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PG 41K, 41L, 42A, 42D, 572

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- 12/104 3SE66, 3SE67 magnetically operated switches
- RFID NEW
- 12/110 3SE63 RFID safety switches

# Position and Safety Switches

## Introduction

## Overview



	Position switches, standard					Compact design	Open-type
<b>Enclosure</b>							
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
<b>Standards</b>							
IEC 60947-5-1	Mounting and operating points acc. to EN 50047	Operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Operating points acc. to EN 50041	Operating points acc. to EN 50041	--	Mounting and operating points acc. to EN 50047
<b>Approvals</b>	CE, TÜV, UL, CSA, CCC					CE, UL, CSA, CCC	CE, TÜV, UL, CSA, CCC
<b>Contact blocks</b>							
2 slow-action contacts	1 NO + 1 NC; 2 NC		1 NO + 1 NC; 2 NC		2 x (1 NO + 1 NC)	--	1 NO + 1 NC
2 snap-action contacts	1 NO + 1 NC		1 NO + 1 NC		2 x (1 NO + 1 NC)	1 NO + 1 NC	1 NO + 1 NC
• Short stroke	1 NO + 1 NC		✓		--	--	✓
• With 2 x 2 mm contact gap	1 NO + 1 NC		✓		--	--	✓
3 slow-action contacts	1 NO + 2 NC; 2 NO + 1 NC		1 NO + 2 NC; 2 NO + 1 NC		--	--	1 NO + 2 NC; 2 NO + 1 NC
• With make-before-break	1 NO + 2 NC		1 NO + 2 NC		2 x (1 NO + 2 NC)	--	1 NO + 2 NC
3 snap-action contacts	1 NO + 2 NC		1 NO + 2 NC		--	--	1 NO + 2 NC
<b>Special features</b>							
LED status display	✓		✓		--	--	--
Increased corrosion protection	✓		✓		✓	--	--
ASIsafe integrated	✓		✓		--	--	--
<b>Electrical specifications</b>							
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
<b>Connections</b>							
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	--	--	--	--	--	✓	--
<b>Actuators</b>							
Rounded plungers and roller plungers	✓		✓		✓	--	--
Roller levers and angular roller levers	✓		✓		✓	--	--
Spring rod	✓		✓		--	--	--
Twist levers and rod actuators	✓		✓		✓	--	--
Fork lever	--		✓		--	--	--
Hinge switches	--		--		--	--	--
Plungers, twist levers	--		--		✓	✓	✓
<b>Page</b>							
Complete units	12/16, 12/30	12/26	12/22, 12/34	12/38	12/42	12/46	12/47
Modular system	12/20, 12/32	12/28	12/24, 12/36	12/40	12/43	--	--
Ambient temperature -40 °C	12/73, 12/79	12/79	12/79	12/82	12/83	--	--
ASIsafe	12/89, 12/91	12/89	12/93	12/93	--	--	--

✓ Available -- Not available



**3SE5232,  
3SE5212,  
3SF12.4**

**3SE5132,  
3SE5112,  
3SF11.4**

**3SE5232,  
3SE5242,  
3SF12.4**

**3SE5112,  
3SE5122,  
3SF11.4**

**3SE5322,  
3SE5312,  
3SF13.4**

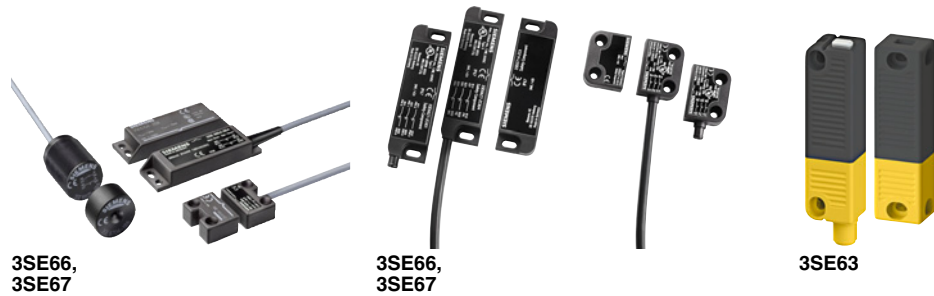
	Safety hinge switches		Safety switches with separate actuator		Safety switches with tumbler
<b>Enclosure</b>					
Plastic	✓	✓	✓	✓	✓
Metal	✓	✓	✓	✓	✓
Dimensions (W x H x D) in mm	31 x 68 x 33	40 x 78 x 38	31 x 68 x 33, 50 x 53 x 33	40 x 78 x 38, 56 x 78 x 38	54 x 185 x 44
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP65, IP66/IP67	IP66/IP67	IP66/IP67, IP69K
<b>Standards</b>					
IEC 60947-5-1	Mounting and operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Mounting acc. to EN 50047	Mounting acc. to EN 50041	EN ISO 14119
<b>Approvals</b>	CE, TÜV, UL, CSA, CCC		CE, TÜV, UL, CSA, CCC		CE, TÜV, UL, CSA, CCC
<b>Contact blocks/outputs</b>					
2 slow-action contacts	--	--	1 NO + 1 NC; 2 NC	--	--
2 snap-action contacts	1 NO + 1 NC	--	--	--	--
• Short stroke	--	--	--	--	--
• With 2 x 2 mm contact gap	--	--	--	--	--
3 slow-action contacts	--	--	1 NO + 2 NC	--	2 x (1 NO + 2 NC)
• With make-before-break	--	--	--	--	--
3 snap-action contacts	1 NO + 2 NC	--	--	--	--
Electronic safety outputs	--	--	--	--	--
<b>Special features</b>					
LED status display	✓	--	✓	--	✓
Increased corrosion protection	✓	--	✓	--	✓
ASIsafe integrated	✓	--	✓	--	✓
<b>Electrical specifications</b>					
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
<b>Connections</b>					
Cable entry	1 x M20 x 1.5	1 x M20 x 1.5	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	✓	--	✓	✓	✓
Molded cables	--	--	--	--	--
AS-Interface	--	--	✓	✓	✓
<b>Actuators</b>					
Plungers, twist levers	--	--	--	--	--
Separate actuators	--	--	✓	✓	✓
Hinge switches	✓	--	--	--	--
<b>Page</b>					
Complete units	12/69	12/69, 12/70	12/53, 12/56	12/54, 12/57	12/63 ... 12/65
Modular system	--	--	--	--	--
Ambient temperature -40 °C	12/75	--	12/85	--	12/86
ASIsafe	12/102	12/103	12/96	12/97	12/100, 12/101

✓ Available

-- Not available

# Position and Safety Switches

## Introduction



	Safety switches, solenoid	Safety switches, solenoid supplementary range in new design <sup>1)</sup>	RFID safety switches <sup>1)</sup>
<b>Enclosure</b>			
Plastic	✓	✓	✓
Metal	--	--	--
Dimensions (W x H x D) in mm	M30; 25 x 88; 25 x 33	25 x 88; 26 x 36	25 x 91 x 22
Degree of protection	IP67	IP67	IP69K
<b>Standards</b>	IEC 60947-5-3 Category 4 acc. to ISO 13849-1, PL e acc. to ISO 13849-1, SIL 3 acc. to IEC 61508	IEC 60947-5-3	Category 4 acc. to ISO 13849-1, PL e acc. to ISO 13849-1, SIL 3 acc. to IEC 61508
<b>Approvals</b>	CE, TÜV, UL, CSA, CCC	CE, TÜV, UL, CSA	CE, TÜV, UL, CSA
<b>Contact blocks/outputs</b>			
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)	--
<b>Special features</b>			
LED status display	--	✓	✓
Increased corrosion protection	--	--	✓
ASIsafe integrated	--	--	--
<b>Electrical specifications</b>			
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	--
<b>Connections</b>			
M8 plug, 4-pole	✓	✓	--
8 mm Ø, latching connection, plug, 6-pole	--	✓	--
M12 plug, 4-pole	✓	--	✓
Molded cables	✓	✓	--
AS-Interface	--	--	--
<b>Actuators</b>			
RFID	--	--	✓
Switching magnet	✓	✓	--
<b>Page</b>	12/104	12/104	12/110

✓ Available

-- Not available

<sup>1)</sup> CCC not required for voltages < 36 V.Note:

Safety characteristics, see page 16/6.

### Overview

#### More information

Industry Mall, see [www.siemens.com/product?3SE](http://www.siemens.com/product?3SE)  
 Configurator, see [www.siemens.com/sirius/configurators](http://www.siemens.com/sirius/configurators)  
 Configuration Manual, see <https://support.industry.siemens.com/cs/ww/en/view/43920150>  
 Conversion tool for article numbers, see [www.siemens.com/sirius/conversion-tool](http://www.siemens.com/sirius/conversion-tool)

The innovative SIRIUS 3SE5 position switches are modern in design, compact, modular and simple to connect. They save time and increase flexibility during installation of a whole range of switch variants. In principle it is possible to combine any enclosure with any operating mechanism, paying due consideration to the EN 50041 and EN 50047 standards where necessary.

#### Complete units

Popular versions of the position switches in standard enclosures are available as complete units.



3SE5 position switches with plastic and metal enclosures

#### Modular system

The 3SE5 series is the modular system comprising different sizes of the basic switch and an actuator which must be ordered separately. Thanks to the modular design of the switch the user can select the right solution for his application from numerous versions and install it himself in a very short time.

Simple plug-in mounting enables fast replacement of the actuator heads.



Examples of selection options in the modular system

#### Design

All enclosure variants have an integrated chlorinated rubber diaphragm for high functional safety in cold and aggressive environments.

#### Enclosure sizes

The 3SE5 switches are available in five different enclosure sizes with 2 or 3 contacts and with the XL enclosure:

- Open-type position switch IP20 or IP10
- Plastic enclosures according to EN 50047, 31 mm wide, IP65, 1 cable entry
- Metal enclosures according to EN 50047, 31 mm wide, IP66/IP67, 1 cable entry
- Plastic and metal enclosures according to EN 50041, 40 mm wide, IP66/IP67, 1 cable entry
- Plastic enclosures, 50 mm wide, IP66/IP67, 2 cable entries
- Metal enclosures, 56 mm wide, IP66/IP67, 3 cable entries
- XL metal enclosures with 4 to 6 contacts, 56 mm wide, IP66/IP67, 3 cable entries

#### Enclosure versions

Various basic switches can be selected for the enclosures of the 3SE5 series:

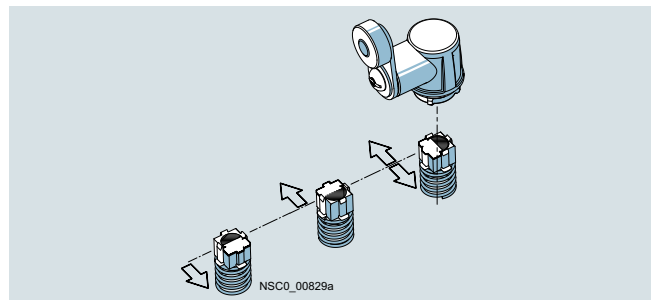
- With contact blocks with two or three contacts (screw terminals) designed as slow-action or snap-action contacts; the slow-action contacts also with make-before-break
- Optional LED status display
- With mounted 4- or 5-pole M12 device plug (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole device plug + PE on the metal enclosures
- Versions with increased corrosion protection
- Versions for operating temperatures down to -40 °C
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 12/87)

#### Actuator variants

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

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

The actuator rollers are available with various materials and diameters.



Twist actuator for twist levers and rod actuators, with setting of switching direction to right, left or right/left (standard for all twist actuators except fork levers)

## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches

#### General data

##### Cover design

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



On request the switches can be delivered ex works with a yellow cover. The cover has no effect on the mode of operation. Both versions can be used in safety applications (see also page 12/18).

##### Diverse contact types

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



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

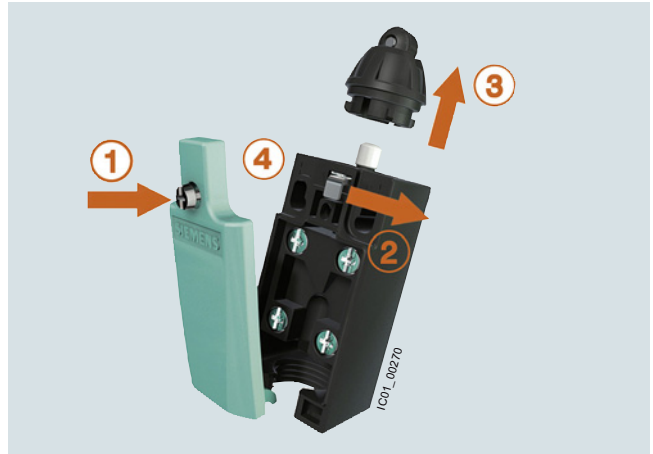
The contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e.g. 1 mA at 5 V DC.

##### Positive opening

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

##### Mounting

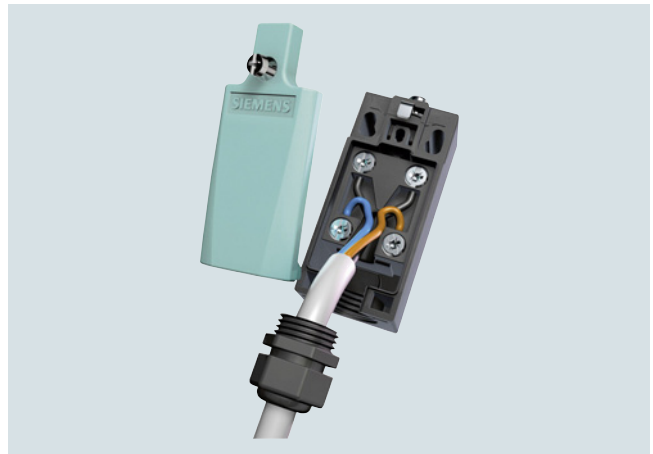
Easy plug-in method for fast replacement of the actuator heads



Open the cover (1)  
Actuate the locking lever (2)  
Replace the head (turnable by 16 x 22.5°) (3)  
Lock and close the cover (4)

##### Quick-connect technology

For plastic enclosure with a width of 31 mm



These position switches can be wired quickly and easily as an added customer benefit. The connecting cable is first connected to the terminals of the contact block and then guided through a slit into the cable gland opening. The time saved through this new connection method is approx. 20 to 25%.

A cable gland with seal must be used with the quick-connect method.

##### Optional LED indicators

LED indicators are available for all enclosure sizes except for XL. The enclosures are supplied with an LED signaling indicator (1 x green + 1 x yellow). This is the first time that optical signaling equipment is also available for small standard enclosures according to EN 50047. The LEDs are implemented in 24 V DC and 230 V AC.

### Article No. scheme

Product versions		Article number												
SIRIUS position and safety switches		3	S	E	□	□	□	□	-	□	□	□	□	□
Series		5												
Standard	EN 50041 EN 50047 with tumbler	1	2	3										
Enclosure material and width	e.g. 1 = metal, narrow				□									
Connection	Cable entry, device plug					2	4/5							
LEDs	None 24 V DC 115 V AC 230 V AC									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		3	S	E	5	1	1	2	-	0	C	C	0	2

#### Note:

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

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

### Benefits

The 3SE5 position switches differ from the previous series through the following new characteristics:

- The modular design of the product range allows a number of versions with a smaller number of bearing types for enclosures and operating mechanisms.
- All actuators can be turned around the axis in increments of 22.5° (see picture, page 12/6).
- Rounded and roller plungers according to EN 50041 with 3 mm overtravel (total travel 9 mm) for greater tolerance when switching.
- All enclosure sizes – now also including the small enclosure 31 mm wide – are optionally available with an LED signaling indicator (see picture, page 12/6).
- All enclosure variants have an integrated chlorinated rubber diaphragm for high functional safety in cold and aggressive environments.
- All contact blocks are replaceable (see page 12/49).
- The three-pole contact blocks are available for all enclosure sizes (see picture, page 12/6).
- Elements with 1 NO + 2 NC slow-action contacts with make-before-break and 2 NO + 1 NC.
- The short-stroke contact block 1 NO + 1 NC improves the precision of the switching operation through a reduced actuation path.
- The contact block with 1 NO + 1 NC snap-action contacts with 2 x 2 mm contact opening is suitable for simultaneous shutdown and signaling, particularly in the elevator industry.
- XL metal enclosures for accommodating two 2- or 3-pole contact blocks
- Versions with plugs for safe and fast connection, e.g. to SIMATIC ET 200
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save approx. 20 to 25% of the time when connecting (see picture, page 12/6).
- The ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/87); 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

IEC/EN 60947-5-1

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/EN 60204-1, the devices can be used as a safety position switch. They comply with the standard EN ISO 14119. A TÜV certificate is available. To secure position switches against changes in their position, keyed techniques must be employed on installation.

#### Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening of the NC contacts. In other words, for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked in accordance with the standard IEC 60947-5-1 with the symbol ☹.

Category 2 according to EN ISO 13849-1 can be attained with 3SE5 position switches with ☹, and category 3 or 4 when using an additional position switch, if the corresponding fail-safe evaluation units are selected and correctly connected. Example: 3SK or 3TK28 safety relays or the corresponding devices from the ASIsafe, SIMATIC or SINUMERIK programs. The operating mechanisms (actuators) must also be connected to the enclosure by keyed techniques. The corresponding operating mechanisms are marked in the catalog with ☹.

## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches

#### General data

##### Contacts for every application

- **Snap-action contacts:** NC and NO contacts switch simultaneously – regardless of the actuating speed ( $v_{\min} = 0.01$  m/s) and contact erosion.
- **Slow-action contacts:** Difference in travel between "NC contact opens" and "NO contact closes"; the switching speed is the same as or proportional to the actuating speed ( $v_{\min} = 0.4$  m/s).
- **Slow-action contacts with make-before-break:** e.g. suitable for adding a second function to a sequence control.

##### Operating mechanisms for every application

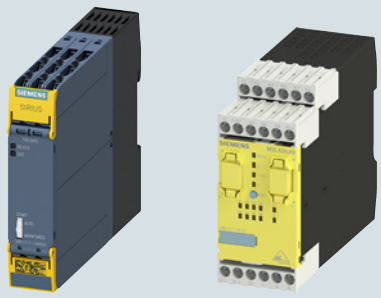





###### Plain, rounded and roller plungers

- 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, straight-edges (approach angle 30°) or cam disks.

##### Monitoring with fail-safe evaluation units from the 3SK and 3RK3 series

Safe evaluation units	Maximum achievable safety level according to type of switch				
	Compact	Standard	Hinge	Separate actuators	Tumbler
 <p>3SK                      3RK3</p>	 <p>3SE54</p>	 <p>3SE51/3SE52</p>	 <p>3SE51/3SE52</p>	 <p>3SE51/3SE52</p>	 <p>3SE53</p>
<b>Use of only one position/safety switch</b>					
Monitoring with 1 contact: 1 x NC contact	<b>SIL 1 / PL c</b>				
Monitoring with 2 contacts: 2 x NC contact or 1 x NC contact + 1 x NO contact	<b>SIL 1 / PL c</b>	<b>SIL 2 / PL d</b>			
<b>Use of a second position/safety switch</b>					
Standard switch	3SE51/3SE52				
Safety switch/hinge switch	3SE51/3SE52				
Safety switch with separate actuator	3SE51/3SE52				
Safety switch with tumbler	3SE53				
<b>SIL 3 / PL e</b>					

##### Note:

Taking account of certain fault exclusions (e.g. actuator breakage), use of just one hinge switch or a switch with separate actuator with or without tumbler up to SIL 2 or PL d is possible as described in the table.

Since the machine manufacturer must provide proof of fault exclusion, the component manufacturer is unable to carry out a definitive assessment of the measures taken.

##### Spring rod

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

##### Twist levers and rod actuators

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

##### Fork lever

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

For more information, see

<https://support.industry.siemens.com/cs/ww/en/view/35443942>.

The maximum achievable SIL or PL always depends on other assumptions as well. Factors to be taken into account include the DC (declaration), the CCF, and the number of actuations.

For information on the safe evaluation units and an introduction to safety systems, see page 11/1 onwards.



#### Safety cabling in the field with IP67

##### SIRIUS sensors and SIMATIC ET 200eco

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

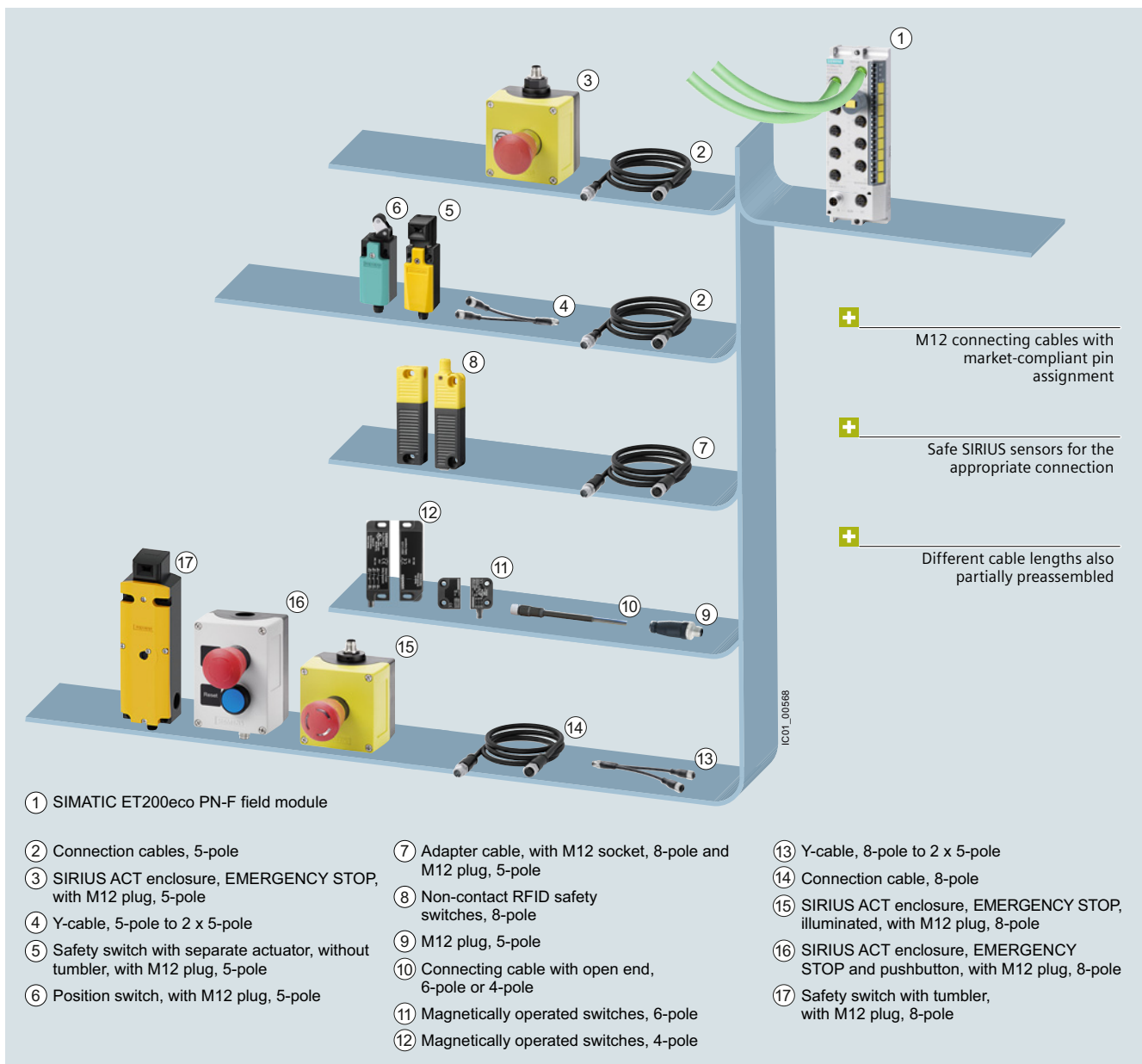
With the SIMATIC ET 200eco PN-F Safety field module, a PROFIsafe connection in the field is now possible with flexible connection of SIRIUS sensors.

##### 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, connection cables and sensors enables simple and fast connection, and connection errors and their consequences are prevented.
- Safe system technology in the field from the sensor to the field module























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

## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches

#### General data

Sensors with M12 plugs	Type	SIL	Connection accessories M12 method, A-coded	Type	Cable length	
<b>SIRIUS ACT enclosure, EMERGENCY STOP</b>						
	<b>Enclosure</b> plastic, yellow, with 1 command point, A = EMERGENCY STOP mushroom pushbutton, red, M12 plug (5-pole)	3SU1801-0NH00-4NB2	3	 <b>Connection cable</b> with M12 socket, 5-pole and M12 plug, 5-pole  or  <b>Connecting cable</b> with M12 socket, 5-pole, open end  and  <b>M12 plug</b> 5-pole, straight, separate item	3SX5601-3SV15  3SX5601-3SB55  3RK1902-4BA00-5AA0	1 m  5 m  --
<b>Mechanical safety switches</b>						
<b>Plastic 31 mm</b>						
	<b>Basic switch/rounded plunger for modular design</b> with M12 plug, 5-pole + <b>actuator head</b> (order separately), e.g. roller lever 3SE5000-0AE10	3SE5234-0LC05-1AE2	1			
	<b>Position switch, roller plunger</b> with M12 plug, 5-pole	3SE5234-0LD03-1AE2	1			
	<b>Position switch, roller lever</b> with M12 plug, 5-pole	3SE5234-0LE11-1AE2	2			
	<b>Safety switch with separate actuator without tumbler</b> with M12 plug, 5-pole + <b>actuator</b> (order separately), e.g. standard 3SE5000-0AV01	3SE5234-0QV40-1AE2	2	 <b>Connection cable</b> with M12 socket, 5-pole and M12 plug, 5-pole  or  <b>Connecting cable</b> with M12 socket, 5-pole, open end  and  <b>M12 plug</b> 5-pole, straight, separate item	3SX5601-3SV15  3SX5601-3SB55  3RK1902-4BA00-5AA0	1 m  5 m  --
<b>Metal, 40 mm</b>						
	<b>Basic switch for modular design</b> with M12 plug, 5-pole + <b>actuator head</b> (order separately), e.g. roller plunger 3SE5000-0AD02	3SE5114-0LA00-1AE3	1			
	<b>Position switch, roller plunger</b> with M12 plug, 5-pole	3SE5114-0LD02-1AE3	1			
	<b>Position switch, twist lever</b> with M12 plug, 5-pole	3SE5114-0LH01-1AE3	1			
	<b>Position switch, plain plunger</b> with M12 plug, 5-pole	3SE5114-0LB01-1AE3	1			
	<b>Safety switch with separate actuator without tumbler</b> with M12 plug, 5-pole + <b>actuator</b> (order separately), e.g. standard 3SE5000-0AV01	3SE5114-0QV10-1AE3	2			
<b>Combinations (examples)</b>						
	<b>Position switch + safety switch with separate actuator, without tumbler</b> <b>Actuator</b> (order separately), e.g. standard 3SE5000-0AV01	3SE5114-0LH01-1AE3 + 3SE5234-0QV40-1AE2	3	 <b>ET200 Y-cable for connecting 2 x one-channel sensors</b> with M12 plug, 5-pole on 2 x M12 sockets, 5-pole  <b>Extend if necessary with</b>	6ES7194-6KB00-0XA0	0.2 m
	<b>2 x safety switches with separate actuator, without tumbler</b> <b>Actuator</b> (order separately), e.g. standard 3SE5000-0AV01	3SE5234-0QV40-1AE2 3SE5234-0QV40-1AE2	3	 <b>Connection cable</b> with M12 socket, 5-pole and M12 plug, 5-pole  or  <b>Connecting cable</b> with M12 socket, 5-pole, open end  and  <b>M12 plug</b> 5-pole, straight, separate item	3SX5601-3SV15  3SX5601-3SB55  3RK1902-4BA00-5AA0	1 m  5 m  --
	<b>2 x position switches</b>	3SE5114-0LH01-1AE3 3SE5234-0LE11-1AE2	3			

## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches















#### General data

Sensors with M12 plugs	Type	SIL	Connection accessories M12 method, A-coded	Type	Cable length		
<b>Non-contact safety switches (examples)</b>							
	<b>RFID safety switch</b> , family-coded	3SE6315-0BB01	3	 <b>Adapter cable</b> with M12 socket, 8-pole on M12 plug, 5-pole	3SX5601-3SV00-1AK3	0.5 m	
	<b>+ actuator</b>	3SE6310-0BC01	3		<b>Extend if necessary with</b>		
	<b>RFID safety switch</b> , individually coded, programmable several times	3SE6315-0BB02	3		 <b>Connection cable</b> with M12 socket, 5-pole and M12 plug, 5-pole	3SX5601-3SV15	1 m
<b>+ actuator</b>	3SE6310-0BC01	3					
	<b>RFID safety switch</b> , individually coded, programmable once	3SE6315-0BB03	3				
	<b>+ actuator</b>	3SE6310-0BC01	3				
	<b>Magnetically operated switch</b> (cable 3 m)	3SE6605-2BA	3	 <b>M12 plug</b> 5-pole, straight, separate item	3RK1902-4BA00-5AA0	--	
	<b>+ switching magnet</b> (25 x 88 mm), coded	3SE6704-2BA			<b>or</b>		
	<b>Magnetically operated switch</b> M8 plug, 4-pole + LED, door hinge <b>left</b> , (25 x 88 mm), 2 NC	3SE6614-4CA01	3	 <b>Connecting cable</b> with M8 socket, 4-pole, open end	3SX5601-3GA05	5 m	
	<b>+ switching magnet</b> (25 x 88 mm), coded	3SE6714-2CA			<b>and</b>		
	<b>Magnetically operated switch</b> M8 plug, 4-pole + LED, door hinge <b>right</b> , (25 x 88 mm), 2 NC	3SE6624-4CA01	3	 <b>M12 plug</b> 5-pole, straight, separate item	3RK1902-4BA00-5AA0	--	
	<b>+ switching magnet</b> (25 x 88 mm), coded	3SE6714-2CA			<b>or</b>		
	<b>Magnetically operated switch</b> 8 mm Ø latching connection, plug, 6-pole, door hinge <b>left</b> (25 x 88 mm), 2 NC + 1 NC signaling contact	3SE6617-2CA01	3	 <b>M12 plug</b> 5-pole, angled, separate item	3RK1902-4DA00-5AA0	--	
	<b>+ switching magnet</b> (25 x 88 mm), coded	3SE6714-2CA			<b>or</b>		
	<b>Magnetically operated switch</b> 8 mm Ø latching connection, plug, 6-pole, door hinge <b>right</b> (25 x 88 mm), 2 NC + 1 NC signaling contact	3SE6627-2CA01	3	 <b>Connecting cable</b> with socket 8 mm, latching connection, 6-pole, open end	3SX5601-4GA05	5 m	
	<b>+ switching magnet</b> (25 x 88 mm), coded	3SE6714-2CA			<b>and</b>		
	<b>Magnetically operated switch</b> 8 mm Ø latching connection, plug, 6-pole, door hinge <b>left</b> (26 x 36 mm), 2 NC + 1 NC signaling contact	3SE6617-3CA01	3	 <b>M12 plug</b> 5-pole, straight, separate item	3RK1902-4BA00-5AA0	--	
	<b>+ switching magnet</b> (26 x 36 mm), coded	3SE6714-3CA			<b>or</b>		
	<b>Magnetically operated switch</b> 8 mm Ø latching connection, plug, 6-pole, door hinge <b>right</b> (26 x 36 mm), 2 NC + 1 NC signaling contact	3SE6627-3CA01	3	 <b>M12 plug</b> 5-pole, angled, separate item	3RK1902-4DA00-5AA0	--	
	<b>+ switching magnet</b> (26 x 36 mm), coded	3SE6714-3CA			<b>or</b>		

## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches

#### General data

Sensors with M12 plugs	Type	SIL	Connection accessories M12 method, A-coded	Type	Cable length
<b>Mechanical safety switches with tumbler</b>					
 <p><b>Safety switch with tumbler, with solenoid monitoring</b> M12 plug, 8-pole, monitoring 1 x door + 1 x interlocking, connection to an F-DI input and an F-DQ output via a Y-cable</p> <p>+ actuator (order separately), e.g. standard 3SE5000-0AV01, stainless steel 3SE5000-0AW51</p>	3SE5324-OSD21-1AE4	2	 <b>Connection cable</b> with M12 socket, 8-pole and M12 plug, 8-pole <b>and</b>  <b>ET200 Y-cable for connecting 1 x two-channel sensor</b> with M12 socket, 8-pole on 2 x M12 plugs, 5-pole <b>or</b>	3SX5601-3SV18	1 m
				6ES7194-6KC00-0XA0 <sup>1)</sup>	0.2 m
 <p><b>Safety switch with tumbler, without solenoid monitoring</b> M12 plug, 8-pole, monitoring 2 x door + 0 x interlocking, connection to an F-DI input and an F-DQ output via a Y-cable</p> <p>+ actuator (order separately), e.g. standard 3SE5000-0AV01, stainless steel 3SE5000-0AW51</p>	3SE5324-OSD21-1AE5	2	 <b>Connecting cable</b> with M12 socket, 8-pole, straight, open end <b>and</b>  <b>M12 plug</b> 8-pole, straight <b>and</b>  <b>ET200 Y-cable for connecting 1 x two-channel sensor</b> with M12 socket, 8-pole on 2 x M12 plugs, 5-pole	3SX5601-2GA03	3 m
				3SX5601-2GA05	5 m
				3SX5601-2GA10	10 m
				6GT2090-0BE00	--
6ES7194-6KC00-0XA0 <sup>1)</sup>	0.2 m				
<b>SIRIUS ACT enclosures</b>					
 <p><b>Enclosure</b> 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</p>	3SU1801-0NV00-4SA2	3	 <b>Connection cable</b> with M12 socket, 8-pole and M12 plug, 8-pole <b>and</b>  <b>ET200 Y-cable for connecting 1 x two-channel sensor</b> with M12 socket, 8-pole on 2 x M12 plugs, 5-pole <b>or</b>	3SX5601-3SV18	1 m
				6ES7194-6KC00-0XA0 <sup>1)</sup>	0.2 m
 <p><b>Enclosure</b> plastic, gray, with 2 command points, B=EMERGENCY STOP mushroom pushbutton, red, A=pushbutton, blue, M12 plug (8-pole), two connections to two F-DI inputs via a Y-cable</p>	3SU1802-0NE00-4SB1	3	 <b>Connecting cable</b> with M12 socket, 8-pole, straight, open end <b>and</b>  <b>M12 plug</b> 8-pole, straight <b>and</b>  <b>ET200 Y-cable for connecting 1 x two-channel sensor</b> with M12 socket, 8-pole on 2 x M12 plugs, 5-pole	3SX5601-2GA03	3 m
				3SX5601-2GA05	5 m
				3SX5601-2GA10	10 m
				6GT2090-0BE00	--
6ES7194-6KC00-0XA0 <sup>1)</sup>	0.2 m				

<sup>1)</sup> Start of delivery on request.

# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### General data

#### Technical specifications

Type		3SE51.. <sup>1)</sup> , 3SE52.. <sup>1)</sup>	3SE541.	3SE542.
<b>General data</b>				
<b>Standards</b>		IEC/EN 60947-5-1, EN ISO 14119		
<b>Rated insulation voltage <math>U_i</math></b>	V	400 <sup>2)</sup>	400	
<b>Degree of pollution</b> acc. to IEC 60664-1		Class 3	Class 3	
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	6	4	
<b>Rated operational voltage <math>U_e</math></b>	V	400 AC; over 300 V AC same potential only <sup>3)</sup>	300 AC	
<b>Conventional thermal current <math>I_{th}</math></b>	A	10	10	
<b>Rated operational current <math>I_e</math></b>				
• 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	--	
<b>Short-circuit protection<sup>4)</sup></b>				
• With DIAZED fuse links, utilization category gG	A	6	10	
• With miniature circuit breaker, C characteristic ( $I_{K < 400 A}$ )	A	1	3	
<b>Mechanical endurance</b>				
• Basic switch		15 × 10 <sup>6</sup> operating cycles	10 × 10 <sup>6</sup> operating cycles	10 × 10 <sup>6</sup> operating cycles
• With spring rod, 3SE5...-R..		10 × 10 <sup>6</sup> operating cycles	--	--
• With fork lever, 3SE51...-T..		1 × 10 <sup>6</sup> operating cycles	--	--
<b>Electrical endurance</b>				
• With 3RH.1, 3RT contactors in size S00, S0		10 × 10 <sup>6</sup> 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		
<b>Switching frequency</b>				
With 3RH.1, 3RT contactors in size S00, S0		6 000 operating cycles/h	1 800 operating cycles/h	
<b>Switching accuracy</b>				
• For repeated switching, measured at the plunger of the contact block	mm	0.05	0.05	
• With twist actuators		1°	1°	
<b>Rated data acc. to <math>\mathbb{C}</math>, <math>\mathbb{Q}</math> and <math>\mathbb{A}</math></b>				
• Rated voltage	V	300	300	
• Uninterrupted current	A	6	10	
• Switching capacity		Heavy duty, A 300/B 300/Q 300	A 300/Q 300	

<sup>1)</sup> Special versions, see data sheet.

<sup>2)</sup> For slow-action contacts 1 NO + 2 NC with make-before-break ("M") and 2 NO + 1 NC ("P") the following applies: 250 V.

<sup>3)</sup> 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.

<sup>4)</sup> Without any welds according to IEC 60947-5-1.

Type		3SE523.	3SE513.	3SE524.	3SE521.	3SE511.	3SE512., 3SE516.	3SE54..	3SE525.
<b>Enclosure</b>									
<b>Enclosure</b>		Plastic P66				Zinc die-casting		Zn/Al	--
• Material		Plastic P66				Zinc die-casting		Zn/Al	--
• Width	mm	31	40	50	31	40	56	30/40	30
<b>Degree of protection</b> acc. to IEC 60529		IP65	IP66/IP67;				IP67		IP20, IP10
			IP65/IP67 for actuator heads with spring rod and rod actuators						
<b>Ambient temperature</b>									
• During operation	°C	-25 ... +85;					-25 ... +85		-25 ... +85
		-40 ... +85 for 3SE51...-1AJ0 and 3SE52...-1AJ0, -1AY0							
• In operation, switch with LEDs	°C	-25 ... +60					--		--
• Storage, transport	°C	-40 ... +90					-40 ... +90		-40 ... +90
<b>Mounting position</b>		Any							
<b>Connection</b>									
<b>Cable entry</b>		1 x (M20 x 1.5)	2 x (M20 x 1.5)	1 x (M20 x 1.5)	3 x (M20 x 1.5)	--	--	--	--
<b>Conductor cross-sections</b>									
• Solid	mm <sup>2</sup>	1 x (0.5 ... 1.5), 2 x (0.5 ... 0.75)							
• Finely stranded with end sleeve	mm <sup>2</sup>	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)							
<b>Tightening torque</b> , contact block	Nm	0.8 ... 1.0							
<b>Protective conductor connection</b> inside enclosure		--				M3.5		--	--

## Position and Safety Switches

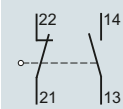
### SIRIUS 3SE5 Mechanical Position Switches

#### General data

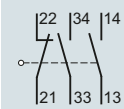
#### Circuit diagrams

Enclosure widths 31, 40, 50 and 56 mm

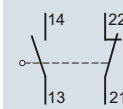
**Slow-action contacts**  
1 NO + 1 NC  
3SE5...-B..., -R...



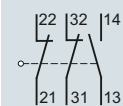
**Slow-action contacts**  
2 NO + 1 NC  
3SE5...-P...



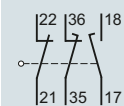
**Snap-action contacts**  
1 NO + 1 NC  
3SE5...-C..., -F..., -G..., -H..., -N...



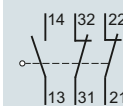
**Slow-action contacts**  
1 NO + 2 NC  
3SE5...-K..., -Q...



**Slow-action contacts**  
1 NO + 2 NC with  
make-before-break, 3SE5...-M...

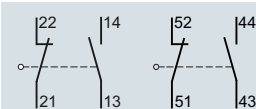


**Snap-action contacts**  
1 NO + 2 NC  
3SE5...-L...

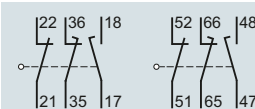


XL enclosures, width 56 mm

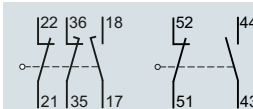
**Slow-action contacts**  
2 x (1 NO + 1 NC)  
3SE5162-0B...



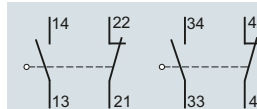
**Slow-action contacts**  
2 x (1 NO + 2 NC) with  
make-before-break,  
3SE5162-0D...



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

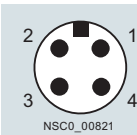


**Snap-action contacts**  
2 x (1 NO + 1 NC)  
3SE5162-0C...

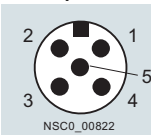


#### 3SE5 pin assignment

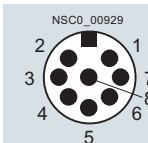
**M12 device plugs, 4-pole**  
3SY3127



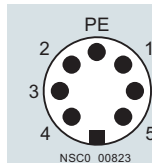
**M12 device plugs, 5-pole**  
3SY3128, 3SX5100-1SS51,  
PE on pin 3



**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
<b>M12 device plugs, 4-, 5- or 8-pole</b>												
3SE5..4-0....-1AC4	3SY3127	1 NO + 1 NC	--	21	22	13	14	--	--	--	--	--
3SE5..4-0....-1AL0	3SY3128	1 NO + 1 NC	--	21	22	13	14	PE	--	--	--	--
3SE5..4-0....-1AE0	3SY3127	2 NC	--	21	22	31	32	--	--	--	--	--
3SE5..4-0....-1AE1	3SY3128	2 NC	--	21	22	31	32	PE	--	--	--	--
3SE5..4-0....-1AE2	3SX5100-1SS51	2 NC	--	21	31	--	22	32	--	--	--	--
3SE5..4-0....-1AE3	3SX5100-1SS51	2 NC	--	21	31	PE	22	32	--	--	--	--
3SE5..4-1C...-1AF5	3SY3128	1 NO + 1 NC snap-action	2 LEDs	21 21/13 jumper	22	13/Ground LED	14/ LED ye	PE	--	--	--	--
3SE5..4-1B...-1AF3	3SY3128	1 NO + 1 NC slow-action	2 LEDs	21	22	14/ LED gn	13/ LED ye	Ground LED	--	--	--	--
3SE5..4-1L...-1AD4	3SY3134	1 NO + 2 NC snap-action	2 LEDs	21	22	13/ LED gn	14/ LED ye	31	32	Ground LED	PE	--
<b>Device plugs, 6-pole + PE</b>												
3SE5..5-0....-1AD0	3SY3131	1 NO + 1 NC	--	21	22	13	14	--	--	--	--	✓
3SE5..5-0....-1AD1	3SY3131	1 NO + 2 NC	--	21	22	13	14	31	32	--	--	✓
3SE5..5-C....-1AF2	3SY3131	1 NO + 1 NC snap-action	2 LEDs	21	22	13/ LED gn	14/ LED ye	--	Ground LED	--	--	✓
3SE5..5-B....-1AF2	3SY3131	1 NO + 1 NC slow-action	2 LEDs	21	22	14/ LED gn	13/ LED ye	--	Ground LED	--	--	✓
3SE5..5-L....-1AD2	3SY3131	2 NC snap-action	2 LEDs	21	22	31	32	13/ LED gn	Ground LED	--	--	✓

Legend:

gn = green, ye = yellow

✓ Connected

-- Not available

### Options

On the following pages you will find selection tables for complete units as well as components of the modular system.

- Complete units
- Modular system

The differences between the units are indicated in the selection and ordering data by the symbols shown on orange backgrounds.

Using the modular system you can assemble switch variants which are not available as complete units. Each complete unit can also be supplied as a module.

A basic switch for the modular system comprises an enclosure with a contact block and a cover. Among the basic switches the following versions, for example, can be selected:

- Basic enclosure with Teflon plunger
- Version with increased corrosion protection
- Version with M12 device plug and/or with 2 LEDs
- Version with M12 device plug or 6-pole + PE

### 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 online configurator, see [www.siemens.com/sirius/configurators](http://www.siemens.com/sirius/configurators).

To be ordered:

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

#### Complete units • Enclosure width 31 mm



#### Angular roller lever

**With metal lever and plastic roller 13 mm**

Slow-action contacts  
1 NO + 1 NC

**3SE5232-0BF10**

### Modular system

#### Ordering example 1

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered separately:

Version	<b>Modular system</b> <input checked="" type="checkbox"/>
Article No.	

#### Basic switches • Enclosure width 31 mm



#### With Teflon plunger

Slow-action contacts  
1 NO + 1 NC

**3SE5232-0BC05**

+

#### Operating mechanisms



#### Angular roller levers

Metal lever,  
plastic roller

**3SE5000-0AF10**

#### Ordering example 2

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Twist levers, high-grade steel lever and plastic roller

To be ordered separately:

Version	<b>Modular system</b> <input checked="" type="checkbox"/>
Article No.	

#### Basic switches • Enclosure width 31 mm



#### With Teflon plunger

Slow-action contacts  
1 NO + 1 NC

**3SE5232-0BC05**

+

#### Twist actuators



#### Twist actuators

High-grade steel lever,  
plastic roller

**3SE5000-0AK00**



#### Twist levers

High-grade steel lever,  
plastic roller

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

#### Complete units<sup>1)</sup> · Enclosure width 31 mm

##### Control cabinet type, IP40, rounded plungers, type B, acc. to EN 50047

###### Flat cover

Snap-action contacts,  
integrated<sup>2)</sup>

1 NO + 1 NC -- ⤴ 5

**3SE5232-0HC05-1AB1**

1 1 unit 41K



3SE5232-0HC05-1AB1

With mounting plate and screws for attachment profile

Snap-action contacts,  
integrated<sup>2)</sup>

1 NO + 1 NC -- ⤴ 5

**3SE5232-0HC05-1AB2**

1 1 unit 41K



3SE5232-0HC05-1AB2

###### Standard cover

Snap-action contacts,  
integrated<sup>2)</sup>

1 NO + 1 NC -- ⤴ 5

**3SE5232-0HC05-1AB3**

1 1 unit 41K



3SE5232-0HC05-1AB3

With mounting plate and screws for attachment profile

Snap-action contacts,  
integrated<sup>2)</sup>

1 NO + 1 NC -- ⤴ 5

**3SE5232-0HC05-1AB4**

1 1 unit 41K



3SE5232-0HC05-1AB4

#### Accessories

###### Mounting plate

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

-- -- 5

**3SX5100-1A**

1 1 unit 41K



3SX5100-1A

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

<sup>1)</sup> The control cabinet types are not basic switches for the modular system.

<sup>2)</sup> 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 units**2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5<sup>1)</sup>

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Complete units<sup>2)</sup> · Enclosure width 31 mm</b>							
<b>Rounded plungers, type B, acc. to EN 50047</b>							
<b>With Teflon plunger</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ ▶	<b>3SE5232-0BC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CC05</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ ▶	<b>3SE5232-0HC05</b>	1	1 unit	41K
	Snap-action contacts • Short stroke, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0FC05</b>	1	1 unit	41K
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	⊕ 15	<b>3SE5232-0GC05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ ▶	<b>3SE5232-0KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ ▶	<b>3SE5232-0LC05</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	<b>3SE5232-0MC05</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	<b>3SE5232-0PC05</b>	1	1 unit	41K
<b>With increased corrosion protection</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0BC05-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CC05-1CA0</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0KC05-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0LC05-1CA0</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0MC05-1CA0</b>	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5232-0PC05-1CA0</b>	1	1 unit	41K	
<b>With M12 device plug, 4-pole (250 V, 4 A)</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5234-0BC05-1AC4</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 2	<b>3SE5234-0HC05-1AC4</b>	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	<b>3SE5234-0KC05-1AE0</b>	1	1 unit	41K
	Snap-action contacts	2 NC --	⊕ 2	<b>3SE5234-0LC05-1AE0</b>	1	1 unit	41K
<b>With 2 LEDs, yellow/green</b>							
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5232-1KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5232-1LC05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5232-3KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5232-3LC05</b>	1	1 unit	41K
<b>With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>							
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5234-1BC05-1AF3</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5234-1CC05-1AF3</b>	1	1 unit	41K
<b>With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>4)</sup></b>							
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ X	<b>3SE5234-0LC05-1AE2</b>	1	1 unit	41K

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

1) A cable gland with seal must be used with the quick-connect method.

2) Popular versions.

3) Subsequent replacement of contact blocks is not possible.

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

## 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 M20 × 1.5<sup>1)</sup>

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

#### Complete units<sup>2)</sup> · Enclosure width 31 mm



3SE5232-0BD03

#### Roller plungers, type C, acc. to EN 50047

##### With plastic roller 10 mm

Slow-action contacts	1 NO + 1 NC --	⊕	5	3SE5232-0BD03	1	1 unit	41K
Snap-action contacts • Integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ ▶		3SE5232-0HD03	1	1 unit	41K
Snap-action contacts • Short stroke, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕	5	3SE5232-0FD03	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0KD03	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0LD03	1	1 unit	41K

##### Actuator head rotated by 90°

Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0LD03-1AH0	1	1 unit	41K
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##### With M12 device plug, 4-pole (250 V, 4 A)

Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕	5	3SE5234-0HD03-1AC4	1	1 unit	41K
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##### With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>4)</sup>

Snap-action contacts	1 NO + 2 NC --	⊕ X		3SE5234-0LD03-1AE2	1	1 unit	41K
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##### With yellow cover

Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0LD03-1AG0	1	1 unit	41K
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3SE5232-0LD03-1AG0

#### Roller plungers with central fixing

##### With plastic roller 10 mm

Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕	5	3SE5232-0HD10	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0KD10	1	1 unit	41K



3SE5232-0HD10

#### Roller levers, type E, acc. to EN 50047

##### With metal lever and plastic roller 13 mm

Slow-action contacts	1 NO + 1 NC --	⊕	2	3SE5232-0BE10	1	1 unit	41K
Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ ▶		3SE5232-0HE10	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0KE10	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0LE10	1	1 unit	41K



3SE5232-0HE10

##### With increased corrosion protection, with high-grade steel lever and plastic roller 13 mm

Snap-action contacts	1 NO + 1 NC --	⊕	5	3SE5232-0CE12-1CA0	1	1 unit	41K
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##### With M12 device plug, 4-pole (250 V, 4 A)

Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕	5	3SE5234-0HE10-1AC4	1	1 unit	41K
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##### With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>4)</sup>

Snap-action contacts	1 NO + 2 NC --	⊕ X		3SE5234-0LE11-1AE2	1	1 unit	41K
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##### With high-grade steel lever and plastic roller 13 mm

Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0LE12	1	1 unit	41K
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#### Angular roller levers

##### With metal lever and plastic roller 13 mm

Slow-action contacts	1 NO + 1 NC --	⊕	5	3SE5232-0BF10	1	1 unit	41K
Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕	2	3SE5232-0HF10	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0KF10	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5232-0LF10	1	1 unit	41K



3SE5232-0BF10

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

<sup>1)</sup> A cable gland with seal must be used with the quick-connect method.

<sup>2)</sup> Popular versions.

<sup>3)</sup> Subsequent replacement of contact blocks is not possible.

<sup>4)</sup> The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.







