

Position and safety switches



NEW

Click on this video symbol in the catalog PDF for further product information.



	Price groups PG 41K, 41L, 42A, 42D, 250, 572	
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Position and safety switches

Introduction

Overview



3SE523., 3SE524., 3SE513., 3SE512., 3SE516. 3SE5413, 3SE5250
3SE521., 3SF1244 3SE511., 3SF1124 3SE512. 3SF1124 3SE5423
3SF12.4

	Position switches					Compact design	Open-type
	Standard						
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	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
IEC 60947-5-1							
Approvals	CE, TÜV, UL, CSA, CCC		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	✓			--	--	✓
• Contact distance 2 x 2 mm	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 rods	✓		✓		--	--	--
Twist levers and rod levers	✓		✓		✓	--	--
Fork lever	--		✓		--	--	--
Hinge switches	--		--		--	--	--
Plungers, twist levers	--		--		✓	✓	✓
Page							
Complete units	12/14, 12/27	12/24	12/20, 12/31	12/36	12/40	12/44	12/45
Modular system	12/18, 12/29	12/25	12/22, 12/34	12/38	12/41	--	--
Ambient temperature -40 °C	12/72, 12/77	12/77	12/77	12/80	12/81	--	--
ASIsafe	12/91, 12/93	12/91	12/95	12/95	--	--	--

✓ Available

-- Not available

Position and safety switches

Introduction



**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		
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP65, IP66/IP67		
Standards	Mounting and operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Mounting acc. to EN 50041		
IEC 60947-5-1			ISO 14119, IEC 62061/IEC 61508, ISO 13849-1		
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; 1 NO + 2 NC	--		
2 snap-action contacts	1 NO + 1 NC	--	--		
• Short stroke	--	--	--		
• Contact distance 2 × 2 mm	--	--	--		
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)		
M12 plug, 4-, 5- or 8-pole	✓	✓	✓		
Molded cables	--	--	--		
AS-Interface	--	✓	✓		
Actuators					
Plungers, twist levers	--	--	--		
Separate actuators	--	✓	✓		
Hinge switches	✓	--	--		
Page					
Complete units	12/69	12/69, 12/70	12/52, 12/55	12/53, 12/56	12/63 ... 12/65
Modular system	--	--	--	--	--
Ambient temperature -40 °C	12/74	--	12/83	--	12/84
ASIsafe	12/105	12/106	12/98	12/99	12/103, 12/104

✓ Available

-- Not available

Position and safety switches

Introduction



	3SE66, 3SE67	3SE66, 3SE67	3SE63
Enclosure	Safety switches, solenoid	Safety switches, solenoid supplementary range¹⁾	RFID safety switches¹⁾
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	IP69 (IP69K)
Standards	IEC 60947-5-3	IEC 60947-5-3	ISO 14119, IEC 60947-5-3, SIL 3 in accordance with IEC 62061/IEC 61508, PL e in accordance with ISO 13849-1
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	✓	✓	--
Ø 8 mm, latching connection, plug, 6-pole	--	✓	--
M12 plug, 4-pole	✓	--	✓
Molded cables	✓	✓	--
AS-Interface	--	--	--
Actuators			
RFID	--	--	✓
Switching magnet	✓	✓	--
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✓ Available

-- Not available

¹⁾ CCC approval not required for voltages < 36 V.

Note:

Safety characteristics, see page 16/7.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

General data

Overview

More information

Homepage, see www.siemens.com/sirius-position-switches

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

Configurator, see www.siemens.com/sirius/configurators

Conversion tool, see www.siemens.com/conversion-tool

Our SIRIUS 3SE5 position switches are modern, compact and modular in design 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

Configuration Manual, see
<https://support.industry.siemens.com/cs/ww/en/view/43920150>

For brochure, see
<https://support.industry.siemens.com/cs/ww/en/view/109769859>

Service box for SIRIUS 3SE5 position switches



Service box with basic switches, actuator heads and accessories

For the most common applications for quick replacement as part of maintenance or for many first applications, a service box 3SX5110-0BK can be ordered for the SIRIUS 3SE5 position switches in the modular system.

This contains a selection of basic switches, actuator heads and accessories for various possible combinations.

213 tested combinations of 22 individual products are possible. The standard interface enables simple replacement of the actuator heads by plug-in mounting. The actuator heads can be rotated in steps of 16 x 22.5°.

For more information, see page 12/46.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

General data

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:

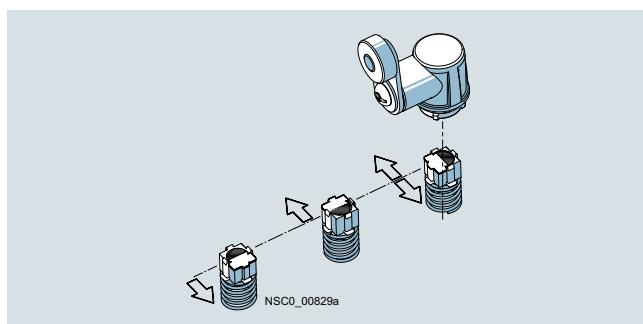
- With contact blocks with two or three contact elements (screw terminals) designed as slow-action or snap-action contacts; the slow-action contacts also with make-before-break
- Optional LED status display
- With assembled M12 device plug, 4- or 5-pole (available as an accessory for self-assembly for the wide enclosure)
- 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 12/89](#))

Actuator variants

All actuators can be rotated around the axis in increments of 16 x 22.5°. The following actuator variants are available:

- Plain, rounded and roller plungers
- Roller levers and angular roller levers
- Spring rods
- Twist levers and rod levers with twist actuator
- Fork levers with twist actuator

The actuator rollers are available with various materials and diameters.



Twist actuators 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)

Cover design

The mechanical position switches have a turquoise cover and the mechanical safety switches have a yellow cover.



Cover colors: position switch turquoise, safety switch yellow

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 12/16](#)).

Diverse contact types

Exchangeable 2-pole and 3-pole contact blocks for all enclosure sizes.



Contact block for position switches, 3 contacts

The 3-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 2-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 3-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.

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".

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.

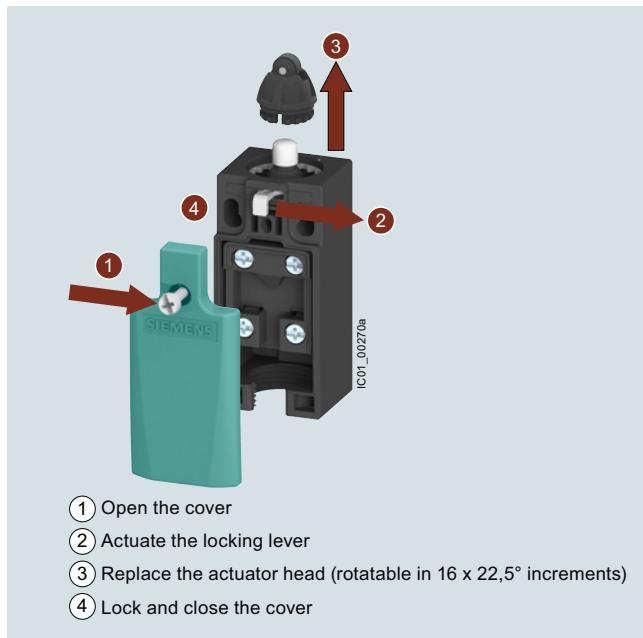
Position and safety switches

SIRIUS 3SE5 mechanical position switches

General data

Mounting

Easy plug-in method for fast replacement of the actuator heads



Replacement of the position switch actuator head in only four steps

Quick-connect technology

For plastic enclosure with a width of 31 mm



Quick-connect technology for plastic enclosures

These position switches can be wired quickly and easily as an added customer benefit. The connection 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.



Video: What makes the SIRIUS position switches so flexible?



Video: How easy is it to install the 3SE5232 position switch?

Article No. scheme

Product versions	Article number
SIRIUS position and safety switches	3SE □ □ □ □ - □ □ □ □
Series	5
Standard	1 2 3
Enclosure material and width	e.g. 1 = metal, narrow
Connection	Cable entry Device plug 2 4/5
LEDs	0 1 2 3
Version of contacts	e.g. C = snap-action 1 NO + 1 NC
Version of operating mechanism	e.g. C02 = rounded plunger
Example	3SE 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.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

General 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 figure, 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 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 12/48).
- The 3-pole contact blocks are available for all enclosure sizes (see figure, page 12/6).

- Contact blocks 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 a contact distance of 2 x 2 mm is suitable for simultaneous shutdown and signaling, particularly in the elevator industry.
- XL metal enclosures for accommodating two 2- or 3-pole contact blocks
- Versions with plugs for safe and fast connection, e.g. to fail-safe field modules of the SIMATIC ET 200eco PN or SIMATIC ET 200AL
- 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 figure, page 12/6).
- The ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/89); an additional adapter is not required.

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 IEC 60947-5-1 (electromechanical control circuit devices).

The protective measure of "total insulation" by the plastic enclosure is ensured by the use of plastic screw glands.

Safety position switches

For controls according to IEC 60204-1 the devices can be used as a safety position switch. They comply with ISO 14119. A TÜV Certificate is available. To secure position switches against changes in their position, positively-driven techniques must be employed on installation.

Safety circuits

Standards IEC 60947-5-1 require 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 .

SIL 1 according to IEC 62061/IEC 61508 or PL c according to ISO 13849-1 can be attained with the 3SE5 position switches with  if the corresponding fail-safe evaluation units are selected and correctly installed (e.g. the 3SK safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges).

If a second position switch with  is used, SIL 3 / PL e can be attained.

In addition to positive opening, the operating mechanism (actuators) must also have a positively-driven connection to the enclosure. The corresponding operating mechanisms are marked in the catalog with .

Contacts for every application

- Snap-action contacts: NC and NO contacts switch simultaneously – regardless of the actuating speed ($v_{min} = 0.01 \text{ m/s}$) 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 ($v_{min} = 0.4 \text{ m/s}$).
- Slow-action contacts with make-before-break: e.g. suitable for adding a second function to a sequence control.

Operating mechanisms for every application

Plain, 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, bars (approach angle 30°) or cam disks.

Spring rods

- Can be used for undefined actuations and changing starting conditions
- Starting from any direction is possible

Twist levers and rod levers

- For high starting speeds ($v = 1.5 \text{ m/s}$)
- Variety of starting options
- Insensitive to oil, grinding dust, dirt and coarse-grained material
- Adjustment of the lever in increments of 10°
- Can be adjusted with left or right switching

Fork levers

- Switchable in two directions
- Latching actuator
- For reciprocating movements

Position and safety switches

SIRIUS 3SE5 mechanical position switches

General data

Monitoring with safe evaluation units from the 3SK series

Safe evaluation units	Maximum achievable safety level according to type of switch				
	Compact	Standard	Hinge	Separate actuator	Tumbler
					
Use of only one position/safety switch					
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 1 / PL c		SIL 2 / PL d	
Use of a second position/safety switch					
Standard switch Safety switch/hinge switch Safety switch with separate actuator Safety switch with tumbler	3SE51/3SE52/3SE54 3SE51/3SE52 3SE51/3SE52 3SE53				SIL 3 / PL e

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 / 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.

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.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

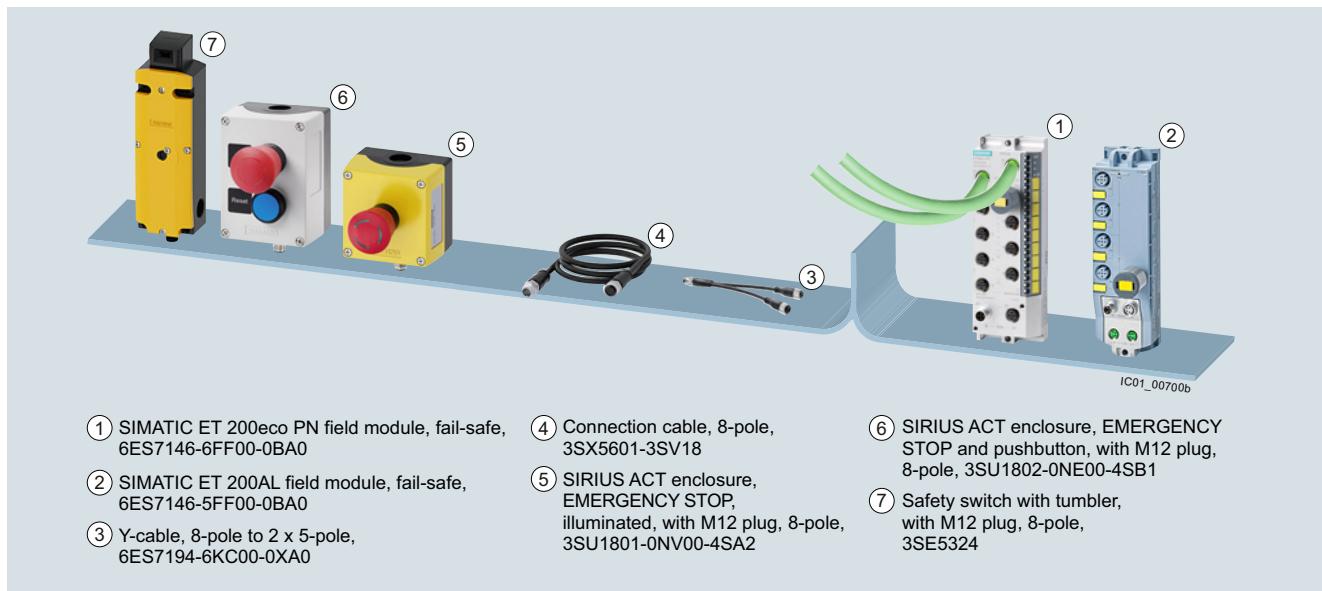
General data

Safety cabling in the field with IP67

More information

Fail-safe I/O device for

- SIMATIC ET 200eco PN, see <https://mall.industry.siemens.com/mall/en/ww/Catalog/Products/10370455?tree=CatalogTree>
- SIMATIC ET 200AL, see <https://mall.industry.siemens.com/mall/en/ww/Catalog/Products/10414335?tree=CatalogTree>



Excerpt from the Safety field system composed of SIRIUS sensors and SIMATIC ET 200 with the M12 connection method

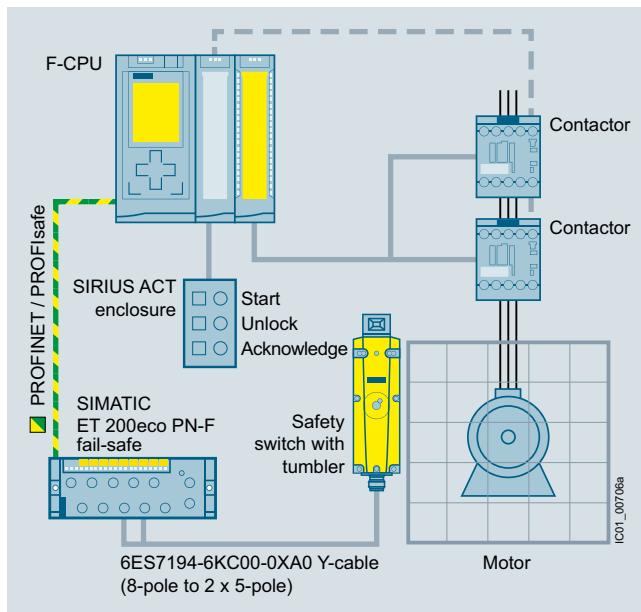
The new system comprising SIRIUS sensors and fail-safe SIMATIC ET 200 provides a safe M12 connection method for industry.

The SIRIUS sensors can be connected in the field via the fail-safe field modules of the SIMATIC ET 200eco PN and SIMATIC ET 200AL.

The signals are forwarded to the higher-level controller via PROFINET/PROFIsafe either by means of a direct connection of the SIMATIC ET 200eco PN or, in the case of SIMATIC ET 200AL, via an interface module.

For more information and examples, see page 12/85 onwards.

Application example



Protective door monitoring with 3SE53 safety switch with tumbler on the fail-safe field module of the SIMATIC ET 200eco PN with inverted Y-cable 6ES7194-6KC00-0XA0 (8-pole to 2 x 5-pole)

For a detailed description of this example of how safety switches with tumblers can achieve different SIL/PL levels, see <https://support.industry.siemens.com/cs/ww/en/view/109778289>.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

General data

Technical specifications

Type	3SE51.. ¹⁾ , 3SE52.. ¹⁾		3SE541.	3SE542.
General data				
Standards	IEC 60947-5-1, ISO 14119			
Rated insulation voltage U_i	V	400 ²⁾	400	
Degree of pollution acc. 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, operational class gG	A	6	10	
• With miniature circuit breaker, characteristic C ($I_K < 400$ A)	A	1	3	
Mechanical service life				
• 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 3RH21 contactors size S00 and 3RT contactors sizes 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 3RH21 contactors size S00 and 3RT contactors sizes 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 acc. to \oplus, \ominus and Δ				
• Rated voltage	V	300	300	
• Uninterrupted current	A	6	10	
• Switching capacity		Heavy duty, A 300 / B 300 / Q 300		

1) Special versions, see the respective data sheet.

2) For slow-action contacts 1 NO + 2 NC with make-before-break ("M") and
and 2 NO + 1 NC ("P") the following applies: Over 250 V AC same potential only.

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	mm	Plastic P66 31	40	50	Zinc die-casting 31	40	56	Zn/Al 30/40						
• Width								-- 30						
Degree of protection on the front acc. to IEC 60529	IP65	IP66/IP67; IP65/IP67 for actuator heads with spring rods and rod levers				IP67	IP20 ¹⁾ , IP10							
Ambient temperature														
• During operation	°C	-25 ... +85; -40 ... +85 for 3SE51..-1AJ0 and 3SE52..-1AJ0, -1AY0				-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	mm ²	1 x (0.5 ... 1.5), 2 x (0.5 ... 0.75)												
• Finely stranded with end sleeve	mm ²	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) With the conductor connected and the clamping screw tightened.

Position and safety switches

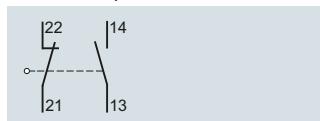
SIRIUS 3SE5 mechanical position switches

General data

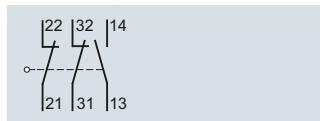
Circuit diagrams

Enclosure widths 31, 40, 50 and 56 mm

Slow-action contacts
1 NO + 1 NC
3SE5...-B..., -R...



Slow-action contacts
1 NO + 2 NC
3SE5...-K..., -Q...



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 with make-before-break, 3SE5...-M...

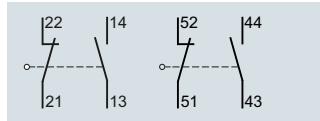


Snap-action contacts
1 NO + 2 NC
3SE5...-L...

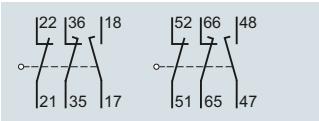


XL enclosures, width 56 mm

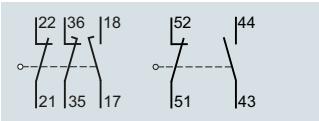
Slow-action contacts
2 x (1 NO + 1 NC)
3SE5162-0B...



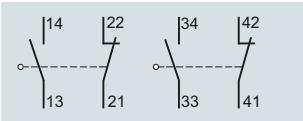
Slow-action contacts
2 x (1 NO + 2 NC) with make-before-break,
3SE5162-0D...



Slow-action contacts
1 NO + 2 NC with make-before-break,
1 NO + 1 NC
3SE5162-0E...

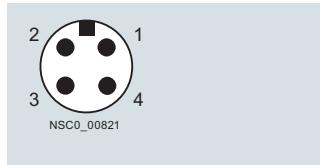


Snap-action contacts
2 x (1 NO + 1 NC)
3SE5162-0C...

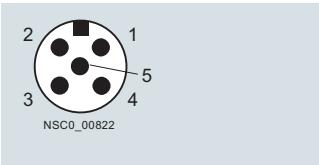


3SE5 pin assignment

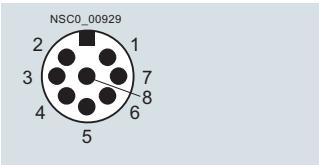
M12 device plugs, 4-pole
3SY3127



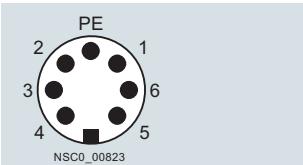
M12 device plugs, 5-pole
3SY3128, 3SX5100-1SS51,
PE on pin 3, 3SX5100-1SS05
without PE



M12 device plugs, 8-pole
3SX5100-1SS08



Device plugs, 6-pole + PE
3SY3131



Type	Device plugs Type	Contacts Version	LEDs Version	Connections	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 ¹⁾ 3SE5..4-0....-1AJ1 ¹⁾	3SY3127	1 NO + 1 NC	--		21	22	13	14	--	--	--	--	--
3SE5..4-0....-1AL0 ₁₎ 3SE5..4-0....-1AJ2 ¹⁾	3SY3128	1 NO + 1 NC	--		21	22	13	14	PE	--	--	--	--
3SE5..4-0....-1AE0 3SE5..4-0....-1AE1 ₁₎ 3SE5..4-0....-1AJ4 ¹⁾	3SY3127 3SY3128	2 NC 2 NC	-- --		21	22	31	32	--	--	--	--	--
3SE5..4-0....-1AE2 3SE5..4-0....-1AE3	3SX5100-1SS51 3SX5100-1SS51	2 NC 2 NC	-- --		21	31	--	22	32	--	--	--	--
3SE5..4-1B...-1AF3 3SE5..4-1C...-1AF3	3SX5100-1SS05 3SX5100-1SS05	1 NO + 1 NC 1 NO + 1 NC slow-action	2 LEDs 2 LEDs		21	22	14 / LED gn	13 / LED ye	Ground LED	--	--	--	--
3SE5..4-1C...-1AF5 3SE5..4-1L...-1AD4	3SX5100-1SS05 --	1 NO + 1 NC 1 NO + 2 NC snap-action	2 LEDs 2 LEDs		21	22	13 / LED gn	14 / LED ye	Ground LED	--	--	--	--
					21	22	13 / 13/13 jumper	14 / Ground LED	14 / LED ye	PE	--	--	--
								31	32	Ground LED	PE	--	--
Device plugs, 6-pole + PE													
3SE5..5-0....-1AD0 3SE5..5-0....-1AD1	3SY3131 3SY3131	1 NO + 1 NC 1 NO + 2 NC	-- --		21	22	13	14	--	--	--	--	✓
					21	22	13	14	31	32	--	--	✓

Legend:

gn = green, ye = yellow

✓ Connected

-- Not available

¹⁾ Version for ambient temperatures down to -40 °C.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

General data

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 rounded 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

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

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
- Dimensional drawings
- Operating travel diagrams
- CAD data in 2D and 3D model images
- Ordering data
- Product photos

For the online configurator, see www.siemens.com/sirius/configurators.

To be ordered:

Version	Complete units	<input type="checkbox"/>
Article No.		

Complete units · Enclosure width 31 mm

	Angular roller levers 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

	Rounded plungers • Slow-action contacts 1 NO + 1 NC	3SE5232-0BC05
---	---	----------------------

Operating mechanisms

	Angular roller levers • Metal levers plastic rollers	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

	Rounded plungers • Slow-action contacts 1 NO + 1 NC	3SE5232-0BC05
---	---	----------------------

Twist actuators

	Twist actuators	3SE5000-0AK00
---	------------------------	----------------------

Twist levers

	• High-grade steel levers plastic rollers	3SE5000-0AA31
---	---	----------------------

Position and safety switches

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	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d				Article No.	Price per PU			

Complete units¹⁾ . Enclosure width 31 mm according to EN 50047



3SE5232-0HC05-1AB1

Control cabinet type, rounded plunger, type B, acc. to EN 50047

With flat cover

- Snap-action contacts, 1 NO + 1 NC --

⊕ 5

3SE5232-0HC05-1AB1

1 1 unit 41K



3SE5232-0HC05-1AB2

With standard cover

- Snap-action contacts, 1 NO + 1 NC --

⊕ 5

3SE5232-0HC05-1AB2

1 1 unit 41K



3SE5232-0HC05-1AB3

With standard cover

- Snap-action contacts, 1 NO + 1 NC --

⊕ 5

3SE5232-0HC05-1AB3

1 1 unit 41K



3SE5232-0HC05-1AB4

With mounting plate and screws for attachment profile

- Snap-action contacts, 1 NO + 1 NC --

⊕ 5

3SE5232-0HC05-1AB4

1 1 unit 41K



3SX5100-1A

Mounting plate

Suitable for 3SE523 and 3SE521.
position switches with a width
of 31 mm

--

--

5

3SX5100-1A

1 1 unit 41K

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ The control cabinet types are not basic switches for the modular system.

²⁾ Subsequent replacement of contact blocks is not possible.

Position and safety switches
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 1 x (M20 x 1.5)¹⁾

Version	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	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																																																																																										
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1 NO + 1 NC --	⊕ ▶	3SE5232-0BC05	1	1 unit	41K																																																																																					
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2 NO + 1 NC --	⊕ 2	3SE5232-0PC05	1	1 unit	41K																																																																																					
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1 NO + 2 NC 230 V AC	⊕ 5	3SE5232-3LC05	1	1 unit	41K																																																																																					
																																																																																										
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	<p>With pin assignment as for SIMATIC ET 200⁶⁾</p> <ul style="list-style-type: none"> Snap-action contacts <table> <tr><td>2 NC --</td><td>⊕ 10</td><td>3SE5234-0LC05-1AE2</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	2 NC --	⊕ 10	3SE5234-0LC05-1AE2	1	1 unit	41K																																																																																			
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⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

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) Use corresponding high-grade steel lever.

5) Pin assignments, see page 12/12.

6) The 3SE5234-....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

Position and safety switches

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 1 x (M20 x 1.5)¹⁾

Version	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG	
d	Article No.			Price per PU					
Complete units²⁾ . Enclosure width 31 mm									
Roller plungers, type C, acc. to EN 50047									
With plastic roller 10 mm									
3SE5232-0BD03	<ul style="list-style-type: none"> • Slow-action contacts 1 NO + 1 NC -- 5 • Snap-action contacts 1 NO + 2 NC -- 5 - Integrated³⁾ 1 NO + 1 NC -- 5 - Short stroke, integrated³⁾ 1 NO + 1 NC -- 5 - Actuator head rotated 90° 1 NO + 2 NC -- 5 - With yellow cover 1 NO + 2 NC -- 5 			3SE5232-0BD03 3SE5232-0KD03 3SE5232-0LD03 3SE5232-0HD03 3SE5232-0FD03 3SE5232-0LD03-1AH0 3SE5232-0LD03-1AG0		1	1 unit	41K	
3SE5232-0LD03-1AG0	<ul style="list-style-type: none"> With M12 device plug, 4-pole (250 V, 4 A)⁴⁾ • Snap-action contacts, integrated³⁾ 1 NO + 1 NC -- 5 			3SE5234-0HD03-1AC4		1	1 unit	41K	
With M12 device plug, 5-pole (125 V, 4 A)⁴⁾									
3SE5232-0HD10	With pin assignment as for SIMATIC ET 200 ⁵⁾			3SE5234-0LD03-1AE2		1	1 unit	41K	
3SE5232-0HD10	<ul style="list-style-type: none"> • Snap-action contacts 2 NC -- 10 								
Roller plungers with central fixing acc. to EN 50047									
With plastic roller 10 mm									
3SE5232-0HD10	<ul style="list-style-type: none"> • Slow-action contacts 1 NO + 2 NC -- 5 • Snap-action contacts, integrated³⁾ 1 NO + 1 NC -- 5 			3SE5232-0KD10 3SE5232-0HD10		1	1 unit	41K	
3SE5232-0HE10	Roller levers, type E, acc. to EN 50047								
With metal lever and plastic roller 13 mm									
3SE5232-0HE10	<ul style="list-style-type: none"> • Slow-action contacts 1 NO + 1 NC -- 2 • Snap-action contacts 1 NO + 2 NC -- 5 - Integrated³⁾ 1 NO + 1 NC -- 5 			3SE5232-0BE10 3SE5232-0KE10 3SE5232-0LE10 3SE5232-0HE10		1	1 unit	41K	
3SE5232-0HE10	<ul style="list-style-type: none"> With M12 device plug, 4-pole (250 V, 4 A)⁴⁾ • Snap-action contacts, integrated³⁾ 1 NO + 1 NC -- 5 			3SE5234-0HE10-1AC4		1	1 unit	41K	
With metal lever and high-grade steel roller 13 mm									
3SE5232-0HE10	With M12 device plug, 5-pole (125 V, 4 A) ⁴⁾								
3SE5232-0HE10	With pin assignment as for SIMATIC ET 200 ⁵⁾								
3SE5232-0HE10	<ul style="list-style-type: none"> • Snap-action contacts 2 NC -- 10 			3SE5234-0LE11-1AE2		1	1 unit	41K	
With high-grade steel lever and plastic roller 13 mm									
3SE5232-0HE10	<ul style="list-style-type: none"> • Snap-action contacts 1 NO + 2 NC -- 5 			3SE5232-0LE12		1	1 unit	41K	
3SE5232-0HE10	With increased corrosion protection ⁶⁾								
3SE5232-0HE10	<ul style="list-style-type: none"> • Snap-action contacts 1 NO + 1 NC -- 5 			3SE5232-0CE12-1CA0		1	1 unit	41K	
Angular roller levers, acc. to EN 50047									
With metal lever and plastic roller 13 mm									
3SE5232-0BF10	<ul style="list-style-type: none"> • Slow-action contacts 1 NO + 1 NC -- 5 • Snap-action contacts 1 NO + 2 NC -- 5 - Integrated³⁾ 1 NO + 1 NC -- 5 			3SE5232-0BF10 3SE5232-0KF10 3SE5232-0LF10 3SE5232-0HF10		1	1 unit	41K	
3SE5232-0BF10						1	1 unit	41K	
3SE5232-0BF10						1	1 unit	41K	
3SE5232-0BF10						1	1 unit	41K	
3SE5232-0BF10						1	1 unit	41K	

Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

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) Pin assignments, see page 12/12.

5) The 3SE5234-....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

6) Use corresponding high-grade steel lever.

Position and safety switches
SIRIUS 3SE5 mechanical position switches
3SE5, plastic enclosures

Enclosure width 31 mm according to EN 500472 or 3 contacts · Degree of protection IP65 · Cable entry 1 x (M20 x 1.5)¹⁾

Version	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d	Article No.			Price per PU				
Complete units²⁾ . Enclosure width 31 mm								
Spring rods, according to EN 50047								
Length 142.5 mm, with plastic plunger 50 mm								
3SE5232-0HR01	• Snap-action contacts, integrated ³⁾ With M12 device plug, 4-pole (250 V, 4 A) ⁴⁾	1 NO + 1 NC --	2	3SE5232-0HR01		1	1 unit	41K
3SE5232-0BK21	• 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								
3SE5232-0HK21	• Slow-action contacts With M12 device plug, 4-pole (250 V, 4 A) ⁴⁾	1 NO + 1 NC -- 1 NO + 2 NC --	2	3SE5232-0BK21 3SE5232-0KK21		1	1 unit	41K
3SE5232-0HK21	• Snap-action contacts - Integrated ³⁾	1 NO + 2 NC -- 1 NO + 1 NC --	5	3SE5232-0LK21 3SE5232-0HK21		1	1 unit	41K
3SE5232-0HK21	• 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								
3SE5232-0HK15	• Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5232-0HK15		1	1 unit	41K
Twist levers, adjustable length, acc. to EN 50047								
With metal lever 100 mm, with grid holes and plastic roller 19 mm								
3SE5232-0HK60	• Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	2	3SE5232-0HK60		1	1 unit	41K
With metal lever 100 mm and plastic roller 19 mm								
3SE5232-0BK50	• Slow-action contacts With M12 device plug, 4-pole (250 V, 4 A) ⁴⁾	1 NO + 1 NC -- 1 NO + 2 NC -- 1 NO + 1 NC --	5	3SE5232-0BK50 3SE5232-0LK50 3SE5232-0HK50		1	1 unit	41K
3SE5232-0BK50	• Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5234-0HK50-1AC4		1	1 unit	41K
Rod levers, according to EN 50047								
With aluminum rod 200 mm								
3SE5232-0HK80	• Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5232-0HK80		1	1 unit	41K
With plastic rod, length 200 mm								
3SE5232-0HK82	• Snap-action contacts, integrated ³⁾ With M12 device plug, 4-pole (250 V, 4 A) ⁴⁾	1 NO + 1 NC --	5	3SE5232-0HK82		1	1 unit	41K
3SE5232-0HK82	• Snap-action contacts, integrated ³⁾	1 NO + 1 NC --	5	3SE5234-0HK82-1AC4		1	1 unit	41K

3SE5232-0HK80

Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

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) Pin assignments, see page 12/12.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/18.

