black RAL 9005						
Cover		Shock-resistant thermoplast						
Degree of protection acc. to IEC 60529 ¹⁾		IP65			IP67	IP65		
Ambient temperature		°C	-25 ... +70					
Mounting		Designed for M5						
Fixing spacing		mm	30 and 40					
Cable entry		2 x (M20 x 1.5)		1 x (M20 x 1.5)	3 x (M20 x 1.5)	2 x (M25 x 1.5)		
Connection type		Screw terminals M3.5, self-lifting clamp terminal						

¹⁾ IP54 for versions with key-operated release

SIRIUS 3SE7 Cable-Operated Switches

3SE7 metal enclosures

Selection and ordering data

Version	Wire length	Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	m		d					
Cable-operated switches								
	Metal enclosures, IP65 (cover made of molded plastic)	10						
	Metal enclosures, IP65 (cover made of molded plastic), with alignment window	25						
	Metal enclosures, IP65 (cover made of molded plastic), with alignment window, with LED, red, 24 V DC	25						
	Metal enclosures, IP65 (cover made of molded plastic)	50						
	Metal enclosures, IP67 (cover made of molded plastic), with EMERGENCY STOP mushroom, with rotate-to-unlatch mechanism	75						
	Metal enclosures, IP65 With actuation on both sides	2 x 100						

➞ Positive opening according to IEC 60947-5-1, Annex K.

SIRIUS 3SE7 Cable-Operated Switches

3SE7 metal enclosures

Version	Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
		d					

Conveyor belt unbalance trackers



3SE7310-1AE00

Metal enclosures, IP65

- With latching and button reset
- In addition with LED, red, 24 V DC

2 NO + 2 NC	➡	5
2 NO + 2 NC	➡	5

3SE7310-1AE00
3SE7310-1AE04

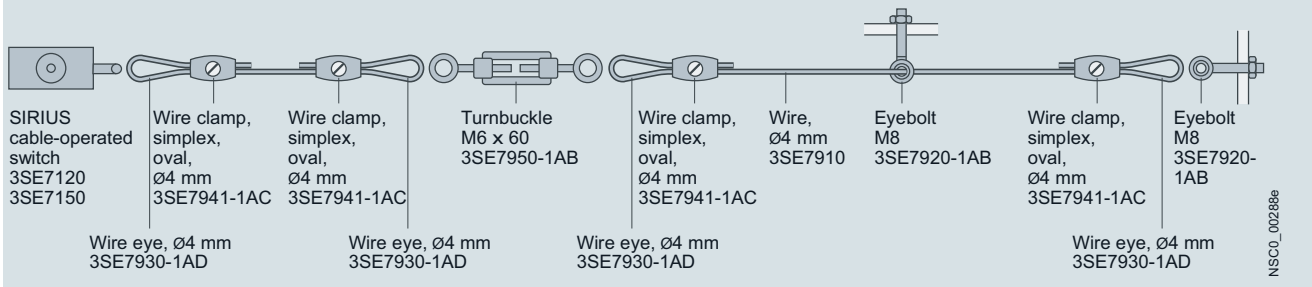
1	1 unit	41K
1	1 unit	41K

➡ Positive opening according to IEC 60947-5-1, Annex K.

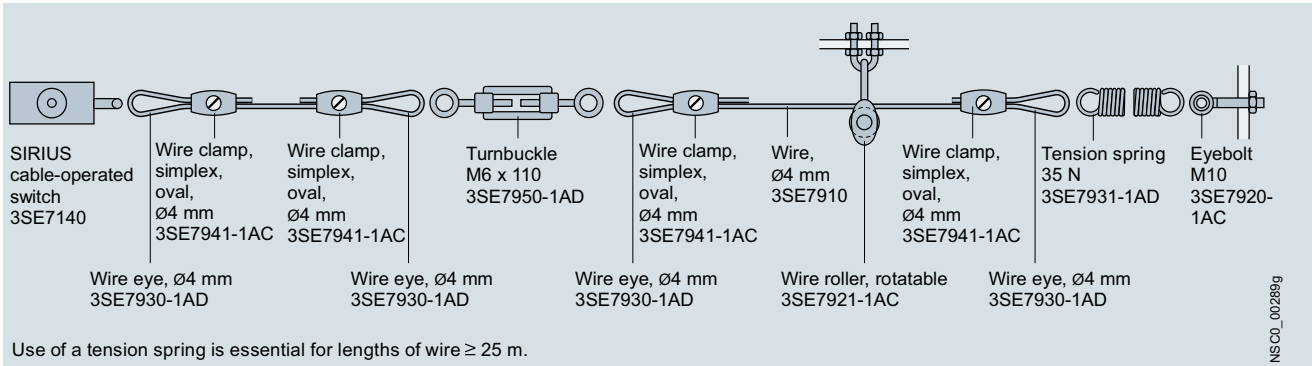
Accessories

Configuration of the cable-operated switches

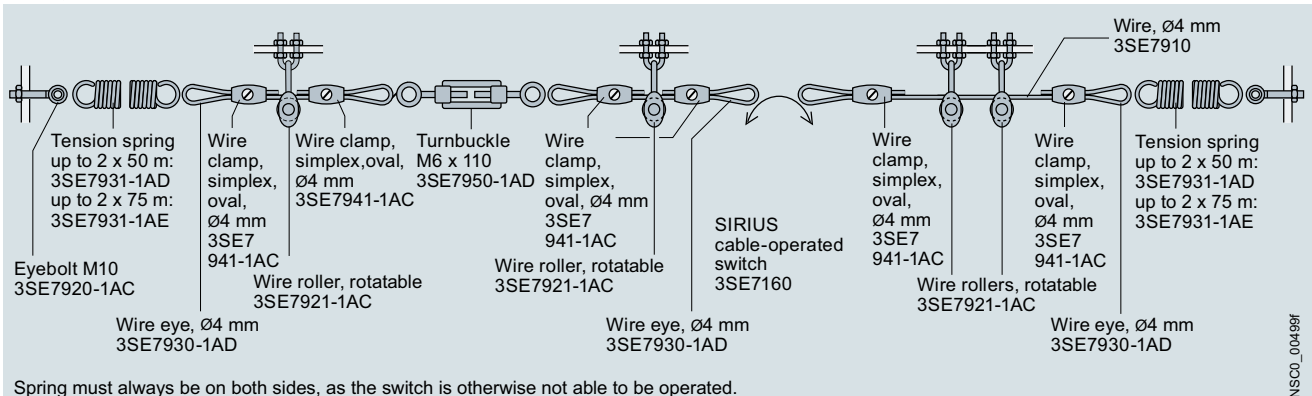
Short lengths of wire up to 25 m



Long lengths of wire up to 50 m



Pulling from both sides up to 2 x 100 m











Note:

Large temperature fluctuations require corresponding compensation springs. For reliable connection the PVC sheath must be removed from the clamping area of the

steel bowden wire. Bowden wire supports must be used at the recommended intervals.

SIRIUS 3SE7 Cable-Operated Switches

3SE7 metal enclosures

Version	Length/ diameter	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
Trip-wire with fixing							
 3SE7910-3AA	Steel wires , with red plastic sheath, diameter 4 mm ¹⁾	10 m	2	3SE7910-3AA	1	1 unit	41K
		15 m	2	3SE7910-3AB	1	1 unit	41K
		20 m	2	3SE7910-3AC	1	1 unit	41K
		50 m	2	3SE7910-3AH	1	1 unit	41K
 3SE7941-1AC	Wire clamps , galvanized white, zinc-plated						
	• Oval	2 x Ø 4 mm	2	3SE7941-1AC	1	1 unit	41K
	• Single (1 set = 4 units)	2 x Ø 4 mm	2	3SE7942-1AA	1	4 units	41K
	• Simplex (1 set = 4 units)	2 x Ø 4 mm	2	3SE7943-1AC	1	4 units	41K
	• Duplex (1 set = 4 units)	2 x Ø 4 mm	2	3SE7944-1AC	1	4 units	41K
 3SE7931-1AB	Tension springs (zinc-plated) to maintain the counter tension						
	• 13 N		2	3SE7931-1AB	1	1 unit	41K
	• 35 N, for cable-operated switches up to 50 m		2	3SE7931-1AD	1	1 unit	41K
	• > 35 N, for cable-operated switches up to 2 x 75 m		5	3SE7931-1AE	1	1 unit	41K
 3SE7921-1AC	Wire rollers for changing the direction of the wire, rotatable	Ø 4 mm	2	3SE7921-1AC	1	1 unit	41K
	Fixtures for the wire rollers (incl. fixing nuts)		2	3SE7921-1AA	1	1 unit	41K
 3SE7930-1AD	Wire eyes for changes in wire direction and improved power transmission at the fixing points (1 set = 4 units)	Ø 4 mm	2	3SE7930-1AD	1	4 units	41K
	Eyebolts for fixing the wire						
 3SE7920-1AB	• Including M8 nut		2	3SE7920-1AB	1	1 unit	41K
	• Including M10 nut		2	3SE7920-1AC	1	1 unit	41K
 3SE7950-1AB	Turnbuckles for precise adjustment of the pre-tension						
	• M6 x 60		2	3SE7950-1AB	1	1 unit	41K
	• M6 x 110		2	3SE7950-1AD	1	1 unit	41K
Spare parts							
 3SX3235	LED lamps , red 24 V DC diameter 25 mm; for M20 x 1.5 connection		10	3SX3235	1	1 unit	41K

¹⁾ Diameter including casing; the diameter of the steel wire is 3.2 mm.

Overview



3SE29 foot switch with metal enclosure

More information

Homepage, see www.siemens.com/sirius-commanding
 Industry Mall, see www.siemens.com/product?3SE2
 Manual, see <https://support.industry.siemens.com/cs/ww/en/view/107194954>

Standard switches

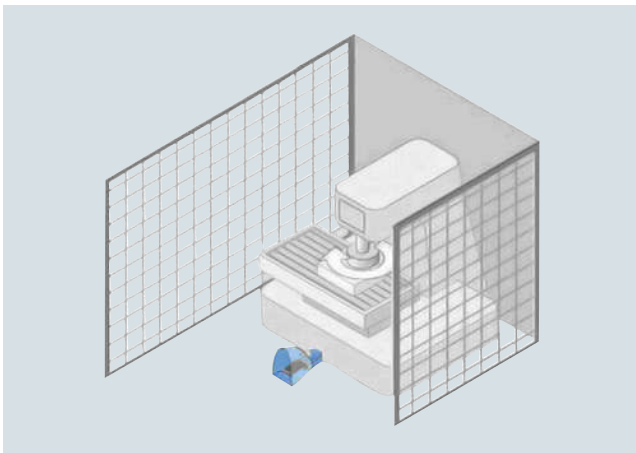
The 3SE29 and 3SE39 foot switch range encompasses versions in a metal enclosure for rugged applications as well as versions with plastic enclosure for less harsh environments. The devices can be supplied with or without a cover and have fixing holes for them to be screwed to the floor.

Depending on the particular application, the metal enclosures can be ordered with contact blocks in latching or momentary-contact versions. The momentary-contact pedal switch in the plastic enclosure has one microswitch (changeover contact) per actuating pedal.

Safety foot switches

The 3SE2924-3AA20 single-pedal safety foot switches are used on machines and plants as OK switches when operation by hand is not possible. The switches have an interlocking function.

The safety foot switches are protected by a guard hood against accidental operation.



Application example

The switches have two contact blocks, each with one NO contact and one NC contact. The NO contacts and NC contacts of the two contact blocks are connected for easy connection of a single-phase motor. The normal workflow is initiated by pressing down the pedal as far as the pressure point so that the two NO contacts close and the motor starts to run.

If in the event of danger the pedal is pressed beyond the resistance of the pressure point, the positively driven NC contacts will open and the motor is stopped. At the same time the independent latching takes effect and holds the NC contacts in open position. This prevents the machine parts from continuing to run out of control or from being restarted.

After the hazard is eliminated, the machine can only be restarted after manually releasing the switch using a pushbutton on the top of the enclosure. The contacts are then released again and return to their initial position (the NO contacts are open and the NC contacts are closed).

Technical specifications

Type	3SE29	3SE39
Metal and plastic enclosures		
Standards	IEC 60947-5-1	
Electrical load		
• At AC-15, 400 V		
- 1 NO + 1 NC	A 10	--
- 2 NO + 2 NC	A 6	--
- 3SE2924-3AA20 (2 NO + 2 NC)	A 10	--
• At 250 V AC	A –	5
Short-circuit protection		
- 1 NO + 1 NC	A 10 (slow)	--
- 2 NO + 2 NC	A 6 (slow)	--
- 3SE2924-3AA20 (2 NO + 2 NC)	A 10 (slow)	--
- 1 CO contact	A --	5 (slow)
Mechanical endurance	> 10 ⁶ operating cycles	
Material		
• Enclosures	Aluminum casting	Impact-resistant thermoplast, self-extinguishing according to UL 94 VO
• Covers	Thermoplast	–
• Guard hoods	Aluminum casting	Metal
Degree of protection	IP65	IP65
Ambient temperature	°C -25 ... +80	-10 ... +75
Connection	Cable entry, metric	Cable AWG20, UL Style 2464, length 3 m

SIRIUS 3SE2, 3SE3 Foot Switches

Plastic and metal enclosures

Selection and ordering data

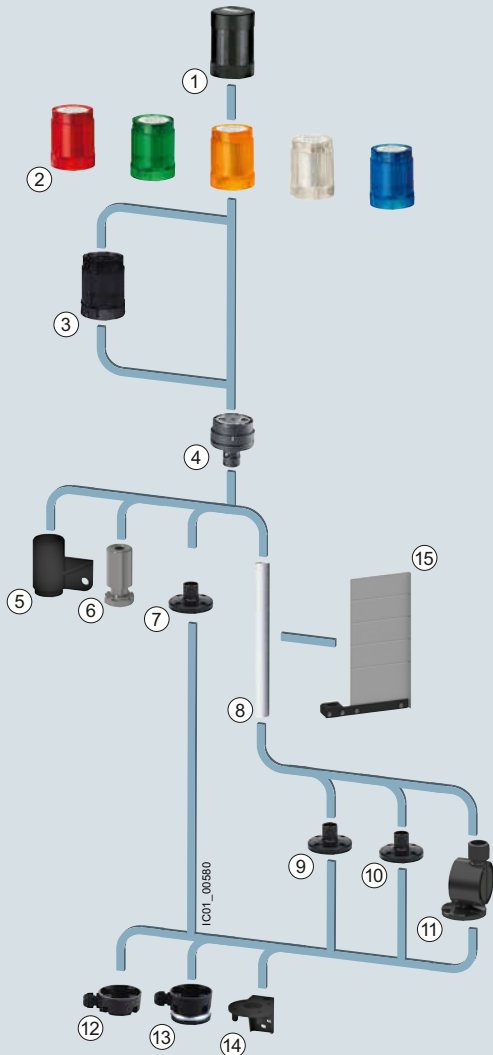
Version	Slow-action contacts for each pedal	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
d								
Metal enclosures, degree of protection IP65								
	Momentary-contact foot switches, single pedal, non-latching M20 x 1.5 cable entry							
	• Without hood	1 NO + 1 NC ➞	2	3SE2902-0AB20	1	1 unit	41K	
		2 NO + 2 NC ➞	10	3SE2903-1AB20	1	1 unit	41K	
	• With hood	1 NO + 1 NC ➞	2	3SE2902-0AA20	1	1 unit	41K	
		2 NO + 2 NC ➞	2	3SE2903-1AA20	1	1 unit	41K	
3SE290-.-AA20 3SE291-.-AA20	Momentary-contact foot switches, single pedal, latching M20 x 1.5 cable entry							
	• Without hood	1 NO + 1 NC ➞	15	3SE2912-2AB20	1	1 unit	41K	
	• With hood	1 NO + 1 NC ➞	15	3SE2912-2AA20	1	1 unit	41K	
	Momentary-contact foot switches, two pedals, non-latching M25 x 1.5 cable entry							
	• Without hood	1 NO + 1 NC ➞	15	3SE2932-0AB20	1	1 unit	41K	
		2 NO + 2 NC ➞	15	3SE2932-1AB20	1	1 unit	41K	
3SE2932-.-AB20	• With hood	1 NO + 1 NC ➞	5	3SE2932-0AA20	1	1 unit	41K	
		2 NO + 2 NC ➞	5	3SE2932-1AA20	1	1 unit	41K	
								
3SE2932-.-AA20								
	Safety momentary-contact foot switches, non-latching, single pedal With hood M20 x 1.5 cable entry with interlocking function NO closes as momentary contact type NC opens with automatic latching (safety function)		2 NO + 2 NC ➞	15	3SE2924-3AA20	1	1 unit	41K
3SE2924-3AA20								
Plastic enclosures, degree of protection IP65								
	Momentary-contact pedal switches, 3 m cable		Microswitch					
	• Single pedal							
	- Without hood	1 CO contact	5	3SE3902-4CB20	1	1 unit	41K	
	- With hood	1 CO contact	10	3SE3902-4CA20	1	1 unit	41K	
3SE3902-4CA20	• Two pedals, without hood	2 x 1 CO	10	3SE3934-5CB20	1	1 unit	41K	
								
3SE3934-5CB20								
Accessories								
	Protection cover Single pedal foot switch for 3SE2912-2AA20, 3SE2902-0AA20 and 3SE2903-1AA20	--	20	3SE3980-8M	1	1 unit	41K	
	Contact block, Supersedes momentary-contact foot switch 3SE2903-1A.20 ¹⁾ and 3SE2932-1A.20 ³⁾	1 NO + 1 NC	X	3SE3982-0K	1	1 unit	41K	
	Contact block, Supersedes momentary-contact foot switch 3SE2902-0A.20 and 3SE2932-0A.20 ²⁾	1 NO + 1 NC	X	3SE3982-0L	1	1 unit	41K	
	Contact block, 16 A, Supersedes momentary-contact foot switch 3SE2924-3AA20 ¹⁾	1 NO + 1 NC	X	3SE3982-7J	1	1 unit	41K	
	Contact block, 16 A, Supersedes momentary-contact foot switch 3SE2912-2A.20	1 NO + 1 NC	30	3SE3982-7L	1	1 unit	41K	

➞ Positive opening according to IEC 60947-5-1, Annex K.

¹⁾ Number of contact blocks required for the foot switch = 2.²⁾ Number of contact blocks required per pedal = 1.³⁾ Number of contact blocks required per pedal = 2.

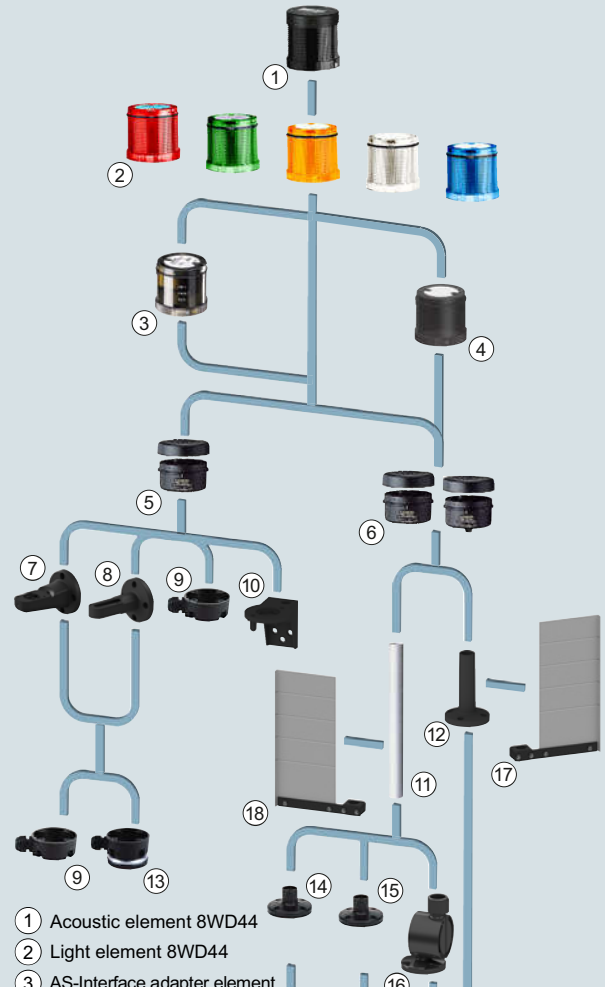
Overview

The 8WD4 signaling columns are flexible in design and versatile in use.