## 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 M20 × 1.5<sup>1)</sup>

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Complete units<sup>2)</sup> · Enclosure width 31 mm</b>							
<b>Spring rods</b>							
<b>Length 142.5 mm, with plastic plunger 50 mm</b>							
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	2	<b>3SE5232-0HR01</b>	1	1 unit	41K
	<b>With M12 device plug, 4-pole (250 V, 4 A)</b>						
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	5	<b>3SE5234-0HR01-1AC4</b>	1	1 unit	41K
<b>Twist levers, type A, acc. to EN 50047</b>							
<b>With metal lever 21 mm and plastic roller 19 mm</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5232-0BK21</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0HK21</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0KK21</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0LK21</b>	1	1 unit	41K
	<b>With M12 device plug, 4-pole (250 V, 4 A)</b>						
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5234-0HK21-1AC4</b>	1	1 unit	41K
<b>With metal lever 35 mm and plastic roller 19 mm</b>							
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0HK15</b>	1	1 unit	41K
<b>Twist levers, adjustable length</b>							
<b>With metal lever with grid hole and plastic roller 19 mm</b>							
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 2	<b>3SE5232-0HK60</b>	1	1 unit	41K
<b>With metal lever and plastic roller 19 mm</b>							
	Slow-action contacts	1 NO + 1 NC --	5	<b>3SE5232-0BK50</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	▶	<b>3SE5232-0HK50</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	<b>3SE5232-0LK50</b>	1	1 unit	41K
	<b>With M12 device plug, 4-pole (250 V, 4 A)</b>						
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	5	<b>3SE5234-0HK50-1AC4</b>	1	1 unit	41K
<b>Rod actuators</b>							
<b>With aluminum rod, length 200 mm</b>							
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	5	<b>3SE5232-0HK80</b>	1	1 unit	41K
	<b>With plastic rod, length 200 mm</b>						
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	5	<b>3SE5232-0HK82</b>	1	1 unit	41K
	<b>With M12 device plug, 4-pole (250 V, 4 A)</b>						
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	5	<b>3SE5234-0HK82-1AC4</b>	1	1 unit	41K

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

1) A cable gland with seal must be used with the quick-connect method.

2) Popular versions.

3) Subsequent replacement of contact blocks is not possible.

**Note:**If the device you require is not available as a complete unit, see [Modular system, page 12/20](#).

## 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 M20 × 1.5<sup>1)</sup>

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Basic switches - Enclosure width 31 mm (with rounded plunger<sup>2)</sup>)</b>							
	<b>Teflon plungers</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ ▶	<b>3SE5232-0BC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CC05</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ ▶	<b>3SE5232-0HC05</b>	1	1 unit	41K
	Snap-action contacts • Short stroke, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0FC05</b>	1	1 unit	41K
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	⊕ 15	<b>3SE5232-0GC05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ ▶	<b>3SE5232-0KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ ▶	<b>3SE5232-0LC05</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	<b>3SE5232-0MC05</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	<b>3SE5232-0PC05</b>	1	1 unit	41K
	<b>Increased corrosion protection<sup>4)</sup></b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0BC05-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CC05-1CA0</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0KC05-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0LC05-1CA0</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0MC05-1CA0</b>	1	1 unit	41K
	<b>M12 device plug, 4-pole (250 V, 4 A)</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5234-0BC05-1AC4</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>3)</sup>	1 NO + 1 NC --	⊕ 2	<b>3SE5234-0HC05-1AC4</b>	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	<b>3SE5234-0KC05-1AE0</b>	1	1 unit	41K
Snap-action contacts	2 NC --	⊕ 2	<b>3SE5234-0LC05-1AE0</b>	1	1 unit	41K	
	<b>2 LEDs yellow/green</b>						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5232-1KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5232-1LC05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5232-3KC05</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5232-3LC05</b>	1	1 unit	41K	
	<b>M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5234-1BC05-1AF3</b>	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5234-1CC05-1AF3</b>	1	1 unit	41K	
<b>With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>5)</sup></b>							
Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ X	<b>3SE5234-0LC05-1AE2</b>	1	1 unit	41K	

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

1) A cable gland with seal must be used with the quick-connect method.

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

3) Subsequent replacement of contact blocks is not possible.

4) Use corresponding high-grade steel lever.

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

#### Note:











For the selection aid, see page 12/15.

# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### 3SE5, Plastic Enclosures

Enclosure width 31 mm according to EN 50047

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Operating mechanisms</b>							
	<b>Roller plungers, type C, acc. to EN 50047</b>						
	Plastic rollers	10	⊕ 2	<b>3SE5000-0AD03</b>	1	1 unit	41K
	High-grade steel rollers	10	⊕ 5	<b>3SE5000-0AD04</b>	1	1 unit	41K
3SE5000-0AD03							
	<b>Roller plungers with central fixing</b>						
	Plastic rollers	10	⊕ 2	<b>3SE5000-0AD10</b>	1	1 unit	41K
	High-grade steel rollers	10	⊕ 5	<b>3SE5000-0AD11</b>	1	1 unit	41K
3SE5000-0AD10							
	<b>Roller levers, type E, acc. to EN 50047</b>						
	Metal lever, plastic roller	13	⊕ 2	<b>3SE5000-0AE10</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE11</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE12</b>	1	1 unit	41K
3SE5000-0AE10	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE13</b>	1	1 unit	41K
	<b>Angular roller levers</b>						
	Metal lever, plastic roller	13	⊕ 2	<b>3SE5000-0AF10</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AF11</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	13	⊕ 2	<b>3SE5000-0AF12</b>	1	1 unit	41K
3SE5000-0AF10	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AF13</b>	1	1 unit	41K
	<b>Spring rods</b> (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	<b>3SE5000-0AR01</b>	1	1 unit	41K
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	<b>3SE5000-0AR03</b>	1	1 unit	41K
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	<b>3SE5000-0AR04</b>	1	1 unit	41K
3SE5000-0AR01	Plunger and spring made of high-grade steel: 7						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR02</b>	1	1 unit	41K
<b>Twist actuators</b>							
	<b>Twist actuators, for 31 mm/50 mm, EN 50047</b>						
	Switching right and/or left, adjustable		⊕ 2	<b>3SE5000-0AK00</b>	1	1 unit	41K
3SE5000-0AK00							
	<b>Levers</b>						
	<b>Twist levers 21 mm, straight, type A, acc. to EN 50047</b>						
	Metal lever, plastic roller	19	⊕ 2	<b>3SE5000-0AA21</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA22</b>	1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	⊕ 5	<b>3SE5000-0AA23</b>	1	1 unit	41K
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA25</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA31</b>	1	1 unit	41K
3SE5000-0AA21	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA32</b>	1	1 unit	41K
	<b>Twist levers 30 mm, straight</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA24</b>	1	1 unit	41K
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA26</b>	1	1 unit	41K
	<b>Twist levers, adjustable length, with grid hole</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA61</b>	1	1 unit	41K
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA67</b>	1	1 unit	41K
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA68</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62</b>	1	1 unit	41K
	3SE5000-0AA60	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA63</b>	1	1 unit
3SE5000-0AA50	<b>Twist levers, adjustable length</b>						
	Metal lever, plastic roller	19	2	<b>3SE5000-0AA50</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	19	5	<b>3SE5000-0AA51</b>	1	1 unit	41K
	Metal lever, plastic roller	30	5	<b>3SE5000-0AA55</b>	1	1 unit	41K
	Metal lever, plastic roller	50	5	<b>3SE5000-0AA57</b>	1	1 unit	41K
	Metal lever, rubber roller	50	5	<b>3SE5000-0AA58</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	5	<b>3SE5000-0AA52</b>	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	5	<b>3SE5000-0AA53</b>	1	1 unit	41K
	<b>Rod actuator</b>						
	Aluminum rod, length 200 mm	6	5	<b>3SE5000-0AA80</b>	1	1 unit	41K
	Spring rod, length 200 mm	6	5	<b>3SE5000-0AA81</b>	1	1 unit	41K
3SE5000-0AA80	Plastic rod, length 200 mm	6	5	<b>3SE5000-0AA82</b>	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, Plastic Enclosures

Enclosure width 40 mm according to EN 50041






#### Selection and ordering data

##### Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

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

#### Complete units<sup>1)</sup> · Enclosure width 40 mm

	<b>Plain plungers</b>						
	<b>With high-grade steel plunger</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BB01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0CB01</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KB01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LB01</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PB01</b>	1	1 unit	41K
	<b>Rounded plungers, type B, acc. to EN 50041</b>						
	<b>With plastic plunger</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BC03</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5132-0CC03</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KC03</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LC03</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PC03</b>	1	1 unit	41K
	<b>Roller plungers, type C, acc. to EN 50041</b>						
	<b>With plastic roller 13 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BD05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5132-0CD05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KD05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LD05</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PD05</b>	1	1 unit	41K
	<b>Roller levers</b>						
	<b>With metal lever and plastic roller 22 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BE05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5132-0CE05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KE05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LE05</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PE05</b>	1	1 unit	41K
	<b>Angular roller levers</b>						
	<b>With metal lever and plastic roller 22 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BF05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0CF05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LF05</b>	1	1 unit	41K
	<b>Spring rods</b>						
	<b>Length 142.5 mm, with plastic plunger 50 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5132-0CR01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	<b>3SE5132-0LR01</b>	1	1 unit	41K

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

<sup>1)</sup> Popular versions.

## 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 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 units<sup>1)</sup> · Enclosure width 40 mm**

	<b>Twist levers, type A, acc. to EN 50041</b>							
	<b>With metal lever 27 mm and plastic roller 19 mm</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5132-0BJ01</b>		1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5132-0CJ01</b>		1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KJ01</b>		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LJ01</b>		1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PJ01</b>		1	1 unit	41K
3SE5132-0BJ01								
	<b>Twist levers, adjustable length</b>							
	<b>With metal lever with grid hole and plastic roller 19 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0CJ60</b>		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LJ60</b>		1	1 unit	41K
3SE5132-0CJ60								
	<b>With metal lever and plastic roller 19 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	2	<b>3SE5132-0CJ50</b>		1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	<b>3SE5132-0LJ50</b>		1	1 unit	41K
3SE5132-0CJ50								
	<b>Rod actuators, type D, acc. to EN 50041</b>							
	<b>With aluminum rod, length 200 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5132-0CJ80</b>		1	1 unit	41K
	<b>With plastic rod, length 200 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	2	<b>3SE5132-0CJ82</b>		1	1 unit	41K
3SE5132-0CJ80								

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

1) Popular versions.

**Note:**If the device you require is not available as a complete unit, see [Modular system, page 12/24](#).

## 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 M20 × 1.5

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Basic switches - Enclosure width 40 mm</b>							
	<b>Connecting thread M20 × 1.5</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BA00</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0CA00</b>	1	1 unit	41K
	• Gold-plated contacts		⊕ 5	<b>3SE5132-0CA00-1AC1</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KA00</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LA00</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0MA00</b>	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PA00</b>	1	1 unit	41K	
	<b>Increased corrosion protection<sup>1)</sup></b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0BA00-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5132-0CA00-1CA0</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0KA00-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0LA00-1CA0</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5132-0MA00-1CA0</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5132-0PA00-1CA0</b>	1	1 unit	41K
	<b>M12 device plug, 4-pole (250 V, 4 A)</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5134-0BA00-1AC4</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5134-0CA00-1AC4</b>	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	<b>3SE5134-0KA00-1AE0</b>	1	1 unit	41K
	Snap-action contacts	2 NC --	⊕ 5	<b>3SE5134-0LA00-1AE0</b>	1	1 unit	41K
	<b>2 LEDs, yellow/green</b>						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5132-1KA00</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5132-1LA00</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5132-3KA00</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5132-3LA00</b>	1	1 unit	41K

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

<sup>1)</sup> Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/15.





























# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### 3SE5, Plastic Enclosures

Enclosure width 40 mm according to EN 50041

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		
<b>Operating mechanisms</b>						
 3SE5000-0AB01	<b>Plain plungers</b> High-grade steel plunger	10	⊕ 2	<b>3SE5000-0AB01</b>	1	1 unit 41K
 3SE5000-0AC03	<b>Rounded plungers, type B, acc. to EN 50041</b> Plastic plungers	10	⊕ 5	<b>3SE5000-0AC03</b>	1	1 unit 41K
 3SE5000-0AD05	<b>Roller plungers, type C, acc. to EN 50041</b> Plastic plunger, plastic roller	13	⊕ 5	<b>3SE5000-0AD05</b>	1	1 unit 41K
 3SE5000-0AD05	Plastic plunger, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AD06</b>	1	1 unit 41K
 3SE5000-0AE05	<b>Roller levers</b> Metal lever with plastic roller, plastic base	22	⊕ 5	<b>3SE5000-0AE05</b>	1	1 unit 41K
 3SE5000-0AF05	<b>Angular roller levers</b> Metal lever with plastic roller, plastic base	22	⊕ 5	<b>3SE5000-0AF05</b>	1	1 unit 41K
 3SE5000-0AR01	<b>Spring rods</b> (for switches with snap-action contacts only) Plunger made of plastic, spring of high-grade steel: • Length 142.5 mm (spring 50 mm, plunger 50 mm) • Length 76 mm (spring 23.5 mm, plunger 10 mm) • Length 242.5 mm (spring 150 mm, plunger 50 mm) Plunger and spring made of high-grade steel: • Length 142.5 mm (spring 50 mm, plunger 50 mm)	7 5 5 5 7 5	5 5 5 5 7 5	<b>3SE5000-0AR01</b> <b>3SE5000-0AR03</b> <b>3SE5000-0AR04</b> <b>3SE5000-0AR02</b>	1 1 1 1	1 unit 41K 1 unit 41K 1 unit 41K 1 unit 41K
<b>Twist actuators</b>						
 3SE5000-0AH00	<b>Twist actuators, for 40 mm, EN 50041</b> • For twist levers and rod actuators, switching right and/or left, adjustable		⊕ 2	<b>3SE5000-0AH00</b>	1	1 unit 41K
<b>Levers</b>						
 3SE5000-0AA01	<b>Twist levers, offset, type A, acc. to EN 50041</b> Metal lever 27 mm, plastic roller	19	⊕ 2	<b>3SE5000-0AA01</b>	1	1 unit 41K
 3SE5000-0AA01	Metal lever 27 mm, high-grade steel roller	19	⊕ 2	<b>3SE5000-0AA02</b>	1	1 unit 41K
 3SE5000-0AA01	Metal lever 27 mm, high-grade steel roller with ball bearing	19	⊕ 5	<b>3SE5000-0AA03</b>	1	1 unit 41K
 3SE5000-0AA01	Metal lever 27 mm, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AA04</b>	1	1 unit 41K
 3SE5000-0AA01	Metal lever 27 mm, plastic roller	30	⊕ 5	<b>3SE5000-0AA05</b>	1	1 unit 41K
 3SE5000-0AA01	Metal lever 27 mm, rubber roller	50	⊕ 5	<b>3SE5000-0AA08</b>	1	1 unit 41K
 3SE5000-0AA01	High-grade steel lever 27 mm, plastic roller	19	⊕ 5	<b>3SE5000-0AA11</b>	1	1 unit 41K
 3SE5000-0AA01	High-grade steel lever 27 mm, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA12</b>	1	1 unit 41K
 3SE5000-0AA01	Metal lever 35 mm, plastic roller	19	⊕ 5	<b>3SE5000-0AA15</b>	1	1 unit 41K
 3SE5000-0AA01	High-grade steel lever 35 mm, plastic roller	19	⊕ 5	<b>3SE5000-0AA16</b>	1	1 unit 41K
<b>Twist levers 30 mm, straight</b>						
 3SE5000-0AA24	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA24</b>	1	1 unit 41K
 3SE5000-0AA26	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA26</b>	1	1 unit 41K
<b>Twist levers, adjustable length, with grid hole</b>						
 3SE5000-0AA60	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60</b>	1	1 unit 41K
 3SE5000-0AA55	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA61</b>	1	1 unit 41K
 3SE5000-0AA55	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA68</b>	1	1 unit 41K
 3SE5000-0AA55	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62</b>	1	1 unit 41K
 3SE5000-0AA55	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA63</b>	1	1 unit 41K
<b>Twist levers, adjustable length</b>						
 3SE5000-0AA80	Metal lever, plastic roller	19	2	<b>3SE5000-0AA50</b>	1	1 unit 41K
 3SE5000-0AA80	Metal lever, high-grade steel roller	19	5	<b>3SE5000-0AA51</b>	1	1 unit 41K
 3SE5000-0AA80	Metal lever, plastic roller	30	5	<b>3SE5000-0AA55</b>	1	1 unit 41K
 3SE5000-0AA80	Metal lever, rubber roller	50	5	<b>3SE5000-0AA58</b>	1	1 unit 41K
 3SE5000-0AA80	High-grade steel lever, plastic roller	19	5	<b>3SE5000-0AA52</b>	1	1 unit 41K
 3SE5000-0AA80	High-grade steel lever, high-grade steel roller	19	5	<b>3SE5000-0AA53</b>	1	1 unit 41K
<b>Rod actuators, type D, acc. to EN 50041</b>						
 3SE5000-0AA80	Aluminum rod, length 200 mm	6	5	<b>3SE5000-0AA80</b>	1	1 unit 41K
 3SE5000-0AA80	Spring rod, length 200 mm	6	5	<b>3SE5000-0AA81</b>	1	1 unit 41K
 3SE5000-0AA80	Plastic rod, length 200 mm	6	5	<b>3SE5000-0AA82</b>	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, Plastic Enclosures