Position and safety switches

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 1 x (M20 x 1.5)¹⁾

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG																																																						
d	Article No.			Price per PU																																																										
Basic switches²⁾ · Enclosure width 31 mm																																																														
Rounded plungers, type B, acc. to EN 50047																																																														
 3SE5232-0BC05	<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ ▶</td><td>3SE5232-0BC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ ▶</td><td>3SE5232-0KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5232-0PC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td>1 NO + 2 NC --</td><td>3SE5232-0MC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5232-0CC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ ▶</td><td>3SE5232-0LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated³⁾</td><td>1 NO + 1 NC --</td><td>3SE5232-0HC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Short stroke, integrated³⁾</td><td>1 NO + 1 NC --</td><td>3SE5232-0FC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Contact distance 2 x 2 mm</td><td>1 NO + 1 NC --</td><td>3SE5232-0GC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ ▶	3SE5232-0BC05	1	1 unit	41K	1 NO + 2 NC --	⊕ ▶	3SE5232-0KC05	1	1 unit	41K	2 NO + 1 NC --	⊕ 2	3SE5232-0PC05	1	1 unit	41K	- With make-before-break	1 NO + 2 NC --	3SE5232-0MC05	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5232-0CC05	1	1 unit	41K	1 NO + 2 NC --	⊕ ▶	3SE5232-0LC05	1	1 unit	41K	- Integrated ³⁾	1 NO + 1 NC --	3SE5232-0HC05	1	1 unit	41K	- Short stroke, integrated ³⁾	1 NO + 1 NC --	3SE5232-0FC05	1	1 unit	41K	- Contact distance 2 x 2 mm	1 NO + 1 NC --	3SE5232-0GC05	1	1 unit	41K							
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1 NO + 2 NC 24 V DC	⊕ 5	3SE5232-1LC05	1	1 unit	41K																																																									
1 NO + 2 NC 230 V AC	⊕ 5	3SE5232-3LC05	1	1 unit	41K																																																									
 3SE5234-0HC05-1AC4	<ul style="list-style-type: none"> With M12 device plug, 4-pole (250 V, 4 A)⁵⁾ <table> <tr><td>Slow-action contacts</td><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5234-0BC05-1AC4</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td></td><td>2 NC --</td><td>⊕ 5</td><td>3SE5234-0KC05-1AE0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>2 NC --</td><td>⊕ 2</td><td>3SE5234-0LC05-1AE0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated³⁾</td><td>1 NO + 1 NC --</td><td>3SE5234-0HC05-1AC4</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5234-0BC05-1AC4	1	1 unit	41K		2 NC --	⊕ 5	3SE5234-0KC05-1AE0	1	1 unit	41K	2 NC --	⊕ 2	3SE5234-0LC05-1AE0	1	1 unit	41K	- Integrated ³⁾	1 NO + 1 NC --	3SE5234-0HC05-1AC4	1	1 unit	41K																																			
Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5234-0BC05-1AC4	1	1 unit	41K																																																								
	2 NC --	⊕ 5	3SE5234-0KC05-1AE0	1	1 unit	41K																																																								
2 NC --	⊕ 2	3SE5234-0LC05-1AE0	1	1 unit	41K																																																									
- Integrated ³⁾	1 NO + 1 NC --	3SE5234-0HC05-1AC4	1	1 unit	41K																																																									
 3SE5234-1BC05-1AF3	<ul style="list-style-type: none"> With M12 device plug, 5-pole (125 V, 4 A)⁵⁾ <table> <tr><td>With 2 LEDs, yellow/green</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>Slow-action contacts</td><td>1 NO + 1 NC 24 V DC</td><td>⊕ 5</td><td>3SE5234-1BC05-1AF3</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>Snap-action contacts</td><td>1 NO + 1 NC 24 V DC</td><td>⊕ 5</td><td>3SE5234-1CC05-1AF3</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> With pin assignment as for SIMATIC ET 200⁶⁾ <table> <tr><td>Snap-action contacts</td><td>2 NC --</td><td>⊕ 10</td><td>3SE5234-0LC05-1AE2</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	With 2 LEDs, yellow/green									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	Snap-action contacts	2 NC --	⊕ 10	3SE5234-0LC05-1AE2	1	1 unit	41K																															
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Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5234-1BC05-1AF3	1	1 unit	41K																																																								
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Snap-action contacts	2 NC --	⊕ 10	3SE5234-0LC05-1AE2	1	1 unit	41K																																																								

 Positive opening according to IEC 60947-5-1, Annex 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) Pin assignments, [see page 12/12](#).

6) The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, [see page 12/85 onwards](#).

Note:

For the selection aid, [see page 12/13](#).

Position and safety switches
SIRIUS 3SE5 mechanical position switches
3SE5, plastic enclosures

Enclosure width 31 mm according to EN 50047

Version	Diameter mm	SD d	Modular system		PU (UNIT, SET, M)	PS*	PG	
						Article No.	Price per PU	
Operating mechanisms								
 3SE5000-0AB01			Plain plungers					
			• High-grade steel plungers	8.5	⊕ 2	3SE5000-0AB01	1 1 unit 41K	
Roller plungers, type C, acc. to EN 50047								
 3SE5000-0AD03	10		• Plastic roller	10	⊕ 2	3SE5000-0AD03	1 1 unit 41K	
 3SE5000-0AD10	10		• High-grade steel roller	10	⊕ 5	3SE5000-0AD04	1 1 unit 41K	
Roller plungers with central fixing								
 3SE5000-0AE10	10		• Plastic roller	10	⊕ 2	3SE5000-0AD10	1 1 unit 41K	
 3SE5000-0AF10	10		• High-grade steel roller	10	⊕ 5	3SE5000-0AD11	1 1 unit 41K	
Roller levers, type E, acc. to EN 50047								
 3SE5000-0AE10	13		• Metal lever	Plastic roller	13	⊕ 2	3SE5000-0AE10	1 1 unit 41K
 3SE5000-0AF10	13		• Metal lever	High-grade steel roller	13	⊕ 5	3SE5000-0AE11	1 1 unit 41K
	13		• High-grade steel lever	Plastic roller	13	⊕ 5	3SE5000-0AE12	1 1 unit 41K
	13		• High-grade steel lever	High-grade steel roller	13	⊕ 5	3SE5000-0AE13	1 1 unit 41K
Angular roller levers								
 3SE5000-0AF10	13		• Metal lever	Plastic roller	13	⊕ 2	3SE5000-0AF10	1 1 unit 41K
 3SE5000-0AF11	13		• Metal lever	High-grade steel roller	13	⊕ 5	3SE5000-0AF11	1 1 unit 41K
	13		• High-grade steel lever	Plastic roller	13	⊕ 2	3SE5000-0AF12	1 1 unit 41K
	13		• High-grade steel lever	High-grade steel roller	13	⊕ 5	3SE5000-0AF13	1 1 unit 41K
Spring rods (for switches with snap-action contacts only)								
 3SE5000-0AR01			• Plunger made of plastic, spring of high-grade steel: 7	5		3SE5000-0AR01	1 1 unit 41K	
			- Length 142.5 mm (spring 50 mm, plunger 50 mm)	5		3SE5000-0AR03	1 1 unit 41K	
			- Length 76 mm (spring 23.5 mm, plunger 10 mm)	5		3SE5000-0AR04	1 1 unit 41K	
 3SE5000-0AR03			• Plunger and spring made of high-grade steel: 7	5		3SE5000-0AR02	1 1 unit 41K	
			- Length 142.5 mm (spring 50 mm, plunger 50 mm)	5				
Twist actuators								
 3SE5000-0AK00			Twist actuators, for 31/50 mm, EN 50047	--	⊕ 2	3SE5000-0AK00	1 1 unit 41K	
 3SE5000-0AA21			• For twist levers and rod levers, switching right and/or left, adjustable					
Levers								
Twist levers 21 mm, straight, type A, acc. to EN 50047								
 3SE5000-0AA21			• Metal lever	Plastic roller	19	⊕ 2	3SE5000-0AA21	1 1 unit 41K
					30	⊕ 5	3SE5000-0AA25	1 1 unit 41K
				High-grade steel roller	19	⊕ 5	3SE5000-0AA22	1 1 unit 41K
				- With ball bearing	19	⊕ 5	3SE5000-0AA23	1 1 unit 41K
 3SE5000-0AA26			• High-grade steel lever	Plastic roller	19	⊕ 5	3SE5000-0AA31	1 1 unit 41K
					19	⊕ 5	3SE5000-0AA32	1 1 unit 41K
Twist levers 30 mm, straight¹⁾								
 3SE5000-0AA24			• Metal lever	Plastic roller	19	⊕ 5	3SE5000-0AA24	1 1 unit 41K
 3SE5000-0AA26					30	⊕ 5	3SE5000-0AA26	1 1 unit 41K
Twist levers 100 mm, adjustable length, with grid hole								
 3SE5000-0AA60			• Metal lever	Plastic roller	19	⊕ 5	3SE5000-0AA60	1 1 unit 41K
					50	⊕ 5	3SE5000-0AA67	1 1 unit 41K
				High-grade steel roller	19	⊕ 5	3SE5000-0AA61	1 1 unit 41K
				Rubber roller	50	⊕ 5	3SE5000-0AA68	1 1 unit 41K
 3SE5000-0AA63			• High-grade steel lever	Plastic roller	19	⊕ 5	3SE5000-0AA62	1 1 unit 41K
					19	⊕ 5	3SE5000-0AA63	1 1 unit 41K
Twist levers 100 mm, adjustable length								
 3SE5000-0AA50			• Metal lever	Plastic roller	19	2	3SE5000-0AA50	1 1 unit 41K
					30	5	3SE5000-0AA55	1 1 unit 41K
					50	5	3SE5000-0AA57	1 1 unit 41K
				High-grade steel roller	19	5	3SE5000-0AA51	1 1 unit 41K
				Rubber roller	50	5	3SE5000-0AA58	1 1 unit 41K
 3SE5000-0AA53			• High-grade steel lever	Plastic roller	19	5	3SE5000-0AA52	1 1 unit 41K
					19	5	3SE5000-0AA53	1 1 unit 41K
Rod levers, 200 mm								
 3SE5000-0AA80			• Aluminum rod		6	5	3SE5000-0AA80	1 1 unit 41K
			• Spring rod		6	5	3SE5000-0AA81	1 1 unit 41K
			• Plastic rod		6	5	3SE5000-0AA82	1 1 unit 41K

⊕ Positively driven actuator, necessary in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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 1 × (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								
 3SE5132-0BB01	Plain plungers, acc. to EN 50041 With high-grade steel plunger 8.5 mm							
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0BB01		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0KB01		1	1 unit	41K
		2 NO + 1 NC --	⊕ 5	3SE5132-0PB01		1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0CB01		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0LB01		1	1 unit	41K
 3SE5132-0BC03	Rounded plungers, type B, acc. to EN 50041 with plastic plunger 10 mm							
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0BC03		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0KC03		1	1 unit	41K
		2 NO + 1 NC --	⊕ 5	3SE5132-0PC03		1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5132-0CC03		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0LC03		1	1 unit	41K
 3SE5132-0BD05	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
		1 NO + 2 NC --	⊕ 5	3SE5132-0KD05		1	1 unit	41K
		2 NO + 1 NC --	⊕ 5	3SE5132-0PD05		1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5132-0CD05		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0LD05		1	1 unit	41K
 3SE5132-0BE05	Roller levers, acc. to EN 50041 With metal lever and plastic roller 22 mm							
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5132-0BE05		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0KE05		1	1 unit	41K
		2 NO + 1 NC --	⊕ 5	3SE5132-0PE05		1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5132-0CE05		1	1 unit	41K
		1 NO + 2 NC --	⊕ 5	3SE5132-0LE05		1	1 unit	41K
 3SE5132-0BF05	Angular roller levers, acc. to EN 50041 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
		1 NO + 2 NC --	⊕ 5	3SE5132-0LF05		1	1 unit	41K
 3SE5132-0CR01	Spring rods²⁾, acc. to EN 50041 Length 142.5 mm, with plastic plunger 50 mm							
	• Snap-action contacts	1 NO + 1 NC --	5	3SE5132-0CR01		1	1 unit	41K
		1 NO + 2 NC --	5	3SE5132-0LR01		1	1 unit	41K

¹⁾ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

²⁾ Popular versions.

²⁾ Degree of protection IP65/IP67.

Position and safety switches
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 1 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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
3SE5132-0BJ01		1 NO + 2 NC --	∅ 5	3SE5132-0KJ01				1	1 unit	41K
		2 NO + 1 NC --	∅ 5	3SE5132-0PJ01				1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC --	∅ 2	3SE5132-0CJ01				1	1 unit	41K
		1 NO + 2 NC --	∅ 5	3SE5132-0LJ01				1	1 unit	41K
Twist levers, adjustable length, acc. to EN 50041										
With metal lever 100 mm, with grid hole and plastic roller 19 mm										
	• Snap-action contacts	1 NO + 1 NC --	∅ 5	3SE5132-0CJ60				1	1 unit	41K
3SE5132-0CJ60		1 NO + 2 NC --	∅ 5	3SE5132-0LJ60				1	1 unit	41K
With metal lever 100 mm and plastic roller 19 mm										
	• Snap-action contacts	1 NO + 1 NC --	2	3SE5132-0CJ50				1	1 unit	41K
3SE5132-0CJ50		1 NO + 2 NC --	5	3SE5132-0LJ50				1	1 unit	41K
Rod levers²⁾, type D acc. to EN 50041										
With aluminum rod 200 mm										
	• Snap-action contacts	1 NO + 1 NC --	5	3SE5132-0CJ80				1	1 unit	41K
3SE5132-0CJ80	With plastic rod, length 200 mm									
	• Snap-action contacts	1 NO + 1 NC --	2	3SE5132-0CJ82				1	1 unit	41K

∅ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Popular versions.

2) Degree of protection IP65/IP67.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/22.

Position and safety switches

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 1 × (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																																																																																					
Rounded plungers, acc. to EN 50041																																																																																					
3SE5132-0BA00	<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5132-0BA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5132-0KA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5132-0PA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td></td><td>3SE5132-0MA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5132-0CA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5132-0LA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Gold-plated contacts</td><td></td><td>3SE5132-0CA00-1AC1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5132-0BA00	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5132-0KA00	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5132-0PA00	1	1 unit	41K	- With make-before-break		3SE5132-0MA00	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5132-0CA00	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5132-0LA00	1	1 unit	41K	- Gold-plated contacts		3SE5132-0CA00-1AC1	1	1 unit	41K	With increased corrosion protection ¹⁾	<table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5132-0BA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5132-0KA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5132-0PA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td></td><td>3SE5132-0MA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table>	1 NO + 1 NC --	⊕ 5	3SE5132-0BA00-1CA0	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5132-0KA00-1CA0	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5132-0PA00-1CA0	1	1 unit	41K	- With make-before-break		3SE5132-0MA00-1CA0	1	1 unit	41K	<table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5132-0CA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5132-0LA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table>	1 NO + 1 NC --	⊕ 5	3SE5132-0CA00-1CA0	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5132-0LA00-1CA0	1	1 unit	41K			
1 NO + 1 NC --	⊕ 5	3SE5132-0BA00	1	1 unit	41K																																																																																
1 NO + 2 NC --	⊕ 5	3SE5132-0KA00	1	1 unit	41K																																																																																
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- With make-before-break		3SE5132-0MA00	1	1 unit	41K																																																																																
1 NO + 1 NC --	⊕ 5	3SE5132-0CA00	1	1 unit	41K																																																																																
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- Gold-plated contacts		3SE5132-0CA00-1AC1	1	1 unit	41K																																																																																
1 NO + 1 NC --	⊕ 5	3SE5132-0BA00-1CA0	1	1 unit	41K																																																																																
1 NO + 2 NC --	⊕ 5	3SE5132-0KA00-1CA0	1	1 unit	41K																																																																																
2 NO + 1 NC --	⊕ 5	3SE5132-0PA00-1CA0	1	1 unit	41K																																																																																
- With make-before-break		3SE5132-0MA00-1CA0	1	1 unit	41K																																																																																
1 NO + 1 NC --	⊕ 5	3SE5132-0CA00-1CA0	1	1 unit	41K																																																																																
1 NO + 2 NC --	⊕ 5	3SE5132-0LA00-1CA0	1	1 unit	41K																																																																																
3SE5132-1KA00	With 2 LEDs, yellow/green		<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 2 NC 24 V DC</td><td>⊕ 5</td><td>3SE5132-1KA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC 230 V AC</td><td>⊕ 5</td><td>3SE5132-3KA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 2 NC 24 V DC</td><td>⊕ 5</td><td>3SE5132-1LA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC 230 V AC</td><td>⊕ 5</td><td>3SE5132-3LA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 2 NC 24 V DC	⊕ 5	3SE5132-1KA00	1	1 unit	41K	1 NO + 2 NC 230 V AC	⊕ 5	3SE5132-3KA00	1	1 unit	41K	1 NO + 2 NC 24 V DC	⊕ 5	3SE5132-1LA00	1	1 unit	41K	1 NO + 2 NC 230 V AC	⊕ 5	3SE5132-3LA00	1	1 unit	41K																																																										
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1 NO + 2 NC 24 V DC	⊕ 5	3SE5132-1LA00	1	1 unit	41K																																																																																
1 NO + 2 NC 230 V AC	⊕ 5	3SE5132-3LA00	1	1 unit	41K																																																																																
3SE5134-0BA00-1AC4	With M12 device plug, 4-pole (250 V, 4 A) ²⁾		<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5134-0BA00-1AC4</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NC --</td><td>⊕ 5</td><td>3SE5134-0KA00-1AE0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5134-0CA00-1AC4</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NC --</td><td>⊕ 5</td><td>3SE5134-0LA00-1AE0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5134-0BA00-1AC4	1	1 unit	41K	2 NC --	⊕ 5	3SE5134-0KA00-1AE0	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5134-0CA00-1AC4	1	1 unit	41K	2 NC --	⊕ 5	3SE5134-0LA00-1AE0	1	1 unit	41K																																																										
1 NO + 1 NC --	⊕ 5	3SE5134-0BA00-1AC4	1	1 unit	41K																																																																																
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1 NO + 1 NC --	⊕ 5	3SE5134-0CA00-1AC4	1	1 unit	41K																																																																																
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⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Use corresponding high-grade steel lever.

2) Pin assignments, see page 12/12.

Note:

For the selection aid, see page 12/13.

Position and safety switches
SIRIUS 3SE5 mechanical position switches
3SE5, plastic enclosures

Enclosure width 40 mm according to EN 50041

Version	Diam- eter mm	SD d	Modular system	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
Operating mechanisms						
 3SE5000-0AB01	Plain plungers • High-grade steel plunger	8.5	∅ 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
 3SE5000-0AE05  3SE5000-0AF05	Roller plungers, type C, acc. to EN 50041 • Plastic plungers	Plastic roller	13	∅ 5	3SE5000-0AD05	1 unit 41K
		High-grade steel roller	13	∅ 5	3SE5000-0AD06	1 unit 41K
	Roller levers • Metal lever	Plastic roller	22	∅ 5	3SE5000-0AE05	1 unit 41K
	Angular roller levers • Metal lever	Plastic roller	22	∅ 5	3SE5000-0AF05	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		3SE5000-0AR02	1	1 unit 41K
	- Length 142.5 mm (spring 50 mm, plunger 50 mm)	5				
3SE5000-0AR01						
Twist actuators						
 3SE5000-0AH00	Twist actuators, for 40 mm, EN 50041 • For twist levers and rod levers, switching right and/or left, adjustable	--	∅ 2	3SE5000-0AH00	1	1 unit 41K
Levers						
	Twist levers 27 mm, offset, type A, acc. to EN 50041					
	• Metal lever	Plastic roller	19	∅ 2	3SE5000-0AA01	1 unit 41K
			30	∅ 5	3SE5000-0AA05	1 unit 41K
			50	∅ 5	3SE5000-0AA07	1 unit 41K
	• 2 plastic rollers	19	∅ 5	3SE5000-0AA04	1 unit 41K	
	High-grade steel roller	19	∅ 2	3SE5000-0AA02	1 unit 41K	
	- With ball bearing	19	∅ 5	3SE5000-0AA03	1 unit 41K	
	Rubber roller	50	∅ 5	3SE5000-0AA08	1 unit 41K	
	• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA11	1 unit 41K
			19	∅ 5	3SE5000-0AA12	1 unit 41K
	Twist levers 35 mm, offset, type A, acc. to EN 50041					
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA15	1 unit 41K
	• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA16	1 unit 41K
	Twist levers 30 mm, straight¹⁾, type A, acc. to EN 50041					
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA24	1 unit 41K
			30	∅ 5	3SE5000-0AA26	1 unit 41K
	Twist levers 100 mm, adjustable length, with grid hole					
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA60	1 unit 41K
			19	∅ 5	3SE5000-0AA61	1 unit 41K
			50	∅ 5	3SE5000-0AA68	1 unit 41K
	• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA62	1 unit 41K
			19	∅ 5	3SE5000-0AA63	1 unit 41K
	Twist levers 100 mm, adjustable length					
	• Metal lever	Plastic roller	19	2	3SE5000-0AA50	1 unit 41K
			30	5	3SE5000-0AA55	1 unit 41K
			19	5	3SE5000-0AA51	1 unit 41K
			50	5	3SE5000-0AA58	1 unit 41K
	• High-grade steel lever	Plastic roller	19	5	3SE5000-0AA52	1 unit 41K
			19	5	3SE5000-0AA53	1 unit 41K
	Rod levers 200 mm, type D, acc. to EN 50041					
	• Aluminum rod	6	5	3SE5000-0AA80	1 unit 41K	
	• Spring rod	6	5	3SE5000-0AA81	1 unit 41K	
	• Plastic rod	6	5	3SE5000-0AA82	1 unit 41K	

¹⁾ Positively driven actuator, necessary in safety circuits.¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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) · Operating points acc. to EN 50047

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 50 mm																																																																																																																																							
Rounded plungers																																																																																																																																							
 3SE5242-0BC05	<ul style="list-style-type: none"> • Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5242-0BC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5242-0PC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td></td><td>3SE5242-0MC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0CC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated²⁾</td><td>1 NO + 1 NC --</td><td>⊕ ▶</td><td>3SE5242-0HC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Short stroke, integrated²⁾</td><td>1 NO + 1 NC --</td><td>⊕ 15</td><td>3SE5242-0FC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Contact distance 2 × 2 mm</td><td>1 NO + 1 NC --</td><td>⊕ 30</td><td>3SE5242-0GC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> With increased corrosion protection³⁾ <table> <tr><td>• Slow-action contacts</td><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0BC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td></td><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0KC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td></td><td>2 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0PC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0MC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>• Snap-action contacts</td><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0LC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated²⁾</td><td>1 NO + 1 NC --</td><td>⊕ 30</td><td>3SE5242-0HC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> With 2 LEDs, yellow/green <table> <tr><td>• Slow-action contacts</td><td>1 NO + 2 NC 24 V DC</td><td>⊕ 5</td><td>3SE5242-1KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td></td><td>1 NO + 2 NC 230 V AC</td><td>⊕ 5</td><td>3SE5242-3KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>• Snap-action contacts</td><td>1 NO + 2 NC 24 V DC</td><td>⊕ 5</td><td>3SE5242-1LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td></td><td>1 NO + 2 NC 230 V AC</td><td>⊕ 5</td><td>3SE5242-3LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 2	3SE5242-0BC05	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5242-0KC05	1	1 unit	41K	2 NO + 1 NC --	⊕ 2	3SE5242-0PC05	1	1 unit	41K	- With make-before-break		3SE5242-0MC05	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5242-0CC05	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5242-0LC05	1	1 unit	41K	- Integrated ²⁾	1 NO + 1 NC --	⊕ ▶	3SE5242-0HC05	1	1 unit	41K	- Short stroke, integrated ²⁾	1 NO + 1 NC --	⊕ 15	3SE5242-0FC05	1	1 unit	41K	- Contact distance 2 × 2 mm	1 NO + 1 NC --	⊕ 30	3SE5242-0GC05	1	1 unit	41K	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5242-0BC05-1CA0	1	1 unit	41K		1 NO + 2 NC --	⊕ 5	3SE5242-0KC05-1CA0	1	1 unit	41K		2 NO + 1 NC --	⊕ 5	3SE5242-0PC05-1CA0	1	1 unit	41K	- With make-before-break	1 NO + 2 NC --	⊕ 5	3SE5242-0MC05-1CA0	1	1 unit	41K	• Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5242-0LC05-1CA0	1	1 unit	41K	- Integrated ²⁾	1 NO + 1 NC --	⊕ 30	3SE5242-0HC05-1CA0	1	1 unit	41K	• Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5242-1KC05	1	1 unit	41K		1 NO + 2 NC 230 V AC	⊕ 5	3SE5242-3KC05	1	1 unit	41K	• Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5242-1LC05	1	1 unit	41K		1 NO + 2 NC 230 V AC	⊕ 5	3SE5242-3LC05	1	1 unit	41K							
1 NO + 1 NC --	⊕ 2	3SE5242-0BC05	1	1 unit	41K																																																																																																																																		
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- With make-before-break		3SE5242-0MC05	1	1 unit	41K																																																																																																																																		
1 NO + 2 NC --	⊕ 5	3SE5242-0CC05	1	1 unit	41K																																																																																																																																		
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- Integrated ²⁾	1 NO + 1 NC --	⊕ ▶	3SE5242-0HC05	1	1 unit	41K																																																																																																																																	
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- Contact distance 2 × 2 mm	1 NO + 1 NC --	⊕ 30	3SE5242-0GC05	1	1 unit	41K																																																																																																																																	
• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5242-0BC05-1CA0	1	1 unit	41K																																																																																																																																	
	1 NO + 2 NC --	⊕ 5	3SE5242-0KC05-1CA0	1	1 unit	41K																																																																																																																																	
	2 NO + 1 NC --	⊕ 5	3SE5242-0PC05-1CA0	1	1 unit	41K																																																																																																																																	
- With make-before-break	1 NO + 2 NC --	⊕ 5	3SE5242-0MC05-1CA0	1	1 unit	41K																																																																																																																																	
• Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5242-0LC05-1CA0	1	1 unit	41K																																																																																																																																	
- Integrated ²⁾	1 NO + 1 NC --	⊕ 30	3SE5242-0HC05-1CA0	1	1 unit	41K																																																																																																																																	
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Roller plungers																																																																																																																																							
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 3SE5242-0BD03	<ul style="list-style-type: none"> • Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0BD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0LD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated²⁾</td><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0HD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5242-0BD03	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5242-0LD03	1	1 unit	41K	- Integrated ²⁾	1 NO + 1 NC --	⊕ 5	3SE5242-0HD03	1	1 unit	41K																																																																																																																			
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1 NO + 2 NC --	⊕ 5	3SE5242-0LD03	1	1 unit	41K																																																																																																																																		
- Integrated ²⁾	1 NO + 1 NC --	⊕ 5	3SE5242-0HD03	1	1 unit	41K																																																																																																																																	
 3SE5242-0BE10																																																																																																																																							
Roller levers																																																																																																																																							
With metal lever and plastic roller 13 mm																																																																																																																																							
 3SE5242-0BE10	<ul style="list-style-type: none"> • Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0BE10</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0LE10</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated²⁾</td><td>1 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5242-0HE10</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5242-0BE10	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5242-0LE10	1	1 unit	41K	- Integrated ²⁾	1 NO + 1 NC --	⊕ 2	3SE5242-0HE10	1	1 unit	41K																																																																																																																			
1 NO + 1 NC --	⊕ 5	3SE5242-0BE10	1	1 unit	41K																																																																																																																																		
1 NO + 2 NC --	⊕ 5	3SE5242-0LE10	1	1 unit	41K																																																																																																																																		
- Integrated ²⁾	1 NO + 1 NC --	⊕ 2	3SE5242-0HE10	1	1 unit	41K																																																																																																																																	
With M12 device plug, 4-pole right (250 V, 4 A)⁴⁾																																																																																																																																							
 3SE5242-0BE10	<ul style="list-style-type: none"> • Snap-action contacts <table> <tr><td>2 NC --</td><td>⊕ 5</td><td>3SE5244-0LE10-1AE0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	2 NC --	⊕ 5	3SE5244-0LE10-1AE0	1	1 unit	41K																																																																																																																																
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 3SE5242-0BK21																																																																																																																																							
Twist levers																																																																																																																																							
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 3SE5242-0BK21	<ul style="list-style-type: none"> • Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0BK21</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5242-0LK21</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated²⁾</td><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5242-0HK21</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5242-0BK21	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5242-0LK21	1	1 unit	41K	- Integrated ²⁾	1 NO + 1 NC --	⊕ 5	3SE5242-0HK21	1	1 unit	41K																																																																																																																			
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 3SE5242-0HK50																																																																																																																																							
Twist levers, adjustable length																																																																																																																																							
With metal lever 100 mm and plastic roller 19 mm																																																																																																																																							
 3SE5242-0HK50	<ul style="list-style-type: none"> • Snap-action contacts, integrated²⁾ <table> <tr><td>1 NO + 1 NC --</td><td>5</td><td>3SE5242-0HK50</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	5	3SE5242-0HK50	1	1 unit	41K																																																																																																																																
1 NO + 1 NC --	5	3SE5242-0HK50	1	1 unit	41K																																																																																																																																		

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Popular versions.

²⁾ Subsequent replacement of contact blocks is not possible.

³⁾ Use corresponding high-grade steel lever.

⁴⁾ Pin assignments, see page 12/12.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/25.