- ① Acoustic element 8WD42.0-0FA
- ② Light element 8WD42
- ③ AS-Interface adapter element 8WD4228-0BB
- ④ Connection element 8WD4208-0AA
- ⑤ Bracket for wall mounting 8WD4208-0CD
- ⑥ Adapter for single-hole mounting 8WD4208-0EH
- ⑦ Foot for base mounting 8WD4208-0DE
- ⑧ Pipe 8WD4208-0EF/8WD4308-0E.
- ⑨ Foot for mounting with pipe 8WD4308-0DB
- ⑩ Foot for mounting with pipe (> 400 mm) 8WD4308-0DC
- ⑪ Adjustable-angle foot for mounting on pipes 8WD4408-0DF
- ⑫ Socket 8WD4308-0DD
- ⑬ Socket (magnetic fixing) 8WD4308-0DE
- ⑭ Bracket for mounting with foot 8WD4408-0CC
- ⑮ Optional 8WD4408-0FA labeling panel

8WD42 signaling column (width 50 mm) with up to 4 elements



- ① Acoustic element 8WD44
- ② Light element 8WD44
- ③ AS-Interface adapter element 8WD4428-0BD/8WD4428-0BE
- ④ IO-Link module 8WD4428-0BF
- ⑤ Connection element for mounting on bracket, base and floor 8WD4408-0AB/8WD4408-0AE
- ⑥ Connection element for mounting on pipe 8WD4408-0AA/8WD4408-0AD/8WD4408-0AF
- ⑦ Bracket for wall mounting 8WD4308-0CA
- ⑧ Bracket for wall mounting (two-sided) 8WD4308-0CB
- ⑨ Socket 8WD4308-0DD
- ⑩ Bracket for mounting 8WD4408-0CD
- ⑪ Pipe 8WD4208-0EF/8WD4308-0E.
- ⑫ Foot with pipe 8WD4308-0DA
- ⑬ Socket (magnetic fixing) 8WD4308-0DE
- ⑭ Foot for mounting with pipe 8WD4308-0DB
- ⑮ Foot for mounting with pipe (> 400 mm) 8WD4308-0DC
- ⑯ Adjustable-angle foot for mounting on pipes 8WD4408-0DF
- ⑰ Bracket for mounting with foot 8WD4408-0CC
- ⑱ Optional 8WD4408-0FA labeling panel

8WD44 signaling column (width 70 mm) with up to 5 elements

SIRIUS 8WD4 Signaling Columns

General data

More information

Homepage, see www.siemens.com/sirius-commanding
 Industry Mall, see www.siemens.com/product?8WD4
 Manual, see <https://support.industry.siemens.com/cs/ww/en/view/107194954>

Two product series are available:

- 8WD42
 - Thermoplast enclosure, diameter 50 mm
 - Degree of protection IP54
 - Up to 4 elements can be mounted between the connection element and the cover
- 8WD44
 - Thermoplast enclosure, diameter 70 mm
 - Advanced design and significantly improved illumination
 - Fast and flexible connection using spring-type terminals
 - Integrated degree of protection IP65
 - Up to 5 elements can be mounted between the connection element and the cover



Signaling columns, mounting examples

The illustrated examples are from the left:

- 8WD42: Cover (without No.), four light elements ②, connection element ④, pipe ⑧, foot ⑨
- 8WD44: Acoustic element with cover ①, two light elements ②, connection element ⑤, foot with pipe ⑪
- 8WD44: Cover (without No.), four light elements ②, AS-Interface adapter element ③, connection element ④, bracket for wall mounting ⑥
- 8WD44: Cover (without No.), three light elements ②, AS-Interface adapter element ③, connection element ⑤, foot with pipe ⑪

Note:

The cover is supplied with the connection element.

Application

8WD4 signaling columns are used in machines or in automatic processes for monitoring complex procedures or as visual or acoustic warning devices in emergency situations, e.g. for displaying individual assembly stages.

Communication capability

Connection to AS-Interface

The 8WD4 signaling columns can be directly connected to the AS-Interface bus system through an adapter element that can be integrated in the column. Wiring outlay is reduced as the result. The two-wire bus cable is fixed to the terminals in the connection element. Up to four signaling elements can be mounted on it using an adapter element.

A/B technology enables the connection of up to 62 slaves on one AS-Interface system.

Connection

The signaling elements are wired up using terminals in the connection element, screw terminals on the 8WD42 and screw or spring-type terminals on the 8WD44.

Cable outlet

The connecting cables can be guided either downwards or sideways through the cable gland using an adapter that can be screwed under the foot. This makes wiring easier if there is no access from below.

Connection to AS-Interface

8WD42

The two-wire bus cable is fixed to the screw terminals in the connection element. The adapter element must be the first module to be mounted on the connection element. A maximum of four signaling elements can then be mounted on it.

The 8WD4228-0BB adapter element is a standard slave.

8WD44

The two-wire bus cable is fixed to the screw or spring-type terminals in the connection element. The adapter element must be the first module to be mounted on the connection element. The signaling elements can then be mounted on it.

The 8WD4428-0BE adapter element is a standard slave. A maximum of four signaling elements can be mounted on it.

The 8WD4428-0BD adapter element with A/B technology enables the connection of up to 62 slaves on one AS-Interface system. The addressing socket provides user-friendly parameterization of the AS-Interface elements. A maximum of three signaling elements can be mounted on it.

Benefits

- Choice of various light and acoustic elements with different functions: Continuous light, blinklight, flashlight and rotating light; buzzer and siren
- Light elements with particularly long-lasting LEDs
- Variety of colors: red, yellow, green, white or blue
- Optimized illumination through improved prism technology with the 8WD44
- Acoustic elements can be adjusted in tone and volume
- Extremely resistant to shock and vibrations
- Easy connection and quick lamp change with secure bayonet mechanism
- Communication capability through connection to AS-Interface

Technical specifications

Type	8WD42	8WD44
General data		
Approvals	UL, CSA	UL, CSA
Light and acoustic elements		
Rated voltage, power consumption		
Light elements with incandescent lamp	(AC values for 50/60 Hz)	(AC values for 50/60 Hz)
• Continuous lights	12 V, 24 V, 115 V, 230 V AC/DC	12 V, 24 V, 115 V, 230 V AC/DC
• Blinklights	24 V AC/DC/125 mA; 115 V AC/20 mA; 230 V AC/15 mA	24 V AC/DC/125 mA; 115 V AC/20 mA; 230 V AC/15 mA
• Flashlights	--	24 V DC/125 mA; 115 V AC/20 mA; 230 V AC/35 mA
• Max. inrush current, blinklights/flashlights	--	500 mA
Light elements with integrated LED		
• Continuous lights	24 V AC/DC, 60 mA	24 V AC/DC/25 mA; 115 V AC/25 mA; 230 V AC/25 mA
• Blinklights	24 V AC/DC/60 mA; 115 V AC, 60 mA; 230 V AC, 60 mA	24 V AC/DC, 40 mA
• Rotating lights	--	24 V AC/DC/70 mA
Acoustic elements		
• Buzzer element (tone: pulsating or continuous tone)	85 dB: 24 V AC/DC/30 mA; 115 V AC/DC/35 mA; 230 V AC/35 mA	85 dB: 24 V AC/DC/25 mA; 115 V AC/25 mA; 230 V AC/25 mA
• Siren element (8 tones + amplification can be set, 102 dB)	--	24 V AC/DC/80 mA; 115 V AC/30 mA; 230 V AC/16 mA
• Siren element (95 ... 105 dB)	--	24 V DC/100 mA
Power consumption		
• Incandescent lamps, base BA 15d	W Max. 5	7
• Flashlights, flash energy	Ws --	2
Service life		
• Flashlights	--	4 × 10 ⁶ flashes
AS-Interface adapter elements		
IO code/ID code	8/F	8/E
Power supply		
• Operational voltage	V 18.5 ... 31.6	Through bus cable 18.5 ... 31.6
• Power consumption I_{max}	mA 50	100
Protective measures		
• Watchdog	✓	✓
• Short-circuit/overload protection	External back-up fuse M 1.6 A	✓
• Reverse polarity protection	✓	✓
• Induction protection	N/A	✓
Outputs		
• Load voltage	4 relay outputs External auxiliary voltage 0 ... 30 DC 0 ... 230 AC	3 electronic outputs Through bus cable or external auxiliary voltage, selectable
• Current carrying capacity ΣI_{max}		
- With external auxiliary voltage	A 1.5	0.3
- Without external auxiliary voltage	A --	0.2
Operating temperature	°C -20 ... +50	-20 ... +50
Enclosures		
Enclosure material	Thermoplast (polyamide), impact-resistant, black	Thermoplast (polyamide), impact-resistant, black
Light elements	Thermoplast (polycarbonate)	Thermoplast (polycarbonate)
Mounting		
• Horizontal (base mounting, foot with 25 mm diameter pipe)	✓	✓
• Horizontal (single-hole mounting)	✓	--
• Vertical with bracket	✓	✓
Degree of protection		
• Light elements	IP54	IP65 (seal premounted with every module)
• Acoustic elements, AS-i adapter elements	IP54	IP65
Operating temperature	°C -20 ... +50	-20 ... +50
Connection		
• Conductor cross-sections	mm ² M3 screw terminal Max. 2.5	Spring-type terminals/M3 screw terminals Max. 2.5
• Tightening torque	Nm Max. 0.4	--/ Max. 0.4

SIRIUS 8WD4 Signaling Columns

8WD42 signaling columns, 50 mm diameter

Overview

Features:

- Thermoplast enclosure, diameter 50 mm
- Degree of protection IP54
- Up to four elements can be mounted between the connection element and the cover

Selection and ordering data

Version	Rated voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V		d					
Acoustic elements ¹⁾								
	Buzzer elements 85 dB, tone frequency approx. 2 300 Hz, pulsating or continuous tone, adjustable by means of a wire jumper	24 AC/DC	Black	2	8WD4220-0FA	1	1 unit	41J
		115 AC/DC	Black	2	8WD4240-0FA	1	1 unit	41J
		230 AC	Black	2	8WD4250-0FA	1	1 unit	41J
8WD4220-0FA								
Light elements for incandescent lamps/LEDs, BA 15d bases ²⁾								
	Continuous light elements	24 ... 230 AC/DC	Red	2	8WD4200-1AB	1	1 unit	41J
			Green	2	8WD4200-1AC	1	1 unit	41J
			Yellow	2	8WD4200-1AD	1	1 unit	41J
			Clear	2	8WD4200-1AE	1	1 unit	41J
			Blue	2	8WD4200-1AF	1	1 unit	41J
8WD4200-1AD								
Light elements with integrated LED								
	Continuous light elements	24 AC/DC	Red	2	8WD4220-5AB	1	1 unit	41J
			Green	2	8WD4220-5AC	1	1 unit	41J
			Yellow	2	8WD4220-5AD	1	1 unit	41J
			Clear	2	8WD4220-5AE	1	1 unit	41J
			Blue	2	8WD4220-5AF	1	1 unit	41J
	Continuous light elements	115 AC	Red	2	8WD4240-5AB	1	1 unit	41J
			Green	2	8WD4240-5AC	1	1 unit	41J
			Yellow	2	8WD4240-5AD	1	1 unit	41J
			Clear	2	8WD4240-5AE	1	1 unit	41J
			Blue	2	8WD4240-5AF	1	1 unit	41J
	Continuous light elements	230 AC	Red	2	8WD4250-5AB	1	1 unit	41J
			Green	2	8WD4250-5AC	1	1 unit	41J
			Yellow	2	8WD4250-5AD	1	1 unit	41J
			Clear	2	8WD4250-5AE	1	1 unit	41J
			Blue	2	8WD4250-5AF	1	1 unit	41J
	Blinklight elements	24 AC/DC	Red	2	8WD4220-5BB	1	1 unit	41J
			Green	2	8WD4220-5BC	1	1 unit	41J
			Yellow	2	8WD4220-5BD	1	1 unit	41J
			Clear	2	8WD4220-5BE	1	1 unit	41J
			Blue	2	8WD4220-5BF	1	1 unit	41J
	Blinklight elements	115 AC	Red	2	8WD4240-5BB	1	1 unit	41J
			Green	2	8WD4240-5BC	1	1 unit	41J
			Yellow	2	8WD4240-5BD	1	1 unit	41J
			Clear	2	8WD4240-5BE	1	1 unit	41J
			Blue	2	8WD4240-5BF	1	1 unit	41J
	Blinklight elements	230 AC	Red	2	8WD4250-5BB	1	1 unit	41J
			Green	2	8WD4250-5BC	1	1 unit	41J
			Yellow	2	8WD4250-5BD	1	1 unit	41J
			Clear	2	8WD4250-5BE	1	1 unit	41J
			Blue	2	8WD4250-5BF	1	1 unit	41J
	Flashlight elements	24 AC/DC	Red	2	8WD4220-0CB	1	1 unit	41J
			Green	2	8WD4220-0CC	1	1 unit	41J
			Yellow	2	8WD4220-0CD	1	1 unit	41J
			Clear	2	8WD4220-0CE	1	1 unit	41J
			Blue	2	8WD4220-0CF	1	1 unit	41J
8WD4250-5BF								

8WD4228-0BB

¹⁾ One acoustic element can be mounted per signaling column.
The cover is included in the scope of supply of the acoustic elements and fixed in place.

²⁾ The lamp is not included in the scope of supply. Please order separately.

SIRIUS 8WD4 Signaling Columns

8WD42 signaling columns, 50 mm diameter

Version	Rated voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V		d					
Connection elements								
	Connection elements with cover For mounting on pipes, floors and brackets Essential part for assembling the signaling columns		Black 2	8WD4208-0AA		1	1 unit	41J
Mounting								
	Feet, single	Plastic, for mounting on pipes	2	8WD4308-0DB		1	1 unit	41J
		Metal, for pipe lengths > 400 mm	2	8WD4308-0DC		1	1 unit	41J
		Plastic, for floor mounting (without pipe)	2	8WD4208-0DE		1	1 unit	41J
	Adjustable-angle feet For positioning in 7.5° increments ¹⁾	Plastic, for mounting on pipes, incl. rubber seal	2	8WD4408-0DF		1	1 unit	41J
	Pipes, single	Length 100 mm	2	8WD4208-0EF		1	1 unit	41J
		Length 150 mm	2	8WD4308-0EE		1	1 unit	41J
		Length 250 mm	2	8WD4308-0EA		1	1 unit	41J
		Length 400 mm	2	8WD4308-0EB		1	1 unit	41J
		Length 1 000 mm	2	8WD4308-0ED		1	1 unit	41J
	Sockets for feet	Side cable outlet	2	8WD4308-0DD		1	1 unit	41J
		Side cable outlet, with magnetic fixing ²⁾	2	8WD4308-0DE		1	1 unit	41J
	Brackets for mounting with foot		2	8WD4408-0CC		1	1 unit	41J
	Brackets for wall mounting (plastic)	Mounting without feet or pipe	2	8WD4208-0CD		1	1 unit	41J
	Adapters for single-hole mounting	Mounting without feet and pipe, with M18 thread and fixing nut	2	8WD4208-0EH		1	1 unit	41J
Lamps								
	Incandescent lamps, 5 W							
	Base BA 15d	24 AC/DC	Clear 2	8WD4328-1XX		1	10 units	41J
		115 AC	Clear 2	8WD4348-1XX		1	10 units	41J
230 AC		Clear 2	8WD4358-1XX		1	10 units	41J	
	LEDs							
	BA 15d bases	24 AC/DC	Red 2	8WD4428-6XB		1	1 unit	41J
			Green 2	8WD4428-6XC		1	1 unit	41J
			Yellow 2	8WD4428-6XD		1	1 unit	41J
			Clear 2	8WD4428-6XE		1	1 unit	41J
			Blue 2	8WD4428-6XF		1	1 unit	41J
		115 AC	Red 2	8WD4448-6XB		1	1 unit	41J
			Green 2	8WD4448-6XC		1	1 unit	41J
			Yellow 2	8WD4448-6XD		1	1 unit	41J
			Clear 2	8WD4448-6XE		1	1 unit	41J
			Blue 2	8WD4448-6XF		1	1 unit	41J
		230 AC	Red 2	8WD4458-6XB		1	1 unit	41J
			Green 2	8WD4458-6XC		1	1 unit	41J
			Yellow 2	8WD4458-6XD		1	1 unit	41J
			Clear 2	8WD4458-6XE		1	1 unit	41J
			Blue 2	8WD4458-6XF		1	1 unit	41J

For labeling panels, see 8WD44, page 13/175.

¹⁾ Markings for 30°, 45°, 60° and 90°.²⁾ For horizontal mounting, only 1 element is recommended.* You can order this quantity or a multiple thereof.
Illustrations are approximate

SIRIUS 8WD4 Signaling Columns





8WD44 signaling columns, 70 mm diameter

Overview

Features:

- Thermoplast enclosure, diameter 70 mm
- Advanced design and significantly improved illumination
- Fast and flexible connection using spring-type terminals
- Integrated degree of protection IP65
- Up to five elements can be mounted

Selection and ordering data

Version	Rated voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V		d					
Acoustic elements ¹⁾								
	Buzzer elements 85 dB, pulsating or continuous tone, adjustable by means of a wire jumper	24 AC/DC	Black	2	8WD4420-0FA	1	1 unit	41J
		115 AC	Black	2	8WD4440-0FA	1	1 unit	41J
		230 AC	Black	2	8WD4450-0FA	1	1 unit	41J
	Siren elements , multi-tone, 102 dB, 8 tones and volume are adjustable	24 AC/DC	Black	2	8WD4420-0EA2	1	1 unit	41J
		115 AC	Black	2	8WD4440-0EA2	1	1 unit	41J
		230 AC	Black	2	8WD4450-0EA2	1	1 unit	41J
	Siren elements 95 ... 105 dB, IP40, alternating continuous tone	24 DC	Black	2	8WD4420-0EA	1	1 unit	41J
Light elements for incandescent lamps/LEDs, BA 15d bases ²⁾								
	Continuous light elements	12 ... 230 AC/DC	Red	2	8WD4400-1AB	1	1 unit	41J
			Green	2	8WD4400-1AC	1	1 unit	41J
			Yellow	2	8WD4400-1AD	1	1 unit	41J
			Clear	2	8WD4400-1AE	1	1 unit	41J
			Blue	2	8WD4400-1AF	1	1 unit	41J
Light elements with integrated flash lamps ³⁾								
  	Flashlight elements with integrated electronic flash	24 DC	Red	2	8WD4420-0CB	1	1 unit	41J
			Green	2	8WD4420-0CC	1	1 unit	41J
			Yellow	2	8WD4420-0CD	1	1 unit	41J
			Clear	2	8WD4420-0CE	1	1 unit	41J
			Blue	2	8WD4420-0CF	1	1 unit	41J
		115 AC	Red	2	8WD4440-0CB	1	1 unit	41J
			Green	20	8WD4440-0CC	1	1 unit	41J
			Yellow	2	8WD4440-0CD	1	1 unit	41J
			Clear	20	8WD4440-0CE	1	1 unit	41J
			Blue	20	8WD4440-0CF	1	1 unit	41J
		230 AC	Red	2	8WD4450-0CB	1	1 unit	41J
			Green	2	8WD4450-0CC	1	1 unit	41J
			Yellow	2	8WD4450-0CD	1	1 unit	41J
			Clear	2	8WD4450-0CE	1	1 unit	41J
			Blue	2	8WD4450-0CF	1	1 unit	41J















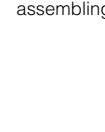
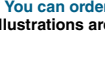




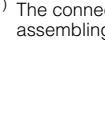



¹⁾ One acoustic element can be mounted per signaling column. The cover is included in the scope of supply of the acoustic elements and fixed in place.

²⁾ The lamp is not included in the scope of supply. Please order separately.

³⁾ The lamp is included in the scope of supply.