Enclosure width 50 mm

#### Selection and ordering data

##### Complete units

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

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

#### Complete units<sup>1)</sup> · Enclosure width 50 mm



3SE5242-0BC05

##### Rounded plungers

###### With Teflon plunger

Slow-action contacts	1 NO + 1 NC --	⊕	2	<b>3SE5242-0BC05</b>	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5242-0CC05</b>	1	1 unit	41K
Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ ▶		<b>3SE5242-0HC05</b>	1	1 unit	41K
Snap-action contacts • Short stroke, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕	15	<b>3SE5242-0FC05</b>	1	1 unit	41K
Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	⊕	30	<b>3SE5242-0GC05</b>	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0KC05</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0LC05</b>	1	1 unit	41K
Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕	5	<b>3SE5242-0MC05</b>	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	⊕	2	<b>3SE5242-0PC05</b>	1	1 unit	41K



3SE5242-0BC05-1CA0

###### With increased corrosion protection

Slow-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5242-0BC05-1CA0</b>	1	1 unit	41K
Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕	30	<b>3SE5242-0HC05-1CA0</b>	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0KC05-1CA0</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0LC05-1CA0</b>	1	1 unit	41K
Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕	5	<b>3SE5242-0MC05-1CA0</b>	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	⊕	5	<b>3SE5242-0PC05-1CA0</b>	1	1 unit	41K



3SE5242-1KC05

###### With 2 LEDs, yellow/green

Slow-action contacts	1 NO + 2 NC 24 V DC	⊕	5	<b>3SE5242-1KC05</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 24 V DC	⊕	5	<b>3SE5242-1LC05</b>	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC 230 V AC	⊕	5	<b>3SE5242-3KC05</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 230 V AC	⊕	5	<b>3SE5242-3LC05</b>	1	1 unit	41K



3SE5242-0BD03

##### Roller plungers

###### With plastic roller 10 mm

Slow-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5242-0BD03</b>	1	1 unit	41K
Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕	5	<b>3SE5242-0HD03</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0LD03</b>	1	1 unit	41K

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

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches

#### 3SE5, Plastic Enclosures

Enclosure width 50 mm

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

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

**Complete units<sup>1)</sup> · Enclosure width 50 mm**

3SE5242-0BE10

**Roller levers****With metal lever and plastic roller 13 mm**

Slow-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5242-0BE10</b>	1	1 unit	41K
Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕	2	<b>3SE5242-0HE10</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0LE10</b>	1	1 unit	41K

**With M12 device plug, 4-pole right (250 V, 4 A)**

Snap-action contacts	2 NC --	⊕	5	<b>3SE5244-0LE10-1AE0</b>	1	1 unit	41K
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3SE5242-0BK21

**Twist levers****With metal lever 21 mm and plastic roller 19 mm**

Slow-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5242-0BK21</b>	1	1 unit	41K
Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕	5	<b>3SE5242-0HK21</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5242-0LK21</b>	1	1 unit	41K

**Twist levers, adjustable length****With metal lever and plastic roller 19 mm**

Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --		5	<b>3SE5242-0HK50</b>	1	1 unit	41K
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3SE5242-0HK50

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

<sup>1)</sup> Popular versions.<sup>2)</sup> 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 12/28](#).

## 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)

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Basic switches - Enclosure width 50 mm (with rounded plunger<sup>1)</sup>)</b>							
	<b>Teflon plungers</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5242-0BC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0CC05</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ ▶	<b>3SE5242-0HC05</b>	1	1 unit	41K
	Snap-action contacts • Short stroke, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ 15	<b>3SE5242-0FC05</b>	1	1 unit	41K
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC --	⊕ 30	<b>3SE5242-0GC05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0LC05</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0MC05</b>	1	1 unit	41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	<b>3SE5242-0PC05</b>	1	1 unit	41K
	<b>Increased corrosion protection<sup>3)</sup></b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0BC05-1CA0</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ 30	<b>3SE5242-0HC05-1CA0</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0KC05-1CA0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0LC05-1CA0</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0MC05-1CA0</b>	1	1 unit	41K
	<b>2 LEDs yellow/green</b>						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5242-1KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5242-1LC05</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5242-3KC05</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5242-3LC05</b>	1	1 unit	41K

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



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

2) Subsequent replacement of contact blocks is not possible.

3) Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/15.

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Operating mechanisms</b>							
	<b>Roller plungers, type C, acc. to EN 50047</b>						
	Plastic rollers	10	⊕ 2	<b>3SE5000-0AD03</b>	1	1 unit	41K
	High-grade steel rollers	10	⊕ 5	<b>3SE5000-0AD04</b>	1	1 unit	41K
	<b>Roller plungers with central fixing</b>						
	Plastic rollers	10	⊕ 2	<b>3SE5000-0AD10</b>	1	1 unit	41K
	High-grade steel rollers	10	⊕ 5	<b>3SE5000-0AD11</b>	1	1 unit	41K










⊕ Positively driven actuator, necessary in safety circuits.

# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### 3SE5, Plastic Enclosures

Enclosure width 50 mm

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Operating mechanisms</b>							
	<b>Roller levers, type E, acc. to EN 50047</b>						
	Metal lever, plastic roller	13	⊕ 2	<b>3SE5000-0AE10</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE11</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE12</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE13</b>	1	1 unit 41K	
3SE5000-0AE10							
	<b>Angular roller levers</b>						
	Metal lever, plastic roller	13	⊕ 2	<b>3SE5000-0AF10</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AF11</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	13	⊕ 2	<b>3SE5000-0AF12</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AF13</b>	1	1 unit 41K	
3SE5000-0AF10							
	<b>Spring rods</b> (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	<b>3SE5000-0AR01</b>	1	1 unit 41K	
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	<b>3SE5000-0AR03</b>	1	1 unit 41K	
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	<b>3SE5000-0AR04</b>	1	1 unit 41K	
Plunger and spring made of high-grade steel: 7							
• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR02</b>	1	1 unit 41K		
3SE5000-0AR01							
<b>Twist actuators</b>							
	<b>Twist actuators, for 31 mm/50 mm, EN 50047</b>						
	Switching right and/or left, adjustable		⊕ 2	<b>3SE5000-0AK00</b>	1	1 unit 41K	
3SE5000-0AK00							
	<b>Levers</b>						
	<b>Twist levers 21 mm, straight, type A, acc. to EN 50047</b>						
	Metal lever, plastic roller	19	⊕ 2	<b>3SE5000-0AA21</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA22</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller with ball bearing	19	⊕ 5	<b>3SE5000-0AA23</b>	1	1 unit 41K	
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA25</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA31</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA32</b>	1	1 unit 41K	
3SE5000-0AA21							
	<b>Twist levers 30 mm, straight</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA24</b>	1	1 unit 41K	
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA26</b>	1	1 unit 41K	
	<b>Twist levers, adjustable length, with grid hole</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA61</b>	1	1 unit 41K	
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA67</b>	1	1 unit 41K	
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA68</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA63</b>	1	1 unit 41K	
3SE5000-0AA60 3SE5000-0AA24							
	<b>Twist levers, adjustable length</b>						
	Metal lever, plastic roller	19	2	<b>3SE5000-0AA50</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	19	5	<b>3SE5000-0AA51</b>	1	1 unit 41K	
	Metal lever, plastic roller	30	5	<b>3SE5000-0AA55</b>	1	1 unit 41K	
	Metal lever, plastic roller	50	5	<b>3SE5000-0AA57</b>	1	1 unit 41K	
	Metal lever, rubber roller	50	5	<b>3SE5000-0AA58</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	5	<b>3SE5000-0AA52</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	19	5	<b>3SE5000-0AA53</b>	1	1 unit 41K	
	3SE5000-0AA50						
		<b>Rod actuator</b>					
Aluminum rod, length 200 mm		6	5	<b>3SE5000-0AA80</b>	1	1 unit 41K	
Spring rod, length 200 mm		6	5	<b>3SE5000-0AA81</b>	1	1 unit 41K	
	Plastic rod, length 200 mm	6	5	<b>3SE5000-0AA82</b>	1	1 unit 41K	

⊕ Positively driven actuator, necessary in safety circuits.

# 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 M20 × 1.5

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

#### Complete units<sup>1)</sup> · Enclosure width 31 mm

##### Rounded plungers, type B, acc. to EN 50047

###### With plunger



3SE5212-0BC05

Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0BC05	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0CC05	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KC05	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 2	3SE5212-0LC05	1	1 unit	41K
Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	3SE5212-0MC05	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5212-0PC05	1	1 unit	41K

###### With increased corrosion protection



3SE5212-0BC05-1CA0

Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BC05-1CA0	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CC05-1CA0	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KC05-1CA0	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LC05-1CA0	1	1 unit	41K
Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	3SE5212-0MC05-1CA0	1	1 unit	41K
Slow-action contacts	2 NO + 1 NC --	⊕ 5	3SE5212-0PC05-1CA0	1	1 unit	41K

###### With M12 device plug, 5-pole (125 V, 4 A)

Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5214-0BC05-1AC5	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5214-0CC05-1AC5	1	1 unit	41K
Slow-action contacts	2 NC --	⊕ 5	3SE5214-0KC05-1AE1	1	1 unit	41K
Snap-action contacts	2 NC --	⊕ 5	3SE5214-0LC05-1AE1	1	1 unit	41K

###### With 2 LEDs, yellow/green



3SE5212-1KC05

Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	3SE5212-1KC05	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 2	3SE5212-1LC05	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5212-3KC05	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	3SE5212-3LC05	1	1 unit	41K

###### With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs

Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1BC05-1AF3	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	3SE5214-1CC05-1AF3	1	1 unit	41K

##### Plain plungers

###### With high-grade steel plunger



3SE5212-0BB01

Slow-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0BB01	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CB01	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KB01	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LB01	1	1 unit	41K

##### Roller plungers, type C, acc. to EN 50047

###### With plastic roller 10 mm



3SE5212-0BD03

Slow-action contacts	1 NO + 1 NC --	⊕ 2	3SE5212-0BD03	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕ 5	3SE5212-0CD03	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0KD03	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 5	3SE5212-0LD03	1	1 unit	41K

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

<sup>1)</sup> Popular versions.






## 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 M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU		
<b>Complete units<sup>1)</sup> · Enclosure width 31 mm</b>							
	<b>Roller plungers with central fixing</b> <b>With plastic roller 10 mm</b>						
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KD10</b>	1	1 unit	41K
3SE5212-0KD10							
	<b>Roller levers, type E, acc. to EN 50047</b> <b>With metal lever and plastic roller 13 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0BE10</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0CE10</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KE10</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0LE10</b>	1	1 unit	41K
3SE5212-0BE10							
	<b>Angular roller levers</b> <b>With metal lever and plastic roller 13 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0BF10</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0CF10</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KF10</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0LF10</b>	1	1 unit	41K
3SE5212-0BF10							
	<b>Twist levers, type A, acc. to EN 50047</b> <b>With metal lever 21 mm and plastic roller 19 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0BK21</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0CK21</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KK21</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0LK21</b>	1	1 unit	41K
3SE5212-0BK21							
	<b>Twist levers, adjustable length</b> <b>With metal lever with grid hole and plastic roller 19 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0CK60</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KK60</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0LK60</b>	1	1 unit	41K
3SE5212-0CK60							
	<b>With metal lever and plastic roller 19 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	5	<b>3SE5212-0BK50</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5212-0CK50</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	<b>3SE5212-0LK50</b>	1	1 unit	41K

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

1) Popular versions.

**Note:**If the device you require is not available as a complete unit, see [Modular system, page 12/32](#).

## 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 M20 × 1.5

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Basic switches - Enclosure width 31 mm (with rounded plunger<sup>1)</sup>)</b>							
<b>Plunger</b>							
 3SE5212-0BC05	Slow-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5212-0BC05</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5212-0CC05</b>		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KC05</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	<b>3SE5212-0LC05</b>		1	1 unit 41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	<b>3SE5212-0MC05</b>		1	1 unit 41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5212-0PC05</b>		1	1 unit 41K
<b>Increased corrosion protection<sup>2)</sup></b>							
 3SE5212-0BC05-1CA0	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0BC05-1CA0</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0CC05-1CA0</b>		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KC05-1CA0</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0LC05-1CA0</b>		1	1 unit 41K
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0MC05-1CA0</b>		1	1 unit 41K
	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5212-0PC05-1CA0</b>		1	1 unit 41K
<b>M12 device plug, 5-pole (125 V, 4 A)</b>							
 3SE5214-0BC05-1AC5	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5214-0BC05-1AC5</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5214-0CC05-1AC5</b>		1	1 unit 41K
	Slow-action contacts	2 NC --	⊕ 5	<b>3SE5214-0KC05-1AE1</b>		1	1 unit 41K
	Snap-action contacts	2 NC --	⊕ 5	<b>3SE5214-0LC05-1AE1</b>		1	1 unit 41K
<b>2 LEDs yellow/green</b>							
 3SE5212-1KC05	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5212-1KC05</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 2	<b>3SE5212-1LC05</b>		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5212-3KC05</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5212-3LC05</b>		1	1 unit 41K
<b>M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>							
 3SE5214-1BC05-1AF3	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5214-1BC05-1AF3</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5214-1CC05-1AF3</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5114-1CA00-1AF5</b>		1	1 unit 41K



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

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

2) Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/15.

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		
<b>Operating mechanisms</b>						
<b>Plain plungers</b>						
 3SE5000-0AB01	High-grade steel plunger	10	⊕ 2	<b>3SE5000-0AB01</b>		1 1 unit 41K
<b>Roller plungers, type C, acc. to EN 50047</b>						
 3SE5000-0AD03	Plastic roller	10	⊕ 2	<b>3SE5000-0AD03</b>		1 1 unit 41K
	High-grade steel roller	10	⊕ 5	<b>3SE5000-0AD04</b>		1 1 unit 41K

⊕ Positively driven actuator, necessary in safety circuits.












# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### 3SE5, Metal Enclosures

Enclosure width 31 mm according to EN 50047

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Operating mechanisms</b>							
	<b>Roller plungers with central fixing</b>						
	Plastic roller	10	⊕ 2	<b>3SE5000-0AD10</b>	1	1 unit 41K	
3SE5000-0AD10	High-grade steel roller	10	⊕ 5	<b>3SE5000-0AD11</b>	1	1 unit 41K	
	<b>Roller levers, type E, acc. to EN 50047</b>						
	Metal lever, plastic roller	13	⊕ 2	<b>3SE5000-0AE10</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE11</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE12</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE13</b>	1	1 unit 41K	
3SE5000-0AE10	<b>Angular roller levers</b>						
	Metal lever, plastic roller	13	⊕ 2	<b>3SE5000-0AF10</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AF11</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	13	⊕ 2	<b>3SE5000-0AF12</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AF13</b>	1	1 unit 41K	
3SE5000-0AF10	<b>Spring rods (for switches with snap-action contacts only)</b>						
	Plunger made of plastic, spring of high-grade steel:	7					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR01</b>	1	1 unit 41K	
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	<b>3SE5000-0AR03</b>	1	1 unit 41K	
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	<b>3SE5000-0AR04</b>	1	1 unit 41K	
	Plunger and spring made of high-grade steel:	7					
• Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR02</b>	1	1 unit 41K		
3SE5000-0AR01	<b>Twist actuators</b>						
	<b>Twist actuators, for 31 mm/50 mm, EN 50047</b>						
	Switching right and/or left, adjustable		⊕ 2	<b>3SE5000-0AK00</b>	1	1 unit 41K	
3SE5000-0AK00	<b>Levers</b>						
	<b>Twist levers, straight, type A, acc. to EN 50047</b>						
	Metal lever 21 mm, plastic roller	19	⊕ 2	<b>3SE5000-0AA21</b>	1	1 unit 41K	
	Metal lever 21 mm, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA22</b>	1	1 unit 41K	
	Metal lever 21 mm, high-grade steel roller with ball bearing	19	⊕ 5	<b>3SE5000-0AA23</b>	1	1 unit 41K	
	Metal lever 21 mm, plastic roller	30	⊕ 5	<b>3SE5000-0AA25</b>	1	1 unit 41K	
	High-grade steel lever 21 mm, plastic roller	19	⊕ 5	<b>3SE5000-0AA31</b>	1	1 unit 41K	
	High-grade steel lever 21 mm, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA32</b>	1	1 unit 41K	
3SE5000-0AA21	<b>Twist levers 30 mm, straight</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA24</b>	1	1 unit 41K	
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA26</b>	1	1 unit 41K	
	<b>Twist levers, adjustable length, with grid hole</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA61</b>	1	1 unit 41K	
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA67</b>	1	1 unit 41K	
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA68</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62</b>	1	1 unit 41K	
High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA63</b>	1	1 unit 41K		
3SE5000-0AA60 3SE5000-0AA50	<b>Twist levers, adjustable length</b>						
Metal lever, plastic roller	19	2	<b>3SE5000-0AA50</b>	1	1 unit 41K		
Metal lever, high-grade steel roller	19	5	<b>3SE5000-0AA51</b>	1	1 unit 41K		
Metal lever, plastic roller	30	5	<b>3SE5000-0AA55</b>	1	1 unit 41K		
Metal lever, plastic roller	50	5	<b>3SE5000-0AA57</b>	1	1 unit 41K		
Metal lever, rubber roller	50	5	<b>3SE5000-0AA58</b>	1	1 unit 41K		
High-grade steel lever, plastic roller	19	5	<b>3SE5000-0AA52</b>	1	1 unit 41K		
High-grade steel lever, high-grade steel roller	19	5	<b>3SE5000-0AA53</b>	1	1 unit 41K		
	<b>Rod actuators, type D, acc. to EN 50041</b>						
	Aluminum rod, length 200 mm	6	5	<b>3SE5000-0AA80</b>	1	1 unit 41K	
	Spring rod, length 200 mm	6	5	<b>3SE5000-0AA81</b>	1	1 unit 41K	
	Plastic rod, length 200 mm	6	5	<b>3SE5000-0AA82</b>	1	1 unit 41K	
3SE5000-0AA80	Plastic rod, length 330 mm	6	5	<b>3SE5000-0AA83</b>	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 40 mm according to EN 50041