Position and safety switches
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) · Operating points acc. to EN 50047

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG																																																								
d	Article No.		Price per PU																																																													
Basic switches · Enclosure width 50 mm																																																																
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 3SE5242-0BC05	<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>∅ 2</td><td>3SE5242-0BC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>∅ 5</td><td>3SE5242-0KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>∅ 2</td><td>3SE5242-0PC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td>1 NO + 2 NC --</td><td>∅ 5</td><td>3SE5242-0MC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>∅ 5</td><td>3SE5242-0CC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>∅ 5</td><td>3SE5242-0LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Integrated²⁾</td><td>1 NO + 1 NC --</td><td>∅ ▶</td><td>3SE5242-0HC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Short stroke, integrated²⁾</td><td>1 NO + 1 NC --</td><td>∅ 15</td><td>3SE5242-0FC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Contact distance 2 × 2 mm</td><td>1 NO + 1 NC --</td><td>∅ 30</td><td>3SE5242-0GC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	∅ 2	3SE5242-0BC05	1	1 unit	41K	1 NO + 2 NC --	∅ 5	3SE5242-0KC05	1	1 unit	41K	2 NO + 1 NC --	∅ 2	3SE5242-0PC05	1	1 unit	41K	- With make-before-break	1 NO + 2 NC --	∅ 5	3SE5242-0MC05	1	1 unit	41K	1 NO + 1 NC --	∅ 5	3SE5242-0CC05	1	1 unit	41K	1 NO + 2 NC --	∅ 5	3SE5242-0LC05	1	1 unit	41K	- Integrated ²⁾	1 NO + 1 NC --	∅ ▶	3SE5242-0HC05	1	1 unit	41K	- Short stroke, integrated ²⁾	1 NO + 1 NC --	∅ 15	3SE5242-0FC05	1	1 unit	41K	- Contact distance 2 × 2 mm	1 NO + 1 NC --	∅ 30	3SE5242-0GC05	1	1 unit	41K					
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 Positive opening according to IEC 60947-5-1, Annex 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 12/13.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

3SE5, plastic enclosures

Enclosure width 50 mm

Version	Diameter mm	SD d	Modular system		PU (UNIT, SET, M)	PS*	PG	
						Article No.	Price per PU	
Operating mechanisms								
 3SE5000-0AB01			Plain plungers					
			• High-grade steel plungers	8.5	∅ 2	3SE5000-0AB01	1 1 unit 41K	
 3SE5000-0AD03	 3SE5000-0AD10		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	
 3SE5000-0AE10	 3SE5000-0AF10		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	 3SE5000-0AF10		Roller levers, type E, acc. to EN 50047					
			• Metal lever	Plastic roller	13	∅ 2	3SE5000-0AE10	1 1 unit 41K
				High-grade steel roller	13	∅ 5	3SE5000-0AE11	1 1 unit 41K
			• High-grade steel lever	Plastic roller	13	∅ 2	3SE5000-0AE12	1 1 unit 41K
				High-grade steel roller	13	∅ 5	3SE5000-0AE13	1 1 unit 41K
 3SE5000-0AR01	 3SE5000-0AR03		Angular roller levers					
			• Metal lever	Plastic roller	13	∅ 2	3SE5000-0AF10	1 1 unit 41K
				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 roller	13	∅ 5	3SE5000-0AF13	1 1 unit 41K
 3SE5000-0AR01	 3SE5000-0AR03		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		3SE5000-0AR02	1 1 unit 41K	
			- Length 142.5 mm (spring 50 mm, plunger 50 mm)	5				
Twist actuators								
 3SE5000-0AK00	 3SE5000-0AA21		Twist actuators, for 31/50 mm, EN 50047					
			• For twist levers and rod levers, 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
				30	∅ 5	3SE5000-0AA25	1 1 unit 41K	
			• High-grade steel lever	High-grade steel roller	19	∅ 5	3SE5000-0AA22	1 1 unit 41K
				- With ball bearing	19	∅ 5	3SE5000-0AA23	1 1 unit 41K
			• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA31	1 1 unit 41K
				High-grade steel roller	19	∅ 5	3SE5000-0AA32	1 1 unit 41K
 3SE5000-0AA60	 3SE5000-0AA50		Twist levers 30 mm, straight¹⁾					
			• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA24	1 1 unit 41K
				30	∅ 5	3SE5000-0AA26	1 1 unit 41K	
 3SE5000-0AA60	 3SE5000-0AA50		Twist levers 100 mm, adjustable length, with grid hole					
			• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA60	1 1 unit 41K
				50	∅ 5	3SE5000-0AA67	1 1 unit 41K	
			• High-grade steel lever	High-grade steel roller	19	∅ 5	3SE5000-0AA61	1 1 unit 41K
				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 roller	19	∅ 5	3SE5000-0AA63	1 1 unit 41K
 3SE5000-0AA80			Twist levers 100 mm, adjustable length					
			• Metal lever	Plastic roller	19	2	3SE5000-0AA50	1 1 unit 41K
				30	5	3SE5000-0AA55	1 1 unit 41K	
			• High-grade steel lever	High-grade steel roller	19	5	3SE5000-0AA57	1 1 unit 41K
				Rubber roller	50	5	3SE5000-0AA51	1 1 unit 41K
			• High-grade steel lever	Plastic roller	19	5	3SE5000-0AA58	1 1 unit 41K
				High-grade steel roller	19	5	3SE5000-0AA52	1 1 unit 41K
						3SE5000-0AA53	1 1 unit 41K	
 3SE5000-0AA80			Rod levers, 200 mm					
			• Aluminum rod	6	5	3SE5000-0AA80	1 1 unit 41K	
			• Spring rod	6	5	3SE5000-0AA81	1 1 unit 41K	
			• Plastic rod	6	5	3SE5000-0AA82	1 1 unit 41K	

 Positively driven actuator, necessary in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

* You can order this quantity or a multiple thereof.
Illustrations are approximate

Position and safety switches
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 1 × (M20 × 1.5)

Version	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG																																																																																																																																																		
d			Article No.	Price per PU																																																																																																																																																						
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1 NO + 1 NC --	⊕ 5	3SE5214-0BC05-1AC5	1	1 unit	41K																																																																																																																																																					
2 NC --	⊕ 5	3SE5214-0KC05-1AE1	1	1 unit	41K																																																																																																																																																					
1 NO + 1 NC --	⊕ 5	3SE5214-0CC05-1AC5	1	1 unit	41K																																																																																																																																																					
2 NC --	⊕ 5	3SE5214-0LC05-1AE1	1	1 unit	41K																																																																																																																																																					
1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1BC05-1AF3	1	1 unit	41K																																																																																																																																																					
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1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1CC05-1AF3	1	1 unit	41K																																																																																																																																																					
3SE5212-0BB01	With high-grade steel plunger 8.5 mm																																																																																																																																																									
	<ul style="list-style-type: none"> • Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5212-0BB01</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5212-0KB01</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> • Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5212-0CB01</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5212-0LB01</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5212-0BB01	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5212-0KB01	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5212-0CB01	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5212-0LB01	1	1 unit	41K																																																																																																																																	
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1 NO + 2 NC --	⊕ 5	3SE5212-0LB01	1	1 unit	41K																																																																																																																																																					
3SE5212-0BD03	With plastic roller 10 mm																																																																																																																																																									
	<ul style="list-style-type: none"> • Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5212-0BD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5212-0KD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> • Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5212-0CD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5212-0LD03</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 2	3SE5212-0BD03	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5212-0KD03	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5212-0CD03	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5212-0LD03	1	1 unit	41K																																																																																																																																	
1 NO + 1 NC --	⊕ 2	3SE5212-0BD03	1	1 unit	41K																																																																																																																																																					
1 NO + 2 NC --	⊕ 5	3SE5212-0KD03	1	1 unit	41K																																																																																																																																																					
1 NO + 1 NC --	⊕ 5	3SE5212-0CD03	1	1 unit	41K																																																																																																																																																					
1 NO + 2 NC --	⊕ 5	3SE5212-0LD03	1	1 unit	41K																																																																																																																																																					

 Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Popular versions.

2) Use corresponding high-grade steel lever.

3) Pin assignments, see page 12/12.

Position and safety switches

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 1 × (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 31 mm								
Roller plungers with central fixing, acc. to EN 50047								
 3SE5212-0KD10	With plastic roller 10 mm							
	• Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KD10			1	1 unit 41K
Roller levers, type E, acc. to EN 50047								
 3SE5212-0BE10	With metal lever and plastic roller 13 mm							
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BE10			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0KE10			1	1 unit 41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CE10			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0LE10			1	1 unit 41K
Angular roller levers, acc. to EN 50047								
 3SE5212-0BF10	With metal lever and plastic roller 13 mm							
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BF10			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0KF10			1	1 unit 41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CF10			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0LF10			1	1 unit 41K
Twist levers, type A, acc. to EN 50047								
 3SE5212-0BK21	With metal lever 21 mm and plastic roller 19 mm							
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BK21			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0KK21			1	1 unit 41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CK21			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0LK21			1	1 unit 41K
Twist levers, adjustable length, acc. to EN 50047								
 3SE5212-0CK60	With metal lever 100 mm, with grid hole and plastic roller 19 mm							
	• Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KK60			1	1 unit 41K
	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CK60			1	1 unit 41K
		1 NO + 2 NC --	⊕ 5	3SE5212-0LK60			1	1 unit 41K
With metal lever 100 mm and plastic roller 19 mm								
	• Slow-action contacts	1 NO + 1 NC --	5	3SE5212-0BK50			1	1 unit 41K
	• Snap-action contacts	1 NO + 1 NC --	5	3SE5212-0CK50			1	1 unit 41K
		1 NO + 2 NC --	5	3SE5212-0LK50			1	1 unit 41K

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Popular versions.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/29.

Position and safety switches
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 1 × (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																																																																															
Rounded plungers¹⁾, type B, acc. to EN 50047																																																																															
3SE5212-0BC05	<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>∅ 2</td><td>3SE5212-0BC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>∅ 5</td><td>3SE5212-0KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>∅ 5</td><td>3SE5212-0PC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td></td><td>3SE5212-0MC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>∅ 2</td><td>3SE5212-0CC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>∅ 2</td><td>3SE5212-0LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	∅ 2	3SE5212-0BC05	1	1 unit	41K	1 NO + 2 NC --	∅ 5	3SE5212-0KC05	1	1 unit	41K	2 NO + 1 NC --	∅ 5	3SE5212-0PC05	1	1 unit	41K	- With make-before-break		3SE5212-0MC05	1	1 unit	41K	1 NO + 1 NC --	∅ 2	3SE5212-0CC05	1	1 unit	41K	1 NO + 2 NC --	∅ 2	3SE5212-0LC05	1	1 unit	41K	With increased corrosion protection ²⁾	<table> <tr><td>1 NO + 1 NC --</td><td>∅ 5</td><td>3SE5212-0BC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>∅ 5</td><td>3SE5212-0KC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>∅ 5</td><td>3SE5212-0PC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td></td><td>3SE5212-0MC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table>	1 NO + 1 NC --	∅ 5	3SE5212-0BC05-1CA0	1	1 unit	41K	1 NO + 2 NC --	∅ 5	3SE5212-0KC05-1CA0	1	1 unit	41K	2 NO + 1 NC --	∅ 5	3SE5212-0PC05-1CA0	1	1 unit	41K	- With make-before-break		3SE5212-0MC05-1CA0	1	1 unit	41K	<table> <tr><td>1 NO + 1 NC --</td><td>∅ 5</td><td>3SE5212-0CC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>∅ 5</td><td>3SE5212-0LC05-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table>	1 NO + 1 NC --	∅ 5	3SE5212-0CC05-1CA0	1	1 unit	41K	1 NO + 2 NC --	∅ 5	3SE5212-0LC05-1CA0	1	1 unit	41K			
1 NO + 1 NC --	∅ 2	3SE5212-0BC05	1	1 unit	41K																																																																										
1 NO + 2 NC --	∅ 5	3SE5212-0KC05	1	1 unit	41K																																																																										
2 NO + 1 NC --	∅ 5	3SE5212-0PC05	1	1 unit	41K																																																																										
- With make-before-break		3SE5212-0MC05	1	1 unit	41K																																																																										
1 NO + 1 NC --	∅ 2	3SE5212-0CC05	1	1 unit	41K																																																																										
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1 NO + 2 NC --	∅ 5	3SE5212-0KC05-1CA0	1	1 unit	41K																																																																										
2 NO + 1 NC --	∅ 5	3SE5212-0PC05-1CA0	1	1 unit	41K																																																																										
- With make-before-break		3SE5212-0MC05-1CA0	1	1 unit	41K																																																																										
1 NO + 1 NC --	∅ 5	3SE5212-0CC05-1CA0	1	1 unit	41K																																																																										
1 NO + 2 NC --	∅ 5	3SE5212-0LC05-1CA0	1	1 unit	41K																																																																										
3SE5212-1KC05	With 2 LEDs, yellow/green		<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 2 NC 24 V DC</td><td>∅ 5</td><td>3SE5212-1KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC 230 V AC</td><td>∅ 5</td><td>3SE5212-3KC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 2 NC 24 V DC</td><td>∅ 2</td><td>3SE5212-1LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC 230 V AC</td><td>∅ 5</td><td>3SE5212-3LC05</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 2 NC 24 V DC	∅ 5	3SE5212-1KC05	1	1 unit	41K	1 NO + 2 NC 230 V AC	∅ 5	3SE5212-3KC05	1	1 unit	41K	1 NO + 2 NC 24 V DC	∅ 2	3SE5212-1LC05	1	1 unit	41K	1 NO + 2 NC 230 V AC	∅ 5	3SE5212-3LC05	1	1 unit	41K																																																				
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1 NO + 2 NC 24 V DC	∅ 2	3SE5212-1LC05	1	1 unit	41K																																																																										
1 NO + 2 NC 230 V AC	∅ 5	3SE5212-3LC05	1	1 unit	41K																																																																										
3SE5214-0BC05-1AC5	With M12 device plug, 5-pole (125 V, 4 A) ³⁾		<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>∅ 5</td><td>3SE5214-0BC05-1AC5</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NC --</td><td>∅ 5</td><td>3SE5214-0KC05-1AE1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>∅ 5</td><td>3SE5214-0CC05-1AC5</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NC --</td><td>∅ 5</td><td>3SE5214-0LC05-1AE1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	∅ 5	3SE5214-0BC05-1AC5	1	1 unit	41K	2 NC --	∅ 5	3SE5214-0KC05-1AE1	1	1 unit	41K	1 NO + 1 NC --	∅ 5	3SE5214-0CC05-1AC5	1	1 unit	41K	2 NC --	∅ 5	3SE5214-0LC05-1AE1	1	1 unit	41K																																																				
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2 NC --	∅ 5	3SE5214-0KC05-1AE1	1	1 unit	41K																																																																										
1 NO + 1 NC --	∅ 5	3SE5214-0CC05-1AC5	1	1 unit	41K																																																																										
2 NC --	∅ 5	3SE5214-0LC05-1AE1	1	1 unit	41K																																																																										
3SE5214-1BC05-1AF3	With 2 LEDs, yellow/green		<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC 24 V DC</td><td>∅ 5</td><td>3SE5214-1BC05-1AF3</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 1 NC 24 V DC</td><td>∅ 5</td><td>3SE5214-1CC05-1AF3</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts 	1 NO + 1 NC 24 V DC	∅ 5	3SE5214-1BC05-1AF3	1	1 unit	41K	1 NO + 1 NC 24 V DC	∅ 5	3SE5214-1CC05-1AF3	1	1 unit	41K																																																																
1 NO + 1 NC 24 V DC	∅ 5	3SE5214-1BC05-1AF3	1	1 unit	41K																																																																										
1 NO + 1 NC 24 V DC	∅ 5	3SE5214-1CC05-1AF3	1	1 unit	41K																																																																										

∅ Positive opening according to IEC 60947-5-1, Annex 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.

3) Pin assignments, see page 12/12.

Note:

For the selection aid, see page 12/13.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

3SE5, metal enclosures

Enclosure width 31 mm according to EN 50047

Version	Diameter mm	SD d	Modular system	PU (UNIT, SET, M)	PS*	PG			
					Article No.	Price per PU			
Operating mechanisms									
 3SE5000-0AB01	 3SE5000-0AD03	Plain plungers	• High-grade steel plunger	8.5	⊕ 2	3SE5000-0AB01	1	1 unit	41K
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	
Roller plungers with central fixing									
 3SE5000-0AE10	 3SE5000-0AF10	• Plastic rollers	10	⊕ 2	3SE5000-0AD10	1	1 unit	41K	
		• High-grade steel rollers	10	⊕ 5	3SE5000-0AD11	1	1 unit	41K	
Roller levers, type E, acc. to EN 50047									
		• Metal lever	Plastic roller	13	⊕ 2	3SE5000-OAE10	1	1 unit	41K
			High-grade steel roller	13	⊕ 5	3SE5000-OAE11	1	1 unit	41K
		• High-grade steel lever	Plastic roller	13	⊕ 5	3SE5000-OAE12	1	1 unit	41K
			High-grade steel roller	13	⊕ 5	3SE5000-OAE13	1	1 unit	41K
Angular roller levers									
		• Metal lever	Plastic roller	13	⊕ 2	3SE5000-OAF10	1	1 unit	41K
			High-grade steel roller	13	⊕ 5	3SE5000-OAF11	1	1 unit	41K
		• High-grade steel lever	Plastic roller	13	⊕ 2	3SE5000-OAF12	1	1 unit	41K
			High-grade steel roller	13	⊕ 5	3SE5000-OAF13	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-OAR01	1	1 unit	41K	
		- Length 76 mm (spring 23.5 mm, plunger 10 mm)	5		3SE5000-OAR03	1	1 unit	41K	
		- Length 242.5 mm (spring 150 mm, plunger 50 mm)	5		3SE5000-OAR04	1	1 unit	41K	
		• Plunger and spring made of high-grade steel: 7			3SE5000-OAR02	1	1 unit	41K	
		- Length 142.5 mm (spring 50 mm, plunger 50 mm)	5						
Twist actuators									
 3SE5000-0AK00	 3SE5000-0AA21	Twist actuators, for 31/50 mm, EN 50047		--	⊕ 2	3SE5000-0AK00	1	1 unit	41K
Levers									
Twist levers 21 mm, straight, type A, acc. to EN 50047									
		• Metal lever	Plastic roller	19	⊕ 2	3SE5000-OAA21	1	1 unit	41K
				30	⊕ 5	3SE5000-OAA25	1	1 unit	41K
			High-grade steel roller	19	⊕ 5	3SE5000-OAA22	1	1 unit	41K
		• High-grade steel lever	- With ball bearing	19	⊕ 5	3SE5000-OAA23	1	1 unit	41K
			Plastic roller	19	⊕ 5	3SE5000-OAA31	1	1 unit	41K
			High-grade steel roller	19	⊕ 5	3SE5000-OAA32	1	1 unit	41K
Twist levers 30 mm, straight¹⁾									
		• Metal lever	Plastic roller	19	⊕ 5	3SE5000-OAA24	1	1 unit	41K
				30	⊕ 5	3SE5000-OAA26	1	1 unit	41K
Twist levers 100 mm, adjustable length, with grid hole									
		• Metal lever	Plastic roller	19	⊕ 5	3SE5000-OAA60	1	1 unit	41K
				50	⊕ 5	3SE5000-OAA67	1	1 unit	41K
			High-grade steel roller	19	⊕ 5	3SE5000-OAA61	1	1 unit	41K
			Rubber roller	50	⊕ 5	3SE5000-OAA68	1	1 unit	41K
		• High-grade steel lever	Plastic roller	19	⊕ 5	3SE5000-OAA62	1	1 unit	41K
			High-grade steel roller	19	⊕ 5	3SE5000-OAA63	1	1 unit	41K
Twist levers 100 mm, adjustable length									
		• Metal lever	Plastic roller	19	2	3SE5000-OAA50	1	1 unit	41K
				30	5	3SE5000-OAA55	1	1 unit	41K
				50	5	3SE5000-OAA57	1	1 unit	41K
			High-grade steel roller	19	5	3SE5000-OAA51	1	1 unit	41K
			Rubber roller	50	5	3SE5000-OAA58	1	1 unit	41K
		• High-grade steel lever	Plastic roller	19	5	3SE5000-OAA52	1	1 unit	41K
			High-grade steel roller	19	5	3SE5000-OAA53	1	1 unit	41K
Rod levers									
		• Aluminum rod	Length 200 mm	6	5	3SE5000-OAA80	1	1 unit	41K
		• Spring rod	Length 200 mm	6	5	3SE5000-OAA81	1	1 unit	41K
		• Plastic rod	Length 200 mm	6	5	3SE5000-OAA82	1	1 unit	41K
		• Plastic rod	Length 330 mm	6	5	3SE5000-OAA83	1	1 unit	41K

¹⁾ Positively driven actuator, necessary in safety circuits.¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches
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 1 × (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, acc. to EN 50041															
With high-grade steel plunger 8.5 mm															
3SE5112-0BB01	• Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5112-0BB01	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0KB01	1	1 unit	41K								
3SE5112-0BC02	• Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5112-0CB01	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0LB01	1	1 unit	41K								
With M12 device plug, 5-pole (125 V, 4 A)²⁾															
With pin assignment as for SIMATIC ET 200³⁾															
3SE5112-0BD02	• Snap-action contacts	2 NC --	⊕ 10	3SE5114-0LB01-1AE3	1	1 unit	41K								
Rounded plungers, type B, acc. to EN 50041															
With high-grade steel plunger 10 mm, with 3 mm overtravel															
3SE5112-0BC02	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BC02	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0KC02	1	1 unit	41K								
3SE5112-0BD02	• Snap-action contacts	1 NO + 1 NC --	⊕ ▶	3SE5112-0CC02	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0LC02	1	1 unit	41K								
3SE5112-0BD02	- Increased operation/restoring force ⁴⁾	1 NO + 1 NC --	⊕ 5	3SE5112-0CC02-1AA7	1	1 unit	41K								
With M12 device plug, 4-pole (125 V, 4 A)²⁾															
3SE5112-0BD02	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5114-0CC02-1AC4	1	1 unit	41K								
Roller plungers, type C, acc. to EN 50041															
With high-grade steel roller 13 mm, with 3 mm overtravel															
3SE5112-0BD02	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BD02	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0KD02	1	1 unit	41K								
3SE5112-0BD02	- Increased operation/restoring force ⁴⁾	2 NO + 1 NC --	⊕ 5	3SE5112-0PD02-1AA7	1	1 unit	41K								
3SE5112-0BD02	• Snap-action contacts	1 NO + 1 NC --	⊕ ▶	3SE5112-0CD02	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0LD02	1	1 unit	41K								
3SE5112-0BD02	- Increased operation/restoring force ⁴⁾	1 NO + 1 NC --	⊕ 5	3SE5112-0CD02-1AA7	1	1 unit	41K								
		1 NO + 2 NC --	⊕ 5	3SE5112-0LD02-1AA7	1	1 unit	41K								
With M12 device plug, 5-pole (125 V, 4 A)²⁾															
3SE5112-0BD02	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5114-0CD02-1AC5	1	1 unit	41K								
		- Increased operation/restoring force ⁴⁾	⊕ 5	3SE5114-0CD02-1AL0	1	1 unit	41K								
With 2 LEDs, yellow/green															
3SE5112-0BD02	• Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CD02-1AF3	1	1 unit	41K								
		1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CD02-1AF5	1	1 unit	41K								
With pin assignment as for SIMATIC ET 200³⁾															
3SE5112-0BD02	• Snap-action contacts	2 NC --	⊕ 10	3SE5114-0LD02-1AE3	1	1 unit	41K								

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Popular versions.

2) Pin assignments, see page 12/12.

3) The 3SE5114-....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

4) Increased operation or restoring force 30 N; only available as complete unit, no modular design.

Position and safety switches

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 1 × (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								
Roller levers, acc. to EN 50041								
With metal lever and plastic roller 22 mm								
3SE5112-0BE01	<ul style="list-style-type: none"> Slow-action contacts 1 NO + 1 NC -- Slow-action contacts 1 NO + 2 NC -- Snap-action contacts 1 NO + 1 NC -- Snap-action contacts 1 NO + 2 NC -- 	 5  5  ► 5  5	3SE5112-0BE01 3SE5112-0KE01 3SE5112-0CE01 3SE5112-0LE01		1 1 1 1	1 unit 1 unit 1 unit 1 unit	41K 41K 41K 41K	
Angular roller levers, acc. to EN 50041								
3SE5112-0BF01	With metal lever and plastic roller 22 mm <ul style="list-style-type: none"> Slow-action contacts 1 NO + 1 NC -- Slow-action contacts 1 NO + 1 NC -- Snap-action contacts 1 NO + 2 NC -- 	 5  2  5	3SE5112-0BF01 3SE5112-0CF01 3SE5112-0LF01		1 1 1	1 unit 1 unit 1 unit	41K 41K 41K	
Spring rods²⁾, acc. to EN 50041								
3SE5112-0CR01	Length 142.5 mm, with plastic plunger 50 mm <ul style="list-style-type: none"> Snap-action contacts 1 NO + 1 NC -- 	►	3SE5112-0CR01		1	1 unit	41K	
Twist levers, type A, acc. to EN 50041								
With metal lever 27 mm and plastic roller 19 mm								
3SE5112-0BH01	<ul style="list-style-type: none"> Slow-action contacts 1 NO + 1 NC -- Slow-action contacts 1 NO + 2 NC -- Snap-action contacts 1 NO + 1 NC -- Snap-action contacts 1 NO + 2 NC -- 	 5  5  ► 5  5	3SE5112-0BH01 3SE5112-0KH01 3SE5112-0CH01 3SE5112-0LH01		1 1 1 1	1 unit 1 unit 1 unit 1 unit	41K 41K 41K 41K	
With M12 device plug, 5-pole (125 V, 4 A)³⁾								
	• Snap-action contacts 1 NO + 1 NC --	 2	3SE5114-0CH01-1AC5		1	1 unit	41K	
With 2 LEDs, yellow/green								
	• Snap-action contacts 1 NO + 1 NC 24 V DC	 5	3SE5114-1CH01-1AF3		1	1 unit	41K	
With pin assignment as for SIMATIC ET 200⁴⁾								
	• Snap-action contacts 2 NC --	 10	3SE5114-0LH01-1AE3		1	1 unit	41K	
With metal lever 27 mm and high-grade steel roller 19 m								
	<ul style="list-style-type: none"> Slow-action contacts 1 NO + 1 NC -- Snap-action contacts 1 NO + 1 NC -- 	 5  2	3SE5112-0BH02 3SE5112-0CH02		1 1	1 unit 1 unit	41K 41K	
With M12 device plug, 5-pole (125 V, 4 A)³⁾								
	With 2 LEDs, yellow/green							
	• Snap-action contacts 1 NO + 1 NC 24 V DC	 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	

 Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Popular versions.

²⁾ Degree of protection IP65/IP67.

³⁾ Pin assignments, see page 12/12.

⁴⁾ The 3SE5114-....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

Position and safety switches
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 1 × (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									
Twist levers, adjustable length, acc. to EN 50041									
With metal lever 100 mm, with grid hole and plastic roller 19 mm									
3SE5112-0BH60	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0BH60		1	1 unit	41K	
	• Snap-action contacts	1 NO + 1 NC --	⊕ ▶ 5	3SE5112-0CH60		1	1 unit	41K	
		1 NO + 2 NC --	⊕ 5	3SE5112-0LH60		1	1 unit	41K	
With M12 device plug, 5-pole (125 V, 4 A)²⁾									
With 2 LEDs, yellow/green									
3SE5112-0BH50	• Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CH60-1AF3		1	1 unit	41K	
	With metal lever 100 mm, with grid hole and high-grade steel roller 19 mm								
	• Snap-action contacts	1 NO + 1 NC --	⊕ X	3SE5114-0CH61-1AC5		1	1 unit	41K	
With metal lever 100 mm and plastic roller 19 mm									
3SE5112-0BH50	• Slow-action contacts	1 NO + 1 NC --	5	3SE5112-0BH50		1	1 unit	41K	
	• Snap-action contacts	1 NO + 1 NC --	▶ 5	3SE5112-0CH50		1	1 unit	41K	
		1 NO + 2 NC --	5	3SE5112-0LH50		1	1 unit	41K	
With M12 device plug, 8-pole (30 V, 2 A)²⁾									
With 2 LEDs, yellow/green									
3SE5112-0CT11	• Snap-action contacts	1 NO + 2 NC 24 V DC	5	3SE5114-1LH50-1AD4		1	1 unit	41K	
	With metal lever 100 mm and high-grade steel roller 19 m								
	• Snap-action contacts	1 NO + 1 NC --	5	3SE5112-0CH51		1	1 unit	41K	
Fork levers, latching, acc. to EN 50041									
With metal lever and 2 plastic rollers 19 mm									
3SE5112-0CT11	• Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5112-0CT11		1	1 unit	41K	
Rod levers³⁾, type D acc. to EN 50041									
With aluminum rod 200 mm									
3SE5112-0CH80	• Snap-action contacts	1 NO + 1 NC --	▶ 5	3SE5112-0CH80		1	1 unit	41K	
	Nagara switch with M12 device plug, 5-pole (125 V, 4 A)²⁾⁴⁾								
	• Snap-action contacts, short-stroke	1 NO + 1 NC --	5	3SE5114-0NH82-1AM2		1	1 unit	41K	
With plastic rod, length 200 mm									
3SE5112-0CH80	• Snap-action contacts	1 NO + 1 NC --	5	3SE5112-0CH82		1	1 unit	41K	

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Popular versions.

2) Pin assignments, see page 12/12.

3) Degree of protection IP65/IP67.

4) Start switch triggerable via one-hand operation (during operation).

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/34.

Position and safety switches

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 1 × (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																																																
Rounded plungers, acc. to EN 50041																																																
3SE5112-0BA00	<ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5112-0BA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 2</td><td>3SE5112-0KA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5112-0PA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td></td><td>3SE5112-0MA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 2</td><td>3SE5112-0CA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 2</td><td>3SE5112-0LA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- Gold-plated contacts</td><td>⊕ 5</td><td>3SE5112-0CA00-1AC1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5112-0BA00	1	1 unit	41K	1 NO + 2 NC --	⊕ 2	3SE5112-0KA00	1	1 unit	41K	2 NO + 1 NC --	⊕ 2	3SE5112-0PA00	1	1 unit	41K	- With make-before-break		3SE5112-0MA00	1	1 unit	41K	1 NO + 1 NC --	⊕ 2	3SE5112-0CA00	1	1 unit	41K	1 NO + 2 NC --	⊕ 2	3SE5112-0LA00	1	1 unit	41K	- Gold-plated contacts	⊕ 5	3SE5112-0CA00-1AC1	1	1 unit	41K					
1 NO + 1 NC --	⊕ 5	3SE5112-0BA00	1	1 unit	41K																																											
1 NO + 2 NC --	⊕ 2	3SE5112-0KA00	1	1 unit	41K																																											
2 NO + 1 NC --	⊕ 2	3SE5112-0PA00	1	1 unit	41K																																											
- With make-before-break		3SE5112-0MA00	1	1 unit	41K																																											
1 NO + 1 NC --	⊕ 2	3SE5112-0CA00	1	1 unit	41K																																											
1 NO + 2 NC --	⊕ 2	3SE5112-0LA00	1	1 unit	41K																																											
- Gold-plated contacts	⊕ 5	3SE5112-0CA00-1AC1	1	1 unit	41K																																											
3SE5112-0BA00-1CA0	<p>With increased corrosion protection¹⁾</p> <ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5112-0BA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5112-0KA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5112-0PA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>- With make-before-break</td><td>⊕ 5</td><td>3SE5112-0MA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5112-0CA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5112-0LA00-1CA0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5112-0BA00-1CA0	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5112-0KA00-1CA0	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5112-0PA00-1CA0	1	1 unit	41K	- With make-before-break	⊕ 5	3SE5112-0MA00-1CA0	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5112-0CA00-1CA0	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5112-0LA00-1CA0	1	1 unit	41K											
1 NO + 1 NC --	⊕ 5	3SE5112-0BA00-1CA0	1	1 unit	41K																																											
1 NO + 2 NC --	⊕ 5	3SE5112-0KA00-1CA0	1	1 unit	41K																																											
2 NO + 1 NC --	⊕ 5	3SE5112-0PA00-1CA0	1	1 unit	41K																																											
- With make-before-break	⊕ 5	3SE5112-0MA00-1CA0	1	1 unit	41K																																											
1 NO + 1 NC --	⊕ 5	3SE5112-0CA00-1CA0	1	1 unit	41K																																											
1 NO + 2 NC --	⊕ 5	3SE5112-0LA00-1CA0	1	1 unit	41K																																											
3SE5112-1KA00	<p>With 2 LEDs, yellow/green</p> <ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 2 NC 24 V DC</td><td>⊕ 5</td><td>3SE5112-1KA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC 230 V AC</td><td>⊕ 5</td><td>3SE5112-3KA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 2 NC 24 V DC</td><td>⊕ 5</td><td>3SE5112-1LA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC 230 V AC</td><td>⊕ 5</td><td>3SE5112-3LA00</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1KA00	1	1 unit	41K	1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3KA00	1	1 unit	41K	1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1LA00	1	1 unit	41K	1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3LA00	1	1 unit	41K																							
1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1KA00	1	1 unit	41K																																											
1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3KA00	1	1 unit	41K																																											
1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1LA00	1	1 unit	41K																																											
1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3LA00	1	1 unit	41K																																											
3SE5114-0BA00-1AC5	<p>With M12 device plug, 5-pole (125 V, 4 A)²⁾</p> <ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5114-0BA00-1AC5</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NC --</td><td>⊕ 5</td><td>3SE5114-0KA00-1AE1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5114-0CA00-1AC5</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>2 NC --</td><td>⊕ 5</td><td>3SE5114-0LA00-1AE1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5114-0BA00-1AC5	1	1 unit	41K	2 NC --	⊕ 5	3SE5114-0KA00-1AE1	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5114-0CA00-1AC5	1	1 unit	41K	2 NC --	⊕ 5	3SE5114-0LA00-1AE1	1	1 unit	41K																							
1 NO + 1 NC --	⊕ 5	3SE5114-0BA00-1AC5	1	1 unit	41K																																											
2 NC --	⊕ 5	3SE5114-0KA00-1AE1	1	1 unit	41K																																											
1 NO + 1 NC --	⊕ 5	3SE5114-0CA00-1AC5	1	1 unit	41K																																											
2 NC --	⊕ 5	3SE5114-0LA00-1AE1	1	1 unit	41K																																											
3SE5114-1BA00-1AF3	<p>With 2 LEDs, yellow/green</p> <ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 1 NC 24 V DC</td><td>⊕ 5</td><td>3SE5114-1BA00-1AF3</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 1 NC 24 V DC</td><td>⊕ 5</td><td>3SE5114-1CA00-1AF3</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 2 NC --</td><td>⊕ 10</td><td>3SE5114-0LA00-1AE3</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1BA00-1AF3	1	1 unit	41K	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1CA00-1AF3	1	1 unit	41K	1 NO + 2 NC --	⊕ 10	3SE5114-0LA00-1AE3	1	1 unit	41K																													
1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1BA00-1AF3	1	1 unit	41K																																											
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1 NO + 2 NC --	⊕ 10	3SE5114-0LA00-1AE3	1	1 unit	41K																																											
3SE5114-0KA00-1AD1	<p>With pin assignment as for SIMATIC ET 200³⁾</p> <ul style="list-style-type: none"> Snap-action contacts <table> <tr><td>1 NO + 2 NC --</td><td>⊕ 10</td><td>3SE5114-0LA00-1AE3</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 2 NC --	⊕ 10	3SE5114-0LA00-1AE3	1	1 unit	41K																																									
1 NO + 2 NC --	⊕ 10	3SE5114-0LA00-1AE3	1	1 unit	41K																																											
3SE5115-0KA00-1AD1	<p>With device plug, 6-pole + PE (250 V, 10 A)²⁾</p> <ul style="list-style-type: none"> Slow-action contacts <table> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5115-0KA00-1AD1</td><td>1</td><td>1 unit</td><td>41K</td></tr> <tr><td>1 NO + 2 NC --</td><td>⊕ 5</td><td>3SE5115-0LA00-1AD1</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5115-0CA00-1AD0</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 2 NC --	⊕ 5	3SE5115-0KA00-1AD1	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5115-0LA00-1AD1	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5115-0CA00-1AD0	1	1 unit	41K																													
1 NO + 2 NC --	⊕ 5	3SE5115-0KA00-1AD1	1	1 unit	41K																																											
1 NO + 2 NC --	⊕ 5	3SE5115-0LA00-1AD1	1	1 unit	41K																																											
1 NO + 1 NC --	⊕ 5	3SE5115-0CA00-1AD0	1	1 unit	41K																																											
3SE5114-1LA00-1AD4	<p>With quick-release device</p> <ul style="list-style-type: none"> Snap-action contacts <table> <tr><td>1 NO + 1 NC --</td><td>⊕ 5</td><td>3SE5114-1LA00-1AD4</td><td>1</td><td>1 unit</td><td>41K</td></tr> </table> 	1 NO + 1 NC --	⊕ 5	3SE5114-1LA00-1AD4	1	1 unit	41K																																									
1 NO + 1 NC --	⊕ 5	3SE5114-1LA00-1AD4	1	1 unit	41K																																											

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Use corresponding high-grade steel lever.