SIRIUS 8WD4 Signaling Columns

8WD44 signaling columns, 70 mm diameter

Version	Rated voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V		d					
Light elements with integrated LED								
         	Continuous light elements	24 AC/DC	Red 2	8WD4420-5AB		1	1 unit	41J
			Green 2	8WD4420-5AC		1	1 unit	41J
			Yellow 2	8WD4420-5AD		1	1 unit	41J
			Clear 2	8WD4420-5AE		1	1 unit	41J
			Blue 2	8WD4420-5AF		1	1 unit	41J
	115 AC	Red 2	2	8WD4440-5AB		1	1 unit	41J
		Green 2	2	8WD4440-5AC		1	1 unit	41J
		Yellow 2	2	8WD4440-5AD		1	1 unit	41J
		Clear 2	2	8WD4440-5AE		1	1 unit	41J
		Blue 2	2	8WD4440-5AF		1	1 unit	41J
	230 AC	Red 2	2	8WD4450-5AB		1	1 unit	41J
		Green 2	2	8WD4450-5AC		1	1 unit	41J
		Yellow 2	2	8WD4450-5AD		1	1 unit	41J
		Clear 2	2	8WD4450-5AE		1	1 unit	41J
		Blue 2	2	8WD4450-5AF		1	1 unit	41J
         	Blinklight elements	24 AC/DC	Red 2	8WD4420-5BB		1	1 unit	41J
		Green 2	2	8WD4420-5BC		1	1 unit	41J
		Yellow 2	2	8WD4420-5BD		1	1 unit	41J
		Clear 2	2	8WD4420-5BE		1	1 unit	41J
		Blue 2	2	8WD4420-5BF		1	1 unit	41J
	115 AC	Red 2	2	8WD4440-5BB		1	1 unit	41J
		Green 2	2	8WD4440-5BC		1	1 unit	41J
		Yellow 2	2	8WD4440-5BD		1	1 unit	41J
		Clear 2	2	8WD4440-5BE		1	1 unit	41J
		Blue 2	2	8WD4440-5BF		1	1 unit	41J
	230 AC	Red 2	2	8WD4450-5BB		1	1 unit	41J
		Green 2	2	8WD4450-5BC		1	1 unit	41J
		Yellow 2	2	8WD4450-5BD		1	1 unit	41J
		Clear 2	2	8WD4450-5BE		1	1 unit	41J
		Blue 2	2	8WD4450-5BF		1	1 unit	41J
    	Rotating light elements	24 AC/DC	Red 2	8WD4420-5DB		1	1 unit	41J
		Green 2	2	8WD4420-5DC		1	1 unit	41J
		Yellow 2	2	8WD4420-5DD		1	1 unit	41J
		Clear 2	2	8WD4420-5DE		1	1 unit	41J
		Blue 2	2	8WD4420-5DF		1	1 unit	41J
Adapter elements for AS-Interface								
	AS-Interface adapter elements							
	With/without external auxiliary voltage, switchable							
	• A/B technology	For 3 signaling elements 24 V DC	Black 2	8WD4428-0BD		1	1 unit	41J
	• Standard AS-i	For 4 signaling elements 24 V DC	Black 2	8WD4428-0BE		1	1 unit	41J
Connection elements¹⁾								
	Connection elements with cover		Black					
	Screw terminals							
	• For mounting on pipes		2	8WD4408-0AA		1	1 unit	41J
	• For mounting on brackets and floors		2	8WD4408-0AB		1	1 unit	41J
	Spring-type terminals							
	• For mounting on pipes		2	8WD4408-0AD		1	1 unit	41J
	• For mounting on brackets and floors		2	8WD4408-0AE		1	1 unit	41J
	Cover (replacement)		2	8WD4408-0XA		1	1 unit	41J

¹⁾ The connection element with cover is an essential part for assembling the signaling columns.

SIRIUS 8WD4 Signaling Columns

8WD44 signaling columns, 70 mm diameter




Version				SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				d					
Mounting									
	Feet with pipe	Pipe length 100 mm	2	8WD4308-0DA	1	1 unit	41J		
	Feet, single	Plastic, for mounting on pipes	2	8WD4308-0DB	1	1 unit	41J		
		Metal, for pipe lengths > 400 mm	2	8WD4308-0DC	1	1 unit	41J		
	Adjustable-angle feet For positioning in 7.5° increments ¹⁾	Plastic, for mounting on pipes, incl. rubber seal	2	8WD4408-0DF	1	1 unit	41J		
	Pipes, single	Length 100 mm	2	8WD4208-0EF	1	1 unit	41J		
		Length 150 mm	2	8WD4308-0EE	1	1 unit	41J		
		Length 250 mm	2	8WD4308-0EA	1	1 unit	41J		
		Length 400 mm	2	8WD4308-0EB	1	1 unit	41J		
		Length 1 000 mm	2	8WD4308-0ED	1	1 unit	41J		
	Sockets for feet	Side cable outlet (can also be used without feet)	2	8WD4308-0DD	1	1 unit	41J		
		Side cable outlet, with magnetic fixing ²⁾	2	8WD4308-0DE	1	1 unit	41J		
	Brackets for wall mounting (mounting without feet and pipe)	For single-sided mounting	2	8WD4308-0CA	1	1 unit	41J		
		For double-sided mounting	2	8WD4308-0CB	1	1 unit	41J		
	Brackets for mounting with foot		2	8WD4408-0CC	1	1 unit	41J		
	Brackets for base mounting	Mounting without feet or pipe	2	8WD4408-0CD	1	1 unit	41J		
	Adapter for mounting on pipes according to NPT	Mounting on pipes, Ø 25 mm, with NPT 1/2" thread	2	8WD4308-0DF	1	1 unit	41J		

¹⁾ Markings for 30°, 45°, 60° and 90°.

²⁾ For horizontal mounting, only 1 element is recommended.

SIRIUS 8WD4 Signaling Columns

8WD44 signaling columns, 70 mm diameter

Version	Rated voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V		d					
Lamps								
	Incandescent lamps, 5 W							
	Base BA 15d	24 AC/DC	Clear	2	8WD4328-1XX	1	10 units	41J
		115 AC	Clear	2	8WD4348-1XX	1	10 units	41J
230 AC		Clear	2	8WD4358-1XX	1	10 units	41J	
	LEDs ¹⁾							
	BA 15d bases	24 AC/DC	Red	2	8WD4428-6XB	1	1 unit	41J
			Green	2	8WD4428-6XC	1	1 unit	41J
			Yellow	2	8WD4428-6XD	1	1 unit	41J
			Clear	2	8WD4428-6XE	1	1 unit	41J
			Blue	2	8WD4428-6XF	1	1 unit	41J
		115 AC	Red	2	8WD4448-6XB	1	1 unit	41J
			Green	2	8WD4448-6XC	1	1 unit	41J
			Yellow	2	8WD4448-6XD	1	1 unit	41J
			Clear	2	8WD4448-6XE	1	1 unit	41J
			Blue	2	8WD4448-6XF	1	1 unit	41J
		230 AC	Red	2	8WD4458-6XB	1	1 unit	41J
			Green	2	8WD4458-6XC	1	1 unit	41J
			Yellow	2	8WD4458-6XD	1	1 unit	41J
			Clear	2	8WD4458-6XE	1	1 unit	41J
			Blue	2	8WD4458-6XF	1	1 unit	41J
Inscriptions for 8WD42 and 8WD44								
	Labeling panels			2	8WD4408-0FA	1	1 unit	41J
	With fixing accessories for mounting on pipe Ø 25 mm Inscription area/step 50 mm x 140 mm Suitable for standard labels, e.g. <ul style="list-style-type: none">• Zweckform 3425• Herma 4457							

¹⁾ Only for use with SIRIUS commanding and signaling devices.

SIRIUS 8WD5 Integrated Signal Lamps

8WD53 integrated signal lamps, 70 mm diameter

Overview



8WD53 integrated signal lamps

More information

Homepage, see www.siemens.com/sirius-commanding

Industry Mall, see www.siemens.com/product?8WD5

Manual, see <https://support.industry.siemens.com/cs/ww/en/view/107194954>

Design

Features:

- Thermoplast enclosures, diameter 70 mm
- Degree of protection IP65
- Rated voltage 24 V, 115 V, 230 V AC/DC
- Ambient temperature -20 to +50 °C, incandescent lamp up to 60 °C

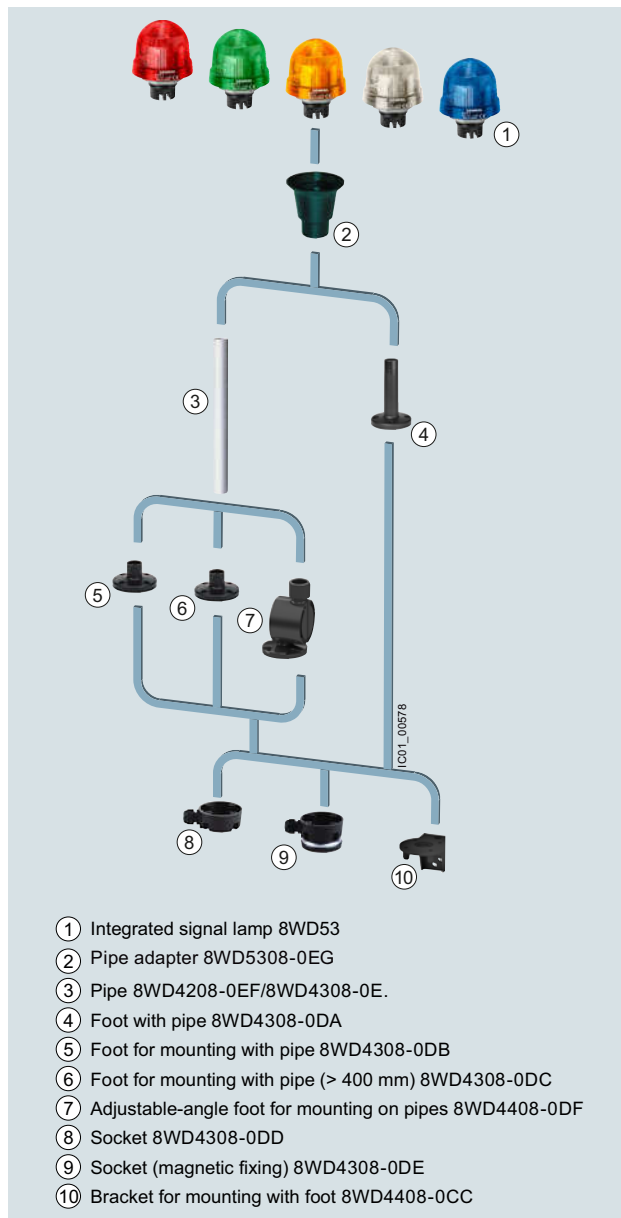
The special shape of the integrated signal lamps means that the light is emitted optimally in every direction (to the sides and upwards). Continuous lights (with incandescent lamp or LED) and single-flash lights are available in five colors. As well as the continuous-light version, a flashing-light or all-round light version is also available.

The LED versions of the integrated signal lamps offer a considerably longer endurance than the incandescent lamp versions.

They all have the high degree of protection IP65 and are made of a material highly resistant to impact.

Mounting

8WD53 integrated signal lamps can be mounted at any point of the machine for the purpose of giving visual signals. They are mounted by means of a PG-29 screw base with nut.



Application

SIRIUS 8WD53 integrated signal lamps can be used as visual signaling devices in harsh ambient conditions and in outdoor installations.

Visual signaling devices for indicating operating conditions can be used for the following applications:

- Manufacturing plants
- Injection molding machines
- Conveyors
- Assembly systems for electronic components

SIRIUS 8WD5 Integrated Signal Lamps

8WD53 integrated signal lamps, 70 mm diameter

Selection and ordering data

Version	Rated voltage	Color	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG		
	V		d							
Luminaires for incandescent lamps/LED ¹⁾ , BA 15d base										
	Continuous lights ²⁾	12 ... 230 AC/DC	Red	2	8WD5300-1AB	1	1 unit	41J		
			Green	2	8WD5300-1AC	1	1 unit	41J		
			Yellow	2	8WD5300-1AD	1	1 unit	41J		
			Clear	2	8WD5300-1AE	1	1 unit	41J		
			Blue	2	8WD5300-1AF	1	1 unit	41J		
Luminaires with integrated flash lamp										
 	Single-flash lights with integrated electronic flash	24 AC/DC	Red	2	8WD5320-0CB	1	1 unit	41J		
			Green	2	8WD5320-0CC	1	1 unit	41J		
			Yellow	2	8WD5320-0CD	1	1 unit	41J		
			Clear	2	8WD5320-0CE	1	1 unit	41J		
			Blue	2	8WD5320-0CF	1	1 unit	41J		
		115 AC	Red	2	8WD5340-0CB	1	1 unit	41J		
			Green	2	8WD5340-0CC	1	1 unit	41J		
			Yellow	2	8WD5340-0CD	1	1 unit	41J		
			Clear	2	8WD5340-0CE	1	1 unit	41J		
			Blue	20	8WD5340-0CF	1	1 unit	41J		
		230 AC	Red	2	8WD5350-0CB	1	1 unit	41J		
			Green	20	8WD5350-0CC	1	1 unit	41J		
			Yellow	2	8WD5350-0CD	1	1 unit	41J		
			Clear	2	8WD5350-0CE	1	1 unit	41J		
			Blue	20	8WD5350-0CF	1	1 unit	41J		
			Luminaires with integrated LED ¹⁾							
			 	Continuous lights	24 AC/DC	Red	2	8WD5320-5AB	1	1 unit
		Green				2	8WD5320-5AC	1	1 unit	41J
Yellow	2	8WD5320-5AD				1	1 unit	41J		
Clear	2	8WD5320-5AE				1	1 unit	41J		
Blue	2	8WD5320-5AF				1	1 unit	41J		
Blinklight lamps	24 AC/DC	Red		2	8WD5320-5BB	1	1 unit	41J		
		Green		2	8WD5320-5BC	1	1 unit	41J		
		Yellow		2	8WD5320-5BD	1	1 unit	41J		
		Clear		2	8WD5320-5BE	1	1 unit	41J		
		Blue		2	8WD5320-5BF	1	1 unit	41J		
Rotating lights	24 AC/DC	Red		2	8WD5320-5DB	1	1 unit	41J		
		Green		2	8WD5320-5DC	1	1 unit	41J		
		Yellow		2	8WD5320-5DD	1	1 unit	41J		
		Clear		2	8WD5320-5DE	1	1 unit	41J		
		Blue		2	8WD5320-5DF	1	1 unit	41J		
Accessories for mounting (optional)										
	Pipe adapters		2	8WD5308-0EG	1	1 unit	41J			
	For mounting on pipes ³⁾									

¹⁾ Only for use with SIRIUS commanding and signaling devices.

²⁾ Lamp not included in scope of supply, see [Signaling Columns, page 13/175](#).

³⁾ For pipes and feet, see [Signaling Columns, page 13/174](#).

SIRIUS 8WD5 Integrated Signal Lamps

Notes

Parameterization, Configuration and Visualization with SIRIUS




clickable

Click on an article number in the catalog PDF to call it up in the Industry Mall and you will have access to all the required information.

Article No.

3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N



ICOT_00413

Or directly on the Internet, e.g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

	Price groups PG 346, 42B, 42C, 42D, 42H, 42J, 42S
14/2	Introduction
14/4	Simulation Tool for Soft Starters (STS)
14/5	SIRIUS Soft Starter ES (TIA Portal) NEW
14/8	SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7
14/10	Motor Starter ES
14/12	SIMOCODE ES (TIA Portal) NEW
14/16	SIMOCODE pro block library for SIMATIC PCS 7
14/19	AS-Interface block library for SIMATIC PCS 7
14/22	SIRIUS Safety ES

Parameterization, Configuration and Visualization with SIRIUS

Introduction

Overview

More information

Homepage, see www.siemens.com/sirius-engineering

Industry Mall, see www.siemens.com/product?3ZS1

Engineering software



SIRIUS ES engineering software (E-SW)

Intuitive, efficient and future-oriented – the engineering programs in the SIRIUS ES software family

The programs of the SIRIUS ES software family enable:

- **Intuitive engineering from the word go**
The SIRIUS ES programs enable you to focus on your engineering task. Thanks to the intuitive layout and simple navigation, a clearly arranged configuring of device functions and their parameters is possible – online and offline. The task- and user-oriented portal views as well as the flexible screen layout, the uniform look and feel for all program editors and finally the graphic network and device configuration all provide support.
- **Efficient parameterization for fast success**
Faster startup is achieved by using local and global libraries. The joint hardware configuration for all components in the application also assists in the efficient parameterization and simple networking of system components. Not least, integrated system diagnostics offers fast troubleshooting and efficient fault analysis, thus making it possible to shorten startup times even further and to minimize production downtimes.
- **Future-oriented basis for innovative results**
All future product developments are seamlessly integrated into the TIA Portal. Investments made up to now are still safe tomorrow. To harmonize engineering in all performance classes, the SIRIUS ES programs in TIA Portal are scalable and upwardly compatible. In the event of an upgrade, existing projects can easily be transferred and integrated into the next product level. Even existing SIRIUS ES projects in version 2007 can easily be migrated to the TIA Portal software version.

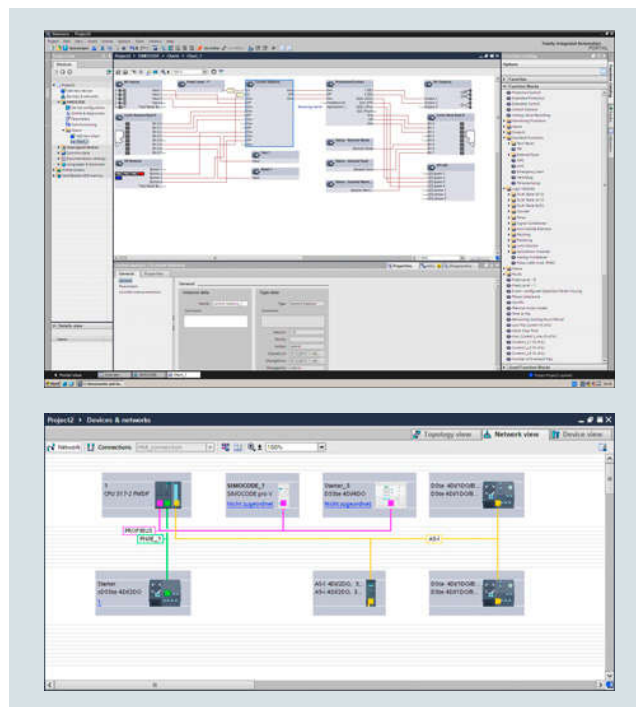
The next generation of SIRIUS ES programs, such as SIMOCODE ES V15 or SIRIUS Soft Starter ES V15, is based on the central engineering framework Totally Integrated Automation Portal (TIA Portal), which provides users with a consistent, efficient and intuitive solution for all automation tasks. Thus, the TIA Portal is also the integrated working environment for the programs in the SIRIUS software family. The same operator control concept, the elimination of interfaces and a high degree of user-friendliness make it possible to quickly integrate SIRIUS devices into an automation process and start them up with the TIA Portal.

The SIRIUS ES programs such as Motor Starter ES, Soft Starter ES, Safety ES and SIMOCODE ES are available in three versions, which differ in terms of user-friendliness, scope of functions and price:

- **Basic**
The basic variant contains all basic functions that are needed to parameterize devices. These include both parameterization functions and also operator control, diagnostics and test functions.
New from version V15, the basic variant is available for downloading free of charge in the Siemens Industry Online Support.
- **Standard**
The standard variant contains the basic functionality plus standard functions. The standard functions include parameterization with the aid of integrated graphic editors, creation of typicals, parameter export, analog value recording and parameter comparison.
- **Premium**
The premium variants contain the complete functionality of the software packages. Besides the standard functionality, this includes communication functions such as access via PROFIBUS/PROFINET and S7 routing.

Note:

The scope of functions depends on the SIRIUS ES program, see the [individual product description for details](#).