#### Selection and ordering data

##### Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

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

#### Complete units<sup>1)</sup> · Enclosure width 40 mm



3SE5112-0BB01

##### Plain plungers

###### With high-grade steel plunger

Slow-action contacts	1 NO + 1 NC --	⊕	2	3SE5112-0BB01	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕	2	3SE5112-0CB01	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0KB01	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0LB01	1	1 unit	41K



3SE5112-0BC02

##### Rounded plungers, type B, acc. to EN 50041

###### With high-grade steel plungers, with 3 mm overtravel

Slow-action contacts	1 NO + 1 NC --	⊕	5	3SE5112-0BC02	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕	▶	3SE5112-0CC02	1	1 unit	41K
Snap-action contacts <sup>2)</sup>	1 NO + 1 NC --	⊕	5	3SE5112-0CC02-1AA7	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0KC02	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0LC02	1	1 unit	41K
Snap-action contacts with M12 device plug, 4-pole	1 NO + 1 NC --	⊕	5	3SE5114-0CC02-1AC4	1	1 unit	41K



3SE5112-0BD02

##### Roller plungers, type C, acc. to EN 50041

###### With high-grade steel roller 13 mm, with 3 mm overtravel

Slow-action contacts	1 NO + 1 NC --	⊕	5	3SE5112-0BD02	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕	▶	3SE5112-0CD02	1	1 unit	41K
Snap-action contacts <sup>2)</sup>	1 NO + 1 NC --	⊕	5	3SE5112-0CD02-1AA7	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0KD02	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0LD02	1	1 unit	41K
Snap-action contacts <sup>2)</sup>	1 NO + 2 NC --	⊕	5	3SE5112-0LD02-1AA7	1	1 unit	41K
Slow-action contacts <sup>2)</sup>	2 NO + 1 NC --	⊕	5	3SE5112-0PD02-1AA7	1	1 unit	41K

###### With M12 device plug, 5-pole (125 V, 4 A)

Snap-action contacts with 2 LEDs	1 NO + 1 NC 24 V DC	⊕	5	3SE5114-1CD02-1AF3	1	1 unit	41K
Snap-action contacts with 2 LEDs	1 NO + 1 NC 24 V DC	⊕	5	3SE5114-1CD02-1AF5	1	1 unit	41K
Snap-action contacts without LED	1 NO + 1 NC 24 V DC	⊕	5	3SE5114-0CD02-1AC5	1	1 unit	41K
Snap-action contacts without LED <sup>2)3)</sup>	1 NO + 1 NC 24 V DC	⊕	5	3SE5114-0CD02-1AL0	1	1 unit	41K

###### With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>3)</sup>

Snap-action contacts without LED	1 NO + 2 NC 24 V DC	⊕	X	3SE5114-0LD02-1AE3	1	1 unit	41K
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##### Roller levers

###### With metal lever and plastic roller 22 mm

Slow-action contacts	1 NO + 1 NC --	⊕	5	3SE5112-0BE01	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕	▶	3SE5112-0CE01	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0KE01	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0LE01	1	1 unit	41K



3SE5112-0BE01

##### Angular roller levers

###### With metal lever and plastic roller 22 mm

Slow-action contacts	1 NO + 1 NC --	⊕	5	3SE5112-0BF01	1	1 unit	41K
Snap-action contacts	1 NO + 1 NC --	⊕	2	3SE5112-0CF01	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	3SE5112-0LF01	1	1 unit	41K



3SE5112-0BF01

##### Spring rods

###### Length 142.5 mm, with plastic plunger 50 mm

Snap-action contacts	1 NO + 1 NC --	▶		3SE5112-0CR01	1	1 unit	41K
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3SE5112-0CR01

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

1) Popular versions.

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

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






## 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 M20 × 1.5

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Complete units<sup>1)</sup> · Enclosure width 40 mm</b>							
	<b>Twist levers, type A, acc. to EN 50041</b>						
	<b>With metal lever 27 mm and plastic roller 19 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0BH01</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ ▶	<b>3SE5112-0CH01</b>		1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0KH01</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0LH01</b>		1	1 unit 41K
3SE5112-0BH01	<b>With M12 device plug, 5-pole (125 V, 4 A)</b>						
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5114-0CH01-1AC5</b>		1	1 unit 41K
	<b>With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>3)</sup></b>						
	Snap-action contacts	1 NO + 2 NC --	⊕ X	<b>3SE5114-0LH01-1AE3</b>		1	1 unit 41K
	<b>With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>						
Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5114-1CH01-1AF3</b>		1	1 unit 41K	
	<b>With metal lever 27 mm and high-grade steel roller 19 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0BH02</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5112-0CH02</b>		1	1 unit 41K
	<b>With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5114-1CH02-1AF3</b>		1	1 unit 41K
3SE5112-0BH60	<b>With metal lever 30 mm and plastic roller 19 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	⊕ ▶	<b>3SE5112-0CH24</b>		1	1 unit 41K
	<b>Twist levers, adjustable length</b>						
	<b>Metal lever, grid hole and plastic roller 19 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0BH60</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	⊕ ▶	<b>3SE5112-0CH60</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0LH60</b>		1	1 unit 41K
	<b>Metal lever, grid hole with high-grade steel roller</b>						
	Snap-action contacts	1 NO + 1 NC --	X	<b>3SE5114-0CH61-1AC5</b>		1	1 unit 41K
	<b>With metal lever and plastic roller 19 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	5	<b>3SE5112-0BH50</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 1 NC --	▶	<b>3SE5112-0CH50</b>		1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC --	5	<b>3SE5112-0LH50</b>		1	1 unit 41K
3SE5112-0BH50	<b>With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>						
	Snap-action contacts	1 NO + 1 NC 24 V DC	5	<b>3SE5114-1CH60-1AF3</b>		1	1 unit 41K
	<b>With M12 device plug, 8-pole (30 V, 2 A), and 2 LEDs</b>						
	Snap-action contacts	1 NO + 2 NC 24 V DC	5	<b>3SE5114-1LH50-1AD4</b>		1	1 unit 41K
	<b>With metal lever and high-grade steel roller 19 mm</b>						
Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5112-0CH51</b>		1	1 unit 41K	
	<b>Fork levers, latching</b>						
	<b>With metal lever and 2 plastic rollers 19 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0CT11</b>		1	1 unit 41K
3SE5112-0CT11	<b>Rod actuators, type D, acc. to EN 50041</b>						
	<b>With aluminum rod, length 200 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	▶	<b>3SE5112-0CH80</b>		1	1 unit 41K
	<b>With plastic rod, length 200 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5112-0CH82</b>		1	1 unit 41K
	<b>Nagara switch<sup>2)</sup> with M12 device plug, 5-pole (125 V, 4 A)</b>						
	Snap-action contacts, short-stroke	1 NO + 1 NC --	<b>NEW</b> 5	<b>3SE5114-0NH82-1AM2</b>		1	1 unit 41K

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

1) Popular versions.

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

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

**Note:**If the device you require is not available as a complete unit, see [Modular system, page 12/36](#).

## 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 M20 × 1.5

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
			d	Article No.	Price per PU			
<b>Basic switches - Enclosure width 40 mm</b>								
	<b>Connecting thread M20 × 1.5</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0BA00</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5112-0CA00</b>		1	1 unit 41K	
	• Gold-plated contacts		⊕ 5	<b>3SE5112-0CA00-1AC1</b>		1	1 unit 41K	
	Slow-action contacts	1 NO + 2 NC --	⊕ 2	<b>3SE5112-0KA00</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	<b>3SE5112-0LA00</b>		1	1 unit 41K	
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	<b>3SE5112-0MA00</b>		1	1 unit 41K	
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	<b>3SE5112-0PA00</b>		1	1 unit 41K	
	<b>Increased corrosion protection<sup>1)</sup></b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0BA00-1CA0</b>		1	1 unit 41K	
Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5112-0CA00-1CA0</b>		1	1 unit 41K		
Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0KA00-1CA0</b>		1	1 unit 41K		
Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0LA00-1CA0</b>		1	1 unit 41K		
Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0MA00-1CA0</b>		1	1 unit 41K		
Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5112-0PA00-1CA0</b>		1	1 unit 41K		
	<b>M12 device plug, 5-pole (125 V, 4 A)</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5114-0BA00-1AC5</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5114-0CA00-1AC5</b>		1	1 unit 41K	
	Slow-action contacts	2 NC --	⊕ 5	<b>3SE5114-0KA00-1AE1</b>		1	1 unit 41K	
	Snap-action contacts	2 NC --	⊕ 5	<b>3SE5114-0LA00-1AE1</b>		1	1 unit 41K	
	<b>With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>2)</sup></b>							
	Snap-action contacts	1 NO + 2 NC --	⊕ X	<b>3SE5114-0LA00-1AE3</b>		1	1 unit 41K	
	<b>Device plug, 6-pole + PE (250 V, 10 A)</b>							
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5115-0KA00-1AD1</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5115-0LA00-1AD1</b>		1	1 unit 41K	
	<b>Device plug, 6-pole + PE (250 V, 10 A), and quick-release device</b>							
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5115-0CA00-1AD0</b>		1	1 unit 41K	
	<b>2 LEDs, yellow/green</b>							
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5112-1KA00</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5112-1LA00</b>		1	1 unit 41K	
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5112-3KA00</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5112-3LA00</b>		1	1 unit 41K	
	<b>M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>							
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5114-1BA00-1AF3</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5114-1CA00-1AF3</b>		1	1 unit 41K	
	<b>M12 device plug, 8-pole (30 V, 2 A), and 2 LEDs</b>							
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5114-1LA00-1AD4</b>		1	1 unit 41K	
	<b>Device plug, 6-pole + PE (10 A), and 2 LEDs</b>							
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5115-1BA00-1AF2</b>		1	1 unit 41K	
	Snap-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5115-1CA00-1AF2</b>		1	1 unit 41K	
	Snap-action contacts	2 NC 24 V DC	⊕ 5	<b>3SE5115-1LA00-1AD2</b>		1	1 unit 41K	

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

<sup>1)</sup> Use corresponding high-grade steel lever.

<sup>2)</sup> The 3SE5114-....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

Note:


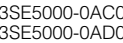




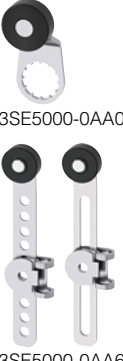
For the selection aid, see page 12/15.

# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### 3SE5, Metal Enclosures

Enclosure width 40 mm according to EN 50041

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





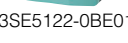

#### Selection and ordering data

##### Complete units

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

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

#### Complete units<sup>1)</sup> · Enclosure width 56 mm

	<b>Plain plungers</b>						
	<b>With high-grade steel plunger</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BB01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CB01</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KB01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LB01</b>	1	1 unit	41K
3SE5122-0PB01	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5122-0PB01</b>	1	1 unit	41K
	<b>Rounded plungers</b>						
	<b>With high-grade steel plungers, with 3 mm overtravel</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BC02</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ ▶	<b>3SE5122-0CC02</b>	1	1 unit	41K
	Snap-action contacts <sup>2)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CC02-1AA7</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KC02</b>	1	1 unit	41K
3SE5122-0LC02	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LC02</b>	1	1 unit	41K
3SE5122-0PC02	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5122-0PC02</b>	1	1 unit	41K
	<b>Roller plungers</b>						
	<b>With high-grade steel roller 13 mm, with 3 mm overtravel</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BD02</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5122-0CD02</b>	1	1 unit	41K
	Snap-action contacts <sup>2)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CD02-1AA7</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KD02</b>	1	1 unit	41K
3SE5122-0LD02	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LD02</b>	1	1 unit	41K
	<b>Roller levers</b>						
	<b>With metal lever and plastic roller 22 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BE01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5122-0CE01</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KE01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LE01</b>	1	1 unit	41K
3SE5122-0PE01	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5122-0PE01</b>	1	1 unit	41K
	<b>With metal lever and high-grade steel roller 22 mm</b>						
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CE02</b>	1	1 unit	41K
	<b>Angular roller levers</b>						
	<b>With metal lever and plastic roller 22 mm</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BF01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CF01</b>	1	1 unit	41K
3SE5122-0PF01	Slow-action contacts	2 NO + 1 NC --	⊕ 5	<b>3SE5122-0PF01</b>	1	1 unit	41K

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

<sup>1)</sup> Popular versions.<sup>2)</sup> 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)

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU		
<b>Complete units<sup>1)</sup> · Enclosure width 56 mm</b>							
<b>Spring rods</b>							
<b>Length 142.5 mm, with plastic plunger 50 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5122-0CR01</b>	1	1 unit	41K
3SE5122-0CR01							
<b>Twist levers</b>							
<b>With metal lever 27 mm and plastic roller 19 mm</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BH01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5122-0CH01</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KH01</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LH01</b>	1	1 unit	41K
3SE5122-0BH01							
<b>With metal lever 27 mm and high-grade steel roller 19 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CH02</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LH02</b>	1	1 unit	41K
<b>Twist levers, adjustable length</b>							
<b>With metal lever with grid hole and plastic roller 19 mm</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BH60</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CH60</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LH60</b>	1	1 unit	41K
<b>With metal lever and plastic roller 19 mm</b>							
	Slow-action contacts	1 NO + 1 NC --	5	<b>3SE5122-0BH50</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 1 NC --	2	<b>3SE5122-0CH50</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	5	<b>3SE5122-0LH50</b>	1	1 unit	41K
3SE5122-0BH60							
<b>Fork levers, latching</b>							
<b>With metal lever and 2 plastic rollers 19 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CT11</b>	1	1 unit	41K
3SE5122-0CT11							
<b>Rod actuators</b>							
<b>With aluminum rod, length 200 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5122-0CH80</b>	1	1 unit	41K
<b>With plastic rod, length 200 mm</b>							
	Snap-action contacts	1 NO + 1 NC --	5	<b>3SE5122-0CH82</b>	1	1 unit	41K
3SE5122-0CH80							

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

1) Popular versions.

**Note:**If the device you require is not available as a complete unit, see [Modular system, page 12/40](#).

## 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)


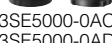



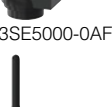

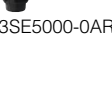
Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
			d	Article No.	Price per PU			
<b>Basic switches - Enclosure width 56 mm</b>								
<b>With 3 × connection thread M20 × 1.5</b>								
	Slow-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5122-0BA00</b>	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5122-0CA00</b>	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KA00</b>	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC --	⊕ 2	<b>3SE5122-0LA00</b>	1	1 unit	41K	
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 2	<b>3SE5122-0MA00</b>	1	1 unit	41K	
	Slow-action contacts	2 NO + 1 NC --	⊕ 2	<b>3SE5122-0PA00</b>	1	1 unit	41K	
	<b>With increased corrosion protection<sup>1)</sup></b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0BA00-1CA0</b>	1	1 unit	41K	
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5122-0CA00-1CA0</b>	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0KA00-1CA0</b>	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0LA00-1CA0</b>	1	1 unit	41K	
	Slow-action contacts with make-before-break	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0MA00-1CA0</b>	1	1 unit	41K	
	<b>With 2 LEDs, yellow/green</b>							
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5122-1KA00</b>	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5122-1LA00</b>	1	1 unit	41K	
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5122-3KA00</b>	1	1 unit	41K	
	Snap-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5122-3LA00</b>	1	1 unit	41K	

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

<sup>1)</sup> Use corresponding high-grade steel lever.

Note:

For the selection aid, see page 12/15.