2) Pin assignments, see page 12/12.

3) The 3SE5114-....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

Note:

For the selection aid, see page 12/13.

Position and safety switches
SIRIUS 3SE5 mechanical position switches
3SE5, metal enclosures

Enclosure width 40 mm according to EN 50041

Version	Diameter mm	SD d	Modular system		PU (UNIT, SET, M)	PS*	PG
						Article No.	Price per PU
Operating mechanisms							
3SE5000-0AC02	8.5	2	Plain plungers • High-grade steel plunger	3SE5000-0AB01	1	1 unit	41K
3SE5000-0AD02	10	5	Rounded plungers, type B, acc. to EN 50041 • High-grade steel plunger, with 3 mm overtravel	3SE5000-0AC02	1	1 unit	41K
3SE5000-0AE01	13	5	Roller plungers, type C, acc. to EN 50041 • High-grade steel roller, with 3 mm overtravel	3SE5000-0AD02	1	1 unit	41K
3SE5000-0AF01	22	2	Roller levers • Metal lever	3SE5000-0AE01	1	1 unit	41K
	22	5	Plastic roller	3SE5000-0AE02	1	1 unit	41K
	22	5	High-grade steel roller	3SE5000-0AE03	1	1 unit	41K
	22	5	High-grade steel roller	3SE5000-0AE04	1	1 unit	41K
3SE5000-0AR01	22	2	Angular roller levers • Metal lever	3SE5000-0AF01	1	1 unit	41K
	22	5	Plastic roller	3SE5000-0AF02	1	1 unit	41K
	22	5	High-grade steel roller	3SE5000-0AF03	1	1 unit	41K
	22	5	High-grade steel roller	3SE5000-0AF04	1	1 unit	41K
Spring rods (for switches with snap-action contacts only)							
	7		• Plunger made of plastic, spring of high-grade steel:				
	5		- Length 142.5 mm (spring 50 mm, plunger 50 mm)	3SE5000-0AR01	1	1 unit	41K
	5		- Length 76 mm (spring 23.5 mm, plunger 10 mm)	3SE5000-0AR03	1	1 unit	41K
	5		- Length 242.5 mm (spring 150 mm, plunger 50 mm)	3SE5000-0AR04	1	1 unit	41K
	7		• Plunger and spring made of high-grade steel:				
	5		- Length 142.5 mm (spring 50 mm, plunger 50 mm)	3SE5000-0AR02	1	1 unit	41K
Twist actuators							
3SE5000-0AH00	19	2	Twist actuators, for 40/56/56 XL mm, EN 50041	3SE5000-0AH00	1	1 unit	41K
3SE5000-0AA01	--	5	• For twist levers and rod levers, switching right and/or left, adjustable				
	--	5	• For fork levers, latching	3SE5000-0AT10	1	1 unit	41K
Levers							
Twist levers 27 mm, offset, type A, acc. to EN 50041							
	19	2	• Metal lever	3SE5000-0AA01	1	1 unit	41K
	30	5	Plastic roller	3SE5000-0AA05	1	1 unit	41K
	50	5		3SE5000-0AA07	1	1 unit	41K
	19	5	2 plastic rollers	3SE5000-0AA04	1	1 unit	41K
	19	2	High-grade steel roller	3SE5000-0AA02	1	1 unit	41K
	19	5	- With ball bearing	3SE5000-0AA03	1	1 unit	41K
	50	5	Rubber roller	3SE5000-0AA08	1	1 unit	41K
	19	5	Plastic roller	3SE5000-0AA11	1	1 unit	41K
	19	5	High-grade steel roller	3SE5000-0AA12	1	1 unit	41K
Twist levers 35 mm, offset, type A, acc. to EN 50041							
	19	5	• Metal lever	3SE5000-0AA15	1	1 unit	41K
	19	5	• High-grade steel lever	3SE5000-0AA16	1	1 unit	41K
Twist levers 30 mm, straight¹⁾, type A, acc. to EN 50041							
	19	5	• Metal lever	3SE5000-0AA24	1	1 unit	41K
	30	5	Plastic roller	3SE5000-0AA26	1	1 unit	41K
Twist levers 100 mm, adjustable length, with grid hole							
	19	5	• Metal lever	3SE5000-0AA60	1	1 unit	41K
	50	5	Plastic roller	3SE5000-0AA67	1	1 unit	41K
	19	5	High-grade steel roller	3SE5000-0AA61	1	1 unit	41K
	50	5	Rubber roller	3SE5000-0AA68	1	1 unit	41K
	19	5	Plastic roller	3SE5000-0AA62	1	1 unit	41K
	19	5	High-grade steel roller	3SE5000-0AA63	1	1 unit	41K
Twist levers 100 mm, adjustable length							
	19	2	• Metal lever	3SE5000-0AA50	1	1 unit	41K
	30	5	Plastic roller	3SE5000-0AA55	1	1 unit	41K
	19	5	High-grade steel roller	3SE5000-0AA51	1	1 unit	41K
	50	5	Rubber roller	3SE5000-0AA58	1	1 unit	41K
	19	5	Plastic roller	3SE5000-0AA52	1	1 unit	41K
	19	5	High-grade steel roller	3SE5000-0AA53	1	1 unit	41K
Fork levers (for switches with snap-action contacts only)							
	19	5	• 2 metal levers	3SE5000-0AT01	1	1 unit	41K
	19	5	2 plastic rollers	3SE5000-0AT02	1	1 unit	41K
	19	5	2 high-grade steel rollers	3SE5000-0AT03	1	1 unit	41K
Rod levers 200 mm, type D, acc. to EN 50041							
	6	5	• Aluminum rod	3SE5000-0AA80	1	1 unit	41K
	6	5	• Spring rod	3SE5000-0AA81	1	1 unit	41K
	6	5	• Plastic rod	3SE5000-0AA82	1	1 unit	41K

⊕ Positively driven actuator, necessary in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

* You can order this quantity or a multiple thereof.

Illustrations are approximate

Position and safety switches

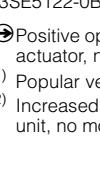
SIRIUS 3SE5 mechanical position switches
3SE5, metal enclosures

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) · Operating points acc. to EN 50041

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 56 mm																																													
Plain plungers With high-grade steel plunger 8.5 mm <ul style="list-style-type: none"> • Slow-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0BB01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0KB01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>2 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0PB01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> • Snap-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0CB01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0LB01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> 									1 NO + 1 NC --	⊕ 5	3SE5122-0BB01	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0KB01	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5122-0PB01	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5122-0CB01	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0LB01	1	1 unit	41K							
1 NO + 1 NC --	⊕ 5	3SE5122-0BB01	1	1 unit	41K																																								
1 NO + 2 NC --	⊕ 5	3SE5122-0KB01	1	1 unit	41K																																								
2 NO + 1 NC --	⊕ 5	3SE5122-0PB01	1	1 unit	41K																																								
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1 NO + 2 NC --	⊕ 5	3SE5122-0LB01	1	1 unit	41K																																								
 3SE5122-0BB01																																													
Rounded plungers With high-grade steel plunger 10 mm, with 3 mm overtravel <ul style="list-style-type: none"> • Slow-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0BC02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0KC02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>2 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0PC02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> • Snap-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ ▶</td> <td>3SE5122-0CC02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0LC02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>- Increased operation/restoring force²⁾</td> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0CC02-1AA7</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> 									1 NO + 1 NC --	⊕ 5	3SE5122-0BC02	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0KC02	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5122-0PC02	1	1 unit	41K	1 NO + 1 NC --	⊕ ▶	3SE5122-0CC02	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0LC02	1	1 unit	41K	- Increased operation/restoring force ²⁾	1 NO + 1 NC --	⊕ 5	3SE5122-0CC02-1AA7	1	1 unit	41K
1 NO + 1 NC --	⊕ 5	3SE5122-0BC02	1	1 unit	41K																																								
1 NO + 2 NC --	⊕ 5	3SE5122-0KC02	1	1 unit	41K																																								
2 NO + 1 NC --	⊕ 5	3SE5122-0PC02	1	1 unit	41K																																								
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1 NO + 2 NC --	⊕ 5	3SE5122-0LC02	1	1 unit	41K																																								
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Roller plunger With high-grade steel roller 13 mm, with 3 mm overtravel <ul style="list-style-type: none"> • Slow-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0BD02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0KD02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> • Snap-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 2</td> <td>3SE5122-0CD02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0LD02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>- Increased operation/restoring force²⁾</td> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0CD02-1AA7</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> 									1 NO + 1 NC --	⊕ 5	3SE5122-0BD02	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0KD02	1	1 unit	41K	1 NO + 1 NC --	⊕ 2	3SE5122-0CD02	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0LD02	1	1 unit	41K	- Increased operation/restoring force ²⁾	1 NO + 1 NC --	⊕ 5	3SE5122-0CD02-1AA7	1	1 unit	41K						
1 NO + 1 NC --	⊕ 5	3SE5122-0BD02	1	1 unit	41K																																								
1 NO + 2 NC --	⊕ 5	3SE5122-0KD02	1	1 unit	41K																																								
1 NO + 1 NC --	⊕ 2	3SE5122-0CD02	1	1 unit	41K																																								
1 NO + 2 NC --	⊕ 5	3SE5122-0LD02	1	1 unit	41K																																								
- Increased operation/restoring force ²⁾	1 NO + 1 NC --	⊕ 5	3SE5122-0CD02-1AA7	1	1 unit	41K																																							
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Roller levers With metal lever and plastic roller 22 mm <ul style="list-style-type: none"> • Slow-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0BE01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0KE01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>2 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0PE01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> • Snap-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 2</td> <td>3SE5122-0CE01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>1 NO + 2 NC --</td> <td>⊕ 5</td> <td>3SE5122-0LE01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> 									1 NO + 1 NC --	⊕ 5	3SE5122-0BE01	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0KE01	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5122-0PE01	1	1 unit	41K	1 NO + 1 NC --	⊕ 2	3SE5122-0CE01	1	1 unit	41K	1 NO + 2 NC --	⊕ 5	3SE5122-0LE01	1	1 unit	41K							
1 NO + 1 NC --	⊕ 5	3SE5122-0BE01	1	1 unit	41K																																								
1 NO + 2 NC --	⊕ 5	3SE5122-0KE01	1	1 unit	41K																																								
2 NO + 1 NC --	⊕ 5	3SE5122-0PE01	1	1 unit	41K																																								
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1 NO + 2 NC --	⊕ 5	3SE5122-0LE01	1	1 unit	41K																																								
 3SE5122-0BE01																																													
With metal lever and high-grade steel roller 22 mm <ul style="list-style-type: none"> • Snap-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0CE02</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> 									1 NO + 1 NC --	⊕ 5	3SE5122-0CE02	1	1 unit	41K																															
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Angular roller levers With metal lever and plastic roller 22 mm <ul style="list-style-type: none"> • Slow-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0BF01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> <tr> <td>2 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0PF01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> • Snap-action contacts <table> <tr> <td>1 NO + 1 NC --</td> <td>⊕ 5</td> <td>3SE5122-0CF01</td> <td>1</td> <td>1 unit</td> <td>41K</td> </tr> </table> 									1 NO + 1 NC --	⊕ 5	3SE5122-0BF01	1	1 unit	41K	2 NO + 1 NC --	⊕ 5	3SE5122-0PF01	1	1 unit	41K	1 NO + 1 NC --	⊕ 5	3SE5122-0CF01	1	1 unit	41K																			
1 NO + 1 NC --	⊕ 5	3SE5122-0BF01	1	1 unit	41K																																								
2 NO + 1 NC --	⊕ 5	3SE5122-0PF01	1	1 unit	41K																																								
1 NO + 1 NC --	⊕ 5	3SE5122-0CF01	1	1 unit	41K																																								
 3SE5122-0BF01																																													

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Popular versions.

²⁾ Increased operation or restoring force 30 N; only available as complete unit, no modular design.

Position and safety switches
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) · Operating points acc. to EN 50041

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 56 mm								
Spring rods²⁾								
	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							
3SE5122-0BH01	With metal lever 27 mm and plastic roller 19 mm							
	• Slow-action contacts	1 NO + 1 NC --	5	3SE5122-0BH01		1	1 unit	41K
		1 NO + 2 NC --	5	3SE5122-0KH01		1	1 unit	41K
		2 NO + 1 NC --	5	3SE5122-0PH01		1	1 unit	41K
	• Snap-action contacts	1 NO + 1 NC --	2	3SE5122-0CH01		1	1 unit	41K
		1 NO + 2 NC --	5	3SE5122-0LH01		1	1 unit	41K
	With metal lever 27 mm and high-grade steel roller 19 m							
3SE5122-0BH60	• Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CH02		1	1 unit	41K
		1 NO + 2 NC --	5	3SE5122-0LH02		1	1 unit	41K
	Twist levers, adjustable length							
3SE5122-0CT11	With metal lever 100 mm, 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
		1 NO + 2 NC --	5	3SE5122-0LH60		1	1 unit	41K
	With metal lever 100 mm and plastic roller 19 mm							
3SE5122-0CH80	• 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
		1 NO + 2 NC --	5	3SE5122-0LH50		1	1 unit	41K
	Fork levers, latching							
3SE5122-0CT11	With metal lever and 2 plastic rollers 19 mm							
	• Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CT11		1	1 unit	41K
	Rod levers²⁾							
3SE5122-0CH80	With aluminum rod 200 mm							
	• Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CH80		1	1 unit	41K
	With plastic rod, length 200 mm							
3SE5122-0CH82	• Snap-action contacts	1 NO + 1 NC --	5	3SE5122-0CH82		1	1 unit	41K

¹⁾ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

²⁾ Popular versions.

Degree of protection IP65/IP67.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/38.

Position and safety switches

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) · Operating points acc. to EN 50041

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			
Basic switches · Enclosure width 56 mm								
Rounded plungers								
3SE5122-0BA00	<ul style="list-style-type: none"> Slow-action contacts 	1 NO + 1 NC --	∅ 2	3SE5122-0BA00	1	1 unit	41K	
		1 NO + 2 NC --	∅ 5	3SE5122-0KA00	1	1 unit	41K	
		2 NO + 1 NC --	∅ 2	3SE5122-0PA00	1	1 unit	41K	
	- With make-before-break	1 NO + 2 NC --	∅ 2	3SE5122-0MA00	1	1 unit	41K	
3SE5122-0BA00-1CA0	<ul style="list-style-type: none"> Snap-action contacts 	1 NO + 1 NC --	∅ 2	3SE5122-0CA00	1	1 unit	41K	
		1 NO + 2 NC --	∅ 2	3SE5122-0LA00	1	1 unit	41K	
With increased corrosion protection ¹⁾								
3SE5122-1CA0	<ul style="list-style-type: none"> Slow-action contacts 	1 NO + 1 NC --	∅ 5	3SE5122-0BA00-1CA0	1	1 unit	41K	
		1 NO + 2 NC --	∅ 5	3SE5122-0KA00-1CA0	1	1 unit	41K	
		2 NO + 1 NC --	∅ 5	3SE5122-0PA00-1CA0	1	1 unit	41K	
	- With make-before-break	1 NO + 2 NC --	∅ 5	3SE5122-0MA00-1CA0	1	1 unit	41K	
3SE5122-1KA00	<ul style="list-style-type: none"> Snap-action contacts 	1 NO + 1 NC --	∅ 5	3SE5122-0CA00-1CA0	1	1 unit	41K	
		1 NO + 2 NC --	∅ 5	3SE5122-0LA00-1CA0	1	1 unit	41K	
With 2 LEDs, yellow/green								
3SE5122-1KA00	<ul style="list-style-type: none"> Slow-action contacts 	1 NO + 2 NC 24 V DC	∅ 5	3SE5122-1KA00	1	1 unit	41K	
		1 NO + 2 NC 230 V AC	∅ 5	3SE5122-3KA00	1	1 unit	41K	
	<ul style="list-style-type: none"> Snap-action contacts 	1 NO + 2 NC 24 V DC	∅ 5	3SE5122-1LA00	1	1 unit	41K	
		1 NO + 2 NC 230 V AC	∅ 5	3SE5122-3LA00	1	1 unit	41K	

Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/13.

Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU				
Operating mechanisms								
Plain plungers								
3SE5000-0AB01	<ul style="list-style-type: none"> High-grade steel plungers 	8.5	∅ 2	3SE5000-0AB01	1	1 unit	41K	
Rounded plungers, type B, acc. to EN 50041								
3SE5000-0AC02	<ul style="list-style-type: none"> High-grade steel plunger, with 3 mm overtravel 	10	∅ 5	3SE5000-0AC02	1	1 unit	41K	
Roller plungers, type C, acc. to EN 50041								
3SE5000-0AD02	<ul style="list-style-type: none"> High-grade steel roller, with 3 mm overtravel 	13	∅ 5	3SE5000-0AD02	1	1 unit	41K	
Roller levers								
3SE5000-0AE01	<ul style="list-style-type: none"> Metal lever 	Plastic roller	22	∅ 2	3SE5000-0AE01	1	1 unit	41K
		High-grade steel roller	22	∅ 5	3SE5000-0AE02	1	1 unit	41K
	<ul style="list-style-type: none"> High-grade steel lever 	Plastic roller	22	∅ 5	3SE5000-0AE03	1	1 unit	41K
		High-grade steel roller	22	∅ 5	3SE5000-0AE04	1	1 unit	41K
Angular roller levers								
3SE5000-0AF01	<ul style="list-style-type: none"> Metal lever 	Plastic roller	22	∅ 2	3SE5000-0AF01	1	1 unit	41K
		High-grade steel roller	22	∅ 5	3SE5000-0AF02	1	1 unit	41K
	<ul style="list-style-type: none"> High-grade steel lever 	Plastic roller	22	∅ 5	3SE5000-0AF03	1	1 unit	41K
		High-grade steel roller	22	∅ 5	3SE5000-0AF04	1	1 unit	41K
Spring rods (for switches with snap-action contacts only)								
3SE5000-0AR01	<ul style="list-style-type: none"> Plunger made of plastic, spring of high-grade steel: 7 - 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) 	7	5	3SE5000-0AR01	1	1 unit	41K	
	<ul style="list-style-type: none"> Plunger and spring made of high-grade steel: 7 - Length 142.5 mm (spring 50 mm, plunger 50 mm) 	7	5	3SE5000-0AR03	1	1 unit	41K	
			5	3SE5000-0AR04	1	1 unit	41K	
			5	3SE5000-0AR02	1	1 unit	41K	

Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

Position and safety switches
SIRIUS 3SE5 mechanical position switches
3SE5, metal enclosures

Enclosure width 56 mm

Version	Diameter mm	SD d	Modular system		PU (UNIT, SET, M)	PS*	PG
						Article No.	Price per PU
Twist actuators							
 3SE5000-0AH00			Twist actuators, for 40/56/56 XL mm, EN 50041				
			• For twist levers and rod levers, 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							
 3SE5000-0AA01			Twist levers 27 mm, offset, type A, acc. to EN 50041				
			• Metal lever	Plastic roller	19	∅ 2	3SE5000-0AA01
					30	∅ 5	3SE5000-0AA05
					50	∅ 5	3SE5000-0AA07
				2 plastic rollers	19	∅ 5	3SE5000-0AA04
				High-grade steel roller	19	∅ 2	3SE5000-0AA02
				- With ball bearing	19	∅ 5	3SE5000-0AA03
				Rubber roller	50	∅ 5	3SE5000-0AA08
			• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA11
					19	∅ 5	3SE5000-0AA12
 3SE5000-0AA24			Twist levers 35 mm, offset, type A, acc. to EN 50041				
			• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA15
			• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA16
 3SE5000-0AA60			Twist levers 30 mm, straight¹⁾, type A, acc. to EN 50041				
			• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA24
					30	∅ 5	3SE5000-0AA26
 3SE5000-0AA50			Twist levers 100 mm, adjustable length, with grid hole				
			• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA60
					50	∅ 5	3SE5000-0AA67
				High-grade steel roller	19	∅ 5	3SE5000-0AA61
				Rubber roller	50	∅ 5	3SE5000-0AA68
			• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA62
					19	∅ 5	3SE5000-0AA63
 3SE5000-0AT01			Twist levers 100 mm, adjustable length				
			• Metal lever	Plastic roller	19	2	3SE5000-0AA50
				High-grade steel roller	19	5	3SE5000-0AA51
				Plastic roller	30	5	3SE5000-0AA55
					50	5	3SE5000-0AA57
			• High-grade steel lever	Rubber roller	50	5	3SE5000-0AA58
				Plastic roller	19	5	3SE5000-0AA52
					19	5	3SE5000-0AA53
 3SE5000-0AA80			Fork levers (for switches with snap-action contacts only)				
			• 2 metal levers	2 plastic rollers	19	∅ 5	3SE5000-0AT01
				2 high-grade steel rollers	19	∅ 5	3SE5000-0AT02
			• 2 high-grade steel levers	2 plastic rollers	19	∅ 5	3SE5000-0AT03
				2 high-grade steel rollers	19	∅ 5	3SE5000-0AT04
 3SE5000-0AA80			Rod levers, 200 mm				
			• Aluminum rod		6	5	3SE5000-0AA80
			• Spring rod		6	5	3SE5000-0AA81
			• Plastic rod		6	5	3SE5000-0AA82

¹⁾ Positively driven actuator, necessary in safety circuits.¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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) · Operating points acc. to EN 50041

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 56 mm, XL								
	Plain plungers			With high-grade steel plunger 8.5 mm				
3SE5162-0CB01	• Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	3SE5162-0CB01			1	1 unit 41K
	Rounded plungers			With high-grade steel plunger 10 mm, with 3 mm overtravel				
3SE5162-0EC02	• Slow-action contacts and Slow-action contacts with make-before-break, 2 mm travel difference	1 NO + 1 NC -- 1 NO + 2 NC	⊕ 5	3SE5162-0EC02			1	1 unit 41K
	Roller plungers			With high-grade steel roller 13 mm, with 3 mm overtravel				
3SE5162-0BD02	• Slow-action contacts • Snap-action contacts	2 × (1 NO + 1 NC) -- 2 × (1 NO + 1 NC) --	⊕ 5 ⊕ 2	3SE5162-0BD02 3SE5162-0CD02			1 1	1 unit 41K 1 unit 41K
	Roller levers			With metal lever and plastic roller 22 mm				
3SE5162-0BE01	• Slow-action contacts • Snap-action contacts	2 × (1 NO + 1 NC) -- 2 × (1 NO + 1 NC) --	⊕ 5 ⊕ 2	3SE5162-0BE01 3SE5162-0CE01			1 1	1 unit 41K 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
	Angular roller levers			With metal lever and plastic roller 22 mm				
3SE5162-0CF01	• Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	3SE5162-0CF01			1	1 unit 41K
	Twist levers			With metal lever 27 mm and plastic roller 19 mm				
3SE5162-0CH01	• 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				
	With increased corrosion protection ²⁾							
	• Snap-action contacts (gold contacts)	2 × (1 NO + 1 NC) --	⊕ 5	3SE5162-0CH12-1CC1			1	1 unit 41K
	Twist levers, adjustable length			With high-grade steel lever 100 mm, with grid hole and high-grade steel roller 19 mm				
				With increased corrosion protection ²⁾ , 3SX5100-3B adapter included				
	• Snap-action contacts (gold contacts)	2 × (1 NO + 1 NC) --	⊕ 5	3SE5162-0CH63-1AN4			1	1 unit 41K

¹⁾ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

²⁾ Popular versions.

²⁾ Use corresponding high-grade steel lever.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/41.

Position and safety switches
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) · Operating points acc. to EN 50041

Version	Contacts	LEDs	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU			

Basic switches · Enclosure width 56 mm, XL

3SE5162-0BA00

Rounded plungers

• Slow-action contacts - With make-before-break	2 × (1 NO + 1 NC) --	∅ 2	3SE5162-0BA00	1	1 unit	41K
	2 × (1 NO + 2 NC) --	∅ 30	3SE5162-0DA00	1	1 unit	41K
• Snap-action contacts	2 × (1 NO + 1 NC) --	∅ 2	3SE5162-0CA00	1	1 unit	41K
With increased corrosion protection ¹⁾						
• Slow-action contacts - With make-before-break	2 × (1 NO + 1 NC) --	∅ 5	3SE5162-0BA00-1CA0	1	1 unit	41K
	2 × (1 NO + 2 NC) --	∅ 30	3SE5162-0DA00-1CA0	1	1 unit	41K
• Snap-action contacts	2 × (1 NO + 1 NC) --	∅ 5	3SE5162-0CA00-1CA0	1	1 unit	41K

④ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/13.

Version	Diameter mm	SD d	Modular system		PU (UNIT, SET, M)	PS*	PG		
			Article No.	Price per PU					
Operating mechanisms									
3SE5000-0AB01	Plain plungers • High-grade steel plunger		8.5	∅ 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	3SE5000-0AD02	1	1 unit	41K	
3SE5000-0AE01	Roller levers • Metal lever		Plastic roller	22	∅ 2	3SE5000-0AE01	1	1 unit	41K
			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 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
			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 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: - Length 142.5 mm (spring 50 mm, plunger 50 mm)	7	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: - Length 142.5 mm (spring 50 mm, plunger 50 mm)	7	5	3SE5000-0AR02	1	1 unit	41K			
3SE5000-0AR01									

④ Positively driven actuator, necessary in safety circuits.

Position and safety switches

SIRIUS 3SE5 mechanical position switches

3SE5, metal enclosures

Enclosure width 56 mm, XL

	Version	Diameter mm	SD d	Modular system	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Twist actuators									
	3SE5000-0AH00				3SE5000-0AH00		1	1 unit	41K
					3SE5000-0AT10		1	1 unit	41K
Levers									
Twist levers 27 mm, offset, type A, acc. to EN 50041									
	• Metal lever	Plastic roller	19	∅ 2	3SE5000-0AA01		1	1 unit	41K
			30	∅ 5	3SE5000-0AA05		1	1 unit	41K
			50	∅ 5	3SE5000-0AA07		1	1 unit	41K
		2 plastic rollers	19	∅ 5	3SE5000-0AA04		1	1 unit	41K
		High-grade steel roller	19	∅ 2	3SE5000-0AA02		1	1 unit	41K
		- With ball bearing	19	∅ 5	3SE5000-0AA03		1	1 unit	41K
		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 roller	19	∅ 5	3SE5000-0AA12		1	1 unit	41K
Twist levers 35 mm, offset, type A, acc. to EN 50041									
	• 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, straight¹⁾, type A, acc. to EN 50041									
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA24		1	1 unit	41K
			30	∅ 5	3SE5000-0AA26		1	1 unit	41K
Twist levers 100 mm, adjustable length, with grid hole									
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA60		1	1 unit	41K
			50	∅ 5	3SE5000-0AA67		1	1 unit	41K
		High-grade steel roller	19	∅ 5	3SE5000-0AA61		1	1 unit	41K
		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 roller	19	∅ 5	3SE5000-0AA63		1	1 unit	41K
Twist levers 100 mm, adjustable length									
	• Metal lever	Plastic roller	19	2	3SE5000-0AA50		1	1 unit	41K
		High-grade steel roller	19	5	3SE5000-0AA51		1	1 unit	41K
		Plastic roller	30	5	3SE5000-0AA55		1	1 unit	41K
			50	5	3SE5000-0AA57		1	1 unit	41K
		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 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 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 rollers	19	∅ 5	3SE5000-0AT04		1	1 unit	41K
Rod levers, 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
	3SE5000-0AT01								
	3SE5000-0AA80								

¹⁾ Positively driven actuator, necessary in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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 spacing 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 degree of protection IP67.

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
- Twist levers with a smaller mounting depth and lower height
- Twist levers, adjustable length

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.

Connection:

- With molded cable, length 2 m or 5 m
- With M12 device plug and connection cable, M12 socket, 5-pole, with open end, length 5 m

Safety circuits

Standards IEC 60947-5-1 require 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 ⊖.

SIL 1 according to IEC 62061/IEC 61508 or PL c according to ISO 13849-1 can be attained with the 3SE5 position switches with ⊖ if the corresponding fail-safe evaluation units are selected and correctly installed (e.g. the 3SK safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges).

If a second 3SE5 position switch with ⊖ is used, SIL 3 / PL e can be attained.