Efficient engineering and startup with graphic user interfaces and simple network and device configuration

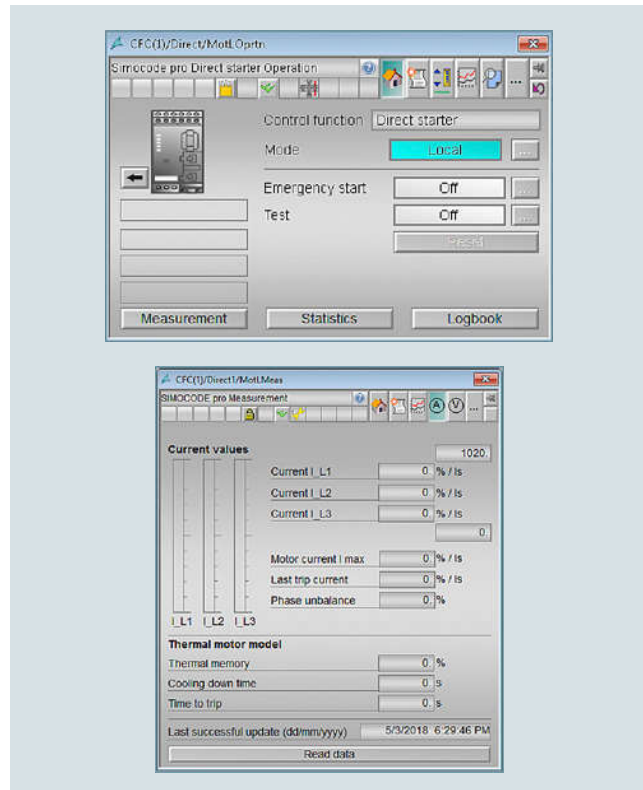
Types of delivery and licenses

The programs of the SIRIUS ES software family are available in the following delivery types:

- Floating license – the license for any one user at any one time
 - Authorizes any one user
 - Independent of the number of installations (unlike the single license which is allowed to be installed once only)
 - Only the actual use of the program has to be licensed
- Combo license – license for parallel use
 - Licensed parallel use of the TIA Portal version and SIRIUS ES version 2007
 - For all other properties such as floating license
- Trial License (free use of all program functions for 14/21 days for testing and evaluation purposes, included on every product CD/DVD, available in the download file of the SIRIUS ES program in the Service&Support portal).

The following delivery versions are also available for a number of programs of the SIRIUS ES software family:

- Upgrade
Switching from an old to a new version with expanded functions, e.g. upgrade from SIMOCODE ES 2007 to SIMOCODE ES V15.
- Software Update Service
To keep you up to date at all times we offer a special service which automatically supplies you with all the service packs and upgrades within the SIRIUS ES (TIA Portal) range of programs.
- License/software download
Simply download your new software and license key from the Internet via the Online Software Delivery (OSD) platform. After you have placed your order in our mall, you will receive your access data by email, which will allow you to immediately download the license or software you have ordered.
More information, see www.siemens.com/tia-online-software-delivery.

Block libraries for SIMATIC PCS 7

Advanced Process Library (APL) – faceplates and blocks for control and measured data of the SIMOCODE pro block library for PCS 7

The corresponding devices can be easily and conveniently installed into the SIMATIC PCS 7 process control system with the PCS 7 block library for SIMOCODE and AS-Interface. PCS 7 block libraries contain the diagnostics and driver blocks corresponding with the diagnostics and driver concept of SIMATIC PCS 7 as well as the elements (symbols and faceplate) required for operator control and process monitoring.

Types of delivery and licenses

The PCS 7 block libraries supplied on CD-ROM allow users to run the required engineering software on the engineering station (single license) including the runtime software for executing the AS blocks in an automation system (single license). If the AS blocks are to be used in additional automation systems, the corresponding number of runtime licenses are required which are supplied without a data carrier.

Notes on security

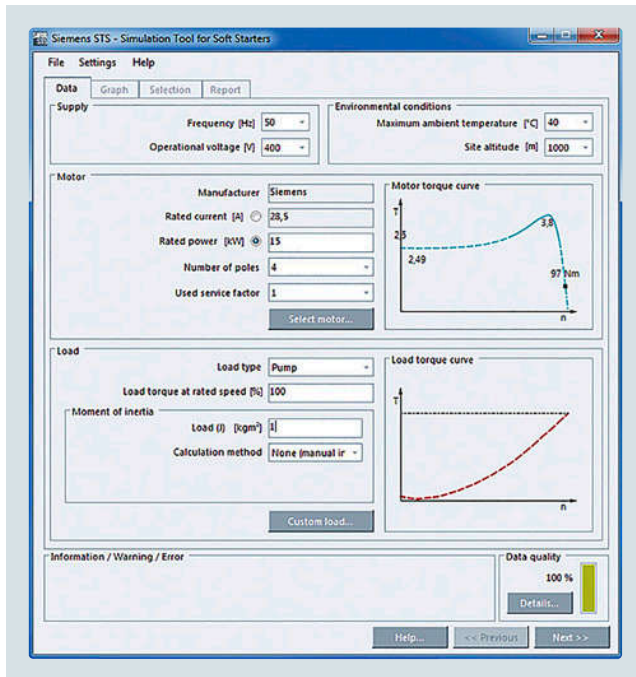
In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens products and solutions represent only one component of such a concept.

For more information about the subject of Industrial Security, see www.siemens.com/industrialsecurity.

Parameterization, Configuration and Visualization with SIRIUS

Simulation Tool for Soft Starters (STS)

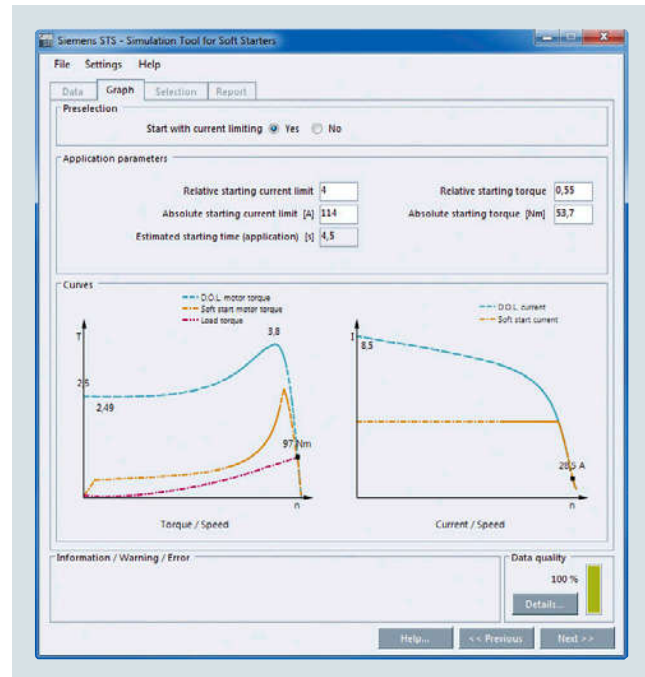
Overview



Easy input of motor and load data

More information

Simulation Tool for Soft Starters (STS), [see](https://support.industry.siemens.com/cs/ww/en/view/101494917)
<https://support.industry.siemens.com/cs/ww/en/view/101494917>



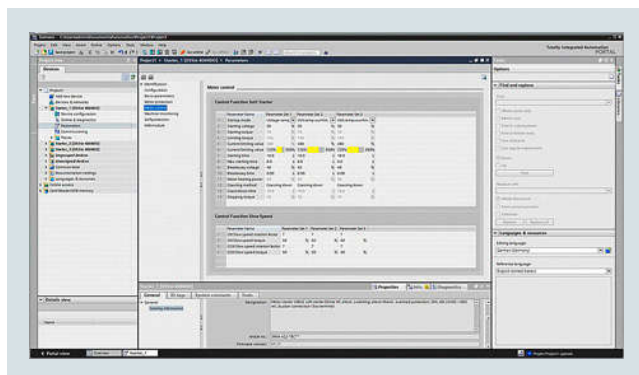
Graphic display of start operations

The Simulation Tool for Soft Starters (STS) provides a convenient means of designing soft starters using a simple, quick and easy-to-use interface. Entering the motor and load data will simulate the application and prompt suggestions for suitable soft starters.

The Simulation Tool for Soft Starters (STS) is available free of charge as a download.

Benefits

- Simple, quick and user-friendly operator interface
- Detailed and up-to-date Siemens motor database, including IE3 and IE4 motors
- Simulation of heavy starting up to CLASS 30
- Update-capable (e.g. motors, load types, functions)
- Fast simulations with minimum input data
- Immediate, graphical curve charts of start operations with limit values
- View in table form of suitable soft starters for the application

Overview

Easy and clearly arranged parameter setting of the 3RW44 and 3RW55 soft starters with SIRIUS Soft Starter ES (TIA Portal)

More information

To download the Basic version, see <https://support.industry.siemens.com/cs/ww/en/view/109753470>

The SIRIUS Soft Starter ES (TIA Portal) software permits quick and easy parameterization, monitoring and diagnostics of SIRIUS 3RW44 and 3RW55 soft starters for service purposes. The device parameters can be configured directly on the PC and transferred to the soft starter through a serial cable or an optional PROFIBUS/PROFINET interface.

New: From V15, the powerful SIRIUS Soft Starter ES Basic tool for startup or maintenance personnel is available for downloading free of charge in the Siemens Industry Online Support (see "More information").

SIRIUS Soft Starter ES V15 is integrated seamlessly when further TIA Portal-based software such as STEP 7 or WinCC is available, thus enabling users to achieve a consistent, efficient and intuitive solution for all automation tasks.

However, use of SIRIUS Soft Starter ES V15 as stand-alone software also provides these advantages.

Efficient engineering with three program versions

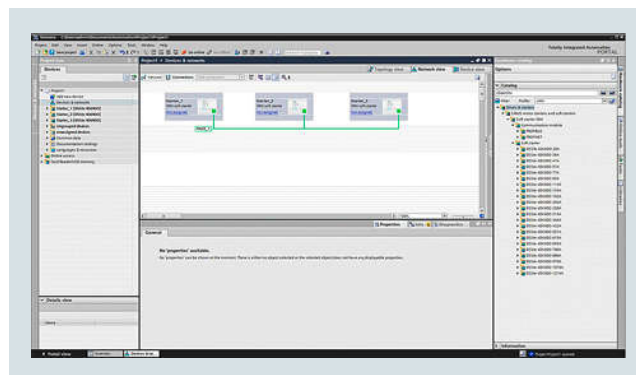
The SIRIUS Soft Starter ES (TIA Portal) software program is available in three versions, which differ in their user-friendliness, scope of functions and price.

SIRIUS Soft Starter ES V15	Basic	Standard	Premium
Access via the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Creation of typicals	--	✓ ¹⁾	✓
Parameter export	--	✓	✓
Comparison functions	--	✓	✓
Service data (slave pointer, statistics data)	--	✓	✓
Access via PROFIBUS/PROFINET	--	--	✓
Parameter comparison	--	--	✓
Teleservice via MPI	--	--	✓
Routing	--	--	✓

✓ Function available

-- Function not available

¹⁾ Typicals with Service Pack 1 and higher.



Graphic presentation of measured values with the trace function (oscilloscope function) of SIRIUS Soft Starter ES (TIA Portal) Standard and Premium

Additional functions

SIRIUS Soft Starter ES V15 offers numerous advantages of the TIA Portal that can be used in an integrated working environment.

Seamless integration

When using other TIA Portal-based software such as STEP 7 or WinCC, for example, the configuration for devices and networks for all components used is created in a standardized environment.

Working with libraries

Users can create copy templates for 3RW44 and 3RW55 soft starter device configuration and can manage them in global or project libraries. This way, individual modules, diagrams and complete device configurations can be saved as reusable elements for frequently occurring tasks.

Teleservice via MPI

The SIRIUS Soft Starter ES (TIA Portal) Premium version supports the use of MPI Teleservice (comprising the Teleservice software and various Teleservice adapters) for remote diagnostics of the devices. This facilitates diagnostics and maintenance, and it shortens response times for service purposes.

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Soft Starter ES (TIA Portal) **NEW**


Benefits

- Transparent setting of the device functions and their parameters – online and offline
- Effective diagnostics functions on the soft starter and display of the most important measured values
- Trace function (oscilloscope function) for recording measured values and events (in the SIRIUS Soft Starter ES (TIA Portal) Standard and Premium versions).
- Complete transparency thanks to printout, logbook and event memory
- High degree of user-friendliness – convenient user interface, with English, German, French, Italian, Spanish and Chinese as possible operating languages
- Time savings thanks to shorter startup times
- Fast, low-cost licensing using a simple licensing procedure (available online too)

Selection and ordering data

SIRIUS Soft Starter ES (TIA Portal) parameterization and service software for SIRIUS 3RW44 and 3RW5 soft starters

- Delivered without PC cable

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
d							
SIRIUS Soft Starter ES V15 Basic							
Basic functional scope including Premium Trial License Engineering software, software download, 6 languages (German/English/French/Italian/Spanish/Chinese), online functions via system interface Available free of charge as a download, see https://support.industry.siemens.com/cs/ww/en/view/109753470							
SIRIUS Soft Starter ES V15 Standard							
	Floating license for one user Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, communication via system interface						
	• License key on USB flash drive, Class A, including DVD	5	3ZS1320-5CC11-0YA5	1	1 unit	42H	
	• License key download, Class A, without DVD	►	3ZS1320-5CE11-0YB5	1	1 unit	42H	
	Software Update Service	5	3ZS1320-5CC00-0YL5	1	1 unit	42H	
	For 1 year with automatic extension, requires the current software version of Soft Starter ES (TIA Portal), engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, communication via system interface						
3ZS1320-5CC11-0YA5		Upgrade for Soft Starter ES 2007 Standard	5	3ZS1320-5CC11-0YE5	1	1 unit	42H
Floating license for one user, engineering software, software and documentation on DVD, license key on USB flash drive, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, online functions via system interface							

Notes:


Soft Starter ES V14 licenses can also be used for Soft Starter ES V15.

Please order PC cable for 3RW44 separately, see page 14/7.

For a description of the software versions, see page 14/5.

Parameterization, Configuration and Visualization with SIRIUS

NEW**SIRIUS Soft Starter ES (TIA Portal)**

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
SIRIUS Soft Starter ES V15 Premium						
	Floating license for one user					
	Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, communication via system interface or PROFIBUS/PROFINET					
	• License key on USB flash drive, Class A, including DVD	5	3ZS1320-6CC11-0YA5	1	1 unit	42H
	• License key download, Class A, without DVD	►	3ZS1320-6CE11-0YB5	1	1 unit	42H
3ZS1320-6CC11-0YA5	Software Update Service	5	3ZS1320-6CC00-0YL5	1	1 unit	42H
	For 1 year with automatic extension, requires the current software version of Soft Starter ES (TIA Portal), engineering software, software and documentation on DVD, Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, communication via system interface or PROFIBUS/PROFINET					
	Upgrade for Soft Starter ES 2007 Premium	5	3ZS1320-6CC11-0YE5	1	1 unit	42H
	Floating license for one user, engineering software, software and documentation on DVD, license key on USB flash drive, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, online functions via system interface or PROFIBUS/PROFINET					

Notes:

Soft Starter ES V14 licenses can also be used for Soft Starter ES V15.

Please order PC cable for 3RW44 separately, [see Accessories](#).

For a description of the software versions, [see page 14/5](#).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional communication modules for SIRIUS 3RW5						
• PROFIBUS	1	3RW5980-0CP00		1	1 unit	42S
• PROFINET	1	3RW5980-0CS00		1	1 unit	42S
• Modbus TCP	1	3RW5980-0CT00		1	1 unit	42S
USB PC cables for SIRIUS 3RW44						
▶ For connecting to the USB interface of a PC/PG, for communication with Soft Starter ES via the 3RW44 system interface		3UF7941-0AA00-0		1	1 unit	42J
Optional communication module for SIRIUS 3RW44						
• PROFIBUS	▶	3RW4900-0KC00		1	1 unit	42H
• PROFINET	▶	3RW4900-0NC00		1	1 unit	42H

3RW5980-0CP00

3UF7941-0AA00-0

3RW4900-0KC00

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7

Overview

More information

Technical specifications, see <https://support.industry.siemens.com/cs/ww/en/ps/16710/td>
 Programming and Operating Manual for "3RW44 Soft Starter PCS 7 Library V8.2" block libraries, see <https://support.industry.siemens.com/cs/ww/en/view/109474959>
 Getting started for "SIRIUS Soft Starter 3RW44 PCS 7 Library V8.2" see <https://support.industry.siemens.com/cs/ww/en/view/109482393>

The SIRIUS 3RW44 Soft Starter PCS 7 block library can be used for simple and easy integration of SIRIUS 3RW44 soft starters into the SIMATIC PCS 7 process control system. The SIRIUS 3RW44 Soft Starter PCS 7 block library contains the diagnostics and driver blocks corresponding with the SIMATIC PCS 7 diagnostics and driver concept as well as the elements (symbols and faceplates) required for operator control and process monitoring.

Integrated functionality for optimal process control for all process control systems

In addition to the general sensor technology, the motor feeder data is increasingly being integrated into the process control system. By integrating the SIRIUS 3RW44 soft starters into the process control system it becomes possible to prevent errors in the motor feeder simply and reliably, or to detect these errors quickly and rectify them. Downtimes are reduced to a minimum or can be prevented before they happen.

For example, the output and display of the key measured values calculated by the 3RW44 is also a good aid for being able to assess and monitor the current system status.

Easy integration with the PCS 7 block library

The PCS 7 block library can be used for simple and easy integration of SIRIUS 3RW44 soft starters into the SIMATIC PCS 7 process control system. The focus here is simple configuration. Functioning of the blocks is based on the PCS 7 standard libraries and is optimally harmonized with the functions of the SIRIUS 3RW44.

Users who have previously integrated motor feeders into conventional technology via signal blocks and motor or valve blocks or, for example, already have experience with SIMOCODE blocks, are easily able to switch to SIRIUS 3RW44.

All blocks required for the automation systems are provided by the PCS 7 block library – as are the block symbols and faceplates for the operator station required for monitoring and control.

With the integration of the SIRIUS 3RW44 into SIMATIC PDM, the system-wide device parameterization and diagnostics of the SIRIUS 3RW44 soft starters are possible from a central point.

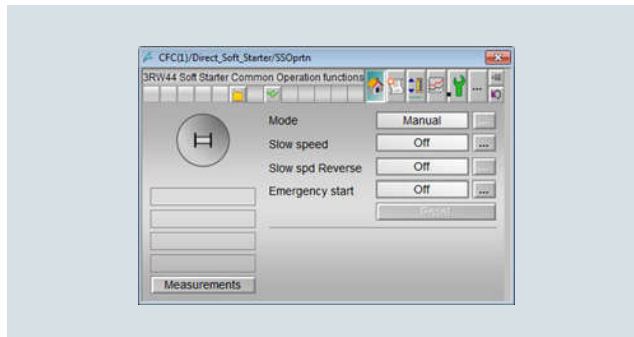
Motor block for direct control of the drive

The low-voltage motors started and protected by SIRIUS 3RW44 soft starters can be integrated into the process automation via the motor blocks. This means that they form the interface between the process control system and the motors controlled by the SIRIUS 3RW44.

To reduce the amount of configuring work required, functions for signal processing and technological functions are integrated into one motor block.

The important measured value – the current in the motor feeder – is recorded via the 3RW44 and monitored for motor protection. The motor current is accessible from the I&C system via the motor blocks.

The block symbols and faceplates for the motor blocks display the motor feeders on the operator station and provide all the required information for monitoring and control as well as detailed diagnostics.



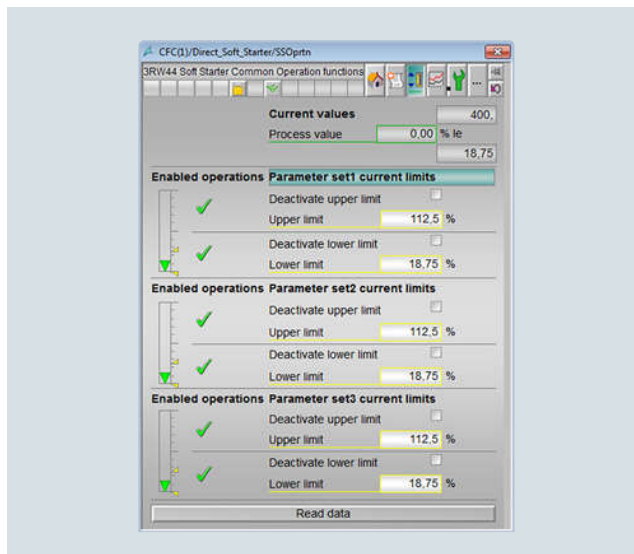
Faceplate of the motor block

Evaluation of additional motor feeder measurements

All measured values calculated by the soft starter, such as current, voltage and output of the feeder, are displayed and output via the measured value blocks. A key advantage here is that where required, a wide range of information on important motor feeder measurements is available, e.g. for load monitoring.