Version	Diame-ter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Operating mechanisms</b>							
<b>Plain plungers</b>							
	High-grade steel plungers	10	⊕ 2	<b>3SE5000-0AB01</b>	1	1 unit 41K	
	<b>Rounded plungers, type B, acc. to EN 50041</b>						
	High-grade steel plunger, with 3 mm overtravel	10	⊕ 5	<b>3SE5000-0AC02</b>	1	1 unit 41K	
	<b>Roller plungers, type C, acc. to EN 50041</b>						
	High-grade steel roller, with 3 mm overtravel	13	⊕ 5	<b>3SE5000-0AD02</b>	1	1 unit 41K	
	<b>Roller levers</b>						
	Metal lever, plastic roller	22	⊕ 2	<b>3SE5000-0AE01</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AE02</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	22	⊕ 5	<b>3SE5000-0AE03</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AE04</b>	1	1 unit 41K	
	<b>Angular roller levers</b>						
	Metal lever, plastic roller	22	⊕ 2	<b>3SE5000-0AF01</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AF02</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	22	⊕ 5	<b>3SE5000-0AF03</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AF04</b>	1	1 unit 41K	
	<b>Spring rods (for switches with snap-action contacts only)</b>						
		Plunger made of plastic, spring of high-grade steel:	7				
		- Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR01</b>	1	1 unit 41K
- Length 76 mm (spring 23.5 mm, plunger 10 mm)			5	<b>3SE5000-0AR03</b>	1	1 unit 41K	
- Length 242.5 mm (spring 150 mm, plunger 50 mm)			5	<b>3SE5000-0AR04</b>	1	1 unit 41K	
	Plunger and spring made of high-grade steel:	7					
	- Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR02</b>	1	1 unit 41K	








## Position and Safety Switches

### SIRIUS 3SE5 Mechanical Position Switches

#### 3SE5, Metal Enclosures

Enclosure width 56 mm

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG			
	mm	d	Article No.	Price per PU					
<b>Twist actuators</b>									
	<b>Twist actuators, for 40/56/56 XL mm EN 50041</b>								
			☞ 2	<b>3SE5000-0AH00</b>	1	1 unit	41K		
			☞ 5	<b>3SE5000-0AT10</b>	1	1 unit	41K		
<b>Levers</b>									
	<b>Twist levers 27 mm, offset, type A, acc. to EN 50041</b>								
		Metal lever, plastic roller	19	☞ 2	<b>3SE5000-0AA01</b>	1	1 unit	41K	
		Metal lever, high-grade steel roller	19	☞ 2	<b>3SE5000-0AA02</b>	1	1 unit	41K	
		Metal lever, high-grade steel roller with ball bearing	19	☞ 5	<b>3SE5000-0AA03</b>	1	1 unit	41K	
	3SE5000-0AA01		Metal lever, 2 plastic rollers	19	☞ 5	<b>3SE5000-0AA04</b>	1	1 unit	41K
			Metal lever, plastic roller	30	☞ 5	<b>3SE5000-0AA05</b>	1	1 unit	41K
			Metal lever, plastic roller	50	☞ 5	<b>3SE5000-0AA07</b>	1	1 unit	41K
			Metal lever, rubber roller	50	☞ 5	<b>3SE5000-0AA08</b>	1	1 unit	41K
			High-grade steel lever, plastic roller	19	☞ 5	<b>3SE5000-0AA11</b>	1	1 unit	41K
			High-grade steel lever, high-grade steel roller	19	☞ 5	<b>3SE5000-0AA12</b>	1	1 unit	41K
		<b>Twist levers 35 mm, offset</b>							
		Metal lever, plastic roller	19	☞ 5	<b>3SE5000-0AA15</b>	1	1 unit	41K	
		High-grade steel lever, plastic roller	19	☞ 5	<b>3SE5000-0AA16</b>	1	1 unit	41K	
<b>Twist levers 30 mm, straight (can be mounted rotated by 180°)</b>									
	Metal lever, plastic roller	19	☞ 5	<b>3SE5000-0AA24</b>	1	1 unit	41K		
	Metal lever, plastic roller	30	☞ 5	<b>3SE5000-0AA26</b>	1	1 unit	41K		
	<b>Twist levers, adjustable length, with grid hole</b>								
		Metal lever, plastic roller	19	☞ 5	<b>3SE5000-0AA60</b>	1	1 unit	41K	
		Metal lever, high-grade steel roller	19	☞ 5	<b>3SE5000-0AA61</b>	1	1 unit	41K	
		Metal lever, plastic roller	50	☞ 5	<b>3SE5000-0AA67</b>	1	1 unit	41K	
		Metal lever, rubber roller	50	☞ 5	<b>3SE5000-0AA68</b>	1	1 unit	41K	
		High-grade steel lever, plastic roller	19	☞ 5	<b>3SE5000-0AA62</b>	1	1 unit	41K	
		High-grade steel lever, high-grade steel roller	19	☞ 5	<b>3SE5000-0AA63</b>	1	1 unit	41K	
	<b>Twist levers, adjustable length</b>								
3SE5000-0AA60 3SE5000-0AA50		Metal lever, plastic roller	19	2	<b>3SE5000-0AA50</b>	1	1 unit	41K	
		Metal lever, high-grade steel roller	19	5	<b>3SE5000-0AA51</b>	1	1 unit	41K	
		Metal lever, plastic roller	30	5	<b>3SE5000-0AA55</b>	1	1 unit	41K	
		Metal lever, plastic roller	50	5	<b>3SE5000-0AA57</b>	1	1 unit	41K	
		Metal lever, rubber roller	50	5	<b>3SE5000-0AA58</b>	1	1 unit	41K	
		High-grade steel lever, plastic roller	19	5	<b>3SE5000-0AA52</b>	1	1 unit	41K	
		High-grade steel lever, high-grade steel roller	19	5	<b>3SE5000-0AA53</b>	1	1 unit	41K	
	<b>Fork levers (for switches with snap-action contacts only)</b>								
		2 metal levers, 2 plastic rollers	19	☞ 5	<b>3SE5000-0AT01</b>	1	1 unit	41K	
		2 metal levers, 2 high-grade steel rollers	19	☞ 5	<b>3SE5000-0AT02</b>	1	1 unit	41K	
		2 high-grade steel levers, 2 plastic rollers	19	☞ 5	<b>3SE5000-0AT03</b>	1	1 unit	41K	
		2 high-grade steel levers, 2 high-grade steel rollers	19	☞ 5	<b>3SE5000-0AT04</b>	1	1 unit	41K	
	<b>Rod actuators, type D, acc. to EN 50041</b>								
		Aluminum rod, length 200 mm	6	5	<b>3SE5000-0AA80</b>	1	1 unit	41K	
		Spring rod, length 200 mm	6	5	<b>3SE5000-0AA81</b>	1	1 unit	41K	
		Plastic rod, length 200 mm	6	5	<b>3SE5000-0AA82</b>	1	1 unit	41K	

☞ Positively driven actuator, necessary in safety circuits.

## 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)

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

##### Complete units<sup>1)</sup> · Enclosure width 56 mm, XL

	<b>Plain plungers</b>						
	<b>With high-grade steel plunger</b>						
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0CB01</b>	1	1 unit	41K
3SE5162-0CB01							
	<b>Rounded plungers</b>						
	<b>With high-grade steel plungers, with 3 mm overtravel</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5162-0EC02</b>	1	1 unit	41K
	Slow-action contacts with make-before-break	1 NO + 2 NC					
	2 mm travel difference						
3SE5162-0EC02							
	<b>Roller plungers</b>						
	<b>With high-grade steel roller 13 mm, with 3 mm overtravel</b>						
	Slow-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0BD02</b>	1	1 unit	41K
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 2	<b>3SE5162-0CD02</b>	1	1 unit	41K
3SE5162-0BD02							
	<b>Roller levers</b>						
	<b>With metal lever and plastic roller 22 mm</b>						
	Slow-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0BE01</b>	1	1 unit	41K
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 2	<b>3SE5162-0CE01</b>	1	1 unit	41K
	<b>With metal lever and high-grade steel roller 22 mm</b>						
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0CE02</b>	1	1 unit	41K
3SE5162-0BE01							
	<b>Angular roller levers</b>						
	<b>With metal lever and plastic roller 22 mm</b>						
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0CF01</b>	1	1 unit	41K
3SE5162-0CF01							
	<b>Twist levers</b>						
	<b>With metal lever 27 mm and plastic roller 19 mm</b>						
	Snap-action contacts	2 × (1 NO + 1 NC) --	⊕ 2	<b>3SE5162-0CH01</b>	1	1 unit	41K
	<b>With high-grade steel lever 27 mm and high-grade steel roller 19 mm, increased corrosion protection</b>						
	Snap-action contacts (gold contacts)	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0CH12-1CC1</b>	1	1 unit	41K
	<b>Twist levers, adjustable length</b>						
	<b>High-grade steel lever with grid hole and high-grade steel roller 19 mm, increased corrosion protection Adapter 3SX5100-3B included</b>						
	Snap-action contacts (gold contacts)	2 × (1 NO + 1 NC) --	⊕ 5	<b>3SE5162-0CH63-1AN4</b>	1	1 unit	41K
3SE5162-0CH01							

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

1) Popular versions.

##### Note:

If the device you require is not available as a complete unit, see [Modular system, page 12/43](#).

## 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)

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

**With 3 × connection thread M20 × 1.5**

Slow-action contacts	2 × (1 NO + 1 NC)	--	⊕ 2	<b>3SE5162-0BA00</b>	1	1 unit	41K
Snap-action contacts	2 × (1 NO + 1 NC)	--	⊕ 2	<b>3SE5162-0CA00</b>	1	1 unit	41K
Slow-action contacts with make-before-break	2 × (1 NO + 2 NC)	--	⊕ 30	<b>3SE5162-0DA00</b>	1	1 unit	41K

**With increased corrosion protection<sup>1)</sup>**

Slow-action contacts	2 × (1 NO + 1 NC)	--	⊕ 5	<b>3SE5162-0BA00-1CA0</b>	1	1 unit	41K
Snap-action contacts	2 × (1 NO + 1 NC)	--	⊕ 5	<b>3SE5162-0CA00-1CA0</b>	1	1 unit	41K
Slow-action contacts with make-before-break	2 × (1 NO + 2 NC)	--	⊕ 30	<b>3SE5162-0DA00-1CA0</b>	1	1 unit	41K

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

<sup>1)</sup> Use corresponding high-grade steel lever.

**Note:**

For the selection aid, see page 12/15.

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

**Operating mechanisms**

3SE5000-0AB01

**Plain plungers**

High-grade steel plunger	10	⊕ 2	<b>3SE5000-0AB01</b>	1	1 unit	41K
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3SE5000-0AC02

**Rounded plungers, type B, acc. to EN 50041**

High-grade steel plunger, with 3 mm overtravel	10	⊕ 5	<b>3SE5000-0AC02</b>	1	1 unit	41K
--	----	-----	----------------------	---	--------	-----



3SE5000-0AD02

**Roller plungers, type C, acc. to EN 50041**

High-grade steel roller, with 3 mm overtravel	13	⊕ 5	<b>3SE5000-0AD02</b>	1	1 unit	41K
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3SE5000-0AE01

**Roller levers**

Metal lever, plastic roller	22	⊕ 2	<b>3SE5000-0AE01</b>	1	1 unit	41K
Metal lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AE02</b>	1	1 unit	41K
High-grade steel lever, plastic roller	22	⊕ 5	<b>3SE5000-0AE03</b>	1	1 unit	41K
High-grade steel lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AE04</b>	1	1 unit	41K



3SE5000-0AF01

**Angular roller levers**

Metal lever, plastic roller	22	⊕ 2	<b>3SE5000-0AF01</b>	1	1 unit	41K
Metal lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AF02</b>	1	1 unit	41K
High-grade steel lever, plastic roller	22	⊕ 5	<b>3SE5000-0AF03</b>	1	1 unit	41K
High-grade steel lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AF04</b>	1	1 unit	41K



3SE5000-0AR01

**Spring rods** (for switches with snap-action contacts only)

• Plunger made of plastic, spring of high-grade steel:	7					
- Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR01</b>	1	1 unit	41K
- Length 76 mm (spring 23.5 mm, plunger 10 mm)		5	<b>3SE5000-0AR03</b>	1	1 unit	41K
- Length 242.5 mm (spring 150 mm, plunger 50 mm)		5	<b>3SE5000-0AR04</b>	1	1 unit	41K
• Plunger and spring made of high-grade steel:	7					
- Length 142.5 mm (spring 50 mm, plunger 50 mm)		5	<b>3SE5000-0AR02</b>	1	1 unit	41K




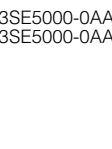


⊕ Positively driven actuator, necessary in safety circuits.

# Position and Safety Switches

## SIRIUS 3SE5 Mechanical Position Switches

### 3SE5, Metal Enclosures

Enclosure width 56 mm, XL

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Twist actuators</b>							
	<b>Twist actuators, for 40/56/56 XL mm, EN 50041</b>						
	<ul style="list-style-type: none"> <li>For twist levers and rod actuators, switching right and/or left, adjustable</li> <li>For fork levers, latching</li> </ul>	<ul style="list-style-type: none"> <li>⊕ 2</li> <li>⊕ 5</li> </ul>	<ul style="list-style-type: none"> <li><b>3SE5000-0AH00</b></li> <li><b>3SE5000-0AT10</b></li> </ul>	<ul style="list-style-type: none"> <li>1</li> <li>1</li> </ul>	<ul style="list-style-type: none"> <li>1 unit</li> <li>1 unit</li> </ul>	<ul style="list-style-type: none"> <li>41K</li> <li>41K</li> </ul>	
3SE5000-0AH00							
<b>Levers</b>							
	<b>Twist levers 27 mm, offset, type A, acc. to EN 50041</b>						
	Metal lever, plastic roller	19	⊕ 2	<b>3SE5000-0AA01</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	19	⊕ 2	<b>3SE5000-0AA02</b>	1	1 unit	41K
	Metal lever, high-grade steel roller with ball bearing	19	⊕ 5	<b>3SE5000-0AA03</b>	1	1 unit	41K
	Metal lever, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AA04</b>	1	1 unit	41K
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA05</b>	1	1 unit	41K
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA07</b>	1	1 unit	41K
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA08</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA11</b>	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA12</b>	1	1 unit	41K
	<b>Twist levers 35 mm, offset</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA15</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA16</b>	1	1 unit	41K
<b>Twist levers 30 mm, straight</b>							
Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA24</b>	1	1 unit	41K	
Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA26</b>	1	1 unit	41K	
	<b>Twist levers, adjustable length, with grid hole</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA61</b>	1	1 unit	41K
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA67</b>	1	1 unit	41K
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA68</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62</b>	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA63</b>	1	1 unit	41K
	<b>Twist levers, adjustable length</b>						
	Metal lever, plastic roller	19	2	<b>3SE5000-0AA50</b>	1	1 unit	41K
	Metal lever, high-grade steel roller	19	5	<b>3SE5000-0AA51</b>	1	1 unit	41K
	Metal lever, plastic roller	30	5	<b>3SE5000-0AA55</b>	1	1 unit	41K
	Metal lever, plastic roller	50	5	<b>3SE5000-0AA57</b>	1	1 unit	41K
	Metal lever, rubber roller	50	5	<b>3SE5000-0AA58</b>	1	1 unit	41K
	High-grade steel lever, plastic roller	19	5	<b>3SE5000-0AA52</b>	1	1 unit	41K
	High-grade steel lever, high-grade steel roller	19	5	<b>3SE5000-0AA53</b>	1	1 unit	41K
	<b>Fork levers (for switches with snap-action contacts only)</b>						
	2 metal levers, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AT01</b>	1	1 unit	41K
	2 metal levers, 2 high-grade steel rollers	19	⊕ 5	<b>3SE5000-0AT02</b>	1	1 unit	41K
	2 high-grade steel levers, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AT03</b>	1	1 unit	41K
	2 high-grade steel levers, 2 high-grade steel rollers	19	⊕ 5	<b>3SE5000-0AT04</b>	1	1 unit	41K
3SE5000-0AT01							
	<b>Rod actuators, type D, acc. to EN 50041</b>						
	Aluminum rod, length 200 mm	6	5	<b>3SE5000-0AA80</b>	1	1 unit	41K
	Spring rod, length 200 mm	6	5	<b>3SE5000-0AA81</b>	1	1 unit	41K
	Plastic rod, length 200 mm	6	5	<b>3SE5000-0AA82</b>	1	1 unit	41K
	Plastic rod, length 330 mm	6	5	<b>3SE5000-0AA83</b>	1	1 unit	41K
3SE5000-0AA80							

⊕ Positively driven actuator, necessary in safety circuits.

#### Overview



Compact design in width 30 mm

Particularly in harsh environments or on equipment with limited space, the small 3SE54 position switches in compact design with a depth of 16 mm and a weight of only 80 g (without cable) are ideal. Above all the versions with molded cable can be mounted in the most confined spaces.

3SE54 compact position switches are available in two different widths as complete units:

- The 3SE5413 series complies with the EU standard and features a 30-mm-wide enclosure with drilled holes at a distance of 20 mm.
- The 3SE5423 series meets the requirements of the US market and features a 40-mm-wide enclosure with drilled holes at a spacing of 25 mm.

Both the enclosure and the actuator head are made of metal and comply with the high IP67 degree of protection.

The following actuators are available:

- Rounded plungers
- Rounded plungers with central fixing
- Rounded plungers with external seal
- Roller plungers
- Roller plungers with central fixing
- Twist levers, adjustable length
- Twist levers

The contact block is designed with snap-action contacts 1 NO + 1 NC. The NC contact complies with the requirements for positive opening acc. to IEC 60947-5-1.

Use in safety circuits up to category 4 according to EN ISO 13849-1.