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 90°
- Twist levers can be rotated 180°; twist lever 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

Position and safety switches

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 mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Complete units · Enclosure width 30 or 40 mm							
	Rounded plungers Standard mounting <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 2 3SE5413-0CC20-1EA240 Ⓛ 2 3SE5423-0CC20-1EA2				1	1 unit	41K
3SE5413-0CC20-1EA2	<ul style="list-style-type: none">• With connection cable, 5 m30 Ⓛ 5 3SE5413-0CC20-1EA5• With M12 device plug, 5-pole30 Ⓛ 2 3SE5413-0CC20-1EB140 Ⓛ 5 3SE5423-0CC20-1EB1				1	1 unit	41K
	With central fixing M12 x 1 <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 2 3SE5413-0CC21-1EA240 Ⓛ 5 3SE5423-0CC21-1EA2				1	1 unit	41K
3SE5413-0CC21-1EA2	<ul style="list-style-type: none">• With connection cable, 5 m30 Ⓛ 5 3SE5413-0CC22-1EA240 Ⓛ 5 3SE5423-0CC22-1EA2				1	1 unit	41K
	With external seal <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 5 3SE5413-0CC22-1EA240 Ⓛ 5 3SE5423-0CC22-1EA2				1	1 unit	41K
3SE5413-0CC22-1EA2					1	1 unit	41K
	Roller plungers Standard mounting <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 2 3SE5413-0CD20-1EA240 Ⓛ 2 3SE5423-0CD20-1EA2- Actuator head rotated 90°30 Ⓛ 2 3SE5413-0CD23-1EA2• With connection cable, 5 m30 Ⓛ 5 3SE5413-0CD20-1EA5• With M12 device plug, 5-pole30 Ⓛ 2 3SE5413-0CD20-1EB140 Ⓛ 2 3SE5423-0CD20-1EB1				1	1 unit	41K
3SE5413-0CD20-1EA2	<ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 2 3SE5413-0CD21-1EA240 Ⓛ 5 3SE5423-0CD21-1EA2				1	1 unit	41K
	<ul style="list-style-type: none">• With connection cable, 5 m30 Ⓛ 5 3SE5413-0CD21-1EA240 Ⓛ 5 3SE5423-0CD21-1EA2				1	1 unit	41K
3SE5413-0CD23-1EA2					1	1 unit	41K
	Twist levers Standard mounting <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 2 3SE5413-0CN20-1EA240 Ⓛ 5 3SE5423-0CN20-1EA2• With connection cable, 5 m30 Ⓛ 2 3SE5413-0CN20-1EA5• With M12 device plug, 5-pole30 Ⓛ 2 3SE5413-0CN20-1EB140 Ⓛ 5 3SE5423-0CN20-1EB1				1	1 unit	41K
3SE5413-0CN20-1EA2	<ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 5 3SE5413-0CP20-1EA2				1	1 unit	41K
	Twist levers with a smaller mounting depth and lower height <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ 5 3SE5413-0CP20-1EA2				1	1 unit	41K
	Twist levers, adjustable length <ul style="list-style-type: none">• With connection cable, 2 m30 Ⓛ X 3SE5413-0CQ20-1EA2				1	1 unit	41K
Connection cable							
	Connection cable with M12 socket, 5-pole, open end, length 5 m	--	5	3SX5601-3SB55	1	1 unit	41K

Ⓐ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

Position and safety switches
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 mountings and operating points comply with 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 12/48](#)).

Improved version

The switches have a robust metal plunger with increased abrasion resistance (instead of the rounded plunger). This enables the switch to be approached from a 30° angle.

Selection and ordering data

2 or 3 contacts · Degree of protection IP20¹⁾ (2 contacts), IP10 (3 contacts) · Mounting and operating points acc. to EN 50047

Version	Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d						
Plastic enclosures · Enclosure width 30 mm							
3SE5250-0BC05	With metal plunger						
	• Slow-action contacts		1 NO + 1 NC ☷ 2	3SE5250-0BC05		1	1 unit 41K
			1 NO + 2 NC ☷ 5	3SE5250-0KC05		1	1 unit 41K
	- With make-before-break		2 NO + 1 NC ☷ 2	3SE5250-0PC05		1	1 unit 41K
	• Snap-action contacts		1 NO + 2 NC ☷ 2	3SE5250-0MC05		1	1 unit 41K
			1 NO + 1 NC ☷ ▶	3SE5250-0CC05		1	1 unit 41K
			1 NO + 2 NC ☷ ▶	3SE5250-0LC05		1	1 unit 41K
3SE5250-0KC05	• Empty enclosures without contact block	--	∅ 5	3SE5250-0AC05		1	1 unit 41K
3SE5250-0AC05							
3SE5050-0BA00	Contact blocks with 2 contacts For open-type design ²⁾						
	• Slow-action contacts		1 NO + 1 NC ☷ 5	3SE5050-0BA00		1	1 unit 41K
	• Snap-action contacts		1 NO + 1 NC				
	- Standard		∅ 5	3SE5050-0CA00		1	1 unit 41K
	- Contact distance 2 × 2 mm		∅ 30	3SE5050-0GA00		1	1 unit 41K
	- Short stroke		∅ 30	3SE5050-0NA00		1	1 unit 41K

∅ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ With the conductor connected and the clamping screw tightened.

²⁾ Contact blocks with 3 contacts, [see page 12/48](#).

Position and safety switches

SIRIUS 3SE5 mechanical position switches

Accessories and spare parts

Accessories

Selection and ordering data

The quick-release devices and plug-in connections are used for fast installation and replacement of position switches.

Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
Service box for position switches NEW							
	Contents: <ul style="list-style-type: none"> • Three basic switches with rounded plunger in plastic version in enclosure widths 31, 40, 50 mm • Various release mechanisms: <ul style="list-style-type: none"> - Plain plunger - Roller plunger - Roller lever - Angular roller lever - Spring rod - Twist actuator with various lever versions • Accessories: M12 device plug, cover yellow, protective cap, two contact blocks • SIRIUS 3SE brochure in German and English For more information, see flyer .	X	3SX5110-0BK		1	1 unit	41K
Quick-release devices for enclosure width 40 mm							
 3SY3110	Adapter plates with screws	5	3SY3110		1	1 unit	41K
 3SY3027	Base plate with locking lever	5	3SY3027		1	1 unit	41K
Plug-in connections for M20 x 1.5 connection threads							
 3SY3131 3SX5100-1SS05	Device plugs (6-pole + PE), for M20 x 1.5 For max. 250 V, 10 A, With connection cable 0.75 mm ² , plastic, degree of protection IP65, ambient temperature -40 to +90 °C	5	3SY3131		1	1 unit	41K
 3SX5100-1SS51 3SX5100-1SS08	M12 device plug, plastic, for M20 x 1.5 <ul style="list-style-type: none"> • 4-pole, for max. 250 V, 4 A, $U_{imp} = 2\,500$ V • 5-pole, for max. 125 V, 4 A, $U_{imp} = 1\,500$ V <ul style="list-style-type: none"> - Yellow/green cable for PE on pin 5 - Gray cable on pin 5, without PE NEW • 5-pole¹⁾, for max. 60 V, 1.5 A, $U_{imp} = 800$ V • 8-pole, for max. 30 V, 1.5 A, $U_{imp} = 800$ V 	5	3SY3127		1	1 unit	41K
 3SX5601-2GA03 3SX5601-3SB54	Connection cable <ul style="list-style-type: none"> • with M12 socket, 8-pole, straight, open end, rated control voltage 30 V, rated current 2 A <ul style="list-style-type: none"> - Length 3 m - Length 5 m - Length 10 m • with M12 socket, open end, length 5 m <ul style="list-style-type: none"> - 4-pole - 5-pole 	2 2 2 5 5	3SX5601-2GA03 3SX5601-2GA05 3SX5601-2GA10 3SX5601-3SB54 3SX5601-3SB55		1 1 1 1 1	1 unit	41K 41K 41K 41K 41K
 3SX5601-3SV15	Connection cable with M12 socket, 5-pole and M12 plug, 5-pole, Length 1 m	5	3SX5601-3SV15		1	1 unit	41K
 6ES7194-6KB00-0XA0	ET 200 Y-cable¹⁾ for connecting 2 x 1-channel sensors with M12 plug, 5-pole on 2 x M12 sockets, 5-pole, Length 200 mm	1	6ES7194-6KB00-0XA0		1	1 unit	250

¹⁾ Suitable for wiring sensors that are connected to all fail-safe block I/O modules in the SIMATIC ET 200eco PN-F and ET 200AL series.
For more information, see page 12/85 onwards.

Position and safety switches
SIRIUS 3SE5 mechanical position switches
Accessories and spare parts

Accessories

Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Plug-in connections for M20 x 1.5 connection threads						
	Cable box M12 angled, 4-pole, max. 4 A with cable connection space, max. 0.75 mm ²	2	3RK1902-4CA00-4AA0		1	1 unit 42D
3RK1902-4CA00-4AA0						
	M12 plug, 5-pole • straight, separate item	2	3RK1902-4BA00-5AA0		1	1 unit 42D
3RK1902-4BA00-5AA0	• angled, separate item	2	3RK1902-4DA00-5AA0		1	1 unit 42D
Adapters and cable glands for M20 x 1.5 connection threads						
	Adapters acc. to DIN 43650 For cable entry from M20 x 1.5 to NPT 1/2	5	3SX9917		1	1 unit 41K
3SX9917	• Metal	5	3SX9918		1	1 unit 41K
	• Plastic	30				
	Cable glands M20 x 1.5 Plastic	2	3SX9926		1	1 unit 41K
3SX9926	• Degree of protection IP67	2	3SX5601-1A		1	1 unit 41K
	• High degree of protection IP69, IEC 60529	5				

Position and safety switches

SIRIUS 3SE5 mechanical position switches

Accessories and spare parts

Optional accessories and spare parts

Selection and ordering data

	Version	Color/ Contacts	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
			d					
Optional accessories for 3SE51, 3SE52								
	Protective caps For rounded plunger acc. to EN 50047, 3SE5...-.C05	Black	2	3SE5000-0AC30	1	1 unit	41K	
	Adapters with screws¹⁾ For an increase in the mounting depth on the 3SE5000-OAH00 twist actuator, in combination with twist lever with adjustable length or rod lever	--	5	3SX5100-3B	1	1 unit	41K	
	Mounting plate Suitable for 3SE523, and 3SE521, position switches with a width of 31 mm (especially for control cabinet types)	--	5	3SX5100-1A	1	1 unit	41K	
Spare parts for 3SE51, 3SE52								
	Empty enclosures, plastic <ul style="list-style-type: none"> Enclosure width 31 mm <ul style="list-style-type: none"> - With increased corrosion protection²⁾ Enclosure width 40 mm Enclosure width 50 mm <ul style="list-style-type: none"> - With increased corrosion protection²⁾ 	Turquoise	5	3SE5232-0AC05	1	1 unit	41K	
			5	3SE5232-0AC05-1CA0	1	1 unit	41K	
	Empty enclosures, metal <ul style="list-style-type: none"> Enclosure width 31 mm <ul style="list-style-type: none"> - With increased corrosion protection²⁾ Enclosure width 40 mm Enclosure width 56 mm <ul style="list-style-type: none"> - With increased corrosion protection²⁾ Enclosure width 56 mm, XL³⁾ 	Turquoise	5	3SE5212-0AC05	1	1 unit	41K	
			5	3SE5212-0AC05-1CA0	1	1 unit	41K	
			5	3SE5112-0AA00	1	1 unit	41K	
			5	3SE5112-0AA00-1CA0	1	1 unit	41K	
			5	3SE5122-0AA00	1	1 unit	41K	
			5	3SE5122-0AA00-1CA0	1	1 unit	41K	
			5	3SE5162-0AA00	1	1 unit	41K	
	Contact blocks with 2 contacts⁴⁾ <ul style="list-style-type: none"> Slow-action contacts Snap-action contacts <ul style="list-style-type: none"> - Standard - Gold-plated contacts - Contact distance 2 x 2 mm - Short stroke 	1 NO + 1 NC 	5	3SE5000-0BA00	1	1 unit	41K	
		1 NO + 1 NC 	5	3SE5000-0CA00	1	1 unit	41K	
		1 NO + 1 NC 	5	3SE5000-0CA00-1AC1	1	1 unit	41K	
		1 NO + 1 NC 	30	3SE5000-0GA00	1	1 unit	41K	
		1 NO + 1 NC 	5	3SE5000-0NA00	1	1 unit	41K	
	Contact blocks with 3 contacts <ul style="list-style-type: none"> Slow-action contacts <ul style="list-style-type: none"> - With make-before-break Snap-action contacts 	1 NO + 2 NC 	5	3SE5000-0KA00	1	1 unit	41K	
		2 NO + 1 NC 	2	3SE5000-0PA00	1	1 unit	41K	
		1 NO + 2 NC 	2	3SE5000-0MA00	1	1 unit	41K	
		1 NO + 2 NC 	5	3SE5000-0LA00	1	1 unit	41K	
	Contact blocks for XL enclosure³⁾ <ul style="list-style-type: none"> Slow-action contacts <ul style="list-style-type: none"> - With make-before-break Snap-action contacts 	1 NO + 1 NC 	5	3SE5060-0BA00	1	1 unit	41K	
		1 NO + 2 NC 	30	3SE5060-0MA00	1	1 unit	41K	
		1 NO + 1 NC 	5	3SE5060-0CA00	1	1 unit	41K	

Positive opening according to IEC 60947-5-1, Annex K.

¹⁾ Possibly required for the conversion from 3SE21 to 3SE51.

²⁾ Use corresponding high-grade steel lever.

³⁾ XL enclosures may only be equipped with combinations of contact elements, see pages 12/12, 12/40 and 12/41.

⁴⁾ Unsuitable for open-type position switches, see page 12/45.

Position and safety switches
SIRIUS 3SE5 mechanical position switches
Accessories and spare parts

Optional accessories and spare parts

	Version	Rated voltage LEDs	SD	Article No.	Price per PU	PU	PS*	PG					
						(UNIT, SET, M)							
Spare parts for 3SE51, 3SE52													
Covers for plastic enclosures, width 31 mm													
	3SE5230-1AA00	• Turquoise with LED	24 DC	5	3SE5230-1AA00	1	1 unit	41K					
			230 AC	5	3SE5230-3AA00	1	1 unit	41K					
	3SE5130-1AA00-1AG0	• Yellow	--	5	3SE5230-0AA00-1AG0	1	1 unit	41K					
		- With LED	24 DC	5	3SE5230-1AA00-1AG0	1	1 unit	41K					
			230 AC	5	3SE5230-3AA00-1AG0	1	1 unit	41K					
Covers for plastic enclosures, width 40 mm													
	3SE5130-1AA00-1AG0	• 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					
		- With LED	24 DC	5	3SE5130-1AA00-1AG0	1	1 unit	41K					
		230 AC	5	3SE5130-3AA00-1AG0	1	1 unit	41K						
Covers for plastic enclosures, width 50 mm													
	3SE5240-1AA00	• 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					
		- With LED	24 DC	5	3SE5240-1AA00-1AG0	1	1 unit	41K					
		230 AC	5	3SE5240-3AA00-1AG0	1	1 unit	41K						
Covers for metal enclosures, width 31 mm													
	3SE5210-1AA00	• 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					
		- With LED	24 DC	5	3SE5210-1AA00-1AG0	1	1 unit	41K					
		230 AC	5	3SE5210-3AA00-1AG0	1	1 unit	41K						
Covers for metal enclosures, width 40 mm													
	3SE5110-1AA00	• 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					
		- With LED	24 DC	5	3SE5110-1AA00-1AG0	1	1 unit	41K					
		230 AC	5	3SE5110-3AA00-1AG0	1	1 unit	41K						
Covers for metal enclosures, width 56 mm													
	3SE5120-0AA00-1AG0	• 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					
		- With LED	24 DC	5	3SE5120-1AA00-1AG0	1	1 unit	41K					
		230 AC	5	3SE5120-3AA00-1AG0	1	1 unit	41K						
Covers for XL metal enclosures, width 56 mm													
	3SE5160-0AA00-1AG0	• Yellow	--	5	3SE5160-0AA00-1AG0	1	1 unit	41K					

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety switches

With separate actuator

General data

Overview

More information

Homepage, see www.siemens.com/sirius-position-switches

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

Configurator, see www.siemens.com/sirius/configurators

Configuration Manual, see
<https://support.industry.siemens.com/cs/ww/en/view/43920150>

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 2- or 3-pole contact blocks designed as slow-action contacts
- Optional LED status display
- With mounted 4- or 5-pole M12 device plug, also for connection to field modules, such as SIMATIC ET 200 (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 12/97](#))

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 12/57](#)).

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 12/67](#)).



Blocking inserts with padlock

Dust protection

For use in dusty environments, a protective cap made of rubber is offered that protects the actuator entries of the actuator head from contamination ([see page 12/67](#)).

Contact reliability

The contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents.

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".

Position and safety switches

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 3-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 ASI-safe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/97); 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.

For more information about the protective door monitoring application, see flyer.

The safety switch can only be operated with the matching coded actuator. Simple overriding by hand or auxiliary devices is impossible.

Devices are available with enclosure versions to suit the particular ambient conditions. The high-grade steel actuator is suitable for extreme ambient conditions down to -40 °C. 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.

Technical specifications

Type	3SE51...-V.., 3SE52...-V..	3SE2257-XX..	3SE2243-XX..
General data			
Standards			
Rated insulation voltage U_i	V 400	500	
Degree of pollution acc. 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 I_e / AC-12 I_e / AC-15	
- At 24 V	A 6	10 10 10 10 10	
- At 120 V	A 6	10 10 10 10 10	
- At 240 V	A 4	10 6 10 10 4	
- At 400 V	A 4	10 4 10 10 4	
- At 500 V	A --	10 3 10 10 3	
• For direct current		I_e / DC-13 I_e / DC-12 I_e / DC-13 I_e / DC-12 I_e / DC-13	
- At 24 V	A 3	10 10 10 10 10	
- At 125 V	A 0.55	-- -- -- -- --	
- At 250 V	A 0.27	-- -- -- -- --	
- At 110 V	A --	4 1 4 1 1	
- At 220 V	A --	1 0.4 1 0.4 0.4	
- At 400 V	A 0.12	-- -- -- -- --	
- At 440 V	A --	0.5 0.2 0.5 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 characteristic ($I_K < 400 A$)	A 1	--	
Mechanical service life	1×10^6 operating cycles		
Electrical endurance			
• With 3RH21 contactors size S00 and 3RT contactors sizes S00, S0		1×10^6 operating cycles	$> 1 \times 10^6$ 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 with contactors 3RH21 size S00 and 3RT contactors sizes S00, S0	6 000 operating cycles/h		
Minimum pull-out force for positive opening	N 20	10	30

Position and safety switches

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 1 × (M20 × 1.5) · With increased corrosion protection

Version ¹⁾	Contacts	LEDs	SD	Complete units		PU (UNIT, SET, M)	PS*	PG
				d	Article No.			
Enclosure width 31 mm acc. to EN 50047								
	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5232-0RV40		1	1 unit	41K
3SE5232-0RV40		1 NO + 2 NC --	⊕ ▶	3SE5232-0QV40		1	1 unit	41K
	With 2 LEDs, yellow/green							
3SE5232-1RV40	• Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5232-1RV40		1	1 unit	41K
		1 NO + 1 NC 230 V AC	⊕ 5	3SE5232-3RV40		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)²⁾							
3SE5234-0RV40-1AC4	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5234-0RV40-1AC4		1	1 unit	41K
		2 NC --	⊕ 5	3SE5234-0QV40-1AE0		1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A)²⁾							
	With pin assignment as for SIMATIC ET 200 ³⁾							
	• Slow-action contacts	2 NC --	⊕ 10	3SE5234-0QV40-1AE2		1	1 unit	41K
	With 2 LEDs, yellow/green							
	• Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5234-1RV40-1AF3		1	1 unit	41K

¹⁾ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

²⁾ Supplied without actuator. Please order separately (see page 12/57).

²⁾ Pin assignments, see page 12/12.

³⁾ The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

Position and safety switches
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 1 × (M20 × 1.5) · With increased corrosion protection

Version ¹⁾	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d				Article No.	Price per PU			
Enclosure width 40 mm acc. to EN 50041								
 3SE5132-0QV20	• Slow-action contacts With 2 LEDs, yellow/green	1 NO + 2 NC --	⊕ 5	3SE5132-0QV20		1	1 unit	41K
 3SE5132-1QV20	• Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5132-1QV20		1	1 unit	41K
		1 NO + 2 NC 230 V AC	⊕ 5	3SE5132-3QV20		1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately ([see page 12/57](#)).

Position and safety switches

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 2 × (M20 × 1.5) · With increased corrosion protection

Version ¹⁾	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d	Article No.	Price per PU						
Enclosure width 50 mm								
	• Slow-action contacts With increased minimum pull-out force 30 N	1 NO + 2 NC --	⊕ 5	3SE5242-0QV40		1	1 unit	41K
3SE5242-0QV40	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5242-0RV40-1AA1		1	1 unit	41K
	With 2 LEDs, yellow/green	1 NO + 2 NC 24 V DC	⊕ 5	3SE5242-1QV40		1	1 unit	41K
3SE5242-1QV40	• 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, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately ([see page 12/57](#)).

Position and safety switches
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 1 × (M20 × 1.5) · With increased corrosion protection

Version ¹⁾	Contacts	LEDs	SD	Complete units		PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU			
Enclosure width 31 mm acc. to EN 50047								
	• Slow-action contacts With 2 LEDs, yellow/green	1 NO + 1 NC -- 1 NO + 2 NC --	∅ 2 ∅ 5	3SE5212-0RV40 3SE5212-0QV40		1 1	1 unit 1 unit	41K 41K
	• Slow-action contacts	1 NO + 1 NC 24 V DC 1 NO + 1 NC 230 V AC	∅ 5 ∅ 5	3SE5212-1RV40 3SE5212-3RV40		1 1	1 unit 1 unit	41K 41K

3SE5212-1RV40

∅ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately (see page 12/57).

Position and safety switches

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 · With increased corrosion protection

Version ¹⁾	Contacts	LEDs	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU				
Enclosure width 40 mm according to EN 50041 · Cable entry 1 x (M20 x 1.5)								
	• Slow-action contacts With increased minimum pull-out force 30 N	1 NO + 2 NC --	⊕ ▶ 5	3SE5112-0QV10		1	1 unit	41K
3SE5112-0QV10	• Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5112-0QV10-1AA7		1	1 unit	41K
	With 2 LEDs, yellow/green							
3SE5112-1QV10	• Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5112-1QV10		1	1 unit	41K
		1 NO + 2 NC 230 V AC	⊕ 5	3SE5112-3QV10		1	1 unit	41K
	With M12 device plug, 5-pole (125 V, 4 A)²⁾							
3SE5114-0RV10-1AC5	• Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5114-0RV10-1AC5		1	1 unit	41K
		2 NC --	⊕ 5	3SE5114-0QV10-1AE1		1	1 unit	41K
With 2 LEDs, yellow/green								
	• Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5114-1RV10-1AF3		1	1 unit	41K
With pin assignment as for SIMATIC ET 200 ³⁾								
	• Slow-action contacts	2 NC --	⊕ 10	3SE5114-0QV10-1AE3		1	1 unit	41K
With device plug, 6-pole + PE (250 V, 10 A)²⁾								
	• Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5115-0QV10-1AD1		1	1 unit	41K
Enclosure width 56 mm · Cable entry 3 x (M20 x 1.5)								
	• Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5122-0QV10		1	1 unit	41K
3SE5122-0QV10	With increased minimum pull-out force 30 N			3SE5122-0QV10-1AA7		1	1 unit	41K
	With 2 LEDs, yellow/green							
3SE5122-1QV10	• Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5122-1QV10		1	1 unit	41K
		1 NO + 2 NC 230 V AC	⊕ 5	3SE5122-3QV10		1	1 unit	41K

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately (see page 12/57).

²⁾ Pin assignments, see page 12/12.

³⁾ The 3SE5114-....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all fail-safe block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN and ET 200AL series with degree of protection IP65/IP67 for cabinet-free installation directly at the machine.

For more information, see page 12/85 onwards.

Position and safety switches
SIRIUS 3SE5, 3SE2 mechanical safety switches
With separate actuator

Accessories**Selection and ordering data**

Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Actuators with degree of protection IP66/IP67 for 3SE5						
	• Length 75.6 mm	▶ 3SE5000-OAV01		1	1 unit	41K
3SE5000-OAV01						
	• With vertical fixing, length 53 mm	5 3SE5000-OAV02		1	1 unit	41K
3SE5000-OAV02						
	• With transverse fixing - Length 47 mm	5 3SE5000-OAV03		1	1 unit	41K
3SE5000-OAV03						
	- Length 40 mm, plastic ¹⁾	5 3SE5000-OAW11		1	1 unit	41K
3SE5000-OAW11						
High-grade steel actuators²⁾						
	• Length 75.6 mm	5 3SE5000-OAW51		1	1 unit	41K
3SE5000-OAW51						
	• With vertical fixing, length 53 mm	5 3SE5000-OAW52		1	1 unit	41K
3SE5000-OAW52						
	• With transverse fixing, length 47 mm	5 3SE5000-OAW53		1	1 unit	41K
3SE5000-OAW53						
Radius actuators						
	• Length 51 mm - Direction of approach from the left	2 3SE5000-OAV04		1	1 unit	41K
3SE5000-OAV06	- Direction of approach from the right	5 3SE5000-OAV06		1	1 unit	41K
Universal radius actuators						
	• Length 77 mm - Tab rotated 90°	5 3SE5000-OAV05		1	1 unit	41K
3SE5000-OAV05		5 3SE5000-OAV05-1AA6		1	1 unit	41K
Universal radius actuators, heavy duty						
	• Length 67 mm	2 3SE5000-OAV07-1AK2		1	1 unit	41K
3SE5000-OAV07-1AK2						
	• Length 77 mm	5 3SE5000-OAV07		1	1 unit	41K
3SE5000-OAV07						
	- High-grade steel actuators ²⁾	NEW X 3SE5000-OAW57		1	1 unit	41K
3SE5000-OAW57						

¹⁾ Not suitable for safety switches with tumbler.²⁾ Suitable for extreme environmental conditions such as -40 °C.

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety switches

With separate actuator

Accessories

Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Optional accessories for 3SE5						
 3SE5000-0AV08-1AA2	Protective caps Made of black rubber, for 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 Made of high-grade steel, for actuator head, for up to eight padlocks	5	3SE5000-0AV08-1AA3		1	1 unit 41K
Connections for 3SE5, 3SE2						
 3SY3127	M12 device plug, fixed, for M20 x 1.5 With connection cable 0.25 mm ² , plastic, degree of protection IP67 <ul style="list-style-type: none">• 4-pole, for max. 250 V, 4 A• 5-pole, for max. 125 V, 4 A• 5-pole¹⁾, for max. 60 V, 4 A	5	3SY3127		1	1 unit 41K
		5	3SY3128		1	1 unit 41K
		X	3SX5100-1SS51		1	1 unit 41K
 3SX5601-3SV15	Connecting cable with M12 socket, 5-pole and M12 plug, 5-pole	5	3SX5601-3SV15		1	1 unit 41K
 3SX9926	Cable glands M20 x 1.5 Plastic	2	3SX9926		1	1 unit 41K

¹⁾ Suitable for wiring sensors that are connected to all fail-safe block I/O modules in the SIMATIC ET 200eco PN-F and ET 200AL series. For more information, see page 12/85 onwards.

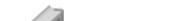
For more accessories, see page 12/67.

Position and safety switches
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		PU (UNIT, SET, M)	PS*	PG
			d	Article No.			
Plastic enclosures in special width of 52 mm							
	Lateral and front-end actuation¹⁾	6 mm stroke					
3SE2243	<ul style="list-style-type: none"> Cable entry 3 x (M20 x 1.5) <ul style="list-style-type: none"> - Slow-action contacts 1 NO + 2 NC - Slow-action contacts 1 NC Cable entry 3 x (M16 x 1.5) <ul style="list-style-type: none"> - Slow-action contacts 1 NO + 2 NC 	<ul style="list-style-type: none"> Holding force 5 N  2 3SE2243-0XX40 Holding force 30 N  2 3SE2243-0XX With automatic ejection  2 3SE2243-0XX30 Holding force 5 N  15 3SE2257-6XX40 Holding force 30 N  15 3SE2257-6XX With automatic ejection  5 3SE2257-6XX30 		1	1 unit	41K	
				3SE2243-0XX18	1	1 unit	41K
Accessories							
	Actuators						
3SX3218	<ul style="list-style-type: none"> Standard actuators ($r_{min} = 150$ mm), length 28 mm 	2	3SX3218		1	1 unit	41K
	<ul style="list-style-type: none"> Universal radius actuator ($r_{min} = 45$ mm), length 34 mm 	2	3SX3228		1	1 unit	41K
3SX3256	<ul style="list-style-type: none"> Radius actuator, radius adjustable, length 34 mm 	10	3SX3256		1	1 unit	41K
	<ul style="list-style-type: none"> Ball locating, force adjustable up to max. 100 N by two adjustable screws, length 28 mm 	2	3SX3217		1	1 unit	41K
3SX3234	<ul style="list-style-type: none"> Actuator, length 34 mm, with dust protection and slit cover 	30	3SX3234		1	1 unit	41K
	Slit cover (spare part)						
3SX3233	<ul style="list-style-type: none"> (1 set = 3 units) for sealing unused operating slots for 3SE22 devices 	30	3SX3233		1	3 units	41K

 Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator.

Position and safety switches

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 12/66).

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 blocking insert for attaching up to eight padlocks is available for even more security (see page 12/67).

Dust protection

For use in dusty environments, a protective cap made of rubber is offered that protects the actuator entries of the actuator head from contamination (see page 12/67).

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 switch corresponds to the requirements of the fail-safe principle according to 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 two 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.

Notes:

- 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).

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety switches With tumbler

General data

Benefits

The 3SE53 safety switches provide:

- 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 12/101](#))
- 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 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 IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to ISO 14119.

Approvals

The switches are approved for use with locking devices according to ISO 14119 and EN 292, Parts 1 and 2.

These switches are approved according to UL 508, UL 50 and UL 746-C.

Safety circuits

Standards IEC 60947-5-1 require 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

SIL 2 according to IEC 62061/IEC 61508 or PL d according to ISO 13849-1 can be attained with a safety switch with a tumbler with

if the corresponding fail-safe evaluation units are selected and correctly installed (e.g. the 3SK safety relays or matching devices from the ASIsafe, SIMATIC or SINUMÉRIK product ranges).

If a second 3SE5 safety switch with

is used, SIL 3 / PL e can be attained.

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.

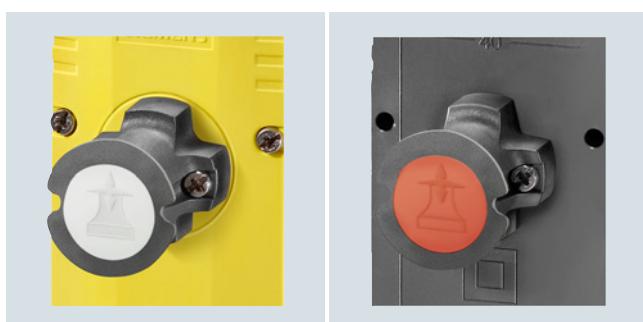


Auxiliary release

Auxiliary release with lock

The 3SE53 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.

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety switches

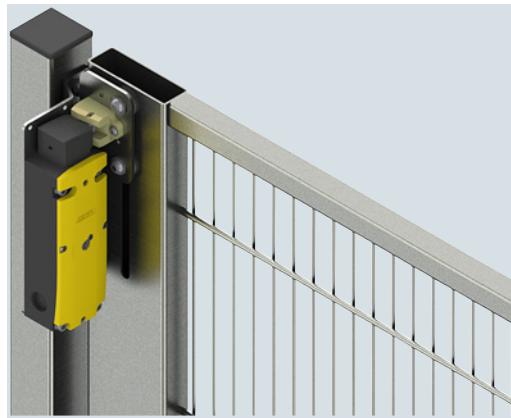
With tumbler

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 60947-5-1, ISO 14119, IEC 62061/IEC 61508	
Rated insulation voltage U_i	V	250
Degree of pollution acc. 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 according to 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, characteristic C	A	0.5
Mechanical service life	Operating cycles	1×10^6
Electrical endurance		
• With 3RH21 contactors size S00 and 3RT contactors sizes 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 with contactors 3RH21 size S00 and 3RT contactors sizes S00, S0	Operating cycles/h	6 000
Shock resistance acc. to IEC 60068-2-27	g/ms	30/11

¹⁾ Without any welds according to IEC 60947-5-1.

Position and safety switches
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) · ISO 14119

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								
Spring-actuated locks								
3SE5322-0SD21	• 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 M12 plug, 8-pole ²⁾ , Monitoring: 1 x door, 1 x interlocking			-- 24 DC	⊕ 5	3SE5324-0SD21-1AE4	1	1 unit 41K
	2 x door			-- 24 DC	⊕ 5	3SE5324-0SD21-1AE5	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	
3SE5322-0SE21	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
3SE5322-0SG21	• 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 M12 plug, 8-pole ²⁾ , Monitoring: 1 x door, 1 x interlocking			-- 24 DC	⊕ 5	3SE5324-0SH21-1AE4	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	
3SE5324-0SH21-1AE4	-- 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	
	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	
3SE5322-1SB21	• With M12 plug, 8-pole - Head rotated clockwise by 90°			-- 24 DC	⊕ 5	3SE5324-0SB21-1AC8	1	1 unit 41K
	-- 24 DC			⊕ 5	3SE5324-0SB21-1AP0	1	1 unit 41K	

② Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Supplied without actuator. Please order separately (see page 12/66).

2) Suitable for connection, e.g. to fail-safe field modules of the SIMATIC ET 200eco PN and the SIMATIC ET 200AL with connection accessories 3SX5601-3SV18 and Y-cable 6ES7194-6KC00-XA0, see page 12/67. For more information, see page 12/85 onwards.