The 3RW44 is not only able to detect measured values here, but also to react if these values are exceeded or undershot, for example, via custom settings – e.g. with a motor shut-down or with a warning.

The faceplate for the measured values is accessed from the motor block faceplate.



Faceplate for measured values

Evaluation of maintenance-related motor feeder data

The 3RW44 has powerful functions to detect and monitor maintenance-related motor feeder data. For example, the operating and downtimes of the motor, operating cycles and overload tripping events are detected and stored directly on the device. If required, the information already on the device is available via the statistics block in the I&C system. The display is provided on a separate faceplate for the statistics block on the operator station.


Parameterization, Configuration and Visualization with SIRIUS

SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7

Benefits

- Uniform and continuous integration into SIMATIC PCS 7
- Standardized blocks for simple integration and optimal operation
- Including Advanced Process Library (APL) in Version V8
- Greater process transparency due to greater information density in the process control system
- System-wide device parameterization and diagnostics with SIMATIC PDM

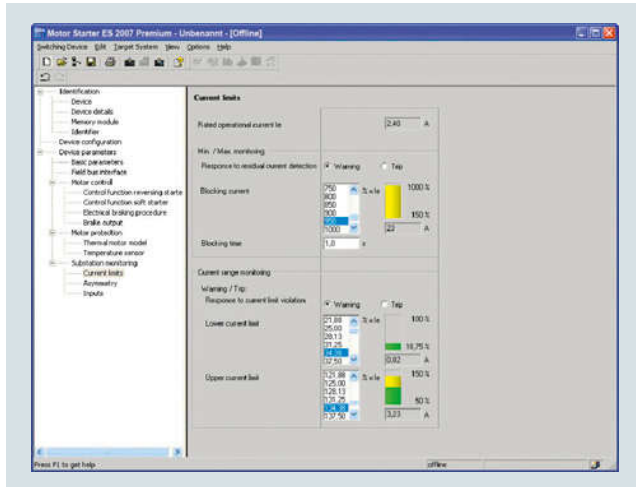
Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7 Version V8 with Advanced Process Library (APL)						
 3ZS1633-1XX02-0YA0	Engineering software V8	5	3ZS1633-1XX02-0YA0	1	1 unit	42H
	For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIRIUS 3RW44 into the PCS 7 process control system with Advanced Process Library, for PCS 7 version V8.0+SP1/V8.1/V8.2/V8.3 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	Runtime license V8	5	3ZS1633-2XX02-0YB0	1	1 unit	42H
	For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V8.0+SP1/V8.1 on an additional automation system within a plant Type of delivery: One license for one automation system, without software and documentation					
	Engineering software migration V7-V8	5	3ZS1633-1XX10-0YE0	1	1 unit	42H
	For upgrading (migrating) an existing engineering software V6.1/V7.0/V7.1 of the SIRIUS 3RW44 Soft Starter block library for PCS 7 Conditions of use: Availability of the engineering software V7 (license) of the SIRIUS 3RW44 Soft Starter block library for PCS 7 for the PCS 7 version V6.1, V7.0 or V7.1 The V7-V8 engineering software migration can be installed directly onto a system with PCS 7 version V8; installation of the previous version is unnecessary. For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIRIUS 3RW44 soft starters into the PCS 7 process control system, for PCS 7 version V8.0 and higher Type of delivery: Software and documentation on CD, license for upgrading an existing license for one engineering station and a plant's assigned runtime licenses					

Parameterization, Configuration and Visualization with SIRIUS

Motor Starter ES

Overview



Motor Starter ES for parameterization, monitoring, diagnostics and testing of motor starters

More information

Technical specifications and system requirements, see <https://support.industry.siemens.com/cs/ww/en/ps/16713/t/d>

Motor Starter ES is used for the startup, parameterization, diagnostics, documentation and preventive maintenance of SIMATIC ET 200S, ET 200pro, ECOFAST and M200D motor starters.

Interfacing is performed

- Via the local interface on the device
- With PROFIBUS DP-V1-capable motor starters from any point in PROFIBUS (applies to ET 200S DP V1/ET 200pro/ECOFAST/M200D)
- With PROFINET-capable motor starters from any point in PROFINET (applies to ET 200S DP V1/ET 200pro/M200D).

Using Motor Starter ES, the communication-capable motor starters are easily parameterized during startup, monitored during normal operation and successfully diagnosed for service purposes. Preventative maintenance is supported by a function for reading out diverse statistical data (e.g. operating hours, operating cycles, cut-off currents, etc.). The user is supported during these procedures with comprehensive Help functions and plain text displays.

Motor Starter ES can either be used as a stand-alone program or it can be integrated into STEP 7 via an Object Manager.

Efficient engineering with three program versions

The Motor Starter ES software program is available in three versions which differ in their user-friendliness, scope of functions and price.

Motor Starter ES	Basic	Standard	Premium
ET 200S High Feature PROFIBUS IM	✓	✓	✓
ET 200S High Feature PROFINET IM	✓	✓	✓
ECOFAST AS-Interface High Feature	✓	✓	--
ECOFAST PROFIBUS	✓	✓	✓
ET 200pro PROFIBUS IM	✓	✓	✓
ET 200pro PROFINET IM	✓	✓	✓
M200D AS-Interface Standard	✓	✓	(✓)
M200D PROFIBUS	✓	✓	✓
M200D PROFINET	✓	✓	✓

✓ Function available, (✓) Available with restricted functionality

-- Function not available

Motor Starter ES	Basic	Standard	Premium
Access via the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	--	✓	✓
Creation of typicals	--	✓	✓
Comparison functions	--	✓	✓
Standard-compliant printout according to EN ISO 7200	--	✓	✓
Service data (slave pointer, statistics data)	--	✓	✓
Access via PROFIBUS	--	--	✓
Access via PROFINET	--	--	✓
S7 routing	--	--	✓
Teleservice via MPI	--	--	✓
STEP 7 object manager ¹⁾	--	--	✓
Trace function	--	✓	✓

✓ Function available

-- Function not available

¹⁾ Only for STEP 7 V5.x

Additional functions

Standard-compliant printouts

The software tool greatly simplifies machine documentation. It enables parameterization printouts according to EN ISO 7200. The elements to be printed are easy to select and group as required.

Easy creation of typicals

Typicals can be created for devices and applications with only minimum differences in their parameters. These typicals contain all the parameters which are needed for the parameterization. In addition it is possible to specify which of these parameters are fixed and which can be adapted, e.g. by the startup engineer.

Teleservice via MPI

The Motor Starter ES Premium version supports the use of MPI Teleservice (comprising the Teleservice software and various Teleservice adapters) for remote diagnostics of the devices. This facilitates diagnostics and maintenance, and it shortens response times for service purposes.

Parameterization, Configuration and Visualization with SIRIUS

Motor Starter ES

Benefits




- Fast, error-free configuration and startup of motor starters even without extensive previous knowledge
- Transparent setting of the device functions and their parameters – online and offline
- Effective diagnostics functions on the soft starter and display of the most important measured values
- Trace function (oscilloscope function) for recording measured values and events (included in the Motor Starter ES Standard and Premium software version for M200D PROFIBUS and PROFINET).

Selection and ordering data

Parameterization, startup and diagnostics software Motor Starter ES 2007

For ECOFAST Motor Starter, SIMATIC ET 200S High-Feature Starter, SIMATIC ET 200pro Starter and M200D (AS-I Standard, PROFIBUS, PROFINET)

- Delivered without PC cable

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Motor Starter ES 2007 Basic						
	Floating license for one user Engineering software in limited-function version for diagnostics purposes, software and documentation on CD, 3 languages (German/English/French), communication via system interface					
	5	3ZS1310-4CC10-0YA5		1	1 unit	42D
	►	3ZS1310-4CE10-0YB5		1	1 unit	42D
3ZS1310-4CC10-0YA5						
Motor Starter ES 2007 Standard						
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface					
	5	3ZS1310-5CC10-0YA5		1	1 unit	42D
	►	3ZS1310-5CE10-0YB5		1	1 unit	42D
3ZS1310-5CC10-0YA5						
Motor Starter ES 2007 Premium						
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface or PROFIBUS/PROFINET, STEP 7 Object Manager					
	5	3ZS1310-6CC10-0YA5		1	1 unit	42D
	►	3ZS1310-6CE10-0YB5		1	1 unit	42D
3ZS1310-6CC10-0YA5						

Notes:

Please order PC cable separately, [see Accessories](#).

For a description of the software versions, [see page 14/10](#).

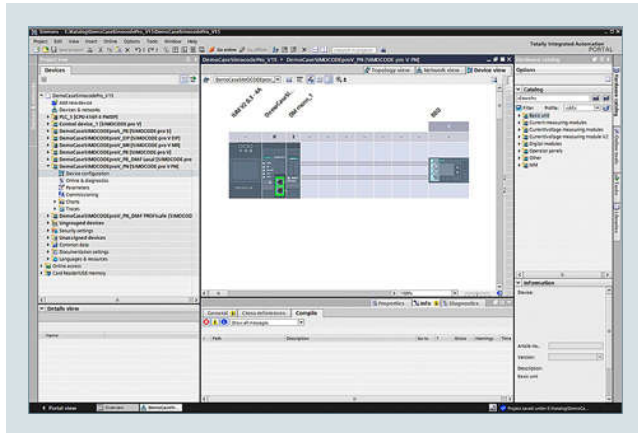
Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories						
RS 232 interface cable Serial data connection between ET 200pro MS/FC, M200D and laptop/PC/PG or MS						
	5	3RK1922-2BP00		1	1 unit	42D
USB interface cable Serial data connection between ET 200pro MS/FC, M200D and laptop/PC/PG or MS						
	3	6SL3555-0PA00-2AA0		1	1 unit	346
USB/serial adapters For connecting an RS 232 PC cable to the USB interface of a PC, recommended for use in conjunction with ET 200S/ECOFAS/ET 200pro motor starters						
	5	3UF7946-0AA00-0		1	1 unit	42J

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal) **NEW**

Overview



Selection of SIMOCODE pro device configuration in SIMOCODE ES (TIA Portal)

More information

Homepage, see www.siemens.com/sirius-engineering

Industry Mall, see www.siemens.com/product?3ZS1

Technical specifications, see

<https://support.industry.siemens.com/cs/ww/en/ps/16716/td>

Software download

- SIMOCODE ES (TIA Portal), see <https://support.industry.siemens.com/cs/ww/en/view/109752321>
- SIMOCODE ES 2007, see <https://support.industry.siemens.com/cs/ww/en/view/109480470>

SIMOCODE ES is the central software for configuration, startup, operation and diagnostics of SIMOCODE pro.

SIMOCODE ES Version 15 is available as a powerful successor to Version 2007, which is based on the central engineering framework Totally Integrated Automation Portal (TIA Portal).

SIMOCODE ES V15 is integrated seamlessly when further TIA Portal-based software such as STEP 7 or WinCC is available, thus enabling users to achieve a consistent, efficient and intuitive solution for all automation tasks.

However, use of SIMOCODE ES V15 as stand-alone software also provides these advantages.

Three program versions

The user can choose between three different versions of SIMOCODE ES:

- SIMOCODE ES Basic
- SIMOCODE ES Standard
- SIMOCODE ES Premium

New: From V15, the powerful SIMOCODE ES Basic tool for startup or maintenance personnel is available for downloading free of charge in the Siemens Industry Online Support (see "More information").

SIMOCODE ES Standard and Premium are the perfect tools for engineers or configuration engineers on account of their larger scope of functions and integrated graphics editor. Unlike the Standard version, SIMOCODE ES Premium also permits parameterization and diagnostics via PROFIBUS/PROFINET/Ethernet. Indication of all operating, service and diagnostics data supplies important information about the current state of the motor and plant at all times – everywhere on PROFIBUS/PROFINET/Ethernet.

SIMOCODE ES V15	Basic	Standard	Premium
Access via the local interface on the device	✓	✓	✓
Parameter assignment in list form	✓	✓	✓
Parameter printing in list form	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Test	✓	✓	✓
Service data	✓	✓	✓
Analog value recording ¹⁾	✓	✓	✓
Trend display of measured values	--	✓	✓
Parameterizing with convenient graphical display	--	✓	✓
Parameterizing with the integrated graphics editor (CFC-based)	--	✓	✓
Printing of diagrams	--	✓	✓
Parameter comparison	--	✓	✓
Access via PROFIBUS/PROFINET/Ethernet ²⁾	--	--	✓
Teleservice via MPI	--	--	✓
Routing ³⁾	--	--	✓

✓ Function available

-- Function not available

¹⁾ For SIMOCODE pro V.

²⁾ In combination with Modbus devices, SIMOCODE ES Premium does not offer any additional functions compared with SIMOCODE ES Standard.

³⁾ See <http://support.automation.siemens.com/WW/view/en/109738745>.

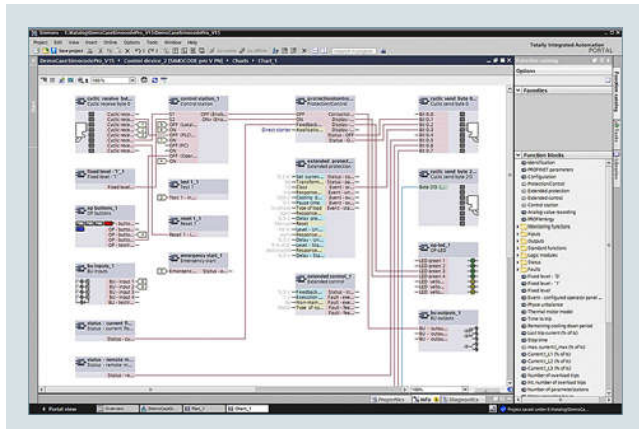
Working with libraries

Users can create copy templates for SIMOCODE pro device configuration and can manage them in global or project libraries.

This way, individual modules, diagrams and complete device configurations can be saved as reusable elements for frequently occurring tasks.

Integrated graphics editor

The graphics editor is a part of SIMOCODE ES Standard and SIMOCODE ES Premium. It is based on the Continuous Function Chart (CFC) and adds a powerful tool to the parameterizing interface that enables easy parameterization of devices by drag & drop. What is more, all the parameters can also be edited directly in the graphics editor. Extremely compact documentation of all configured parameters is possible, as is the graphic online presentation of the configured device functions including all signal states during operation.



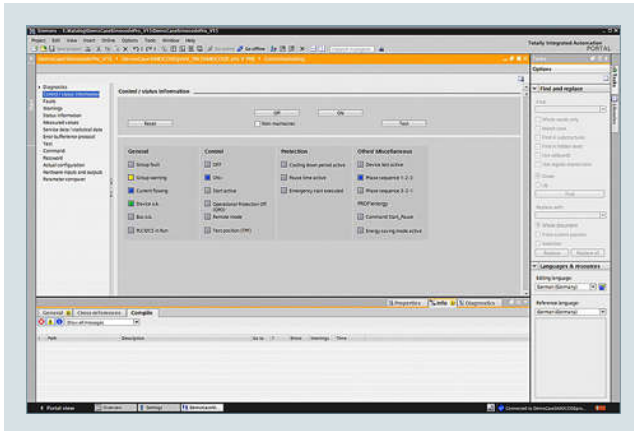
Parameterize easily and ergonomically with the CFC-based graphics editor of SIMOCODE ES V15

Parameterization, Configuration and Visualization with SIRIUS

NEW SIMOCODE ES (TIA Portal)

Online functions for startup and diagnostics

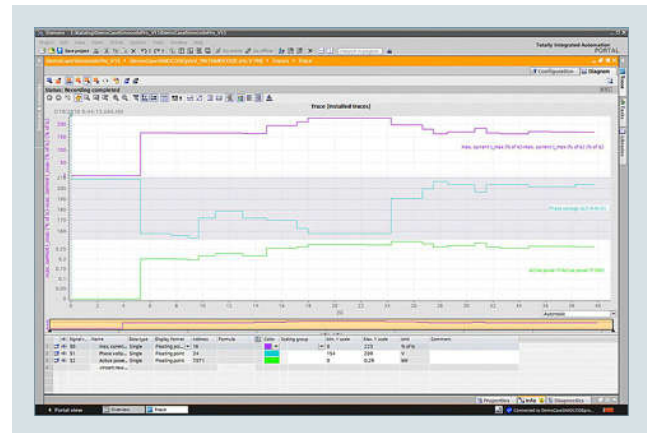
To this end, SIMOCODE ES provides powerful functions for startup and diagnostics of motor feeders. Besides a detailed display of status information and the causes of faults, all available measurement and statistics data can be retrieved online. Access to the fault and event memory and also to analog values recorded on the device, e.g. current or voltage, is also possible.



Commissioning functions of SIMOCODE ES V15

Trend display of measured values

With this online function, SIMOCODE ES Standard or Premium can present the trends of different measured values. It is thus possible for example to record and evaluate the start-up characteristic of a motor or its behavior under different load conditions.



Live trend display of SIMOCODE ES V15

Additional functions

SIMOCODE ES V15 offers numerous advantages of the TIA Portal that can be used in an integrated working environment.

Seamless integration

When using other TIA Portal-based software such as STEP 7 or WinCC, for example, the configuration for devices and networks for all components used is created in a standardized environment.

Teleservice via MPI

The SIMOCODE ES (TIA Portal) Premium version supports the use of MPI Teleservice (comprising the Teleservice software and various Teleservice adapters) for remote diagnostics of the devices. This facilitates diagnostics and maintenance, and it shortens response times for service purposes.

Benefits

- Easy parameterization with the graphics editor based on the Continuous Function Chart (CFC) reduces engineering work and shortens startup times
- Clear plant documentation by means of graphic presentation
- Detailed information, also when there are faults, is a help for maintenance personnel and shortens downtimes
- Universally applicable through stand-alone version or seamless integration into the central engineering framework when other TIA Portal-based software such as STEP 7 or WinCC are available
- Parameter changes are also possible during normal operation
- Users can create copy templates for device configurations and can manage them in global libraries


Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal) **NEW**

Selection and ordering data

Parameterization and service software for SIMOCODE pro 3UF7

- Delivered without PC cable

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
SIMOCODE ES V15 Basic						
Basic functional scope including Premium Trial License	►	3ZS1322-6CE13-0YG8		1	1 unit	42J
Engineering software, software download, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro, online functions via system interface						
SIMOCODE ES V15 Standard						
 3ZS1322-5CC13-0YA5	Floating license for one user					
	Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface, parameterizing with the integrated graphics editor (CFC-based)					
	• License key on USB flash drive, Class A	►	3ZS1322-5CC13-0YA5	1	1 unit	42J
	• License key and software download, Class A	►	3ZS1322-5CE13-0YB5	1	1 unit	42J
	Upgrade for SIMOCODE ES 2007 Standard	2	3ZS1322-5CC13-0YE5	1	1 unit	42J
Floating license for one user, engineering software, software and documentation on DVD, license key on USB flash drive, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface, parameterizing with integrated graphics editor (CFC-based)						
	Software Update Service	►	3ZS1322-5CC00-0YL5	1	1 unit	42J
For 1 year with automatic extension, requires software version of SIMOCODE ES (TIA Portal), engineering software, software and documentation on DVD, online functions via system interface, parameterizing with integrated graphics editor (CFC-based)						

Notes:


SIMOCODE ES V12/V13/V14 licenses can also be used for SIMOCODE ES V15.

Please order PC cable separately, [see page 14/15](#).


For a description of the software versions, [see page 14/12](#).