Position and safety switches

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 IP69 (IP69K) · Cable entry 3 x (M20 x 1.5)
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 IP69

Spring-actuated locks

- With auxiliary release



3SE5322-1SD21-1AG4

Yellow/Green 24 DC

⊕ 5

3SE5322-1SD21-1AG4

1 1 unit 41K

- With auxiliary release
With lock



3SE5322-1SE21-1AG4

Yellow/Green 24 DC

⊕ 5

3SE5322-1SE21-1AG4

1 1 unit 41K

- With escape release
from the front



3SE5322-1SF21-1AG4

Yellow/Green 24 DC

⊕ 5

3SE5322-1SF21-1AG4

1 1 unit 41K

- With escape release
from the back and
auxiliary release from
the front



3SE5322-1SG21-1AG4

Yellow/Green 24 DC

⊕ 5

3SE5322-1SG21-1AG4

1 1 unit 41K

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately (see page 12/66).

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Accessories



3SX5601-1A

Cable glands M20 x 1.5

Plastic,
high degree of protection IP69,
IEC 60529

5 **3SX5601-1A**

1 1 unit 41K

Position and safety switches
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) · ISO 14119

Tumbler ¹⁾	LEDs	Solenoid, rated operational voltage	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
	V	d		Article No.	Price per PU		
2 600 N locking force · Enclosure width 54 mm							
Spring-actuated locks							
3SE5312-0SD11	• With auxiliary release	-- 24 DC -- 115 AC -- 230 AC	⊕ ▶ 5 ⊕ 5 ⊕ 5	3SE5312-0SD11 3SE5312-0SD12 3SE5312-0SD13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SE5312-0SE11	• With auxiliary release with lock	-- 24 DC -- 115 AC -- 230 AC	⊕ 5 ⊕ 5 ⊕ 5	3SE5312-0SE11 3SE5312-0SE12 3SE5312-0SE13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SE5312-0SF11	• With escape release from the front	-- 24 DC -- 115 AC -- 230 AC	⊕ 5 ⊕ 5 ⊕ 5	3SE5312-0SF11 3SE5312-0SF12 3SE5312-0SF13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SE5312-0SG11	• With escape release from the back and auxiliary release from the front	-- 24 DC -- 115 AC -- 230 AC	⊕ 5 ⊕ 5 ⊕ 5	3SE5312-0SG11 3SE5312-0SG12 3SE5312-0SG13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SE5312-0SJ11	• With escape release from the back and auxiliary release with lock on 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 -- 115 AC -- 230 AC	⊕ 5 ⊕ 5 ⊕ 5	3SE5312-0SJ11 3SE5312-0SJ12 3SE5312-0SJ13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SE5312-0SB11	Solenoid-locked	-- 24 DC -- 115 AC -- 230 AC	⊕ ▶ 5 ⊕ 5 ⊕ 5	3SE5312-0SB11 3SE5312-0SB12 3SE5312-0SB13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
		Yellow/Green 24 DC Yellow/Green 115 AC Yellow/Green 230 AC	⊕ 5 ⊕ 5 ⊕ 5	3SE5312-1SB11 3SE5312-2SB12 3SE5312-3SB13	1 1 1	1 unit 1 unit 1 unit	41K 41K 41K

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately (see page 12/66).

²⁾ Suitable for connection, e.g. to fail-safe field modules of the SIMATIC ET 200eco PN and the SIMATIC ET 200AL with connection accessories 3SX5601-3SV18 and Y-cable 6ES7194-6KC00-0XA0, see page 12/67. For more information, see page 12/85 onwards.

Position and safety switches

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
	d						
Actuators with degree of protection IP66/IP67 for 3SE5							
Standard actuators							
	• Length 75.6 mm	▶	3SE5000-OAV01		1	1 unit	41K
3SE5000-OAV01		5	3SE5000-OAV02		1	1 unit	41K
	• With vertical fixing, length 53 mm						
3SE5000-OAV02		5	3SE5000-OAV03		1	1 unit	41K
	• With transverse fixing, length 47 mm						
3SE5000-OAV03							
High-grade steel actuators							
	• Length 75.6 mm	5	3SE5000-OAW51		1	1 unit	41K
3SE5000-OAW51		5	3SE5000-OAW52		1	1 unit	41K
	• With vertical fixing, length 53 mm						
3SE5000-OAW52		5	3SE5000-OAW53		1	1 unit	41K
	• With transverse fixing, length 47 mm						
3SE5000-OAW53							
Radius actuators							
	• Length 51 mm	2	3SE5000-OAV04		1	1 unit	41K
3SE5000-OAV06	- Direction of approach from the left	5	3SE5000-OAV06		1	1 unit	41K
Universal radius actuators							
	• Length 77 mm	5	3SE5000-OAV05		1	1 unit	41K
3SE5000-OAV05-1AA6	- Tab rotated 90°	5	3SE5000-OAV05-1AA6		1	1 unit	41K
Universal radius actuators, heavy duty							
	• Length 67 mm	2	3SE5000-OAV07-1AK2		1	1 unit	41K
3SE5000-OAV07-1AK2		5	3SE5000-OAV07		1	1 unit	41K
	• Length 77 mm						
3SE5000-OAV07							
	- High-grade steel actuators ¹⁾	NEW X	3SE5000-OAW57		1	1 unit	41K
3SE5000-OAW57							

¹⁾ Suitable for extreme environmental conditions such as -40 °C.

For further plug versions, see page 12/46.

Position and safety switches
SIRIUS 3SE5, 3SE2 mechanical safety switches
With tumbler

Accessories

Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
Optional accessories for 3SE5							
	5	3SE5000-0AV08-1AA2		1	1 unit	41K	
3SE5000-0AV08-1AA2	Made of black rubber, for actuator head, to protect the actuator openings from contamination						
Blocking inserts							
	5	3SE5000-0AV08-1AA3		1	1 unit	41K	
3SE5000-0AV08-1AA3	Made of high-grade steel, for actuator head, for up to eight padlocks						
Spare parts for 3SE5							
Spare keys for key type RONIS SH115							
	5	3SX5100-1F		1	1 unit	41K	
Connection accessories for 3SE5							
M12 device plug, plastic, for M20 x 1.5							
	• 4-pole, for max. 250 V, 4 A, $U_{imp} = 2\,500$ V	5	3SY3127		1	1 unit	41K
3SX5100-1SS51	• 5-pole, for max. 125 V, 4 A, $U_{imp} = 1\,500$ V	5	3SY3128		1	1 unit	41K
	• 5-pole ¹⁾ , for max. 60 V, 4 A, $U_{imp} = 800$ V	X	3SX5100-1SS51		1	1 unit	41K
	• 8-pole ¹⁾ , for max. 30 V, 1.5 A, $U_{imp} = 800$ V	5	3SX5100-1SS08		1	1 unit	41K
Cable glands M20 x 1.5							
	Plastic						
3SX9926	• Degree of protection IP67	2	3SX9926		1	1 unit	41K
	• High degree of protection IP69, IEC 60529	5	3SX5601-1A		1	1 unit	41K
Connection cable							
	with M12 socket, open end, length 5 m						
3SX5601-3SB55	• 4-pole	5	3SX5601-3SB54		1	1 unit	41K
	• 5-pole	5	3SX5601-3SB55		1	1 unit	41K
Connecting cable							
	with M12 socket, 8-pole and M12 plug, 8-pole, length 1 m	5	3SX5601-3SV18		1	1 unit	41K
3SX5601-3SV18							
Connection cable							
	with M12 socket, 8-pole, straight, open end, rated control voltage 30 V, rated current 2 A						
3SX5601-2GA03	• 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
M12 plug							
	straight, 8-pole	1	6GT2090-0BE00		1	5 units	572
6GT2090-0BE00							
ET 200 Y-cable¹⁾ for connecting a 1 x 2-channel sensor							
	with M12 socket, 8-pole on 2 x M12 plugs, 5-pole, length 200 mm	1	6ES7194-6KC00-0XA0		1	1 unit	250
6ES7194-6KC00-0XA0							

¹⁾ Suitable for wiring sensors that are connected to all fail-safe block I/O modules in the SIMATIC ET 200eco PN and ET 200AL series. For more information, see page 12/85 onwards.

For further plug versions, see page 12/46.

Position and safety switches

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 2- or 3-pole contact blocks, designed as snap-action contacts
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs ([see page 12/105](#))

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 diameter 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 figure, page 12/6](#)).
- The new 3-pole contact block 1 NO + 2 NC is available for all enclosure sizes ([see figure, 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 figure, page 12/6](#)).
- The ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection ([see page 12/89](#)); 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

The switches comply with IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The protective measure of "total insulation" by the plastic enclosure is ensured by the use of plastic screw glands.

Safety position switches

For controls according to IEC 60204-1 the devices can be used as a safety position switch. To secure position switches against changes in their position, positively-driven techniques must be employed on installation.

Safety circuits

Standards IEC 60947-5-1 require 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 \ominus .

SIL 2 according to IEC 62061/IEC 61508 or PL d according to ISO 13849-1 can be attained with a 3SE5 safety hinge switch with \ominus if the corresponding fail-safe evaluation units are selected and correctly installed (e.g. the 3SK safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges).

If a second 3SE5 position switch with \ominus is used, SIL 3 / PL e can be attained.

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety hinge switches

3SE5, plastic enclosures > Enclosure width 31 mm according to EN 50047 / 40 mm according to EN 50041

Technical specifications

The technical specifications are the same as for the standard switches (see page 12/11).

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP65 (31 mm) or IP66/IP67 (40 mm) · Cable entry 1 x (M20 x 1.5)

Version	Snap-action contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU		
Enclosure width 31 mm acc. to EN 50047						
	With hollow shaft • Operating angle 10°	1 NO + 1 NC ¹⁾ ☒ 5 1 NO + 2 NC ☒ 5	3SE5232-0HU21 3SE5232-0LU21	1 1	1 unit 1 unit	41K 41K
3SE5232-0HU21						
	With solid shaft • Operating angle 10°	1 NO + 1 NC ¹⁾ ☒ 5 1 NO + 2 NC ☒ 5	3SE5232-0HU22 3SE5232-0LU22	1 1	1 unit 1 unit	41K 41K
3SE5232-0HU22						
Enclosure width 40 mm acc. to EN 50041						
	With hollow shaft • Operating angle 10°	1 NO + 2 NC ☒ 5	3SE5132-0LU21	1	1 unit	41K
3SE5132-0LU21						
	With solid shaft • Operating angle 10°	1 NO + 2 NC ☒ 5	3SE5132-0LU22	1	1 unit	41K
3SE5132-0LU22						

1) Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

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
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.

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety hinge switches

3SE5, metal enclosures > Enclosure width 31 mm according to EN 50047 / 40 mm according to EN 50041

Selection and ordering data

Complete units

3 contacts · Degree of protection IP66/IP67 · Cable entry 1 × (M20 × 1.5)

Version	Snap-action contacts	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			
Enclosure width 31 mm acc. to EN 50047							
 3SE5212-0LU21	With hollow shaft • Operating angle 10°	1 NO + 2 NC	⊕ 5	3SE5212-0LU21	1	1 unit	41K
 3SE5212-0LU22	With solid shaft • Operating angle 10°	1 NO + 2 NC	⊕ 5	3SE5212-0LU22	1	1 unit	41K
Enclosure width 40 mm acc. to EN 50041							
 3SE5112-0LU21	With hollow shaft • Operating angle 10°	1 NO + 2 NC	⊕ 5	3SE5112-0LU21	1	1 unit	41K
 3SE5112-0LU22	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, Annex K, or positively driven actuator, necessary in safety circuits.

Spare parts

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Actuator heads						
 3SE5000-0AU21	With hollow shaft • Operating angle 10°	5	3SE5000-0AU21	1	1 unit	41K
 3SE5000-0AU22	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.

Position and safety switches

SIRIUS 3SE5, 3SE2 mechanical safety hinge switches

3SE2, plastic enclosures > With integrated hinge

Overview

The 3SE2283 hinge switches with integrated 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 positive-opening 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 service life	> 1 x 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/8 ms	
Resistance to vibrations	20 g/0 ... 200 Hz	
Cable entry	2 x (M20 x 1.5)	
Screw terminals	0.5 ... 1.5 mm ² /AWG 15	

Selection and ordering data

3 contacts · Degree of protection IP65 · Cable entry 2 x (M20 x 1.5)

Version	Slow-action contacts	SD	Complete units		PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU			
	d						

With integrated hinge



Scope of supply includes additional hinge and fixing accessories

- Aluminum hinge
 - 4° actuating angle
 - 8° actuating angle
 - High-grade steel hinge
 - 4° actuating angle
- | | | | | | |
|-------------|------|----------------------|---|--------|-----|
| 1 NO + 2 NC | ⊕ 15 | 3SE2283-0GA43 | 1 | 1 unit | 41K |
| 3 NC | ⊕ 5 | 3SE2283-6GA43 | 1 | 1 unit | 41K |
| 1 NO + 2 NC | ⊕ 10 | 3SE2283-0GA53 | 1 | 1 unit | 41K |
| 3 NC | ⊕ 15 | 3SE2283-6GA53 | 1 | 1 unit | 41K |
| 1 NO + 2 NC | ⊕ 5 | 3SE2283-0GA44 | 1 | 1 unit | 41K |

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

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Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG

Accessories



Additional hinge
(Scope of supply includes fixing accessories)

- Made of aluminum

10 **3SX3225**

1 1 unit 41K

Position and safety switches

SIRIUS 3SE5 mechanical position switches for ambient temperatures down to -40 °C
Shock and vibration test

SIRIUS 3SE5 mechanical position switches > 3SE5, plastic enclosures

Selection and ordering data

Enclosure width 31 mm acc. to EN 50047

Complete units

2 or 3 contacts · Degree of protection IP65 · Cable entry 1 × (M20 × 1.5) · 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 units¹⁾ . Enclosure width 31 mm							
<i>Twist levers, 21 mm long, type A, according to EN 50047</i>							
	With plastic roller 19 mm						
3SE5232-0LK21-1AY0	• Snap-action contacts	1 NO + 2 NC  5		3SE5232-0LK21-1AY0		1	1 unit 41K
<i>Roller levers, type E, acc. to EN 50047</i>							
	With plastic roller 13 mm						
3SE5232-0LE10-1AY0	• Snap-action contacts	1 NO + 2 NC  5		3SE5232-0LE10-1AY0		1	1 unit 41K
<i>Rod levers, according to EN 50047</i>							
	With plastic rod, length 200 mm						
3SE5232-0HK82-1AY0	• Snap-action contacts	1 NO + 1 NC	30	3SE5232-0HK82-1AY0		1	1 unit 41K
<i>Spring rods²⁾, acc. to EN 50047</i>							
	Length 142.5 mm, with plastic plunger 50 mm						
3SE5232-0HR01-1AY0	• Snap-action contacts	1 NO + 1 NC	30	3SE5232-0HR01-1AY0		1	1 unit 41K

 Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Popular versions.

²⁾ Degree of protection IP65/IP67.

Position and safety switches

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**Selection and ordering data****Enclosure width 54 mm**

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 × (M20 × 1.5) · ISO 14119

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 auxiliary release from the front 24 DC

⊕ 5

3SE5322-0SD21-1AY0

1 1 unit 41K



3SE5322-0SD21-1AY0

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately.

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, standard¹⁾	• 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						
	Universal radius actuators, heavy duty	• High-grade steel actuators ¹⁾ , length 77 mm	NEW X 3SE5000-0AW57		1 1 unit 41K	
3SE5000-0AW57						

¹⁾ Suitable for extreme environmental conditions such as -40 °C.

Position and safety switches

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

Selection and ordering data

Enclosure width 31 mm acc. to EN 50047

2 contacts · Degree of protection IP65 · Cable entry 1 × (M20 × 1.5) · 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 · Enclosure width 31 mm							
 3SE5232-0HU21-1AY0	Hinge switches, according to EN 50047 With hollow shaft D = 8 mm, operating angle 10° • Snap-action contacts	1 NO + 1 NC  30	3SE5232-0HU21-1AY0		1	1 unit	41K

 Positive opening according to IEC 60947-5-1, Annex K.

Position and safety switches

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**Selection and ordering data****Enclosure width 31 mm according to EN 50047 / 50 mm**Complete units

2 or 3 contacts · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · 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 units¹⁾ . Enclosure width 31 mm . Cable entry 1 x (M20 x 1.5)							
	Roller plungers, type C, acc. to EN 50047 With plastic roller 10 mm <u>With M12 device plug, 4-pole (250 V, 4 A)²⁾</u> • Snap-action contacts	1 NO + 1 NC  5	3SE5234-0CD03-1AJ1		1	1 unit	41K
3SE5234-0CD03-1AJ1							
	Roller plungers with central fixing acc. to EN 50047 • 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, acc. to EN 50047 With high-grade steel lever 100 mm, with grid hole and plastic roller 19 mm • Snap-action contacts	1 NO + 1 NC  5 1 NO + 2 NC  5	3SE5232-0CK62-1AJ0 3SE5232-0LK62-1AJ0		1	1 unit	41K
3SE5232-0CK62-1AJ0							
Complete units¹⁾ . Enclosure width 50 mm . Cable entry 2 x (M20 x 1.5) . Operating points acc. to EN 50047							
	Twist levers With metal lever 21 mm and plastic roller 19 mm • Snap-action contacts, integrated ³⁾	1 NO + 1 NC  5	3SE5242-0HK21-1AJ0		1	1 unit	41K
3SE5242-0HK21-1AJ0							
	Twist levers, adjustable length With high-grade steel lever 100 mm, with grid hole and plastic roller 19 mm • Snap-action contacts, integrated ³⁾	1 NO + 1 NC  5	3SE5242-0HK62-1AJ0		1	1 unit	41K
3SE5242-0HK62-1AJ0							

¹⁾ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

²⁾ Popular versions.

²⁾ Pin assignments, see page 12/12.

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 12/76.

Position and safety switches

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

Modular system

2 or 3 contacts · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · With increased corrosion protection

Version	Contacts	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			

Basic switches · Enclosure width 31 mm · Cable entry 1 x (M20 x 1.5)



Rounded plungers¹⁾, type B, acc. to EN 50047

- Slow-action contacts 1 NO + 2 NC ☺ 5 **3SE5232-0KC05-1AJ0** 1 1 unit 41K
- Snap-action contacts 1 NO + 1 NC ☺ 5 **3SE5232-0CC05-1AJ0** 1 1 unit 41K
- 1 NO + 2 NC ☺ 5 **3SE5232-0LC05-1AJ0** 1 1 unit 41K

3SE5232-0CC05-1AJ0

Basic switches · Enclosure width 50 mm · Cable entry 2 x (M20 x 1.5)



Rounded plungers¹⁾, acc. to EN 50047

- Slow-action contacts 1 NO + 1 NC ☺ 5 **3SE5242-0BC05-1AJ0** 1 1 unit 41K
- Snap-action contacts, integrated²⁾ 1 NO + 1 NC ☺ 5 **3SE5242-0HC05-1AJ0** 1 1 unit 41K

3SE5242-0BC05-1AJ0

☺ Positive opening according to IEC 60947-5-1, Annex 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 12/13.

Version	Diameter	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
mm	d		Article No.	Price per PU			

Operating mechanisms



3SE5000-0AD03-1AJ0

Roller plungers, type C, acc. to EN 50047

- Plastic roller 10 ☺ 5 **3SE5000-0AD03-1AJ0** 1 1 unit 41K



3SE5000-0AF10-1AJ0

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 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

Twist actuators



3SE5000-0AK00-1AJ0

Twist actuators, for 31/50 mm, EN 50047

- Switching right and/or left, adjustable -- ☺ 5 **3SE5000-0AK00-1AJ0** 1 1 unit 41K



3SE5000-0AA21-1AJ0

Levers

Twist levers 21 mm, straight, 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 roller 19 ☺ 5 **3SE5000-0AA32-1AJ0** 1 1 unit 41K



3SE5000-0AA60-1AJ0

Twist levers 100 mm, 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.

Position and safety switches

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 acc. to EN 50041**Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 1 × (M20 × 1.5) · With increased corrosion protection

Version	Contacts	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			

Basic switches · Enclosure width 40 mm

3SE5132-0CA00-1AJ0

Rounded plungers, acc. to EN 50041

- Slow-action contacts
- Snap-action contacts

1 NO + 2 NC  5
1 NO + 1 NC  5
1 NO + 2 NC  5

3SE5132-0KA00-1AJ0
3SE5132-0CA00-1AJ0
3SE5132-0LA00-1AJ0

1 1 unit 41K
1 1 unit 41K
1 1 unit 41K

⦿ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

Note:

For the selection aid, see page 12/13.

Version	Diameter mm	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
	d		Article No.	Price per PU			

Operating mechanisms

3SE5000-0AC03-1AJ0

Rounded plungers, type B, acc. to EN 50041

- Plastic plunger, with 3 mm overtravel

10  5**3SE5000-0AC03-1AJ0**

1 1 unit 41K



3SE5000-0AD05-1AJ0

Roller plungers, type C, acc. to EN 50041

- Plastic plungers Plastic roller

13  5**3SE5000-0AD05-1AJ0**

1 1 unit 41K



3SE5000-0AE05-1AJ0

Roller levers

- Metal levers with plastic base

Plastic roller

22  5**3SE5000-0AE05-1AJ0**

1 1 unit 41K

Twist actuators

3SE5000-0AH00-1AJ0

Twist actuators, for 40/56/56 XL mm, EN 50041

- Switching right and/or left, adjustable

--  5**3SE5000-0AH00-1AJ0**

1 1 unit 41K



3SE5000-0AA01-1AJ0

Levers**Twist levers 27 mm, offset, 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 100 mm, 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.

Position and safety switches

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

Selection and ordering data

Enclosure width 31 mm acc. to EN 50047

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 1 × (M20 × 1.5) · With increased corrosion protection

Version	Contacts	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	<ul style="list-style-type: none"> Slow-action contacts Snap-action contacts 	1 NO + 2 NC ☷ 5	3SE5212-0KC05-1AJ0		1	1 unit	41K
		1 NO + 1 NC ☷ 5	3SE5212-0CC05-1AJ0		1	1 unit	41K
		1 NO + 2 NC ☷ 5	3SE5212-0LC05-1AJ0		1	1 unit	41K
	With M12 device plug, 5-pole (250 V, 4 A)¹⁾						
3SE5214-0CC05-1AJ2	<ul style="list-style-type: none"> Snap-action contacts 	1 NO + 1 NC ☷ X	3SE5214-0CC05-1AJ2		1	1 unit	41K
	Twist levers, type A, acc. to EN 50047						
3SE5212-0CH22-1AJ0	With metal lever 21 mm and high-grade steel roller 19 mm, with twist actuator with enclosure width 40 mm						
	<ul style="list-style-type: none"> Snap-action contacts 	1 NO + 1 NC ☷ 5	3SE5212-0CH22-1AJ0		1	1 unit	41K

④ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

1) Pin assignments, see page 12/12.

Note:

If the device you require is not available as a complete unit, see "Modular system", page 12/79.

Position and safety switches

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**Modular system**

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry 1 × (M20 × 1.5) · With increased corrosion protection

Version	Contacts	SD	Modular system		PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			
Basic switches · Enclosure width 31 mm							
Rounded plungers¹⁾, acc. to EN 50047							
	<ul style="list-style-type: none"> • Slow-action contacts • Snap-action contacts 		1 NO + 2 NC  5 1 NO + 1 NC  5 1 NO + 2 NC  5	3SE5212-0KC05-1AJ0 3SE5212-0CC05-1AJ0 3SE5212-0LC05-1AJ0	1	1 unit	41K
3SE5212-0CC05-1AJ0					1	1 unit	41K
					1	1 unit	41K

 Positive opening according to IEC 60947-5-1, Annex 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 12/13.

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							
	<ul style="list-style-type: none"> • Plastic roller 	10	 5	3SE5000-0AD03-1AJ0	1	1 unit	41K
3SE5000-0AD03-1AJ0							
Roller levers, type E, acc. to EN 50047							
	<ul style="list-style-type: none"> • Metal lever • High-grade steel lever 	Plastic roller	13  5	3SE5000-0AE10-1AJ0	1	1 unit	41K
3SE5000-0AE10-1AJ0		Plastic roller	13  5	3SE5000-0AE12-1AJ0	1	1 unit	41K
		High-grade steel roller	13  5	3SE5000-0AE13-1AJ0	1	1 unit	41K
	<ul style="list-style-type: none"> • Metal lever • High-grade steel lever 	Plastic roller	13  5	3SE5000-0AF10-1AJ0	1	1 unit	41K
3SE5000-0AF10-1AJ0		Plastic roller	13  5	3SE5000-0AF12-1AJ0	1	1 unit	41K
Twist actuators							
Twist actuators, for 31/50 mm, EN 50047							
	<ul style="list-style-type: none"> • Switching right and/or left, adjustable 	--	 5	3SE5000-0AK00-1AJ0	1	1 unit	41K
3SE5000-0AK00-1AJ0							
Levers							
Twist levers 21 mm, straight, type A acc. to EN 50047							
	<ul style="list-style-type: none"> • Metal lever • High-grade steel lever 	Plastic roller	19  5	3SE5000-0AA21-1AJ0	1	1 unit	41K
3SE5000-0AA21-1AJ0		Plastic roller	19  5	3SE5000-0AA31-1AJ0	1	1 unit	41K
Twist levers 100 mm, adjustable length, with grid hole							
	<ul style="list-style-type: none"> • Metal lever • High-grade steel lever 	Plastic roller	19  5	3SE5000-0AA60-1AJ0	1	1 unit	41K
3SE5000-0AA60-1AJ0		Plastic roller	19  5	3SE5000-0AA62-1AJ0	1	1 unit	41K

 Positively driven actuator, necessary in safety circuits.

Position and safety switches

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

Complete units

2, 3 or 4 contacts · Degree of protection IP66/IP67 · 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 · Enclosure width 40 mm · Cable entry 1 x (M20 x 1.5)						
 3SE5112-0CC02-1AJ0						
Rounded plungers, type B, acc. to EN 50041 With high-grade steel plunger 10 mm, with 3 mm overtravel	• Snap-action contacts	1 NO + 1 NC	⊕ 5	3SE5112-0CC02-1AJ0	1	1 unit 41K
 3SE5112-0LD02-1AJ0						
Roller plungers, type C, acc. to EN 50041 With high-grade steel plunger 13 mm, with 3 mm overtravel	• Snap-action contacts	1 NO + 2 NC	⊕ 5	3SE5112-0LD02-1AJ0	1	1 unit 41K
 3SE5112-0LH11-1AJ0						
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
 3SE5112-0CH62-1AJ0						
Twist levers, adjustable length, acc. to EN 50041 With high-grade steel lever 100 mm, with grid hole and plastic roller 19 mm	• Snap-action contacts	1 NO + 1 NC	⊕ 5	3SE5112-0CH62-1AJ0	1	1 unit 41K
 3SE5162-0CH12-1ANS						
Twist levers With high-grade steel lever 27 mm and high-grade steel roller 19 mm	• Snap-action contacts	2 × (1 NO + 1 NC)	⊕ 10	3SE5162-0CH12-1ANS	1	1 unit 41K
 3SE5162-0CH60-1AJ0						
Twist levers, adjustable length With metal lever 100 mm, with grid hole and plastic roller 19 mm	• Snap-action contacts	2 × (1 NO + 1 NC)	⊕ 5	3SE5162-0CH60-1AJ0	1	1 unit 41K
With high-grade steel lever 100 mm and high-grade steel roller 19 mm	• Snap-action contacts	2 × (1 NO + 1 NC)	⊕ 10	3SE5162-0CH63-1AN6	1	1 unit 41K

⊕ Positive opening according to IEC 60947-5-1, Annex 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", page 12/81.

Position and safety switches

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**Modular system

2, 3 or 4 contacts · Degree of protection IP66/IP67 · With increased corrosion protection

Version	Contacts	SD	Modular system	<input checked="" type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			
Basic switches · Enclosure width 40 mm ·							
Cable entry 1 x (M20 x 1.5)							
	Rounded plungers, acc. to EN 50041						
3SE5112-0CA00-1AJ0	<ul style="list-style-type: none"> • Slow-action contacts 1 NO + 2 NC  5 • Snap-action contacts 1 NO + 1 NC  5 1 NO + 2 NC  5 		3SE5112-0KA00-1AJ0 3SE5112-0CA00-1AJ0 3SE5112-0LA00-1AJ0		1	1 unit	41K
Basic switches · Enclosure width 56 mm ·							
Cable entry 3 x (M20 x 1.5)							
	Rounded plungers, operating points acc. to EN 50041						
3SE5122-0CA00-1AJ0	<ul style="list-style-type: none"> • Slow-action contacts 1 NO + 2 NC  5 • Snap-action contacts 1 NO + 1 NC  5 1 NO + 2 NC  5 		3SE5122-0KA00-1AJ0 3SE5122-0CA00-1AJ0 3SE5122-0LA00-1AJ0		1	1 unit	41K
Basic switches · Enclosure width 56 mm, XL ·							
Cable entry 3 x (M20 x 1.5)							
	Rounded plungers, operating points acc. to EN 50041						
3SE5162-0BA00-1AJ0	<ul style="list-style-type: none"> • Slow-action contacts 2 × (1 NO + 1 NC)  5 • Snap-action contacts 2 × (1 NO + 1 NC)  5 		3SE5162-0BA00-1AJ0 3SE5162-0CA00-1AJ0		1	1 unit	41K

 Positive opening according to IEC 60947-5-1, Annex K or positively driven actuator, necessary in safety circuits.

Note:

For the selection aid, see page 12/13.

Position and safety switches

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

Version	Diameter mm	SD d	Modular system	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
Operating mechanisms						
			Rounded plungers, type B, acc. to EN 50041			
3SE5000-0AC02-1AJ0			• High-grade steel plunger, with 3 mm overtravel 10	⊕ 5	3SE5000-0AC02-1AJ0	1 1 unit 41K
			Roller plungers, type C, acc. to EN 50041			
3SE5000-0AD02-1AJ0			• High-grade steel roller, with 3 mm overtravel 10	⊕ 5	3SE5000-0AD02-1AJ0	1 1 unit 41K
			Roller levers			
3SE5000-0AE01-1AJ0			• Metal lever Plastic roller 13	⊕ 5	3SE5000-0AE01-1AJ0	1 1 unit 41K
			• High-grade steel lever Plastic roller 13	⊕ 5	3SE5000-0AE03-1AJ0	1 1 unit 41K
			Angular roller levers			
3SE5000-0AF01-1AJ0			• Metal lever Plastic roller 13	⊕ 5	3SE5000-0AF01-1AJ0	1 1 unit 41K
			• 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			
3SE5000-0AH00-1AJ0			• Switching right and/or left, adjustable --	⊕ 5	3SE5000-0AH00-1AJ0	1 1 unit 41K
			Levers			
			Twist levers 27 mm, offset, 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 100 mm, adjustable length, with grid hole			
3SE5000-0AA60-1AJ0			• 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.

Position and safety switches

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/metal enclosures**Selection and ordering data****Enclosure width 31 mm acc. to EN 50047**Complete units

2 contacts · 5 directions of approach · Degree of protection IP65 · Cable entry 1 x (M20 x 1.5) · With increased corrosion protection

Version	Contacts	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			
Plastic enclosures · Enclosure width 31 mm acc. to EN 50047							
	• Slow-action contacts 1 NO + 1 NC  5		3SE5232-0RV40-1AJ0		1	1 unit	41K

3SE5232-0RV40-1AJ0

With M12 device plug, 5-pole (125 V, 4 A) ¹⁾	2 NC	 X	3SE5114-0QV10-1AJ4	1	1 unit	41K
	• Slow-action contacts					

Positive opening according to IEC 60947-5-1, Annex K.

1) Pin assignments, see page 12/12.

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
d							
Accessories							
	Standard actuators • With transverse fixing, plastic, length 40 mm	5	3SE5000-0AW11		1	1 unit	41K
3SE5000-0AW11							
	High-grade steel actuators¹⁾ • 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							
	Universal radius actuators, heavy duty NEW • High-grade steel actuators ¹⁾ , length 77 mm	X	3SE5000-0AW57		1	1 unit	41K
3SE5000-0AW57							

1) Suitable for extreme environmental conditions such as -40 °C.

Position and safety switches

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

Enclosure width 54 mm

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 x (M20 x 1.5)

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 acc. to ISO 14119							
	Spring-actuated locks						
	• With escape release from the front and emergency release from the back	24 DC	⊕ 5	3SE5322-0SL21-1AJ0	1	1 unit	41K
	• With auxiliary release		X	3SE5322-0SD21-1AJ0	1	1 unit	41K
	• With escape release from the back and auxiliary release from the front, head rotated 180°		5	3SE5322-0SG21-1AM5	1	1 unit	41K
3SE5322-0SL21-1AJ0							

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately.

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d						
Accessories						
	Standard actuators					
3SE5000-0AV01	• Length 75.6 mm	▶	3SE5000-0AV01	1	1 unit	41K
	High-grade steel actuators¹⁾					
3SE5000-0AW51	• Length 75.6 mm	5	3SE5000-0AW51	1	1 unit	41K
						
3SE5000-0AW52	• With vertical fixing, length 53 mm	5	3SE5000-0AW52	1	1 unit	41K
						
3SE5000-0AW53	• With transverse fixing, length 47 mm	5	3SE5000-0AW53	1	1 unit	41K
	Universal radius actuators, heavy duty NEW					
3SE5000-0AW57	• High-grade steel actuators ¹⁾ , length 77 mm	X	3SE5000-0AW57	1	1 unit	41K

¹⁾ Suitable for extreme environmental conditions such as -40 °C.

Position and safety switches

SIRIUS 3SE safety switches and 3SU1 EMERGENCY STOP enclosures for PROFIsafe connection

Safety cabling in the field with IP67

Overview

SIRIUS sensors and SIMATIC ET 200

The new system comprising SIRIUS sensors and fail-safe SIMATIC ET 200 provides a safe M12 connection method for industry.

The SIRIUS sensors can be connected in the field via the fail-safe field modules of the SIMATIC ET 200eco PN and SIMATIC ET 200AL.

The signals are forwarded to the higher-level controller via PROFINET/PROFIsafe either by means of a direct connection of the SIMATIC ET 200eco PN or, in the case of SIMATIC ET 200AL, via an interface module.

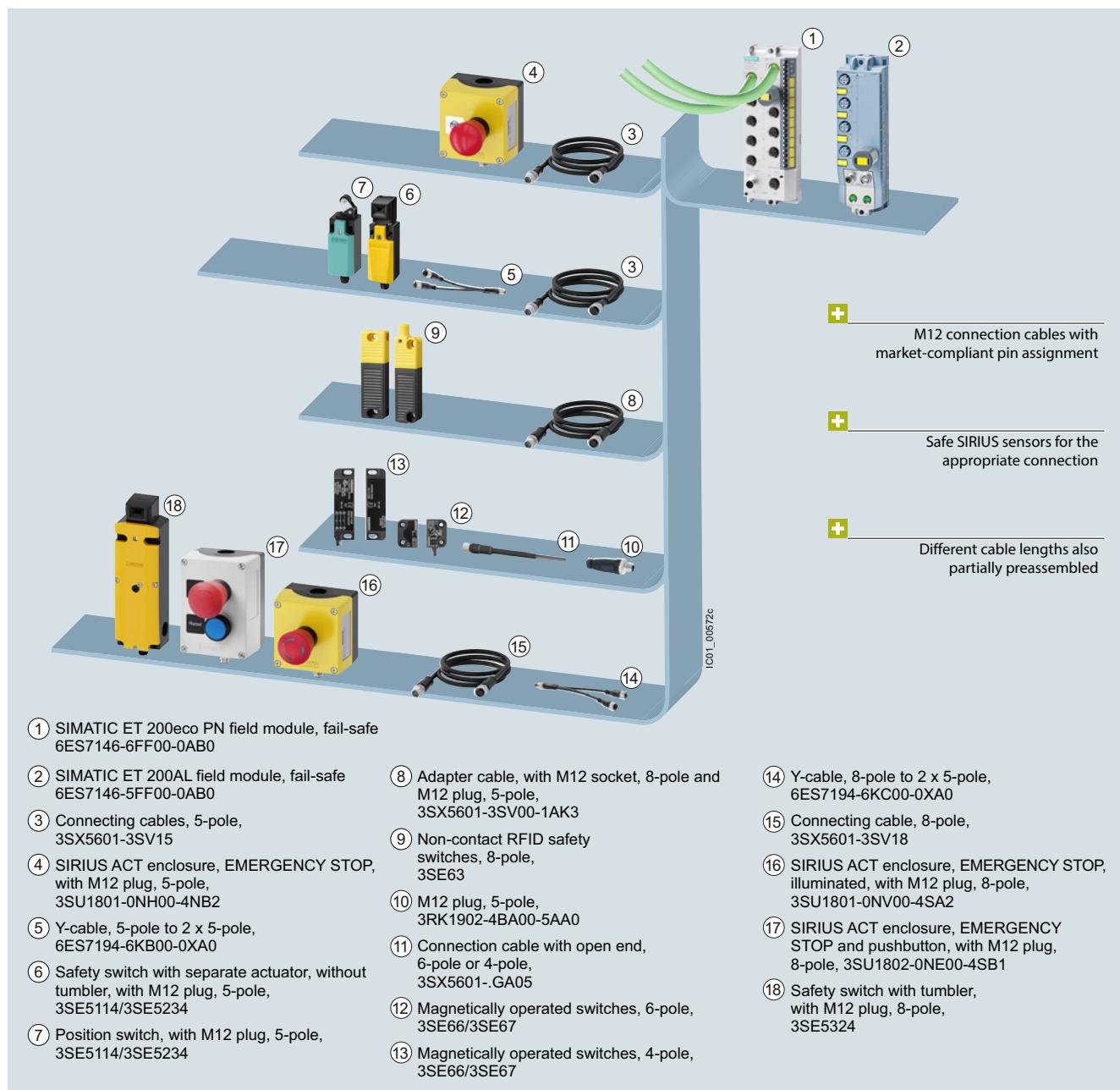
For more information, see also [page 12/10](#).

Examples

- SIRIUS ACT enclosure, EMERGENCY STOP, with M12 plug, 5-pole and 8-pole
- Position switch, with M12 plug, 5-pole
- RFID safety switch, with M12 plug, 8-pole, and magnetically operated switch, 4-pole or 6-pole
- Safety switch with tumbler, with M12 plug, 8-pole

Advantages

- Identical pin assignment on the modules, connecting cables and sensors enables simple and fast connection and prevents connection errors and their consequences.
- Safe system technology in the field from the sensor to the field module



Safety field system composed of SIRIUS sensors and SIMATIC ET 200 with the M12 connection method

Position and safety switches

SIRIUS 3SE safety switches and 3SU1 EMERGENCY STOP enclosures for PROFIsafe connection

Safety cabling in the field with IP67

Sensors with M12 plugs	Type	SIL	Connection accessories M12 technology, A-coded	Type	Cable length	
SIRIUS ACT enclosure, EMERGENCY STOP						
	Enclosure plastic, yellow with 1 command point, A = EMERGENCY STOP mushroom pushbuttons, red, M12 plug (5-pole)	3SU1801-0NH00-4NB2 (see page 13/104)	3	 Connecting cable with M12 socket, 5-pole and M12 plug, 5-pole or Connection cable with M12 socket, 5-pole, open end and M12 plug 5-pole, straight, separate item	3SX5601-3SV15 (see page 12/46) 3SX5601-3SB55 (see page 12/46) 3RK1902-4BA00-5AA0 (see page 12/47)	1 m 5 m --
Mechanical safety switches						
Plastic, 31 mm						
	Basic switch with rounded plunger for modular design with M12 plug, 5-pole + actuator head (order separately), e.g. roller lever 3SE5000-0AE10	3SE5234-0LC05-1AE2 (basic switches, see page 12/18, actuator heads, see page 12/19)	1	 Connecting cable with M12 socket, 5-pole and M12 plug, 5-pole or Connection cable with M12 socket, 5-pole, open end and M12 plug 5-pole, straight, separate item	3SX5601-3SV15 (see page 12/46) 3SX5601-3SB55 (see page 12/46) 3RK1902-4BA00-5AA0 (see page 12/47)	1 m 5 m --
	Position switch, roller plunger with M12 plug, 5-pole	3SE5234-0LD03-1AE2 (see page 12/16)	1			
	Position switch, roller lever with M12 plug, 5-pole	3SE5234-0LE11-1AE2 (see page 12/16)	2			
	Safety switch with separate actuator without tumbler with M12 plug, 5-pole + actuator (order separately), e.g. standard 3SE5000-0AV01	3SE5234-0QV40-1AE2 (see page 12/52) Actuator (see page 12/57)	2	 Connecting cable with M12 socket, 5-pole and M12 plug, 5-pole or Connection cable with M12 socket, 5-pole, open end and M12 plug 5-pole, straight, separate item	3SX5601-3SV15 (see page 12/46) 3SX5601-3SB55 (see page 12/46) 3RK1902-4BA00-5AA0 (see page 12/47)	1 m 5 m --
Metal, 40 mm						
	Basic switch for modular design with M12 plug, 5-pole + actuator head (order separately), e.g. roller plunger 3SE5000-0AD02	3SE5114-0LA00-1AE3 (basic switches, see page 12/34, actuator heads, see page 12/35)	1			
	Position switch roller plungers with M12 plug, 5-pole	3SE5114-0LD02-1AE3 (see page 12/31)	1			
	Position switch twist levers with M12 plug, 5-pole	3SE5114-0LH01-1AE3 (see page 12/32)	1			
	Position switch plain plungers with M12 plug, 5-pole	3SE5114-0LB01-1AE3 (see page 12/31)	1			
	Safety switch with separate actuator without tumbler with M12 plug, 5-pole + actuator (order separately), e.g. standard 3SE5000-0AV01	3SE5114-0QV10-1AE3 (see page 12/56) Actuators (see page 12/57)	2			
Combinations (examples)						
	Position switch + safety switch with separate actuator without tumbler Actuator (order separately), e.g. standard 3SE5000-0AV01	3SE5114-0LH01-1AE3 (see page 12/32)+ 3SE5234-0QV40-1AE2 (see page 12/52) Actuator (see page 12/57)	3	 ET 200 Y-cable for connecting 2 x 1-channel sensors with M12 plug, 5-pole on 2 x M12 sockets, 5-pole Extend if necessary with Connecting cable with M12 socket, 5-pole and M12 plug, 5-pole or Connection cable with M12 socket, 5-pole, open end and M12 plug 5-pole, straight, separate item	6ES7194-6KB00-0XA0 (see page 12/46) 3SX5601-3SV15 (see page 12/46) 3SX5601-3SB55 (see page 12/46) 3RK1902-4BA00-5AA0 (see page 12/47)	0.2 m 1 m 5 m --
	2 x safety switches with separate actuator without tumbler Actuator (order separately), e.g. standard 3SE5000-0AV01	3SE5234-0QV40-1AE2, 3 3SE5234-0QV40-1AE2 (see page 12/52) Actuator (see page 12/57)	3			
	2 x position switches 3SE5114-0LH01-1AE3 (see page 12/32) 3SE5234-0LE11-1AE2 (see page 12/16)	3				

Position and safety switches

SIRIUS 3SE safety switches and 3SU1 EMERGENCY STOP enclosures for PROFIsafe connection

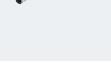
Safety cabling in the field with IP67

Sensors with M12 plugs	Type	SIL	Connection accessories M12 technology, A-coded	Type	Cable length
Non-contact safety switches (examples)					
	RFID safety switch family-coded + actuator	3 3SE6310-0BC01 (see page 12/116)	3SE6315-0BB01 (see page 12/116) 3SE6310-0BC01 (see page 12/116)	3  Adapter cable with M12 socket, 8-pole on M12 plug, 5-pole Extend if necessary with  Connecting cable with M12 socket, 5-pole and M12 plug, 5-pole	3SX5601-3SV00-1AK3 (see page 12/116) 3SX5601-3SV15 (see page 12/46) 0.5 m 1 m
	Magnetically operated switch (cable 3 m) + switching magnet (25 x 88 mm), coded	3 3SE6605-2BA (see page 12/110) 3SE6704-2BA (see page 12/110)	3SE6315-0BB03 (see page 12/116) 3SE6310-0BC01 (see page 12/116)	 M12 plug 5-pole, straight, separate item or  M12 plug 5-pole, angled, separate item	3RK1902-4BA00-5AA0 (see page 12/47) 3RK1902-4DA00-5AA0 (see page 12/47) -- --
	Magnetically operated switch M8 plug, 4-pole + LED door hinge left (25 x 88 mm), 2 NC + switching magnet (25 x 88 mm), coded	3 3SE6614-4CA01 (see page 12/110) 3SE6714-2CA (see page 12/110)	3SE6624-4CA01 (see page 12/111) 3SE6714-2CA (see page 12/110)	 Connection cable with M8 socket, 4-pole, open end and  M12 plug 5-pole, straight, separate item or  M12 plug 5-pole, angled, separate item	3SX5601-3GA05 (see page 12/111) 3RK1902-4BA00-5AA0 (see page 12/47) 5 m -- --
	Magnetically operated switch 8 mm Ø latching connection, plug, 6-pole, door hinge left (25 x 88 mm), 2 NC + 1 NC signaling contact + switching magnet (25 x 88 mm), coded	3 3SE6617-2CA01 (see page 12/110) 3SE6714-2CA (see page 12/110)	3SE6627-2CA01 (see page 12/111) 3SE6714-2CA (see page 12/110)	 Connection cable with socket 8 mm, latching connection, 6-pole, open end and  M12 plug 5-pole, straight, separate item or  M12 plug 5-pole, angled, separate item	3SX5601-4GA05 (see page 12/111) 3RK1902-4BA00-5AA0 (see page 12/47) 5 m -- --
	Magnetically operated switch 8 mm Ø latching connection, plug, 6-pole, door hinge left (26 x 36 mm), 2 NC + 1 NC signaling contact + switching magnet (26 x 36 mm), coded	3 3SE6617-3CA01 (see page 12/110) 3SE6714-3CA (see page 12/110)	3SE6627-3CA01 (see page 12/111) 3SE6714-3CA (see page 12/110)	 Connection cable with socket 8 mm, latching connection, 6-pole, open end and  M12 plug 5-pole, straight, separate item or  M12 plug 5-pole, angled, separate item	3RK1902-4BA00-5AA0 (see page 12/47) 3RK1902-4DA00-5AA0 (see page 12/47) -- --
	Magnetically operated switch 8 mm Ø latching connection, plug, 6-pole, door hinge right (26 x 36 mm), 2 NC + 1 NC signaling contact + switching magnet (26 x 36 mm), coded	3 3SE6617-3CA01 (see page 12/110) 3SE6714-3CA (see page 12/110)			

Position and safety switches

SIRIUS 3SE safety switches and 3SU1 EMERGENCY STOP enclosures for PROFIsafe connection

Safety cabling in the field with IP67

Sensors with M12 plugs	Type	SIL	Connection accessories M12 technology, A-coded	Type	Cable length	
Mechanical safety switches with tumbler						
	Safety switch with tumbler, with solenoid monitoring, with auxiliary release M12 plug, 8-pole, monitoring 1 x door + 1 x lock, connection to an F-DI input and an F-DQ output via a Y-cable + actuator (order separately), e.g. standard 3SE5000-0AV01, high-grade steel 3SE5000-0AW51	3SE5324-0SD21-1AE4 (see page 12/63)	2	 Connecting cable with M12 socket, 8-pole and M12 plug, 8-pole  ET 200 Y-cable for connecting 1 x 2-channel sensor with M12 socket, 8-pole on 2 x M12 plugs, 5-pole	3SX5601-3SV18 (see page 12/67) and 6ES7194-6KC00-0XA0 (see page 12/67)	1 m
	Safety switch with tumbler, with solenoid monitoring, with escape release from the back and auxiliary release with lock from the front M12 plug, 8-pole, monitoring 1 x door + 1 x lock, connection to an F-DI input and an F-DQ output via a Y-cable + actuator (order separately), e.g. standard 3SE5000-0AV01, high-grade steel 3SE5000-0AW51	3SE5324-0SH21-1AE4 (see page 12/63)	2	 Connection cable with M12 socket, 8-pole, straight, open end  M12 plug 8-pole, straight	3SX5601-2GA03 (see page 12/67) and 6GT2090-0BE00 (see page 12/67)	3 m 5 m 10 m --
	Safety switch with tumbler, without solenoid monitoring, with auxiliary release M12 plug, 8-pole, monitoring 2 x door + 0 x lock, connection to an F-DI input and an F-DQ output via a Y-cable + actuator (order separately), e.g. standard 3SE5000-0AV01, high-grade steel 3SE5000-0AW51	3SE5324-0SD21-1AE5 (see page 12/63)	2	 ET 200 Y-cable for connecting 1 x 2-channel sensor with M12 socket, 8-pole on 2 x M12 plugs, 5-pole	6ES7194-6KC00-0XA0 (see page 12/67)	0.2 m
SIRIUS ACT enclosures						
	Enclosure plastic, yellow with 1 command point, A=EMERGENCY-STOP mushroom pushbutton, red, M12 plug (8-pole), connection to an F-DI input and an F-DQ output via a Y-cable	3SU1801-0NV00-4SA2 (see page 13/104)	3	 Connecting cable with M12 socket, 8-pole and M12 plug, 8-pole  ET 200 Y-cable for connecting 1 x 2-channel sensor with M12 socket, 8-pole on 2 x M12 plugs, 5-pole	3SX5601-3SV18 (see page 12/67) and 6ES7194-6KC00-0XA0 (see page 12/67)	1 m 0.2 m
	Enclosure plastic, gray with 2 command points, B = EMERGENCY STOP mushroom pushbuttons, red, A = pushbutton, blue, M12 plug (8-pole), two connections to two F-DI inputs via a Y-cable	3SU1802-0NE00-4SB1 (see page 13/104)	3	 Connection cable with M12 socket, 8-pole, straight, open end  M12 plug 8-pole, straight	3SX5601-2GA03 (see page 12/67) and 6GT2090-0BE00 (see page 12/67)	3 m 5 m 10 m --
				 ET 200 Y-cable for connecting 1 x 2-channel sensor with M12 socket, 8-pole on 2 x M12 plugs, 5-pole	6ES7194-6KC00-0XA0 (see page 12/67)	0.2 m

Position and safety switches

SIRIUS 3SF1 mechanical safety switches for AS-Interface

General data

Overview

More information

Homepage, see www.siemens.com/sirius-position-switches
 Industry Mall, see www.siemens.com/product?3SF
 Configurator, see www.siemens.com/sirius/configurators
 Configuration Manual, see
<https://support.industry.siemens.com/cs/ww/en/view/43920150>

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. In this way, SIL 3 according to IEC 62061/IEC 61508 or PL e according to ISO 13849-1 is reached.

Benefits

The 3SF1 safety switches provide:

- 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 IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to ISO 14119.

Approvals

AS-Interface according to IEC 62026-2

The 3SF1 position switches are approved according to UL 508, UL 50 and UL 746-C.

Safety circuits

Standards IEC 60947-5-1 require 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

With a 3SF1 safety switch with , SIL 2 according to IEC 62061/IEC 61508 or PL c according to ISO 13849-1 can be attained if the corresponding fail-safe evaluation units are selected from the ASIsafe program and correctly installed.

If a second 3SF1 safety switch with , SIL 3 / PL e can be attained.

Position and safety switches

SIRIUS 3SF1 mechanical safety switches for AS-Interface

General data

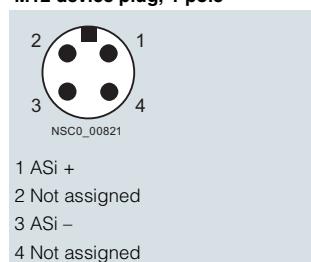
Technical specifications

Type	3SF11.., 3SF12..		
General data			
Standards	IEC 60947-5-1, ISO 14119		
Acc. 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 service life			
• 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 $B10 = 5 \times 10^6$			
• Basic switch	1/h	4×10^{-9}	
• With separate actuator, 3SF1...-V..	1/h	2×10^{-9}	
• Hinge switch, 3SF1...-U..	1/h	2×10^{-9}	
Shock resistance acc. to IEC 60068-2-27	30 g/11 ms		

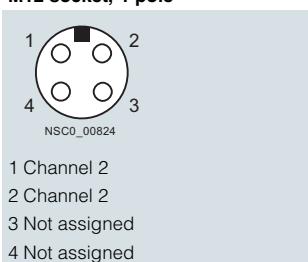
Type	3SF1234	3SF1134	3SF1244	3SF1214	3SF1114	3SF1124
Enclosure						
Enclosure						
• Material	mm	Ultramid A3X2G7			Zinc-die casting GD-ZnAl4Cu1	
• Width		31	40	50	31	40
• Dimensions acc. to EN		EN 50047	EN 50041	--	EN 50047	EN 50041
Degree of protection acc. to IEC 60529	IP65	IP66/IP67			56	--
Ambient temperature	°C	-25 ... +60				
• During operation	°C	-40 ... +80				
• Storage, transport						
Mounting position	Any					

Pin assignments

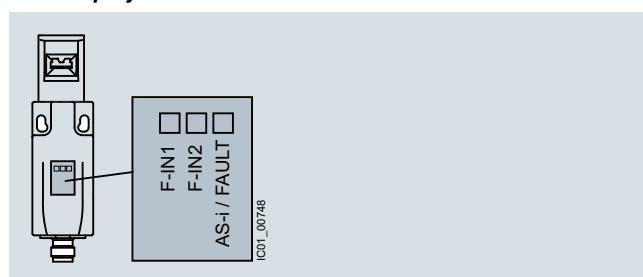
M12 device plug, 4-pole



M12 socket, 4-pole



LED displays



3SF1 safety switches with AS-i and LED status displays

Status display (operating state)

LED	No voltage on AS-Interface chip	Communication OK	Communication failed	Slave has address "0"
AS-i / Fault (GN/RD/YE)				

Safe inputs

LED	Not actuated	Actuated		
F-IN1 (YE)			--	--
F-IN2 (YE)			--	--

Position and safety switches

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	d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Basic switches · Enclosure width 31 mm acc. to EN 50047 · Degree of protection IP65										



3SF1234-1KC05-1BA1

Rounded plungers¹⁾

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

Basic switches · Enclosure width 50 mm · Degree of protection IP66/IP67 · Operating points acc. to EN 50047



3SF1244-1KC05-1BA2

Rounded plungers¹⁾

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

Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, for use in safety circuits.

Note:

For the selection aid, [see page 12/13](#).

¹⁾ For enclosures with widths of 31 mm and 50 mm, the basic switch is a complete unit with rounded plungers.

Position and safety switches

SIRIUS 3SF1 mechanical safety switches for AS-Interface

3SF1, plastic enclosures > Enclosure width 31 mm according to EN 50047 / 50 mm

Version	Diameter Roller mm	SD d	Modular system		PU (UNIT, SET, M)	PS*	PG				
					Article No.	Price per PU					
Operating mechanisms											
Plain plungers											
3SE5000-0AB01	• High-grade steel plungers	8.5	∅ 2	3SE5000-0AB01		1	1 unit	41K			
Roller plungers, type C, acc. to EN 50047											
3SE5000-0AD03	• Plastic roller	10	∅ 2	3SE5000-0AD03		1	1 unit	41K			
	• High-grade steel roller	10	∅ 5	3SE5000-0AD04		1	1 unit	41K			
Roller plungers with central fixing											
3SE5000-0AD10	• Plastic roller	10	∅ 2	3SE5000-0AD10		1	1 unit	41K			
	• High-grade steel roller	10	∅ 5	3SE5000-0AD11		1	1 unit	41K			
Roller levers, type E, acc. to EN 50047											
3SE5000-0AE10	• Metal lever	Plastic roller	13	∅ 2	3SE5000-0AE10	1	1 unit	41K			
		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 roller	13	∅ 5	3SE5000-0AE13	1	1 unit	41K			
Angular roller levers											
3SE5000-0AF10	• Metal lever	Plastic roller	13	∅ 2	3SE5000-0AF10	1	1 unit	41K			
		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 roller	13	∅ 5	3SE5000-0AF13	1	1 unit	41K			
Twist actuators											
Twist actuators, for 31/50 mm, EN 50047											
3SE5000-0AK00	• Switching right or left, adjustable	--	∅ 2	3SE5000-0AK00		1	1 unit	41K			
Levers											
Twist levers, type A, acc. to EN 50047											
3SE5000-0AA21	• Metal lever	Plastic roller	19	∅ 2	3SE5000-0AA21	1	1 unit	41K			
			30	∅ 5	3SE5000-0AA25	1	1 unit	41K			
		High-grade steel roller	19	∅ 5	3SE5000-0AA22	1	1 unit	41K			
		- With ball bearing	19	∅ 5	3SE5000-0AA23	1	1 unit	41K			
	• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA31	1	1 unit	41K			
		High-grade steel roller	19	∅ 5	3SE5000-0AA32	1	1 unit	41K			
Twist levers 30 mm, straight¹⁾											
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA24	1	1 unit	41K			
			30	∅ 5	3SE5000-0AA26	1	1 unit	41K			
Twist levers 100 mm, adjustable length, with grid hole											
3SE5000-0AA60	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA60	1	1 unit	41K			
			50	∅ 5	3SE5000-0AA67	1	1 unit	41K			
		High-grade steel roller	19	∅ 5	3SE5000-0AA61	1	1 unit	41K			
		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 roller	19	∅ 5	3SE5000-0AA63	1	1 unit	41K			
		Rubber roller	50	∅ 5	3SE5000-0AA68	1	1 unit	41K			

 3SE5000-0AA60

 ¹⁾ Positively driven actuator, for use in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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 · Enclosure width 31 mm acc. to EN 50047								
Rounded plungers¹⁾								
	With M12 device plug, 4-pole							
3SF1214-1KC05-1BA1	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

 Positive opening according to IEC 60947-5-1, Annex 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 12/13.

Position and safety switches

SIRIUS 3SF1 mechanical safety switches for AS-Interface

3SF1, metal enclosures > Enclosure width 31 mm according to EN 50047

Version	Roller diameter mm	SD d	Modular system Article No.	PU (UNIT, SET, M)	PS*	PG
				Price per PU		
Operating mechanisms						
Plain plungers						
3SE5000-0AB01	• High-grade steel plunger	8.5	∅ 2	3SE5000-0AB01	1	1 unit 41K
Roller plungers, type C, acc. to EN 50047						
3SE5000-0AD03	• Plastic roller	10	∅ 2	3SE5000-0AD03	1	1 unit 41K
	• High-grade steel roller	10	∅ 5	3SE5000-0AD04	1	1 unit 41K
Roller plungers with central fixing						
3SE5000-0AD10	• Plastic roller	10	∅ 2	3SE5000-0AD10	1	1 unit 41K
	• High-grade steel roller	10	∅ 5	3SE5000-0AD11	1	1 unit 41K
Roller levers, type E, acc. to EN 50047						
3SE5000-0AE10	• Metal lever	Plastic roller	13	∅ 2	3SE5000-0AE10	1 unit 41K
		High-grade steel roller	13	∅ 5	3SE5000-0AE11	1 unit 41K
	• High-grade steel lever	Plastic roller	13	∅ 5	3SE5000-0AE12	1 unit 41K
		High-grade steel roller	13	∅ 5	3SE5000-0AE13	1 unit 41K
Angular roller levers						
3SE5000-0AF10	• Metal lever	Plastic roller	13	∅ 2	3SE5000-0AF10	1 unit 41K
		High-grade steel roller	13	∅ 5	3SE5000-0AF11	1 unit 41K
	• High-grade steel lever	Plastic roller	13	∅ 2	3SE5000-0AF12	1 unit 41K
		High-grade steel roller	13	∅ 5	3SE5000-0AF13	1 unit 41K
Twist actuators						
Twist actuators, for 31/50 mm, EN 50047						
3SE5000-0AK00	Switching right or left, adjustable	--	∅ 2	3SE5000-0AK00	1	1 unit 41K
Levers						
Twist levers, type A, acc. to EN 50047						
3SE5000-0AA21	• Metal lever	Plastic roller	19	∅ 2	3SE5000-0AA21	1 unit 41K
			30	∅ 5	3SE5000-0AA25	1 unit 41K
	• High-grade steel lever	High-grade steel roller	19	∅ 5	3SE5000-0AA22	1 unit 41K
		- With ball bearing	19	∅ 5	3SE5000-0AA23	1 unit 41K
	• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA31	1 unit 41K
		High-grade steel roller	19	∅ 5	3SE5000-0AA32	1 unit 41K
Twist levers 30 mm, straight¹⁾						
	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA24	1 unit 41K
			30	∅ 5	3SE5000-0AA26	1 unit 41K
Twist levers 100 mm, adjustable length, with grid hole						
3SE5000-0AA60	• Metal lever	Plastic roller	19	∅ 5	3SE5000-0AA60	1 unit 41K
			50	∅ 5	3SE5000-0AA67	1 unit 41K
	• High-grade steel lever	High-grade steel roller	19	∅ 5	3SE5000-0AA61	1 unit 41K
		Rubber roller	50	∅ 5	3SE5000-0AA68	1 unit 41K
	• High-grade steel lever	Plastic roller	19	∅ 5	3SE5000-0AA62	1 unit 41K
		High-grade steel roller	19	∅ 5	3SE5000-0AA63	1 unit 41K

∅ Positively driven actuator, for use in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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								
Rounded plungers With M12 device plug, 4-pole Channel 1 on NC contact, channel 2 on NC contact <ul style="list-style-type: none"> • Slow-action contacts 2 NC 24 V DC  5 • Snap-action contacts 2 NC 24 V DC  5 3SF1114-1KA00-1BA1 1 1 unit 42A 3SF1114-1LA00-1BA1 1 1 unit 42A								



3SF1114-1KA00-1BA1

Basic switches · Enclosure width 56 mm · Switching points acc. to EN 50041



3SF1124-1KA00-1BA2

Rounded plungers

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

1 1 unit 42A

3SF1124-1LA00-1BA2

1 1 unit 42A

 Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, for use in safety circuits.

Note:

For the selection aid, see page 12/13.

Position and safety switches

SIRIUS 3SF1 mechanical safety switches for AS-Interface

3SF1, metal enclosures > Enclosure width 40 mm according to EN 50041 / 56 mm

Version	Diameter mm	SD d	Modular system	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
Operating mechanisms						
 3SE5000-0AB01	Plain plungers	• High-grade steel plunger	8.5 	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 3SE5000-0AD02	1	1 unit 41K
 3SE5000-0AE01	Roller levers	• Metal lever	Plastic roller 22 	2 3SE5000-0AE01	1	1 unit 41K
			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 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
			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 roller 22 	5 3SE5000-0AF04	1	1 unit 41K
Twist actuators						
 3SE5000-0AH00	Twist actuators, for 40/56/56 XL mm, EN 50041	• For twist levers, switching right and/or left, adjustable, only for enclosure widths 40 and 56 mm	-- 	2 3SE5000-0AH00	1	1 unit 41K
		• For fork levers, latching	-- 	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
			30 	5 3SE5000-0AA05	1	1 unit 41K
			50 	5 3SE5000-0AA07	1	1 unit 41K
		2 plastic rollers	19 	4 3SE5000-0AA04	1	1 unit 41K
		High-grade steel roller 19 	2 3SE5000-0AA02	1	1 unit 41K	
		- With ball bearing 19 	5 3SE5000-0AA03	1	1 unit 41K	
		Rubber roller 50 	8 3SE5000-0AA08	1	1 unit 41K	
		• High-grade steel lever	Plastic roller 19 	5 3SE5000-0AA11	1	1 unit 41K
			High-grade steel roller 19 	5 3SE5000-0AA12	1	1 unit 41K
 3SE5000-0AA60	Twist levers 35 mm, offset, type A, acc. to EN 50041					
		• 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
 3SE5000-0AA24	Twist levers 30 mm, straight ¹⁾ , type A, acc. to EN 50041					
		• Metal lever	Plastic roller 19 	5 3SE5000-0AA24	1	1 unit 41K
			30 	5 3SE5000-0AA26	1	1 unit 41K
 3SE5000-0AA60	Twist levers 100 mm, adjustable length, with grid hole					
		• Metal lever	Plastic roller 19 	5 3SE5000-0AA60	1	1 unit 41K
			50 	5 3SE5000-0AA67	1	1 unit 41K
		High-grade steel roller 19 	5 3SE5000-0AA61	1	1 unit 41K	
		Rubber roller 50 	8 3SE5000-0AA68	1	1 unit 41K	
		• High-grade steel lever	Plastic roller 19 	5 3SE5000-0AA62	1	1 unit 41K
			High-grade steel roller 19 	5 3SE5000-0AA63	1	1 unit 41K
 3SE5000-0AT01	Fork levers (for switches with snap-action contacts only)					
		• 2 metal levers	2 plastic rollers 19 	5 3SE5000-0AT01	1	1 unit 41K
			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 rollers 19 	5 3SE5000-0AT04	1	1 unit 41K

 Positively driven actuator, for use in safety circuits.