Parameterization, Configuration and Visualization with SIRIUS

NEW SIMOCODE ES (TIA Portal)

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
SIMOCODE ES V15 Premium						
 3ZS1322-6CC13-0YA5		Floating license for one user				
		Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/Ethernet, parameterizing with the integrated graphics editor (CFC-based)				
		<ul style="list-style-type: none"> License key on USB flash drive, Class A ▶ 3ZS1322-6CC13-0YA5 License key and software download, Class A ▶ 3ZS1322-6CE13-0YB5 		1	1 unit	42J
				1	1 unit	42J
	2	Upgrade for SIMOCODE ES 2007 Premium		1	1 unit	42J
		Floating license for one user, engineering software, software and documentation on DVD, license key on USB flash drive, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V15 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/Ethernet, parameterizing with the integrated graphics editor (CFC-based)				
		Software Update Service ▶ 3ZS1322-6CC00-0YL5		1	1 unit	42J
		For 1 year with automatic extension, requires software version of SIMOCODE ES (TIA Portal), engineering software, software and documentation on DVD, online functions via system interface and PROFIBUS/PROFINET/Ethernet, parameterizing with integrated graphics editor (CFC-based)				

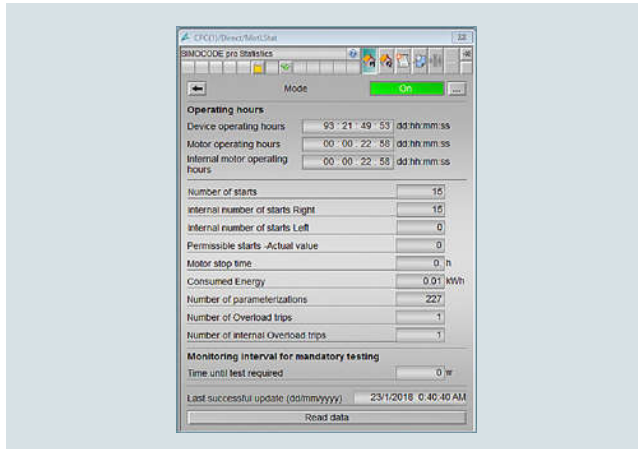
Notes:Please order PC cable separately, [see Accessories](#).For a description of the software versions, [see page 14/12](#).**Accessories**

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories						
 3UF7941-0AA00-0		USB PC cables ▶ 3UF7941-0AA00-0		1	1 unit	42J
		For connecting to the USB interface of a PC/PG, for communication with SIMOCODE ES via the system interface				
	5	USB/serial adapters ▶ 3UF7946-0AA00-0		1	1 unit	42J
		For connecting an RS 232 PC cable to the USB interface of a PC, recommended for use in conjunction with SIMOCODE ES				

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE pro block library for SIMATIC PCS 7

Overview



Advanced Process Library (APL) – faceplates and blocks for statistical data of the SIMOCODE pro library for PCS 7

More information

Homepage, see www.siemens.com/sirius-engineering

Industry Mall, see www.siemens.com/product?3ZS1

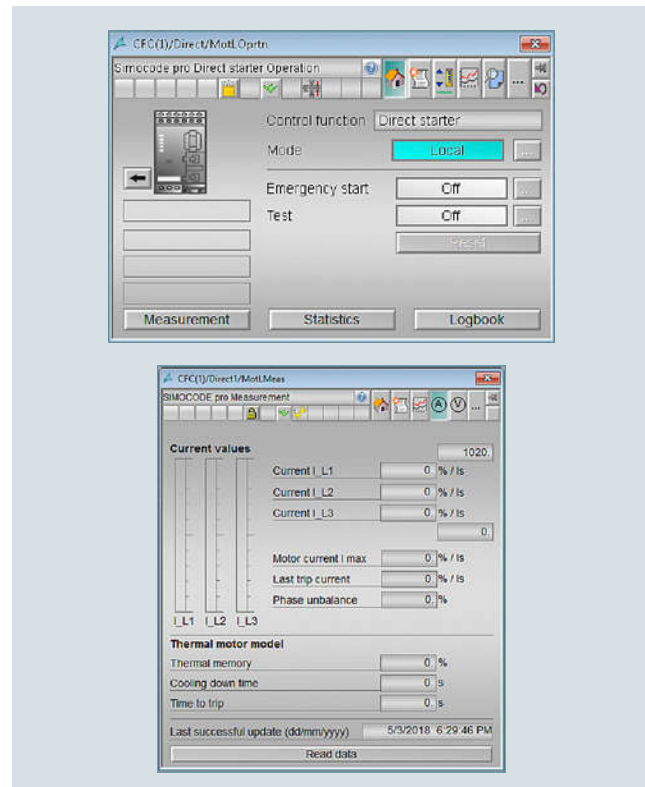
Technical specifications, see

<https://support.industry.siemens.com/cs/ww/en/ps/16718/td>

Programming and Operating Manual:

- Version V9.0 SP1 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/109759318>
- Version V9.0 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/109748465>
- Version V8.3 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/109758847>
- Version V8.2 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/103954289>
- Version V7-V9 migration, see <https://support.industry.siemens.com/cs/ww/en/view/109749358>

The PCS 7 block library can be used for simple and easy integration of SIMOCODE pro into the SIMATIC PCS 7 process control system. One focus here is on easy configuration, because the number of required configuration steps is reduced crucially. The configuration of the modules is based on the PCS 7 standard configuration processes and is optimally harmonized with the functions of SIMOCODE pro. Users who have previously integrated conventional motor feeders into PCS 7 will therefore find it easy to switch to SIMOCODE pro.



Advanced Process Library (APL) – faceplates and blocks for control and measured data of the SIMOCODE pro library for PCS 7



Benefits

- Uniform and continuous integration into SIMATIC PCS 7
- Standardized blocks for simple integration and optimal operation
- Greater process transparency due to greater information density in the process control system

Parameterization, Configuration and Visualization with SIRIUS


SIMOCODE pro block library for SIMATIC PCS 7

Selection and ordering data

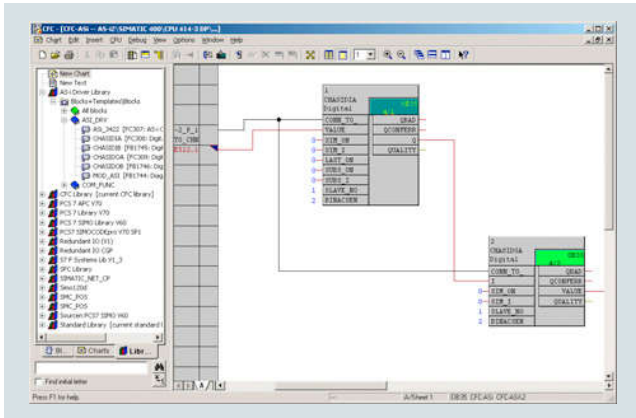
Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE pro block library for SIMATIC PCS 7 version V9 with Advanced Process Library (APL)						
 3ZS1632-1XX03-0YA0		Engineering software V9		1	1 unit	42J
		For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system with Advanced Process Library, for PCS 7 version V9.0 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system				
		Runtime license V9		1	1 unit	42J
		For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V9 within a plant Type of delivery: One license for one automation system, without software and documentation				
SIMOCODE pro block library for SIMATIC PCS 7 version V8 with Advanced Process Library (APL)						
 3ZS1632-1XX02-0YA0	2	Upgrade for PCS 7 block library SIMOCODE pro V8		1	1 unit	42J
		To version SIMOCODE pro V9 for one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system with Advanced Process Library, for PCS 7 version V9.0 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system				
		Engineering software V8		1	1 unit	42J
		For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system with Advanced Process Library, for PCS 7 versions V8.1 and V8.2 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system				
		Runtime license V8		1	1 unit	42J
		For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V8 within a plant Type of delivery: One license for one automation system, without software and documentation				

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE pro block library for SIMATIC PCS 7

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
SIMOCODE pro block library for SIMATIC PCS 7 version V7 without Advanced Process Library (APL)						
 3UF7982-0AA10-0	▶	Engineering software V7		1	1 unit	42J
		For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English/French				
		Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 versions V7.0/V7.1 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system				
	▶	Runtime license V7		1	1 unit	42J
		For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V7 or the engineering software migration V7-V9 on an additional automation system within a plant Type of delivery: One license for one automation system, without software and documentation				
	▶	Engineering software migration V7-V9		1	1 unit	42J
		For upgrading (migrating) an existing engineering software V7 of the SIMOCODE pro block library for PCS 7 Conditions of use: Availability of the engineering software V7 (license) of the SIMOCODE pro block library for PCS 7 for the PCS 7 version V7.0 or V7.1 The engineering software migration V7-V9 can be installed directly onto a system with PCS 7 versions V8 or V9; installation of the previous version is unnecessary. For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English/French Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 versions V8.0/V8.1/V8.2/V9.0 Type of delivery: Software and documentation on CD, license for upgrading an existing license for one engineering station and a plant's assigned runtime licenses				

Overview



AS-Interface block library for SIMATIC PCS 7 in the CFC chart

More information

Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16719/t4>
 Programming Manual:

- Version V9 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/109760970>
- Version V8 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/90690873>
- Version V7-V9 migration without Advanced Process Library, see <https://support.industry.siemens.com/cs/ww/en/view/109750134>
- Version V7 without Advanced Process Library, see <https://support.industry.siemens.com/cs/ww/en/view/46504691>

The AS-Interface block library for PCS 7 is integrated in the SIMATIC PCS 7 process control system and expands it for integration of the AS-Interface system.

As the result, the advantages of AS-Interface such as the considerable reduction of wiring outlay for distributed actuators/sensors and very simple installation can also be used in a system based on PCS 7.

The library contains blocks for accessing the I/O data of AS-i slaves, blocks for diagnostics of the AS-i system, and faceplates for the PCS 7 Maintenance Station.

Supported AS-Interface modules

The AS-Interface block library for PCS 7 can be used with the following AS-i master and link modules, [see also page 2/1](#):

- CM AS-i Master ST (in ET 200SP station)
3RK7137-6SA00-0BC1
(engineering software V9 and V8.1 only)
- CP 343-2 (in ET 200M station) 6GK7343-2AH01-0XA0
- CP 343-2P (in ET 200M station) 6GK7343-2AH11-0XA0
- DP/AS-i Link Advanced single master 6GK1415-2BA10
- DP/AS-i Link Advanced double master 6GK1415-2BA20
- IE/AS-i Link PN IO single master 6GK1411-2AB10
(engineering software V9 or V8.1 and V8 only)
- IE/AS-i Link PN IO double master 6GK1411-2AB20
(engineering software V9 or V8.1 and V8 only)

The CM AS-i Master ST module is supported with IM 155-6 PN High Feature within an ET 200SP station interfaced via PROFINET.

The AS-i Master CP 343-2 and CP 343-2P are supported within an ET 200M station interfaced via PROFINET or PROFIBUS.

With the CM AS-i Master ST, CP 343-2 or CP 343-2P modules, digital AS-i slaves with standard addressing and extended addressing (A/B slaves, [see also note under "Application"](#)) can be operated via the library.

In combination with the IE/AS-i Link PN IO and the DP/AS-i Link Advanced, it is possible to integrate digital and analog AS-i slaves with standard and extended addressing (A/B slaves).

Hardware and software requirements

The libraries require the following PCS 7 versions:

- Engineering software V9: PCS 7 version from V9
- Engineering software V8.1: PCS 7 version V8.0 SP1 update 3 and higher, can also be used for PCS 7 versions V8.1 and V8.2
- Engineering software migration V7-V9: PCS 7 version V8.0 SP1 and higher, can also be used for PCS 7 versions V8.1, V8.2 and V9
- Engineering software V7: PCS 7 versions V6.1, V7.0 or V7.1

The engineering software migration V7-V9 comprises the same interconnection logic of the CFC blocks as the engineering software V7 and is recommended for the switch to PCS 7 V8 or PCS 7 V9 with only a few adjustments required in the PCS 7 project.

The engineering software V9 and engineering software V8.1 use APL interconnection logic and are recommended for new PCS 7 projects.

Benefits

- Easy connection of AS-Interface to PCS 7
- Engineering work reduced to positioning and connecting the blocks in the CFC

- With no additional configuring steps required for connection to the PCS 7 Maintenance Station, diagnostics for the AS-i system are optimally guaranteed.

Application

The AS-Interface block library for PCS 7 is used in systems based on PCS 7 where the actuators and sensors are connected using AS-Interface.



Note:

The AS-i masters CP 343-2 and CP 343-2P do not transmit I/O data from AS-i slaves with a B address via the cyclic process image (partition), but via data records. To prevent delays in the communication of driver blocks for B slaves, we recommend avoiding the use of AS-i slaves with B addresses for PCS 7 configurations with CP 343-2 or CP 343-2P.

Parameterization, Configuration and Visualization with SIRIUS



AS-Interface block library for SIMATIC PCS 7

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
AS-Interface block library for SIMATIC PCS 7 version V9 with Advanced Process Library (APL)						
 3ZS1635-1XX03-0YA0	Engineering software V9	2	3ZS1635-1XX03-0YA0	1	1 unit	42C
	For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system with Advanced Process Library (APL), for PCS 7 version V9 and higher Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	Runtime license V9	2	3ZS1635-2XX03-0YB0	1	1 unit	42C
	For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V9 on an additional automation system within a plant Type of delivery: One license for one automation system, without software and documentation					
AS-Interface block library for SIMATIC PCS 7 version V8 with Advanced Process Library (APL)						
 3ZS1635-1XX02-0YA0	Engineering software V8.1	2	3ZS1635-1XX02-0YA0	1	1 unit	42C
	For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system with Advanced Process Library (APL), for PCS 7 version V8.0 SP1 and higher, also able to be used for PCS 7 versions V8.1 and V8.2 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	Runtime license V8	2	3ZS1635-2XX02-0YB0	1	1 unit	42C
	For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V8 or V8.1 on an additional automation system within a plant Type of delivery: One license for one automation system, without software and documentation					

Parameterization, Configuration and Visualization with SIRIUS

AS-Interface block library for SIMATIC PCS 7

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
AS-Interface block library for SIMATIC PCS 7 version V9 or V8 without Advanced Process Library (APL)						
	Engineering software migration V7-V9	2	3ZS1635-1XX11-0YE0	1	1 unit	42C
3ZS1635-1XX11-0YE0	<p>For upgrading (migrating) an existing engineering software V7 of the AS-Interface block library for PCS 7 or for upgrading (migrating) an existing engineering software V8 or V8.1 of the AS-Interface block library for PCS 7 without APL</p> <p>For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English</p> <p>Conditions of use: Availability of the engineering software V7 (license) of the AS-Interface block library for PCS 7 for the PCS 7 versions V6.1, V7.0 or V7.1, or availability of the engineering software V8 or V8.1 (license) of the AS-Interface block library for PCS 7 for the PCS 7 version V8</p> <p>The engineering software migration V7-V9 can be installed directly onto a system with PCS 7 versions V9 or V8; installation of the previous version is unnecessary.</p> <p>Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system, for PCS 7 versions V9 or V8.0 SP1, V8.1 and V8.2, including block library service pack SP3</p> <p>Type of delivery: Software and documentation on CD, license for upgrading an existing license for one engineering station and a plant's assigned runtime licenses</p>					
AS-Interface block library for SIMATIC PCS 7 version V7 without Advanced Process Library (APL)						
	Engineering software V7	5	3ZS1635-1XX01-0YA0	1	1 unit	42C
3ZS1635-1XX01-0YA0	<p>For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English</p> <p>Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system, for PCS 7 versions V6.1, V7.0 or V7.1 including block library service pack SP1</p> <p>Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system</p>					
	Runtime license V7	5	3ZS1635-2XX01-0YB0	1	1 unit	42C
	<p>For execution of the AS blocks in an automation system (single license)</p> <p>Required for using the AS blocks of the engineering software V7 or the engineering software migration V7-V8 on an additional automation system within a plant</p> <p>Type of delivery: One license for one automation system, without software and documentation</p>					

More information

Notes:

For information about updates and downloads, see <https://support.industry.siemens.com/cs/ww/en/view/109759605>.

For additional information on the use of analog AS-i slaves in a configuration with PCS 7 version V8.1, see

- <https://support.industry.siemens.com/cs/ww/en/view/90880814>
- <https://support.industry.siemens.com/cs/ww/en/view/65710726>

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Safety ES

Overview

More information

Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/21192/td>
 Programming and Operating Manual, see
<https://support.industry.siemens.com/cs/ww/en/view/109444445>.

SIRIUS Safety ES is the engineering software for the configuration, startup and diagnostics of the 3RK3 Modular Safety System and 3SK2 safety relays. The software combines the configuring of the hardware, the parameterization of the safety functions, and the testing and diagnostics of the safety system.

Efficient engineering with three program versions

The SIRIUS Safety ES software program is available in three versions which differ in their user-friendliness, scope of functions and price.

SIRIUS Safety ES	Basic	Standard	Premium
Access via the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Test	--	✓	✓
Integrated graphics editor	✓	✓	✓
Importing/exporting parameters	--	✓	✓
Comparison functions	--	✓	✓
Comfort functions	--	✓	✓
Terminal designator	--	✓	✓
Work on sub-diagrams	--	✓	✓
Standard-compliant printout according to EN ISO 7200	✓	✓	✓
Downloading parameterization via PROFIBUS	--	--	✓
Online diagnostics using PROFIBUS	--	--	✓
Creating, importing and exporting macros	--	--	✓

✓ Function available

-- Function not available

Additional functions

Language selection

The program interface language can be switched during use between German, English and French

Help function

A context-sensitive help function provides useful assistance with questions concerning the use of the program

Consistency check

A consistency check provides clear information about function assignment errors and users are taken directly to errors when the corresponding message is clicked on. Checks are carried out automatically when a project is saved and during the configuration test, but they can also be initiated manually.

Lists

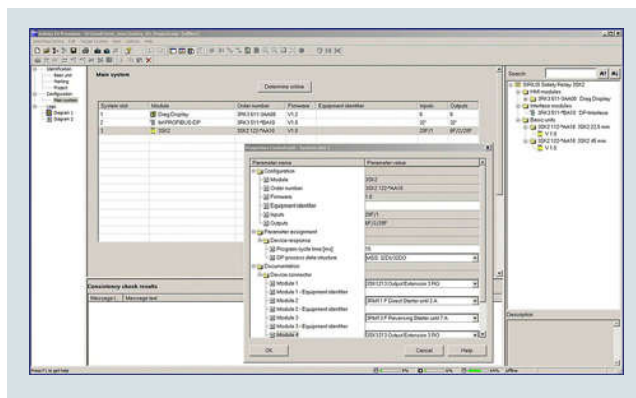
Lists of symbols and cross-references can be issued for effective processing of the project file

Standard-compliant printouts

The programs of the SIRIUS ES software family make machine documentation far easier. They enable parameterization printouts according to EN ISO 7200. The elements to be printed are easy to select and group as required.

Hardware configuration

The device configuration of the 3RK3 or 3SK2 systems is defined in the configuration dialog. The available modules are simply selected from the clearly laid out hardware catalog and positioned in the workspace. Depending on the device system used (3RK3 or 3SK2), only the permitted devices are shown in the hardware catalog in each case. In addition, in the case of the 3RK3, the quantity framework on the AS-i bus can be determined online or configured manually from the AS-i library. For each module, it is optionally possible to issue an equipment ID which is shown in the logic diagram for identification of the inputs and outputs.



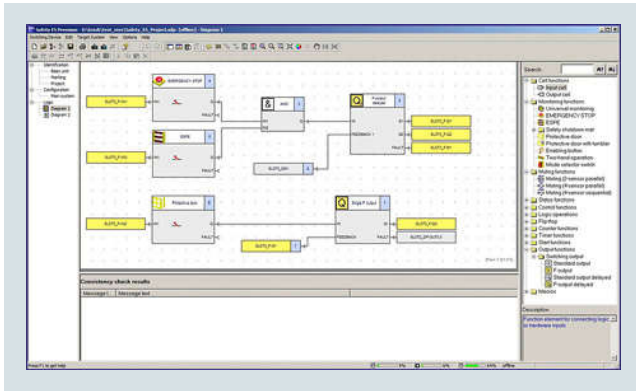
Definition of the hardware layout

Graphic parameterizing of the safety logic via drag & drop

The functionality of the safety logic is laid down with a graphics editor designed for intuitive operation. Safe monitoring functions (EMERGENCY STOP, non-contact protective devices/light arrays, protective doors, etc.), output functions and logic functions (AND/OR operations, counting function, time functions, etc.), non-safety-related input/output functions, device status functions and control functions can be dragged from the extensive functions catalog onto the work interface by drag & drop. Depending on the version, each function has several input and output connecting points through which the functions can be interconnected by simple mouse clicks. Double-clicking on a function symbol opens the related features dialog window in which all the parameters can be displayed and configured: Scope of the function's inputs and outputs, configuring the channel type (single-/two-channel, NC contact/NO contact), activating crossover detection, defining start options, assigning the hardware inputs and outputs, etc. Of course each function can be issued with an individual name so that e.g. the position of a safety switch in the plant can be documented.

The safety logic can be divided into several diagrams in order to enable structured processing of the entire plant. The user can freely position the functions on a quasi infinitely large drawing board, whereby the connecting lines are drawn automatically. If there is not enough space, more pages are automatically added to the diagram in horizontal or vertical direction. Connecting lines extending over several pages are automatically issued with cross-references during print-out. If required in the interest of clarity, the user can divide a connecting line manually into two segments, whereby the mutual reference is marked by reference arrows. For further documentation, freely compilable comment texts can be placed at any point in the diagram. Every point in the logic diagram can be processed with ease by dragging and zooming.

Every project can be saved as a file and be password-protected from unauthorized access.



Processing the safety functions in the graphics editor

AS-Interface

Evaluation of the AS-i slaves connected to the AS-i bus is also parameterized using the tried and tested method described above.

In order to be able to use the AS-i functionalities, a 3RK3 Advanced central unit or 3RK3 ASIsafe central unit (basic/extended) must be used.

User prompting during startup and maintenance

To start up the relevant safety system, the created project file is uploaded to the device. There are two ways of doing this:

- Connect the USB interface of the PC to the device using an appropriate connection cable.
- Use the DP interface to download the parameterization via any PROFIBUS node.

Access to the device can be restricted using a password concept that includes different protection levels.

After the project is loaded, the user switches the device by means of the software from configuring mode to test mode in which the safety functions can be tested.

Activating the diagnostics shows the status of the individual functions in the graphic logic diagram by means of different colors and symbols. In addition, more detailed information about each function element can be displayed in the logic diagram. For the purpose of testing the logic diagram, it is also possible to manually overwrite the signal state of each function element ("forcing").

If the test is completed successfully, the user releases the configuration and switches the device to protection mode, in which case "forcing" is automatically deactivated.

Service personnel can activate the graphic diagnostics in protection mode as well. The I&M (Identification & Maintenance) data saved in the device facilitate maintenance.

Benefits

- Convenient parameterization, operation, monitoring and testing by means of a user-friendly and clear-cut user interface
- Reliable diagnostic tool
- All functions, such as safety and logic functions, are available as modules, and are easy to link to one another
- Automatic creation of comprehensive documentation of safety functions




Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Safety ES

Selection and ordering data

SIRIUS Safety ES parameterization, start-up and diagnostics software

- Delivered without PC cable


Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
d							
SIRIUS Safety ES Basic							
	Floating license for one user Engineering software in limited-function version for diagnostics purposes, software and documentation on CD, 3 languages (German/English/French), communication via system interface		2	3ZS1316-4CC10-0YA5 3ZS1316-4CE10-0YB5	1	1 unit	42B
	<ul style="list-style-type: none">• License key on USB flash drive, Class A• License key download, Class A				1	1 unit	42B
3ZS1316-4CC10-0YA5							
SIRIUS Safety ES Standard							
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface		5	3ZS1316-5CC10-0YA5 3ZS1316-5CE10-0YB5	1	1 unit	42B
	<ul style="list-style-type: none">• License key on USB flash drive, Class A• License key download, Class A				1	1 unit	42B
3ZS1316-5CC10-0YA5							
SIRIUS Safety ES Premium							
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via PROFIBUS or system interface, online diagnostics via PROFIBUS, creating, importing and exporting macros		5	3ZS1316-6CC10-0YA5 3ZS1316-6CE10-0YB5	1	1 unit	42B
	<ul style="list-style-type: none">• License key on USB flash drive, Class A• License key download, Class A				1	1 unit	42B
3ZS1316-6CC10-0YA5							

Notes:

Please order PC cable separately, [see Accessories](#).

For a description of the software versions, [see page 14/22](#).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories						
 <p>USB PC cables</p> <p>For connecting to the USB interface of a PC/PG, for communication with 3RK3 and 3SK2 via the system interface, recommended for use in connection with 3RK3 and 3SK2</p>	►	3UF7941-0AA00-0		1	1 unit	42J

3UF7941-0AA00-0

Power Supply




clickable

Click on an article number in the catalog PDF to call it up in the Industry Mall and you will have access to all the required information.

Article No.

3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N



ICDT_00413

Or directly on the Internet, e.g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

	Price groups PG 581, 582, 583, 584, 585, 586, 588, 58P, 591, 593
15/2	Introduction
	SITOP power supply
15/3	SITOP compact
15/4	LOGO!Power
15/5	SITOP lite
15/6	SITOP smart
15/7	SITOP modular NEW
15/9	SITOP PSU8600 power supply system NEW
15/11	Special design, special use Add-on modules
15/12	- Redundancy modules
15/13	- Selectivity modules
15/13	- Buffer modules
	SITOP DC-UPS Uninterruptible Power Supply
15/14	- DC-UPS with capacitors
15/16	- DC-UPS with battery modules

SITOP Power Supply

Introduction

Overview

More information

Homepage, see www.siemens.com/sitop

Industry Mall, see www.siemens.com/product?SITOP

Further products, see Catalog KT 10.1



**6EP1
SITOP compact**



**6EP3
LOGO!Power**



**6EP1
SITOP lite**



**6EP1
SITOP smart**

SITOP power supplies

Phase		1	1	1	1, 3
Rated input voltage	V	100 ... 230 AC, 110 ... 330 DC	100 ... 240 AC, 110 ... 330 DC	120/230 AC	120/230 AC, 400 ... 500 3 AC
Rated output voltage	V DC	24, 12	5, 12, 15, 24	24	12, 24
Rated output current	A	0.6 ... 6.5	0.6 ... 6.3	2.5 ... 20	2.5 ... 40
Connection		Screw terminal connection	Screw terminal connection	Screw terminal connection	Screw terminal connection
Mounting		Standard rail mounting	Standard rail mounting	Standard rail mounting	Standard rail mounting
Approval		NEC Class 2, , ATEX, GL	, ABS, GL, FM, ATEX		, CSA, ATEX, GL
Page		15/3	15/4	15/5	15/6



**6EP3
• SITOP modular
• PSU8600 power supply
system**



**6EP1
Special design,
special use**



**6EP1
Expansion modules**



**6EP1
SITOP DC-UPS
uninterruptible
power supplies**

SITOP power supplies

Phase		1, 2, 3	1	1	1
Rated input voltage	V	120 ... 230/230 ... 500 AC, 120 ... 230 AC, 400 ... 500 3 AC;	120/230 AC	24 DC	24 DC
Rated output voltage	V DC	24, 36, 48	3 ... 52	U_0 – approx. 0.5, U_0 – approx. 1	24
Rated output current	A	5 ... 40	10	3.5 ... 20, 40, 4 x 3, 4 x 10	6 ... 40
Connection		Screw terminal connection	Screw terminal connection	Screw terminal connection	Screw terminal connection
Mounting		Standard rail mounting	Standard rail mounting	Standard rail mounting	Standard rail mounting (except: wall mounting with SITOP UPS500P)
Approval		, CSA, ATEX, GL, ABS		NEC Class 2, , ATEX, GL	, ATEX, GL, ABS
Pages		15/7, 15/9	15/11	15/12	15/14

Overview

SITOP compact is a series of power supplies for the low performance range. Thanks to the extremely space-saving slim design, they are especially suited to distributed applications in switchboxes or in small control cabinets.








The switching power supply units are characterized by their low power loss over the entire load range. With losses being extremely small even in no-load operation, these units are predestined for supplying machines and plants which are often in stand-by mode, for example. The switching power supply units have a wide range input for AC and DC networks, with plug-in terminals that facilitate easy electrical connection.

To further increase 24 V availability, the SITOP compact power supply units can be combined with DC-UPS, redundancy and selectivity modules, [see pages 15/12 and 15/13](#).

- Small mounting area thanks to narrow design
- Single-phase wide range input for 85 V to 264 V AC and 110 V to 300 V DC
- High degree of efficiency over the entire load range, up to 28% energy savings compared to comparable units
- Low energy consumption in no-load operation and stand-by, possible energy savings of up to 53%
- Adjustable output voltage
- Green LED for "Output voltage OK"
- Plug-in terminals
- Temperature range from -20 °C to +70 °C

Extensive certification, such as UL, ATEX, GL and NEC Class 2 (24 V/3.7 A)

Selection and ordering data

Version	Inputs Rated voltage U_e rated	Outputs Rated voltage U_a rated	Rated current I_a rated	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies										
 6EP1331-5BA00	0.6 A	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	0.6 A	22.5 x 80 x 100	1	6EP1331-5BA00	1	1 unit	584
 6EP1331-5BA10	1.3 A	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	1.3 A	30 x 80 x 100	1	6EP1331-5BA10	1	1 unit	584
 6EP1332-5BA00	2.5 A	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	2.5 A	45 x 80 x 100	1	6EP1332-5BA00	1	1 unit	584
 6EP1332-5BA10	4 A	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	4 A	52.5 x 80 x 100	1	6EP1332-5BA10	1	1 unit	584
 6EP1332-5BA20	3.7 A NEC Class 2	120 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	3.7 A	52.5 x 80 x 100	1	6EP1332-5BA20	1	1 unit	584
12 V power supplies										
 6EP1321-5BA00	2 A	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	2 A	30 x 80 x 100	1	6EP1321-5BA00	1	1 unit	584
 6EP1322-5BA10	6.5 A	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	6.5 A	52.5 x 80 x 100	1	6EP1322-5BA10	1	1 unit	584

SITOP Power Supply

LOGO!Power

Single-phase

Overview

Our new miniature power supply units in the same design as the logic modules offer great performance in the smallest of spaces: Efficiency has been improved across the entire load range, and the low power losses in no-load operation ensure efficient operation.





The wide-range input for single-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the power reserve when switching on capacitive loads makes them suitable for universal use.

These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

To further increase 24 V availability, the LOGO!Power power supply units can be combined with DC-UPS, redundancy and selectivity modules, [see pages 15/12 and 15/13](#).

- Single-phase wide range input from 85 V to 264 V AC and 110 V to 300 V DC
- Low width from a minimum of 18 mm to a maximum of 72 mm saves space in the control cabinet
- Higher efficiency level up to 90% over the entire power range and ERP-compliant no-load losses of < 0.3 W
- Flexible mounting with standard rail or wall mounting in different installation positions
- Load monitoring due to real-time measurement of the output current without disconnecting the cable, i.e. without interrupting the DC supply
- Reliable thanks to assured connection of heavy loads when starting up as well as constant current in the event of overload
- Wide temperature range from -25 °C to +70 °C
- Extensive certification such as cULus, CB, FM, ATEX, cCSAus Class I Div. 2, GL and ABS

Selection and ordering data

	Ver- sion	Inputs Rated voltage $U_{e \text{ rated}}$	Outputs Rated voltage $U_{a \text{ rated}}$	Rated current $I_{a \text{ rated}}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
5 V power supplies											
	3 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	5 V DC ± 3%	3 A	36 x 90 x 53	1	6EP3310-6SB00-0AY0		1	1 unit	583
	6.3 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	5 V DC ± 3%	6.3 A	54 x 90 x 53	1	6EP3311-6SB00-0AY0		1	1 unit	583
12 V power supplies											
	0.9 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	0.9 A	18 x 90 x 53	1	6EP3320-6SB00-0AY0		1	1 unit	583
	1.9 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	1.9 A	36 x 90 x 53	1	6EP3321-6SB00-0AY0		1	1 unit	583
	4.5 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	4.5 A	54 x 90 x 53	1	6EP3322-6SB00-0AY0		1	1 unit	583
15 V power supplies											
	1.9 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	15 V DC ± 3%	1.9 A	36 x 90 x 53	1	6EP3321-6SB10-0AY0		1	1 unit	583
	4 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	15 V DC ± 3%	4 A	54 x 90 x 53	1	6EP3322-6SB10-0AY0		1	1 unit	583
24 V power supplies											
	0.6 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	0.6 A	18 x 90 x 53	1	6EP3330-6SB00-0AY0		1	1 unit	583
	1.3 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	1.3 A	36 x 90 x 53	1	6EP3331-6SB00-0AY0		1	1 unit	583
	2.5 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	2.5 A	54 x 90 x 53	1	6EP3332-6SB00-0AY0		1	1 unit	583
	4 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	4 A	72 x 90 x 53	1	6EP3333-6SB00-0AY0		1	1 unit	583

Overview

The SITOP lite power supplies are designed for standard requirements in industrial environments and offer all important functions at a favorable price.





The wide range input with manual switchover supports connection to a variety of single-phase supply systems.

Thanks to the slim design, the power supplies have a low space requirement on the standard mounting rail, and their excellent degree of efficiency ensures low thermal losses in the control cabinet.

To further increase 24 V availability, the SITOP lite power supplies can be combined with DC UPS, redundancy and selectivity modules, [see pages 15/12 and 15/13](#).

- 24 V/2.5 A, 5 A, 10 A and 20 A for industrial applications with standard requirements
- Single-phase wide range input with manual switchover
- Narrow width
- Excellent degree of efficiency
- Green LED for "24 V OK"
- Can be switched in parallel
- No lateral installation clearances required
- Ambient temperature range from 0 °C to 60 °C (from 45 °C with derating)
- Cooling through natural convection
- Short-circuit and overload protection
- Certification in accordance with CE, cULus and CD

Selection and ordering data

Version	Inputs Rated voltage U_e rated	Outputs Rated voltage U_a rated	Rated current I_a rated A	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies										
 6EP1332-1LB00	2.5 A	120/230 V AC (93 ... 132 V AC/ 187 ... 264 V AC)	24 V DC ± 3%	2.5 A	32.5 x 125 x 120	1	6EP1332-1LB00	1	1 unit	593
 6EP1333-1LB00	5 A	120/230 V AC (93 ... 132 V AC/ 187 ... 264 V AC)	24 V DC ± 3%	5 A	50 x 125 x 120	1	6EP1333-1LB00	1	1 unit	593
 6EP1334-1LB00	10 A	120/230 V AC (93 ... 132 V AC/ 187 ... 264 V AC)	24 V DC ± 3%	10 A	70 x 125 x 120	1	6EP1334-1LB00	1	1 unit	593
 6EP1336-1LB00	20 A	100/230 V AC (85 ... 264 V AC/ 88 ... 370 V DC)	24 V DC ± 3%	20 A	110 x 125 x 125	1	6EP1336-1LB00	1	1 unit	593

SITOP Power Supply

SITOP smart

Single-phase and three-phase

Overview

SITOP smart are the universal and powerful standard power supplies for mechanical and plant engineering.

Despite their compact design, they offer excellent overload behavior: Thanks to a power boost of 150%, loads with high power consumption can be connected without any problems and the permanent overload capability of 120% offers power reserves in case of expansions.

The high degree of efficiency results in low energy consumption and minimal heat generation inside the control cabinet.

To further increase 24 V availability, the SITOP smart power supplies can be combined with buffer, DC-UPS, redundancy and selectivity modules, [see pages 15/12 and 15/13](#).

- Single-phase and three-phase standard applications up to 40 A
- Compact design, no lateral clearances required
- Extra power with 1.5 times the rated current (5 s/min) for brief operational overloads
- Permanent overload capability with 1.2 times the rated current up to 45 °C ambient temperature
- Adjustable output voltage for compensating voltage drops
- Parallel switching option to increase performance
- High degree of efficiency up to 91.5%
- Wide temperature range from -25 °C or 0 °C to +70 °C
- Comprehensive certification such as cULus, cCSAus, ATEX, IECEx and GL

Selection and ordering data

	Rated current $I_{a \text{ rated}}$	Inputs Rated voltage $U_{e \text{ rated}}$	Outputs Rated voltage $U_{a \text{ rated}}$	Dimensions (W x H x D)	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				mm	d					
24 V power supplies										
 6EP1332-2BA20	2.5 A	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	32.5 x 125 x 120	1	6EP1332-2BA20		1	1 unit	582
Limitation of input current harmonics according to IEC 61000-3-2										
 6EP1333-2BA20	5 A	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	50 x 125 x 120	1	6EP1333-2BA20		1	1 unit	582
Limitation of input current harmonics according to IEC 61000-3-2										
 6EP1334-2BA20	10 A	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	70 x 125 x 120	1	6EP1334-2BA20		1	1 unit	582
 6EP1336-2BA10	20 A	120/230 V AC (85 ... 132 V AC/ 176 ... 264 V AC)	24 V DC ± 3%	115 x 145 x 150	1	6EP1336-2BA10		1	1 unit	582
 6EP1433-2BA20	5 A	400 ... 500 V 3 AC (340 ... 550 V 3 AC)	24 V DC ± 3%	50 x 125 x 120	1	6EP1433-2BA20		1	1 unit	582
 6EP1434-2BA20	10 A	400 ... 500 V 3 AC (340 ... 550 V 3 AC)	24 V DC ± 3%	70 x 125 x 120	1	6EP1434-2BA20		1	1 unit	582
 6EP1436-2BA10	20 A	400 ... 500 V 3 AC (340 ... 550 V 3 AC)	24 V DC ± 3%	90 x 145 x 150	1	6EP1436-2BA10		1	1 unit	582
 6EP1437-2BA20	40 A	400 ... 500 V 3 AC (360 ... 550 V 3 AC)	24 V DC ± 3%	150 x 145 x 150	1	6EP1437-2BA20		1	1 unit	582

Overview

SITOP modular are the technology power supplies for demanding solutions and provide maximum functionality for use in complex systems and machines.

The wide-range input enables connection to any power system in the world and ensures high safety even in the event of extreme voltage fluctuations. The power boost provides up to three times the rated current for brief periods, and with the extra power of 150%, loads with high power consumption can be connected without problems. And in the event of an overload there is a choice between constant current or automatic restart. The very high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

To further increase 24 V availability, the SITOP modular power supply units can be combined with buffer, UPS, redundancy and selectivity modules, [see pages 15/12 and 15/13](#).

For demanding applications from 5 A to 40 A







- 48 V/10 A and 20 A enable small conductor cross-sections
- Extremely slim design – no lateral clearances required
- Extra power function for brief operational overloads
- Power boost for tripping protective devices
- Selectable short-circuit behavior
- Optional symmetrical load distribution for parallel operation
- Very high degree of efficiency up to 95%
- Operating status indicated by 3 LEDs
- Wide temperature range from -25 °C to +70 °C
- Extensive certification such as cULus, ATEX, IECEx or GL

Selection and ordering data

Rated current I_a rated	Inputs Rated voltage U_e rated	Outputs Rated voltage U_a rated	Dimensions (W x H x D)	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			mm	d					

24 V power supplies






SITOP modular, single-phase and single- and two-phase

	5 A	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	45 x 125 x 125	1	6EP3333-8SB00-0AY0		1	1 unit	581
6EP3333-8SB00-0AY0										
	10 A	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	55 x 125 x 125	1	6EP3334-8SB00-0AY0		1	1 unit	581
6EP3334-8SB00-0AY0										
	5 A	120 ... 230 V AC/ 230 ... 500 V AC (85 ... 264 V AC/ 176 ... 550 V AC)	24 V DC ± 3%	70 x 125 x 125	1	6EP1333-3BA10		1	1 unit	581
6EP1333-3BA10										
	10 A	120 ... 230 V AC/ 230 ... 500 V AC (85 ... 264 V AC/ 176 ... 550 V AC)	24 V DC ± 3%	90 x 125 x 125	1	6EP1334-3BA10		1	1 unit	581
6EP1334-3BA10										
	20 A	120 ... 230 V AC (85 ... 275 V AC or 88 ... 350 V DC)	24 V DC ± 3%	90 x 125 x 125	1	6EP1336-3BA10		1	1 unit	581
6EP1336-3BA10										
	40 A	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	145 x 145 x 150	1	6EP3337-8SB00-0AY0		1	1 unit	581
6EP3337-8SB00-0AY0										

SITOP Power Supply

SITOP modular

Single-, two- and three-phase

Rated current I_a rated	Inputs Rated voltage U_e rated	Outputs Rated voltage U_a rated	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies (continued)									
SITOP modular, three-phase									
 6EP3436-8SB00-0AY0	20 A	400 ... 500 V 3 AC (320 ... 575 V 3 AC) ± 3%	24 V DC	70 x 125 x 125	1	6EP3436-8SB00-0AY0		1	1 unit 581
 6EP3437-8SB00-0AY0	40 A NEW	400 ... 500 V 3 AC (320 ... 575 V 3 AC) ± 3%	24 V DC ± 3%	135 x 145 x 150	1	6EP3437-8SB00-0AY0		1	1 unit 581
36 V power supplies									
SITOP modular, three-phase									
 6EP3446-8SB10-0AY0	13 A	400 ... 500 V 3 AC (320 ... 575 V 3 AC) ± 3%	13 V DC	70 x 125 x 125	1	6EP3446-8SB10-0AY0		1	1 unit 581
48 V power supplies									
SITOP modular, three-phase									
 6EP3446-8SB00-0AY0	10 A	400 ... 500 V 3 AC (320 ... 575 V 3 AC) ± 3%	48 V DC	70 x 125 x 125	1	6EP3446-8SB00-0AY0		1	1 unit 581
 6EP3447-8SB00-0AY0	20 A NEW	400 ... 500 V 3 AC (320 ... 550 V 3 AC) ± 3%	48 V DC	135 x 145 x 150	1	6EP3447-8SB00-0AY0		1	1 unit 581

SITOP Power Supply

SITOP PSU8600 Power Supply System

Three-phase

Overview

The three-phase basic units of the SITOP PSU8600 power supply system accommodate within their extremely compact width an Ethernet/PROFINET interface as well as four individually parameterizable outputs (voltage and current threshold) with selective monitoring.