¹⁾ Can be clinch mounted (rotated 180°, rear of lever).

Position and safety switches

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 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 12/100](#)).

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Locking devices

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more security ([see page 12/100](#)).

Dust protection

For use in dusty environments, a protective cap made of rubber is offered that protects the actuator entries of the actuator head from contamination ([see page 12/100](#)).

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. In this way, SIL 3 according to IEC 62061/IEC 61508 or PL e according to ISO 13849-1 is reached.

Benefits

The 3SF1 safety switches with separate actuator provide:

- ASIsafe electronics integrated into the enclosure with low power requirements < 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 IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to ISO 14119.

Approvals

AS-Interface according to IEC 62026-2

The 3SF1 safety switches are approved according to UL 508, UL 50 and UL 746-C.

Safety circuits

Standards IEC 60947-5-1 require 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 \ominus .

With a 3SF1 safety switch with \ominus , SIL 2 according to IEC 62061/IEC 61508 or PL d according to ISO 13849-1 can be attained if the corresponding fail-safe evaluation units are selected from the ASIsafe program and correctly installed.

If a second 3SF1 safety switch with \ominus is used, SIL 3 / PL e can be attained.

Position and safety switches

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)
- 5 directions of approach
- M12 device plugs

Selection and ordering data

Version ¹⁾	Contacts	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d			Article No.	Price per PU			
Enclosure width 31 mm acc. to EN 50047							
 3SF1234-1QV40-1BA1	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	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, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately (see page 12/100).

Position and safety switches
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
- 5 directions of approach
- M12 device plugs

Selection and ordering data

Version ¹⁾	Contacts	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d	Article No.	Price per PU					
Enclosure width 31 mm acc. to EN 50047							
 3SF1214-1QV40-1BA1	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
Enclosure width 40 mm acc. to EN 50041							
 3SF1114-1QV10-1BA1	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
Enclosure width 56 mm							
 3SF1124-1QV10-1BA2	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

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately (see page 12/100).

Position and safety switches

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							
	Standard actuators						
	• Length 75.6 mm	▶	3SE5000-0AV01		1	1 unit	41K
3SE5000-0AV01	• 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	- Length 40 mm, plastic ¹⁾	5	3SE5000-0AW11		1	1 unit	41K
	Radius actuators						
3SE5000-0AV03	• Length 51 mm - 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
3SE5000-0AV04							
	Universal radius actuators						
3SE5000-0AV06	• Length 77 mm - Tab rotated 90°	5	3SE5000-0AV05		1	1 unit	41K
3SE5000-0AV05-1AA6		5	3SE5000-0AV05-1AA6		1	1 unit	41K
	Universal radius actuators, heavy duty						
	• Length 67 mm	2	3SE5000-0AV07-1AK2		1	1 unit	41K
3SE5000-0AV07-1AK2	• Length 77 mm	5	3SE5000-0AV07		1	1 unit	41K
							
Optional accessories							
	Protective caps						
	made of black rubber, for 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
3SE5000-0AV08-1AA2							
	Blocking inserts						
3SE5000-0AV08-1AA3	Made of 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.

Further versions for high-grade steel, see page 12/70.

Position and safety switches

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 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 12/100](#)).

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Benefits

The 3SF13 safety switches with tumbler provide:

- 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 into the enclosure; connected through 4-pole M12 device plug
- Current consumption of the solenoid no more than 170 mA

Locking devices

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more security ([see page 12/100](#)).

Dust protection

For use in dusty environments, a protective cap made of rubber is offered that protects the actuator entries of the actuator head from contamination ([see page 12/100](#)).

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 12/61](#).

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).

- 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 IP69 (IP69K) in accordance with IEC 60529, cover with foamed seal

Position and safety switches

SIRIUS 3SF1 mechanical safety switches for AS-Interface

With tumbler

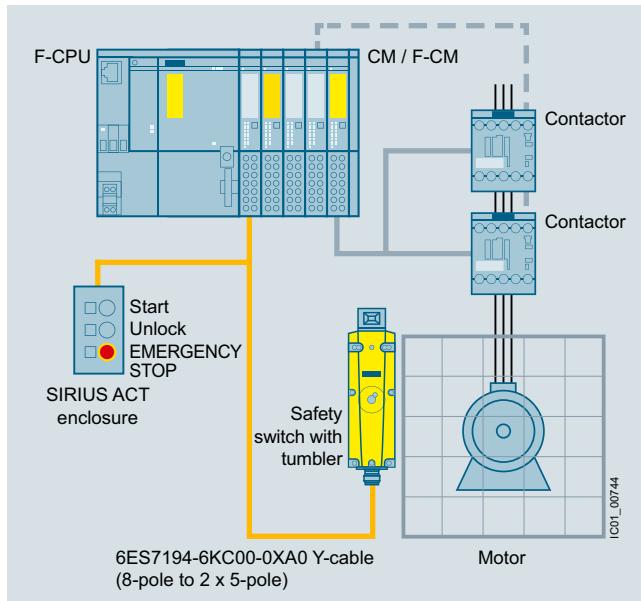
General data

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



Connection to fail-safe control equipment via CM AS-i Safety ST and F-CM AS-i Safety ST

Standards

The switches comply with IEC 60947-1 (Low-Voltage Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the fail-safe principle according to ISO 14119.

Approvals

AS-Interface according to IEC 62026-2

The switches are approved for use with locking devices according to ISO 14119 and ISO 12100.

3SF13 safety switches with tumbler have a VDE test mark.

The 3SF1 safety switches are approved according to UL 508, UL 50 and UL 746-C.

Safety circuits

Standards IEC 60947-5-1 require 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 \ominus .

With a 3SF13 safety switch with \ominus , SIL 2 according to IEC 62061/IEC 61508 or PL d according to ISO 13849-1 can be attained if the corresponding fail-safe evaluation units are selected from the ASIsafe program and correctly installed.

If a second 3SF1 safety switch with \ominus is used, SIL 3 / PL e can be attained.

Position and safety switches

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 contact (2-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.

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 (IP69)	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⁾	SD	Complete units	PU (UNIT, SET, M)	PS*	PG	
	d	Article No.	Price per PU			
1 300 N locking force · Enclosure width 54 mm acc. to ISO 14119						
Spring-actuated locks						
With M12 device plug, 4-pole						
3SF1324-1SD21-1BA1	• With auxiliary release	1 NC/1 NC ↗ 5 2 NC/-- ↗ 5 2 NC/1 NC ↗ 5 - Degree of protection IP69 according to IEC 60529 (IP69K according to DIN 40050)	3SF1324-1SD21-1BA1 3SF1324-1SD21-1BA3 3SF1324-1SD21-1BA4 3SF1324-1SD21-1BK4	1 1 1 1	1 unit 1 unit 1 unit 1 unit	42A 42A 42A 42A
3SF1324-1SF21-1BA1	• With auxiliary release with lock	1 NC/1 NC ↗ 5	3SF1324-1SE21-1BA1	1	1 unit	42A
3SF1324-1SF21-1BA1	• With escape release from the front	1 NC/1 NC ↗ 5 2 NC/1 NC ↗ 5 - Degree of protection IP69 according to IEC 60529 (IP69K according to DIN 40050)	3SF1324-1SF21-1BA1 3SF1324-1SF21-1BA4 3SF1324-1SF21-1BK4	1 1 1	1 unit 1 unit 1 unit	42A 42A 42A
3SF1324-1SG21-1BA1	• With escape release from the back and auxiliary release from the front	1 NC/1 NC ↗ 5 2 NC/1 NC ↗ 5 - Degree of protection IP69 according to IEC 60529 (IP69K according to DIN 40050)	3SF1324-1SG21-1BA1 3SF1324-1SG21-1BA4 3SF1324-1SG21-1BK4	1 1 1	1 unit 1 unit 1 unit	42A 42A 42A
3SF1324-1SJ21-1BA1	• With emergency release from the back and auxiliary release from the front	1 NC/1 NC ↗ 5	3SF1324-1SJ21-1BA1	1	1 unit	42A
Solenoid-locked						
With M12 device plug, 4-pole						
3SF1324-1SB21-1BA1	1 NC/1 NC ↗ 5 2 NC/-- ↗ 5	3SF1324-1SB21-1BA1 3SF1324-1SB21-1BA3	1 1	1 unit 1 unit	42A 42A	

3SF1324-1SB21-1BA1



↗ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

In connection with an ET 200SP module F-CM AS-i Safety ST, it is possible to achieve SIL 2 according to IEC 62061/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, IP69 (IP69K)
- Status display with 4 LEDs 24 V DC; 1: AS-i, 2: FAULT, 3: F-IN1, 4: F-IN2
- M12 device plugs

¹⁾ Supplied without actuator. Please order separately.
For actuators and optional accessories, see page 12/66.

Position and safety switches

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
- M12 device plugs

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			
3SF1314-1S.11-1BA1	1 NC/1 NC 1 NC/1 NC	SIL 1 / PL c SIL 2 / PL d	✓ ✓	Door does <u>not</u> have to be opened Door must be opened
✓ Available				

Selection and ordering data

Tumbler ¹⁾	Contacts Actuator/ solenoid	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG
d			Article No.		Price per PU		

2 600 N locking force · Enclosure width 54 mm acc. to ISO 14119

Spring-actuated locks

With M12 device plug, 4-pole

- With auxiliary release
- With auxiliary release with lock

1 NC/1 NC  5
1 NC/1 NC  5

3SF1314-1SD11-1BA1
3SF1314-1SE11-1BA1

1 1 unit 42A
1 1 unit 42A



3SF1314-1SD11-1BA1

- With escape release from the front
- With escape release from the back and auxiliary release from the front
- With escape release from the back and auxiliary release with lock from the front
- With emergency release from the back and auxiliary release from the front

1 NC/1 NC  5
1 NC/1 NC  5
1 NC/1 NC  5
1 NC/1 NC  5

3SF1314-1SF11-1BA1
3SF1314-1SG11-1BA1
3SF1314-1SH11-1BA1
3SF1314-1SJ11-1BA1

1 1 unit 42A
1 1 unit 42A
1 1 unit 42A
1 1 unit 42A



3SF1314-1SF11-1BA1

Solenoid-locked

With M12 device plug, 4-pole

1 NC/1 NC  5

3SF1314-1SB11-1BA1

1 1 unit 42A



3SF1314-1SB11-1BA1

 Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

¹⁾ Supplied without actuator. Please order separately.

For actuators and optional accessories, see page 12/66.

Position and safety switches

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 12/89](#)).

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									
	Rounded plungers 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
3SF1234-1LC05-1BA1									
Basic switches · Enclosure width 50 mm · Operating points acc. to EN 50047									
	Rounded plungers 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
3SF1244-1LC05-1BA2									
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									

⊕ Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

For accessories, [see page 12/49](#).

Position and safety switches

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 12/89](#)).

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									
Basic switches · Enclosure width 31 mm acc. to EN 50047									
	Rounded plungers 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
3SF1214-1LC05-1BA1									
Basic switches · Enclosure width 40 mm acc. to EN 50041									
	Rounded plungers 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
3SF1114-1LA00-1BA1									
Basic switches · Enclosure width 56 mm									
	Rounded plungers 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
3SF1124-1LA00-1BA2									
Actuator heads									
	Hollow shaft • Operating angle 10°	--	--		5	3SE5000-0AU21	1	1 unit	41K
3SE5000-0AU21									
	Solid shaft • Operating angle 10°	--	--		5	3SE5000-0AU22	1	1 unit	41K
3SE5000-0AU22									

Positive opening according to IEC 60947-5-1, Annex K, or positively driven actuator, necessary in safety circuits.

Position and safety switches

SIRIUS 3SE6 non-contact safety switches

Magnet

3SE66, 3SE67 magnetically operated switches

Overview

More information

Homepage, see www.siemens.com/sirius-position-switches
Industry Mall, see www.siemens.com/product?3SE

Configuration Manual, see
<https://support.industry.siemens.com/cs/ww/en/view/43920150>



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

- Modern 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

Position and safety switches

SIRIUS 3SE6 non-contact safety switches

Magnet

3SE66, 3SE67 magnetically operated switches

Application

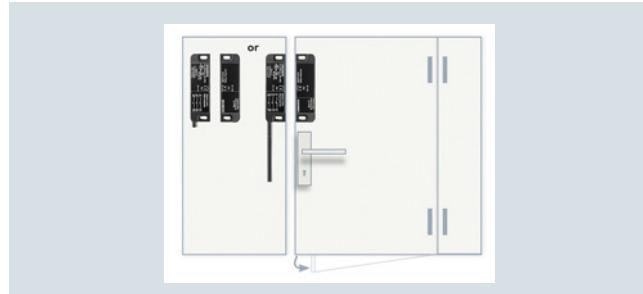
SIRIUS 3SE6 magnetically operated switches are designed for mounting on movable protective guards (hoods, hinged flaps, doors, etc.). Evaluation can be performed by means of a safety relay or through connection to a bus system.

For more information about the protective door monitoring application, [see flyer](#).

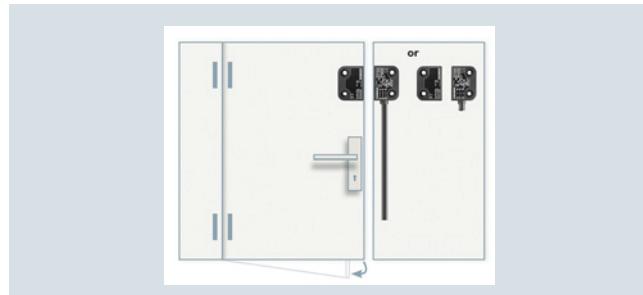
The 3SE66 non-contact, magnetically operated safety switches stand out due to their enclosed design with high degree of protection IP67. Since they are coded, they do not have to be concealed when installed. They are particularly suitable therefore for areas exposed to contamination, cleaning or disinfecting.

A solenoid 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/IEC 61508 and PL e according to 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

Position and safety switches
SIRIUS 3SE6 non-contact safety switches
Magnet

3SE66, 3SE67 magnetically operated switches

Combination of monitoring units and magnetically operated switches

Monitoring units						Achievable Safety Integrity Level (IEC 62061 / IEC 61508)	Performance level (ISO 13849-1)
		Magnetically operated switches (contact block + switching magnet)					
		1 NO + 1 NC 3SE6605-.BA..	2 NC 3SE6604-2BA..	--	--		
							
		1 NO + 1 NC (+ 1 NC signaling contact) 3SE6616-3CA01 3SE6626-3CA01	2 NC; 2 NC (+ 1 NC signaling contact) 3SE6614-4CA01 3SE6624-4CA01 3SE6617-2CA01 3SE6627-2CA01 3SE6617-2CA04 3SE6627-2CA04	2 NC (+ 1 NC signaling contact) 3SE6617-3CA01 3SE6627-3CA01 3SE6617-3CA04 3SE6627-3CA04			
							
		3SE6714-3CA 3SE6724-3CA	3SE6714-2CA 3SE6724-2CA	3SE6714-3CA 3SE6724-3CA			
Relay output							
Safety relays SIRIUS	3SK1121		✓	✓	✓	SIL 3 / PL e	
Solid-state outputs							
Safety relays SIRIUS	3SK1112, 3SK1122		-/✓	✓	✓	SIL 3 / PL e	
	3SK2112, 3SK2122		✓	✓	✓	SIL 3 / PL e	
Safe compact modules ASIsafe	3RK1205, 3RK1405		--	✓	✓	SIL 3 / PL e	
SIMATIC S7-1200	• F-DI 16 x 24 V DC	6ES7226-6BA32-0XB0, 6AG1226-6BA32-5XB0 (SIPLUS)	✓	✓	✓	SIL 3 / PL e	
SIMATIC S7-1500/ET 200MP	• F-DI 16 x 24 V DC	6ES7526-1BH00-0AB0, 6AG1526-1BH00-2AB0 (SIPLUS)	✓	✓	✓	SIL 3 / PL e	
SIMATIC ET 200SP	• F-DI 8 x 24 V DC	6ES7136-6BA00-0CA0, 6AG1136-6BA00-2CA0 (SIPLUS)	✓	✓	✓	SIL 3 / PL e	
	• F-PM-E 24 V DC/8 A PPM	6ES7136-6PA00-0BC0, 6AG1136-6PA00-2BC0 (SIPLUS)	✓	✓	✓	SIL 3 / PL e	
SIMATIC ET 200pro	• 8/16 F-DI 24 V DC	6ES7148-4FA00-0AB0	✓	✓	✓	SIL 3 / PL e	
	• 4/8 F-DI 24 V DC + 4 F-DO 24 V DC/2 A	6ES7148-4FC00-0AB0	✓	✓	✓	SIL 3 / PL e	
	• F-SWITCH	6ES7148-4FS00-0AB0	✓	✓	✓	SIL 3 / PL e	
SIMATIC ET 200eco PN	• F-DI 8 x 24 V DC + F-DQ 3 x 24 V DC/2 A	6ES7146-6FF00-0AB0	✓	✓	✓	SIL 3 / PL e	
SIMATIC ET 200AL	• F-DI 4 x 24 V DC + F-DQ 2 x 24 V DC/2 A	6ES7146-5FF00-0BA0	✓	✓	✓	SIL 3 / PL e	

✓ Suitable magnetically operated switch

-- Not available

Position and safety switches

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										
	Switching magnet (coded)	M30	--	2	3SE6704-1BA		1	1 unit	41K	
3SE6704-1BA	Contact blocks									
	• 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									
	Switching magnet (coded)	25 × 88	--	2	3SE6704-2BA		1	1 unit	41K	
3SE6704-2BA	• Switching interval 5 mm	25 × 88	--	7	3SE6701-2BA		1	1 unit	41K	
	Contact blocks									
	• With cable 3 m	25 × 88	1 NO + 1 NC	2	3SE6605-2BA		1	1 unit	41K	
			2 NC	2	3SE6604-2BA		1	1 unit	41K	
			1 NO + 2 NC	10	3SE6606-2BA04		1	1 unit	41K	
	• With cable 10 m	25 × 88	1 NO + 1 NC	5	3SE6605-2BA10		1	1 unit	41K	
			2 NC	2	3SE6604-2BA10		1	1 unit	41K	
	• With M8 plug, 4-pole	25 × 88	1 NO + 1 NC	2	3SE6605-2BA01		1	1 unit	41K	
			2 NC	2	3SE6604-2BA01		1	1 unit	41K	
	Switching magnet (coded)	25 × 33	--	2	3SE6704-3BA		1	1 unit	41K	
3SE6704-3BA	Contact blocks									
	• With cable 3 m	25 × 33	1 NO + 1 NC	2	3SE6605-3BA		1	1 unit	41K	
	• With cable 5 m	25 × 33	1 NO + 1 NC	2	3SE6605-3BA05		1	1 unit	41K	
	• With cable 10 m	25 × 33	1 NO + 1 NC	2	3SE6605-3BA10		1	1 unit	41K	
Supplementary range – Rectangular sensor units for left-hinged door										
	Switching magnets (coded)	25 x 88	--	5	3SE6714-2CA		1	1 unit	41K	
3SE6714-2CA	• Same level	25 x 88	--	5	3SE6724-2CA		1	1 unit	41K	
	Contact blocks									
	• With M8 plug, 4-pole, with LED	25 x 88	2 NC	5	3SE6614-4CA01		1	1 unit	41K	
	• Ø 8 mm, latching connection, plug, 6-pole	25 x 88	2 NC + 1 NC ¹⁾	5	3SE6617-2CA01		1	1 unit	41K	
	• With cable 3 m	25 x 88	2 NC + 1 NC ¹⁾	5	3SE6617-2CA04		1	1 unit	41K	
	Switching magnets (coded)	26 x 36	--	5	3SE6714-3CA		1	1 unit	41K	
3SE6614-4CA01	• Same level	26 x 36	--	5	3SE6724-3CA		1	1 unit	41K	
	Contact blocks									
	• Ø 8 mm, latching connection, plug, 6-pole	26 x 36	1 NO + 1 NC + 1 NC ¹⁾	5	3SE6616-3CA01		1	1 unit	41K	
		26 x 36	2 NC + 1 NC ¹⁾	5	3SE6617-3CA01		1	1 unit	41K	
	• With cable 3 m	26 x 36	2 NC + 1 NC ¹⁾	5	3SE6617-3CA04		1	1 unit	41K	
										

¹⁾ The NC is a signaling contact, not a safety contact.

Position and safety switches
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 – Rectangular sensor units for right-hinged door									
Switching magnets (coded)									
3SE6714-2CA	• Same level • 90° offset	25 x 88 25 x 88	-- --	5 5	3SE6714-2CA 3SE6724-2CA		1 1	1 unit 1 unit	41K 41K
3SE6624-4CA01	Contact blocks								
	• With M8 plug, 4-pole, with LED • Ø 8 mm, latching connection, plug, 6-pole • With cable 3 m	25 x 88 25 x 88 25 x 88	2 NC 2 NC + 1 NC ¹⁾ 2 NC + 1 NC ¹⁾	5 5 5	3SE6624-4CA01 3SE6627-2CA01 3SE6627-2CA04		1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SE6714-3CA	Switching magnets (coded)								
	• Same level • 90° offset	26 x 36 26 x 36	-- --	5 5	3SE6714-3CA 3SE6724-3CA		1 1	1 unit 1 unit	41K 41K
3SE6626-3CA01	Contact blocks								
	• Ø 8 mm, latching connection, plug, 6-pole • With cable 3 m	26 x 36 26 x 36	1 NO + 1 NC + 1 NC ¹⁾ 2 NC + 1 NC ¹⁾ 2 NC + 1 NC ¹⁾	5 5 5	3SE6626-3CA01 3SE6627-3CA01 3SE6627-3CA04		1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
Accessories for standard range									
3SX3260	Spacer	25 x 88	--	2	3SX3260		1	1 unit	41K
3SX3261		25 x 33	--	5	3SX3261		1	1 unit	41K
Accessories for supplementary range									
3SX5600-2GA01	Spacer	25 x 88	--	5	3SX5600-2GA01		1	1 unit	41K
3SX5600-2GA02		26 x 36	--	5	3SX5600-2GA02		1	1 unit	41K
Connection cable Length 5 m									
3SX5601-3GA05	• With M8 socket, 4-pole • With Ø 8 mm socket, 8-mm latching connection, 6-pole	-- --	-- --	5 5	3SX5601-3GA05 3SX5601-4GA05		1 1	1 unit 1 unit	41K 41K
M12 plug, 5-pole									
3RK1902-4BA00-5AA0	• straight, separate item • angled, separate item	-- --	-- --	2 2	3RK1902-4BA00-5AA0 3RK1902-4DA00-5AA0		1 1	1 unit 1 unit	42D 42D

¹⁾ The second NC is a signaling contact, not a safety contact.

Position and safety switches

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



3SK1121-1AB40

3SK1 safety relays

Standard or Advanced basic units

- With relay output 24 V DC 6¹⁾ 3 NO/1 NC ►
- With semiconductor output 24 V DC 1 2 x F-DQ/ 2 QM

3SK1121-1AB40

3SK1112-1BB40

1 1 unit 41L

1 1 unit 41L



3SK2112-1AA10

3SK2 safety relays

Basic units

- With semiconductor output 24 V DC 5 2 x F-DQ/ 2 QM
- 10 4 x F-DQ/ 2 QM

3SK2112-1AA10

3SK2122-1AA10

1 1 unit 41L

1 1 unit 41L

For further monitoring units, see pages 2/1, 8/1, 9/1 and 11/1.

¹⁾ Only when up to five 3SK1220 expansion units are used, see page 11/28.

Overview

More information

Homepage, see www.siemens.com/sirius-position-switches
 Industry Mall, see www.siemens.com/product?3SE



Non-contact RFID safety switch
with maximum tamper resistance

RFID 3SE63 non-contact safety switches comply with the highest safety requirements, SIL 3, 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 flaps 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

Notes:

- 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 enhanced 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.

Position and safety switches

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 according to SIL 3 / PL e
- 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 flaps 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 IP69 (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.

For more information about the protective door monitoring application, [see flyer](#).

Their high degree of protection IP69 (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	Type
Relay outputs	
SIRIUS safety relays	3SK1111-.AB30, 3SK1121
Solid-state outputs	
SIRIUS safety relays	3SK1112, 3SK1122, 3SK2112, 3SK2122
SIMATIC S7-1200	
• F-DI 16 x 24 V DC	6ES7226-6BA32-0XB0, 6AG1226-6BA32-5XB0 (SIPLUS)
SIMATIC S7-1500/ET 200MP	
• F-DI 16 x 24 V DC	6ES7526-1BH00-0AB0, 6AG1526-1BH00-2AB0 (SIPLUS)
SIMATIC ET 200SP	
• F-DI 8 x 24 V DC	6ES7136-6BA00-0CA0, 6AG1136-6BA00-2CA0 (SIPLUS)
• F-PM-E 24 V DC/8 A PPM	6ES7136-6PA00-0BC0, 6AG1136-6PA00-2BC0 (SIPLUS)
SIMATIC ET 200pro	
• 8/16 F-DI 24 V DC	6ES7148-4FA00-0AB0
• 4/8 F-DI 24 V DC + 4 F-DO 24 V DC/2 A	6ES7148-4FC00-0AB0
• F-SWITCH	6ES7148-4FS00-0AB0
SIMATIC ET 200eco PN	
• F-DI 8 x 24 V DC + F-DQ 3 x 24 V DC/2 A	6ES7146-6FF00-0AB0
SIMATIC ET 200AL	
• F-DI 4 x 24 V DC + F-DQ 2 x 24 V DC/2 A	6ES7146-5FF00-0BA0

These safety categories can be achieved in safety circuits:

- SIL 3 according to IEC 62061/IEC 61508
- PL e according to ISO 13849-1

Position and safety switches

SIRIUS 3SE6 non-contact safety switches

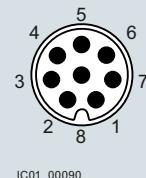
RFID

3SE63 RFID safety switches

Technical specifications

Type	3SE63	
General data		
Standards		IEC 60947-5-3, IEC 62061/ IEC 61508, ISO 13849-1, ISO 14119
Enclosure material		Glass-fiber reinforced thermoplast, self-extinguishing
Degree of protection		IP65/IP67/ IP69 (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
Electrical specifications		
Rated insulation voltage U_i	V	32
Degree of pollution acc. 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 according to EN 60204-1)	V DC	24 -15/+10%
Protection class		II
Overvoltage category		III
Rated operational current I_e	A	0.6
Lowest operational current I_m	mA	0.5
No-load current I_0	mA	35
Inputs/outputs		
Safety inputs X1/X2		
• Input voltage	V DC	24 -15/+10%
• Power consumption per input	mA	5
Safety outputs OSSD1/OSSD2		
• Max. rated operational 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		
• Max. rated operational 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

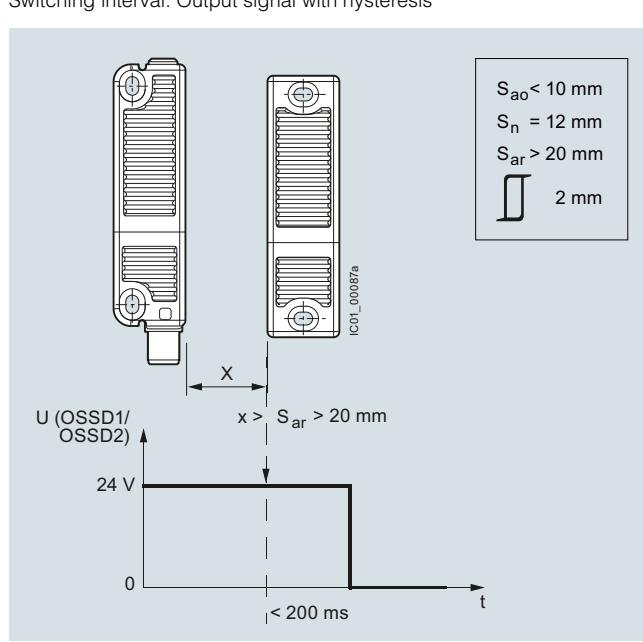
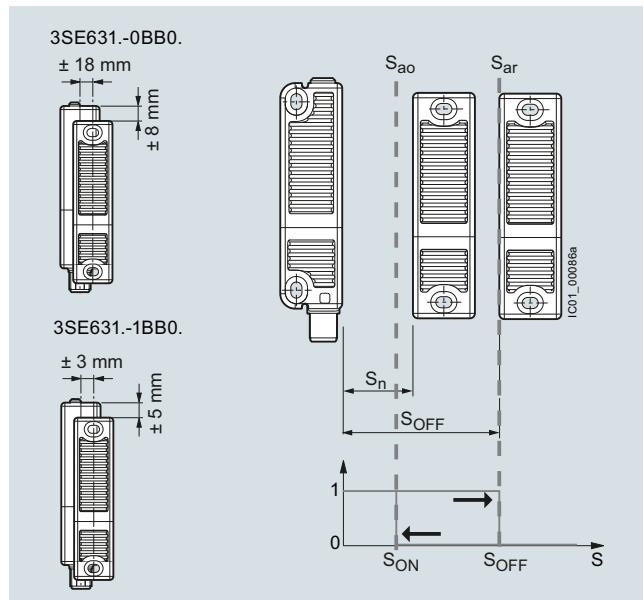


Pin 1: A1 rated operational voltage 24 V DC
 Pin 2: X1 safety input 24 V DC
 Pin 3: A2 grounding
 Pin 4: OSSD1 safety output
 Pin 5: OUT conventional diagnostics output
 Pin 6: X2 safety input 24 V DC
 Pin 7: OSSD2 safety output
 Pin 8: Not used

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.



Position and safety switches

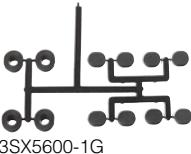
SIRIUS 3SE6 non-contact safety switches

RFID

3SE63 RFID safety switches

Selection and ordering data

With M12 connection plug, 8-pole

Version/coding	Latching/length	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Rectangular safety switches 91 mm x 25 mm¹⁾							
	RFID safety switch						
3SE6315-BB0.	• Family-coded	None	2 3SE6315-0BB01		1	1 unit	41K
		18 N magnetic catch	2 3SE6315-1BB01		1	1 unit	41K
	• Individually coded, programmable several times	None	2 3SE6315-0BB02		1	1 unit	41K
		18 N magnetic catch	5 3SE6315-1BB02		1	1 unit	41K
	• Individually coded, programmable once	None	2 3SE6315-0BB03		1	1 unit	41K
		18 N magnetic catch	5 3SE6315-1BB03		1	1 unit	41K
	RFID actuator						
3SE6310-BC01	• Standard	None	2 3SE6310-0BC01		1	1 unit	41K
		18 N magnetic catch	2 3SE6310-1BC01		1	1 unit	41K
Optional accessories							
	Covers and spacers One pack (1 unit) contains 8 covers and 4 spacers	--	2 3SX5600-1G		1	1 unit	41K
3SX5600-1G							
	Connection cable with M12 socket, 8-pole, straight, open end, rated voltage 30 V, rated current 2 A	Length 3 m Length 5 m Length 10 m	2 3SX5601-2GA03 2 3SX5601-2GA05 2 3SX5601-2GA10		1 1 1	1 unit 1 unit 1 unit	41K 41K 41K
3SX5601-2GA03							
	M12 plug straight, 8-pole	--	1 6GT2090-0BE00		1	5 units	572
6GT2090-0BE00							
	Adapter cable²⁾ with M12 socket, 8-pole on M12 plug, 5-pole, for connection, e.g., to fail-safe field modules of SIMATIC ET 200eco PN and SIMATIC ET 200AL	Length 0.5 m	5 3SX5601-3SV00-1AK3		1	1 unit	41K
3SX5601-3SV00-1AK3							

¹⁾ Not connectable via AS-i modules.

²⁾ Extend if necessary with connecting cable 3SX5601-3SV15,
Length 1 m, see page 12/46.

For monitoring unit, see pages 8/1, 9/1 and 11/1.