Without wiring overhead, further modules from the modular system can be added to expand the number of outputs (CNX8600), to increase the mains buffering time (BUF8600), or to buffer longer power failures (UPS8600 with BAT8600) according to requirements.

Comprehensive diagnostic and maintenance information is available via PROFINET. It can be evaluated directly in SIMATIC S7 and visualized in SIMATIC WinCC.

Energy management is also optimally supported by collecting the energy data for each output as well as individual activation and deactivation of the outputs via PROFlenergy.

The integrated OPC UA server also allows direct integration into automation applications with OPC UA clients made by different manufacturers, e.g. of controllers or PCs. Not only the parameter assignment but also the diagnostics of the power supply system are possible via the open interface.

- Three-phase wide-range input 400 to 500 V 3 AC for global use
- Extremely slim design with very high efficiency of up to 94%
- Versions with a configurable output with up to 20 A or 40 A and selective monitoring.
- Versions with four integrated, individually configured outputs with up to 5 A or 10 A each and selective monitoring
- Voltage and response threshold can be set separately and are infinitely adjustable for each output
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Integrated Ethernet/PROFINET interface (2 ports)
- Easy configuration in the TIA Portal
- Comprehensive diagnostic information during operation
- Outputs can be deactivated and activated selectively via PROFlenergy
- Individual expansion options from the modular system (CNX8600 expansion modules, BUF8600 buffer modules, or UPS8600 with BAT8600 for buffering longer power failures) without wiring overhead

Selection and ordering data

Rated current I_a rated	Inputs Rated voltage U_e rated	Outputs Rated voltage U_a rated	Dimensions (W x H x D)	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			mm	d					

24 V power supplies



6EP3437-8MB00-2CY0

SITOP PSU8600 power supply with Ethernet/PROFINET interface

20 A	400 ... 500 V	4 ... 28 V DC	80 x 125 x 150	1	6EP3436-8SB00-2AY0		1	1 unit	58P
40 A	3 AC		125 x 125 x 150	1	6EP3437-8SB00-2AY0		1	1 unit	58P
20 A (4 x 5 A)			100 x 125 x 150	1	6EP3436-8MB00-2CY0		1	1 unit	58P
40 A (4 x 10 A)			125 x 125 x 150	1	6EP3437-8MB00-2CY0		1	1 unit	58P



6EP4436-8XB00-0CY0

Modular system, expansion of outputs (CNX8600)

4 x 5 A	Infeed from	4 ... 28 V DC	60 x 125 x 150	1	6EP4436-8XB00-0CY0		1	1 unit	58P
4 x 10 A	PSU8600 basic unit		60 x 125 x 150	1	6EP4437-8XB00-0CY0		1	1 unit	58P
8 x 2.5 A NEW	via connector plug		100 x 125 x 150	1	6EP4436-8XB00-0DY0		1	1 unit	58P



6EP4297-8HB00-0XY0

Modular system, buffering (BUF8600)

100 ms/40 A	Infeed from	--	60 x 125 x 150	1	6EP4297-8HB00-0XY0		1	1 unit	58P
300 ms/40 A	PSU8600 basic unit		125 x 125 x 150	1	6EP4297-8HB10-0XY0		1	1 unit	58P
4 s/40 A	via connector plug		60 x 125 x 150	1	6EP4293-8HB00-0XY0		1	1 unit	58P
10 s/40 A			125 x 125 x 150	1	6EP4295-8HB00-0XY0		1	1 unit	58P





6EP4293-8HB00-0XY0

SITOP Power Supply

SITOP PSU8600 Power Supply System

Three-phase

Rated current $I_{a \text{ rated}}$	Inputs Rated voltage $U_e \text{ rated}$	Outputs Rated voltage $U_a \text{ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies (continued)									
Modular system, buffering of longer power failures (UPS8600 with BAT8600) NEW									
	UPS8600 UPS module 40 A	Infeed from PSU8600 basic unit via connector plug	48 V DC	60 x 125 x 150	X	6EP4197-8AB00-0XY0	1	1 unit	58P
6EP4197-8AB00-0XY0									
	BAT8600 LiFePo4 battery module 14 min/40 A	Energy exchange with UPS8600	48 V DC	322 x 187 x 110	X		6EP4143-8JB00-0XY0	1	1 unit
6EP4143-8JB00-0XY0									
	BAT8600 Pb battery module 10 min/40 A		48 V DC	322 x 187 x 110	X	6EP4145-8GB00-0XY0	1	1 unit	58P

SITOP Power Supply


Special Design, Special Use

Single-phase

Overview

SITOP flexi with steplessly adjustable output voltage:
One standard unit for various special voltages.

Selection and ordering data

Rated current $I_{a \text{ rated}}$	Inputs Rated voltage $U_{e \text{ rated}}$	Outputs Rated voltage $U_{a \text{ rated}}$	Dimensions (W x H x D) mm d	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
3 ... 52 V power supplies									
 6EP1353-2BA00	Limitation of input current harmonics according to IEC 61000-3-2; adjustable output voltage 3 V to 52 V, output max. 10 A or 120 W				6EP1353-2BA00		1	1 unit	582
	max. 10 A or 120 W 120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	3 ... 52 V DC ± 1%	75 x 125 x 125 ▶						

SITOP Power Supply

Add-on Modules

Redundancy modules

Overview

A power supply unit on its own cannot guarantee fault-free 24 V supply. Power failures, extreme variations in the mains voltage, or a faulty load can bring plant operation to a standstill and cause high costs. The expansion modules offer extensive protection against malfunctions on the primary and secondary sides, right through to complete all-round protection.

The redundancy module disconnects two 24 V power supply units of the same type, enabling the configuration of a redundant 24 V power supply. If a power supply fails, the 24 V supply is reliably maintained. Signaling takes place via LED as well as signaling contacts whereby the switching threshold for LED and signaling contacts can be adjusted.

For the redundant configuration, power supplies up to:

- 5 A → one redundancy module with 10 A summation current
- 10 A → two redundancy modules with 10 A summation current
- 20 A → one redundancy module with 40 A summation current
- 40 A → two redundancy modules with 40 A summation current




The buffer module bridges brief mains failures for up to several seconds for SITOP smart or SITOP modular 24 V power supply units. Maintenance-free capacitors are used as energy stores.

Buffering times:

- 200 ms at 40 A,
- 400 ms at 20 A,
- 800 ms at 10 A

To increase the buffer time (max. 10 s), up to 8 buffer modules can be connected in parallel. To bridge longer mains failures we recommend using uninterruptible power supplies with capacitors (up into the minutes range) or with battery modules (up into the hours range).

Selection and ordering data

	Inputs Rated voltage $U_{e \text{ rated}}$	Outputs Rated voltage $U_a \text{ rated}$	Rated current $I_a \text{ rated}$	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP PSE202U redundancy module										
 6EP1964-2BA00	24 V DC (19 ... 29 V DC)	U_e – approx. 0.5 V	10 A (Summation current)	30 x 80 x 100	1	6EP1964-2BA00		1	1 unit	588
 6EP1962-2BA00	24 V DC (19 ... 29 V DC)	U_e – approx. 0.5 V	3.5 A (NEC Class 2)	30 x 80 x 100	1	6EP1962-2BA00		1	1 unit	588
 6EP1961-3BA21	24 V DC (24 ... 28.8 V DC)	U_e – approx. 0.5 V	40 A (Summation current)	70 x 125 x 125	1	6EP1961-3BA21		1	1 unit	588

Overview





The SITOP PSE200U selectivity modules and the SITOP select diagnostics module are used in combination with 24 V power supplies for distributing the load current among several current branches and for monitoring the individual partial currents.

Faults caused by overload or short circuits in individual branches are detected and selectively switched off so that the remaining load current paths remain unaffected. Rapid fault diagnosis is achieved and downtimes are minimized.

Signaling is performed via a group alarm contact or single-channel signaling. The selectivity modules with single-channel signaling output the status of the four channels cyclically by means of a serial code which can be read in by a digital PLC input.

Function blocks for SIMATIC S7-1500/1200/300/400 and for SIMOTION CPUs are available free of charge for the evaluation, see <https://support.industry.siemens.com/cs/ww/en/view/61450284>.

Selection and ordering data

	Inputs Rated voltage U_e rated	Outputs Rated voltage U_o rated	Rated current I_a rated	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP PSE200U selectivity modules with summation signal										
 6EP1961-2BA.1	24 V DC (22 ... 30 V DC)	U_o - 0.2 V	4 × 3 A (0.5 ... 3 A)	72 × 80 × 72	1	6EP1961-2BA11		1	1 unit	586
	24 V DC (22 ... 30 V DC)	U_o - 0.2 V	4 × 3 A (0.5 ... 3 A NEC Class 2)	72 × 80 × 72	1	6EP1961-2BA51		1	1 unit	586
	24 V DC (22 ... 30 V DC)	U_o - 0.2 V	4 × 10 A (3 ... 10 A)	72 × 80 × 72	1	6EP1961-2BA21		1	1 unit	586
SITOP PSE200U selectivity modules with single-channel signaling										
 6EP1961-2BA.1	24 V DC (22 ... 30 V DC)	U_o - 0.2 V	4 × 3 A (0.5 ... 3 A)	72 × 80 × 72	1	6EP1961-2BA31		1	1 unit	586
	24 V DC (22 ... 30 V DC)	U_o - 0.2 V	4 × 3 A (0.5 ... 3 A NEC Class 2)	72 × 80 × 72	1	6EP1961-2BA61		1	1 unit	586
	24 V DC (22 ... 30 V DC)	U_o - 0.2 V	4 × 10 A (3 ... 10 A)	72 × 80 × 72	1	6EP1961-2BA41		1	1 unit	586
SITOP select diagnostics modules										
 6EP1961-2BA00	24 V DC (22 ... 30 V DC)	U_o - 0.3 V	4 × 10 A (2 ... 10 A)	72 × 90 × 90	▶	6EP1961-2BA00		1	1 unit	586
Buffer modules										
 6EP1961-3BA01	24 V DC (24 ... 28.8 V DC)	U_o - approx. 1 V	40 A	70 × 125 × 125	1	6EP1961-3BA01		1	1 unit	588

SITOP Power Supply

SITOP DC-UPS Uninterruptible Power Supply

DC-UPS with capacitors

Overview

To combat prolonged power failures, the 24 V SITOP power supply units can be upgraded into a 24 V DC uninterruptible power supply.

SITOP offers two systems with different energy stores for this purpose:

- Capacitors for 24 V buffering in the minute range
- Battery modules which provide a buffer in the hours range

The DC UPS systems are used, for example, in machine tool manufacturing, in the textile industry, on all types of production lines and filling plants, and in conjunction with 24 V industrial PCs. They prevent the negative consequences which often result from mains failures.

To bridge brief power failures, 24 V SITOP power supply units can be expanded with a SITOP UPS500 uninterruptible DC power supply (DC-UPS).

In PC-based automation solutions, the highly capacitive double-layer capacitors of the SITOP UPS500 supply enough energy to safeguard operating and application data and close software applications in a defined manner.

- Buffering into the minutes range depending on the load current and DC-UPS configuration
- SITOP UPS500S basic units for standard mounting rails can be combined with up to three UPS501S expansion modules
- SITOP UPS500P in degree of protection IP65 for distributed applications
- Absolutely maintenance-free double-layer capacitors
- Short charging times
- Long service life even at high ambient temperatures
- No ventilation of the installation location required
- USB interface for PC communication
- Easy PC integration thanks to free software tool





	SITOP UPS500S/UPS501S configurations								UPS500P	
Basic unit	2.5 kW	5 kW	2.5 kW	5 kW	2.5 kW	5 kW	2.5 kW	5 kW	5 kW	10 kW
Expansion modules	--	--	1 x 5 kW	1 x 5 kW	2 x 5 kW	2 x 5 kW	3 x 5 kW	3 x 5 kW	--	--
Total energy	2.5 kW	5 kW	7.5 kW	10 kW	12.5 kW	15 kW	17.5 kW	20 kW	5 kW	10 kW
Load current	Buffer times									
0.5 A	134 s	236 s	390 s	478 s	632 s	748 s	851 s	1 007 s	284 s	647 s
0.8 A	90 s	167 s	266 s	346 s	440 s	527 s	580 s	706 s	190 s	435 s
1 A	75 s	138 s	219 s	296 s	365 s	414 s	490 s	572 s	153 s	351 s
2 A	38 s	76 s	122 s	156 s	203 s	230 s	265 s	306 s	80 s	152 s
3 A	26 s	52 s	82 s	106 s	136 s	159 s	186 s	213 s	53 s	108 s
4 A	19 s	39 s	61 s	81 s	101 s	120 s	139 s	160 s	40 s	84 s
5 A	15 s	31 s	49 s	65 s	81 s	95 s	111 s	130 s	30 s	68 s
6 A	12 s	26 s	40 s	55 s	67 s	80 s	94 s	106 s	25 s	57 s
7 A	10 s	21 s	34 s	47 s	58 s	69 s	81 s	82 s	21 s	49 s
8 A	8 s	18 s	29 s	40 s	50 s	59 s	69 s	79 s	--	--
10 A	6 s	15 s	23 s	32 s	39 s	47 s	54 s	62 s	--	--
12 A	4 s	12 s	19 s	26 s	32 s	38 s	44 s	52 s	--	--
15 A	3 s	9 s	14 s	20 s	25 s	30 s	35 s	40 s	--	--

SITOP Power Supply

SITOP DC-UPS Uninterruptible Power Supply

DC-UPS with capacitors

Selection and ordering data

Version	Inputs Rated voltage $U_{e \text{ rated}}$	Outputs Rated voltage $U_{a \text{ rated}}$	Rated current $I_{a \text{ rated}}$	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP UPS500S										
Basic units 15 A										
	2.5 kW	24 V DC (22 ... 29 V DC)	24 V DC ± 3%	15.2 A + approx. 2.3 A (charging mode)	120 x 125 x 125	1	6EP1933-2EC41	1	1 unit	585
	5 kW	Infeed through SITOP 24 V DC			120 x 125 x 125	1	6EP1933-2EC51	1	1 unit	585
SITOP UPS501 expansion modules										
6EP1933-2EC.1, 6EP1935-5PG01	5 kW	Infeed through basic unit	--	--	70 x 125 x 125	1	6EP1935-5PG01	1	1 unit	585
SITOP UPS500P										
Basic units 7 A, degree of protection IP65										
	5 kW	24 V DC (22.5 ... 29 V DC)	24 V DC ± 3%	7 A + approx. 2 A (charging mode)	400 (without plug) X x 80 x 80	X	6EP1933-2NC01	1	1 unit	585
	10 kW	Infeed through SITOP 24 V DC			470 (without plug) X x 80 x 80	X	6EP1933-2NC11	1	1 unit	585
6EP1933-2NC11										
Accessories										
Connector set for SITOP UPS500P With input and output connector and assembled USB cable 2 m in length						1	6EP1975-2ES00	1	1 unit	591

Note:

For DC-UPS with battery modules, [see from page 15/16](#).

SITOP Power Supply

SITOP DC-UPS Uninterruptible Power Supply

DC-UPS with Battery Modules

SITOP UPS1600 DC-UPS modules

Overview

To bridge longer power failures, 24 V SITOP power supply units can be expanded with a SITOP UPS1600 uninterruptible DC power supply (DC-UPS) and SITOP UPS1100 battery modules.

Intelligent battery management using Energy Storage Link automatically detects the UPS1100 energy storage device, and ensures optimum temperature-controlled charging and continuous monitoring. The compact DC-UPS modules have overload capability, for example, to supply the inrush current of industrial PCs. They enable starting from the battery for stand-alone operation.




The DC-UPS communicates openly through USB or Ethernet/PROFINET and can be easily integrated into the PC or PLC world. Complete integration in TIA offers user-friendly engineering in the TIA Portal and is supported by ready-to-use function blocks for S7 user programs and WinCC faceplates for rapid visualization.

Use of the SITOP UPS manager also enables easy monitoring and configuration in PC systems, e.g. the shutting down of several PCs in accordance with the master-slave principle.

- 24 V buffering for a few hours for continuing processes
- Open communication via USB or two Ethernet/PROFINET ports
- High overload capability for mains and buffering operation

- Intelligent battery management using Energy Storage Link: Automatic detection of the battery modules and selection of the optimum, temperature-controlled charging curve, monitoring of readiness, incoming cable, -aging and charge status
- All diagnostic data and alarm messages are available via USB and Ethernet/PROFINET
- Integrated OPC UA server facilitates flexible, multi-vendor communication with other systems (versions with Ethernet/PROFINET)
- Remote monitoring via integrated web server
- SITOP UPS Manager (free software download) supports configuration and monitoring on PC-based systems, [see https://support.industry.siemens.com/cs/ww/en/view/75854607](https://support.industry.siemens.com/cs/ww/en/view/75854607)
- Complete integration in TIA:
 - User-friendly engineering in the TIA Portal, [see https://support.automation.siemens.com/WW/view/en/75854606](https://support.automation.siemens.com/WW/view/en/75854606)
 - SIMATIC S7 function blocks for integration in user programs (free download), [see https://support.industry.siemens.com/cs/ww/en/view/78817848](https://support.industry.siemens.com/cs/ww/en/view/78817848)
 - Ready-to-use "faceplates" for SIMATIC Panels and SIMATIC WinCC (free download), [see https://support.industry.siemens.com/cs/ww/en/view/78817848](https://support.industry.siemens.com/cs/ww/en/view/78817848)

Selection and ordering data

	Rated current I_a rated	Inputs Rated voltage U_e rated	Outputs Rated voltage U_a rated	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP UPS1600										
	10 A	24 V DC (21 ... 29 V DC)	24 V DC	50 x 125 x 125						
	20 A	24 V DC (21 ... 29 V DC)	24 V DC	50 x 125 x 125						
	40 A	24 V DC (21 ... 29 V DC)	24 V DC	70 x 125 x 150						

6EP4134-3AB00-.AY0

6EP4136-3AB00-.AY0

6EP4137-3AB00-.AY0

- SITOP UPS1600
- With USB interface
- With Ethernet/PROFINET

- SITOP UPS1600
- With USB interface
- With Ethernet/PROFINET

- SITOP UPS1600
- With USB interface
- With Ethernet/PROFINET

3 6EP4134-3AB00-0AY0

3 6EP4134-3AB00-1AY0

3 6EP4134-3AB00-2AY0

1 1 unit 585

1 1 unit 585

1 1 unit 585

3 6EP4136-3AB00-0AY0

3 6EP4136-3AB00-1AY0

3 6EP4136-3AB00-2AY0

1 1 unit 585

1 1 unit 585

1 1 unit 585

3 6EP4137-3AB00-0AY0

3 6EP4137-3AB00-1AY0

3 6EP4137-3AB00-2AY0

1 1 unit 585

1 1 unit 585

1 1 unit 585