Connection:

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

#### Benefits

- Very compact yet with the same rating as the 3SE51 standard switches, for notable space savings in confined installation conditions
- Various actuator versions available
- Roller plungers can be rotated through 90°
- Twist levers can be rotated through 180°; twist levers can be adjusted in 15° increments
- Time is saved when mounting the fully assembled unit
- With metal enclosure of degree of protection IP67, ideal for use in rough industrial environments
- Insensitive to electromagnetic interference

## Position and Safety Switches








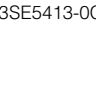

### SIRIUS 3SE5 Mechanical Position Switches

#### 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	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	mm	d					
<b>Complete units · Enclosure width 30 or 40 mm</b>							
<b>Rounded plungers</b>							
	• Standard mounting						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CC20-1EA2</b>		1	1 unit 41K
		40	⊕ 2	<b>3SE5423-0CC20-1EA2</b>		1	1 unit 41K
	- With 5 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 5	<b>3SE5413-0CC20-1EA5</b>		1	1 unit 41K
	- With M12 device plug, 5-pole	30	⊕ 2	<b>3SE5413-0CC20-1EB1</b>		1	1 unit 41K
3SE5413-0CC20-1EA2	40	⊕ 5	<b>3SE5423-0CC20-1EB1</b>		1	1 unit 41K	
	• With central fixing M12 x 1						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CC21-1EA2</b>		1	1 unit 41K
		40	⊕ 5	<b>3SE5423-0CC21-1EA2</b>		1	1 unit 41K
3SE5413-0CC21-1EA2							
	• With external seal						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 5	<b>3SE5413-0CC22-1EA2</b>		1	1 unit 41K
3SE5413-0CC22-1EA2	40	⊕ 5	<b>3SE5423-0CC22-1EA2</b>		1	1 unit 41K	
<b>Roller plungers</b>							
	• Standard mounting						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CD20-1EA2</b>		1	1 unit 41K
		40	⊕ 2	<b>3SE5423-0CD20-1EA2</b>		1	1 unit 41K
	- With 5 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 5	<b>3SE5413-0CD20-1EA5</b>		1	1 unit 41K
	- With M12 device plug, 5-pole	30	⊕ 2	<b>3SE5413-0CD20-1EB1</b>		1	1 unit 41K
3SE5413-0CD20-1EA2	40	⊕ 2	<b>3SE5423-0CD20-1EB1</b>		1	1 unit 41K	
	• With central fixing M12 x 1						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CD21-1EA2</b>		1	1 unit 41K
		40	⊕ 5	<b>3SE5423-0CD21-1EA2</b>		1	1 unit 41K
3SE5413-0CD21-1EA2							
	• Actuator head rotated 90°						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CD23-1EA2</b>		1	1 unit 41K
3SE5413-0CD23-1EA2							
<b>Twist levers</b>							
	• Standard mounting						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CN20-1EA2</b>		1	1 unit 41K
		40	⊕ 5	<b>3SE5423-0CN20-1EA2</b>		1	1 unit 41K
	- With 5 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 2	<b>3SE5413-0CN20-1EA5</b>		1	1 unit 41K
	- With M12 device plug, 5-pole	30	⊕ 2	<b>3SE5413-0CN20-1EB1</b>		1	1 unit 41K
3SE5413-0CN20-1EA2	40	⊕ 5	<b>3SE5423-0CN20-1EB1</b>		1	1 unit 41K	
	• Twist levers with a smaller mounting depth and lower height						
	- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	⊕ 5	<b>3SE5413-0CP20-1EA2</b>		1	1 unit 41K
	• Twist levers, adjustable length						
- With 2 m cable 5 x 0.75 mm <sup>2</sup>	30	<b>NEW</b> ⊕ X	<b>3SE5413-0CQ20-1EA2</b>		1	1 unit 41K	
3SE5413-0CQ20-1EA2							
<b>Connecting cable</b>							
	• Connecting cable with M12 socket, 5-pole, open end, length 5 m	--	<b>NEW</b> X	<b>3SX5601-3SB55</b>		1	1 unit 41K
	3SX5601-3SB55						

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

# 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 fixing dimensions and operating points are according to EN 50047.

The switches are equipped with two or three contacts in snap-action, slow-action or slow-action with make-before-break versions. The stroke is 6 mm.





The empty enclosure can be equipped with all contact block versions (see page 12/49).

#### Improved version

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

#### Selection and ordering data

2 or 3 contacts · Degree of protection IP20 (2 contacts), IP10 (3 contacts)

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

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

<sup>1)</sup> Contact blocks with 3 contacts, see page 12/49.

## 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	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
<b>Quick-release devices for enclosure width 40 mm</b>							
 3SY3110		<b>Adapter plates with screws</b>	5	<b>3SY3110</b>	1	1 unit	41K
 3SY3027		<b>Base plate with locking lever</b>	5	<b>3SY3027</b>	1	1 unit	41K
<b>Plug-in connections for M20 × 1.5 connecting threads</b>							
 3SY3131		<b>Device plugs (6-pole + PE), for M20 × 1.5</b> For max. 250 V, 10 A With connecting cable 0.75 mm <sup>2</sup> , plastic, degree of protection IP65, ambient temperature -40 ... +90 °C	5	<b>3SY3131</b>	1	1 unit	41K
 3SX5100-1SS51 3SX5100-1SS08		<b>M12 device plug, plastic, for M20 × 1.5</b>	5	<b>3SY3127</b>	1	1 unit	41K
		• 4-pole, for max. 250 V, 4 A, $U_{imp} = 2\,500\text{ V}$	5	<b>3SY3128</b>	1	1 unit	41K
		• 5-pole, for max. 125 V, 4 A, $U_{imp} = 1\,500\text{ V}$	<b>NEW</b> X	<b>3SX5100-1SS51</b>	1	1 unit	41K
		• 5-pole <sup>2)</sup> , for max. 60 V, 1.5 A, $U_{imp} = 800\text{ V}$	<b>NEW</b> 5	<b>3SX5100-1SS08</b>	1	1 unit	41K
		• 8-pole <sup>2)</sup> , for max. 30 V, 1.5 A, $U_{imp} = 800\text{ V}$					
 3SX5601-3SB54		<b>Connecting cable</b> with M12 socket, open end, length 5 m					
		• 4-pole	<b>NEW</b> X	<b>3SX5601-3SB54</b>	1	1 unit	41K
		• 5-pole	<b>NEW</b> X	<b>3SX5601-3SB55</b>	1	1 unit	41K
 3SX5601-3SV15		<b>Connection cable</b> with M12 socket, 5-pole and M12 plug, 5-pole, length 1 m	<b>NEW</b> X	<b>3SX5601-3SV15</b>	1	1 unit	41K
 6ES7194-6KB00-0XA0		<b>ET200 Y-cable for connecting 2 x one-channel sensors</b> with M12 plug, 5-pole on 2 x M12 sockets, 5-pole, length 200 mm	<b>NEW</b> 1	<b>6ES7194-6KB00-0XA0</b>	1	1 unit	250
 3RK1902-4CA00-4AA0		<b>M12 cable box, angled, 4-pole, max. 4 A with cabling box, max. 0.75 mm<sup>2</sup></b>	5	<b>3RK1902-4CA00-4AA0</b>	1	1 unit	42D
 3RK1902-4BA00-5AA0		<b>M12 plug, 5-pole</b>					
		• straight, separate item	<b>NEW</b> 5	<b>3RK1902-4BA00-5AA0</b>	1	1 unit	42D
		• angled, separate item	<b>NEW</b> 5	<b>3RK1902-4DA00-5AA0</b>	1	1 unit	42D
<b>Adapters and cable glands for M20 × 1.5 connecting threads</b>							
 3SX9917 3SX9918		<b>Adapters acc. to G, Q and VA</b> For cable entry from M20 × 1.5 to NPT 1/2	5	<b>3SX9917</b>	1	1 unit	41K
		• Metal	30	<b>3SX9918</b>	1	1 unit	41K
		• Plastic					
 3SX9926		<b>Cable glands M20 × 1.5</b> Plastic					
		• Degree of protection IP67	2	<b>3SX9926</b>	1	1 unit	41K
		• High degree of protection IP69, IEC 60529	5	<b>3SX5601-1A</b>	1	1 unit	41K

<sup>1)</sup> For wiring, a crimping tool is necessary, max. conductor cross-section 1 mm<sup>2</sup>.

<sup>2)</sup> Suitable for wiring sensors to be connected to all compact block I/O modules in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series.











# 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
<b>Optional accessories for 3SE51, 3SE52</b>							
	<b>Protective caps</b> For rounded plungers acc. to EN 50047, 3SE5...-.C05	Black	2	<b>3SE5000-0AC30</b>	1	1 unit	41K
3SE5000-0AC30							
	<b>Adapters with screw<sup>1)</sup></b> For an increase in the mounting depth on the 3SE5000-0AH00 twist actuator, in combination with twist lever with adjustable length or rod actuator		5	<b>3SX5100-3B</b>	1	1 unit	41K
3SX5100-3B							
	<b>Mounting plate</b> Suitable for 3SE523. and 3SE521. position switches with a width of 31 mm (in particular for control cabinet types)		5	<b>3SX5100-1A</b>	1	1 unit	41K
3SX5100-1A							
<b>Spare parts for 3SE51, 3SE52</b>							
	<b>Empty enclosures, plastic</b> • Enclosure width 31 mm - With increased corrosion protection • Enclosure width 40 mm • Enclosure width 50 mm - With increased corrosion protection	Turquoise	5	<b>3SE5232-0AC05</b>	1	1 unit	41K
3SE5232-0AC05							
			5	<b>3SE5232-0AC05-1CA0</b>	1	1 unit	41K
			5	<b>3SE5132-0AA00</b>	1	1 unit	41K
			5	<b>3SE5242-0AC05</b>	1	1 unit	41K
			5	<b>3SE5242-0AC05-1CA0</b>	1	1 unit	41K
	<b>Empty enclosures, metal</b> • Enclosure width 31 mm - With increased corrosion protection • Enclosure width 40 mm - With increased corrosion protection • Enclosure width 56 mm - With increased corrosion protection • Enclosure width 56 mm, XL <sup>2)</sup>	Turquoise	5	<b>3SE5212-0AC05</b>	1	1 unit	41K
3SE5212-0AC05							
			5	<b>3SE5212-0AC05-1CA0</b>	1	1 unit	41K
			5	<b>3SE5112-0AA00</b>	1	1 unit	41K
			5	<b>3SE5112-0AA00-1CA0</b>	1	1 unit	41K
			5	<b>3SE5122-0AA00</b>	1	1 unit	41K
			5	<b>3SE5122-0AA00-1CA0</b>	1	1 unit	41K
			5	<b>3SE5162-0AA00</b>	1	1 unit	41K
	<b>Contact blocks with 2 contacts<sup>3)</sup></b> • Slow-action contacts • Snap-action contacts - Standard - Gold-plated contacts - 2 x 2 mm switching interval - Short stroke	1 NO + 1 NC 1 NO + 1 NC	5	<b>3SE5000-0BA00</b>	1	1 unit	41K
3SE5000-0BA00							
			5	<b>3SE5000-0CA00</b>	1	1 unit	41K
			5	<b>3SE5000-0CA00-1AC1</b>	1	1 unit	41K
			30	<b>3SE5000-0GA00</b>	1	1 unit	41K
			5	<b>3SE5000-0NA00</b>	1	1 unit	41K
	<b>Contact blocks with 3 contacts</b> • Slow-action contacts • Snap-action contacts • Slow-action contacts with make-before-break • Slow-action contacts	1 NO + 2 NC 1 NO + 2 NC 1 NO + 2 NC	5	<b>3SE5000-0KA00</b>	1	1 unit	41K
3SE5000-0KA00							
			5	<b>3SE5000-0LA00</b>	1	1 unit	41K
			2	<b>3SE5000-0MA00</b>	1	1 unit	41K
			2	<b>3SE5000-0PA00</b>	1	1 unit	41K
	<b>Contact blocks for XL enclosure<sup>2)</sup></b> • Slow-action contacts • Snap-action contacts • Slow-action contacts with make-before-break	1 NO + 1 NC 1 NO + 1 NC 1 NO + 2 NC	5	<b>3SE5060-0BA00</b>	1	1 unit	41K
3SE5060-0BA00							
			5	<b>3SE5060-0CA00</b>	1	1 unit	41K
			30	<b>3SE5060-0MA00</b>	1	1 unit	41K

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

<sup>1)</sup> Possibly required for the conversion from 3SE21 to 3SE51.

<sup>2)</sup> Equip XL enclosures only with contact combinations, see pages 12/14, 12/42 and 12/43.







<sup>3)</sup> Unsuitable for open-type position switches, see page 12/47.

## 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 (UNIT, SET, M)	PS*	PG
	V	d					
<b>Spare parts for 3SE51, 3SE52</b>							
<b>Covers for plastic enclosures, width 31 mm</b>							
	• Turquoise with LED	24 DC	5	<b>3SE5230-1AA00</b>	1	1 unit	41K
		230 AC	5	<b>3SE5230-3AA00</b>	1	1 unit	41K
	• Yellow	--	5	<b>3SE5230-0AA00-1AG0</b>	1	1 unit	41K
	• Yellow with LED	24 DC	5	<b>3SE5230-1AA00-1AG0</b>	1	1 unit	41K
		230 AC	5	<b>3SE5230-3AA00-1AG0</b>	1	1 unit	41K
3SE5230-1AA00							
<b>Covers for plastic enclosures, width 40 mm</b>							
	• Turquoise with LED	24 DC	5	<b>3SE5130-1AA00</b>	1	1 unit	41K
		230 AC	5	<b>3SE5130-3AA00</b>	1	1 unit	41K
	• Yellow	--	5	<b>3SE5130-0AA00-1AG0</b>	1	1 unit	41K
	• Yellow with LED	24 DC	5	<b>3SE5130-1AA00-1AG0</b>	1	1 unit	41K
		230 AC	5	<b>3SE5130-3AA00-1AG0</b>	1	1 unit	41K
3SE5130-1AA00-1AG0							
<b>Covers for plastic enclosures, width 50 mm</b>							
	• Turquoise with LED	24 DC	5	<b>3SE5240-1AA00</b>	1	1 unit	41K
		230 AC	5	<b>3SE5240-3AA00</b>	1	1 unit	41K
	• Yellow	--	5	<b>3SE5240-0AA00-1AG0</b>	1	1 unit	41K
	• Yellow with LED	24 DC	5	<b>3SE5240-1AA00-1AG0</b>	1	1 unit	41K
		230 AC	5	<b>3SE5240-3AA00-1AG0</b>	1	1 unit	41K
3SE5240-1AA00							
<b>Covers for metal enclosures, width 31 mm</b>							
	• Turquoise with LED	24 DC	5	<b>3SE5210-1AA00</b>	1	1 unit	41K
		230 AC	5	<b>3SE5210-3AA00</b>	1	1 unit	41K
	• Yellow	--	5	<b>3SE5210-0AA00-1AG0</b>	1	1 unit	41K
	• Yellow with LED	24 DC	5	<b>3SE5210-1AA00-1AG0</b>	1	1 unit	41K
		230 AC	5	<b>3SE5210-3AA00-1AG0</b>	1	1 unit	41K
3SE5210-1AA00							
<b>Covers for metal enclosures, width 40 mm</b>							
	• Turquoise with LED	24 DC	5	<b>3SE5110-1AA00</b>	1	1 unit	41K
		230 AC	5	<b>3SE5110-3AA00</b>	1	1 unit	41K
	• Yellow	--	5	<b>3SE5110-0AA00-1AG0</b>	1	1 unit	41K
	• Yellow with LED	24 DC	5	<b>3SE5110-1AA00-1AG0</b>	1	1 unit	41K
		230 AC	5	<b>3SE5110-3AA00-1AG0</b>	1	1 unit	41K
3SE5110-1AA00							
<b>Covers for metal enclosures, width 56 mm</b>							
	• Turquoise with LED	24 DC	5	<b>3SE5120-1AA00</b>	1	1 unit	41K
		230 AC	5	<b>3SE5120-3AA00</b>	1	1 unit	41K
	• Yellow	--	5	<b>3SE5120-0AA00-1AG0</b>	1	1 unit	41K
	• Yellow with LED	24 DC	5	<b>3SE5120-1AA00-1AG0</b>	1	1 unit	41K
		230 AC	5	<b>3SE5120-3AA00-1AG0</b>	1	1 unit	41K
3SE5120-0AA00-1AG0							
<b>Covers for XL metal enclosures, width 56 mm</b>							
	• Yellow	--	5	<b>3SE5160-0AA00-1AG0</b>	1	1 unit	41K

#### Overview

Safety switches with separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons.

3SE5 safety switches with separate actuator have the same enclosures as the 3SE5 position switches (modular system).



3SE5 safety switches with head for separate actuator

#### Design

##### Enclosure sizes

The 3SE5 safety switches are available in four different enclosure sizes:

- Plastic enclosures according to EN 50047, 31 mm wide, IP65, 1 cable entry
- Metal enclosures according to EN 50047, 31 mm wide, IP66/IP67, 1 cable entry
- Plastic and metal enclosures according to EN 50041, 40 mm wide, IP66/IP67, 1 cable entry
- Plastic enclosures, 50 mm wide, IP66/IP67, 2 cable entries
- Metal enclosures, 56 mm wide, IP66/IP67, 3 cable entries

Also available are safety switches in the 3SE2 series which have been developed in this form according to general market requirements:

- Molded-plastic enclosures outside of the standards, enclosure width 52 mm, IP67

##### Enclosure versions

Various basic versions can be selected for the enclosures of the 3SE5 series:

- Available with 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 12/95)

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 12/58).

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 12/58).



Blocking inserts with padlock

##### Dust protection

For use in dusty environments, a rubber cap is offered that protects the actuator entries of the actuator head from contamination (see page 12/58).

##### Contact reliability

The contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e.g. 1 mA at 5 V DC.

##### Positive opening

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

## 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 ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/95); an additional adapter is not required.

#### Application

Safety switches with separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons.

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

Devices are available with enclosure versions to suit the particular ambient conditions. The high-grade steel actuator IP69K with optimized geometry is suitable for extreme environmental conditions as low as -40 °C. Different control tasks can be performed with the best contact blocks suited for the particular purpose. Dimensions and fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards. The devices are suitable for use in any climate.

#### Standards


IEC/EN 60947-5-1

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

#### Safety position switches

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

#### Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening of the NC contacts. In other words, for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked in accordance with the standard IEC 60947-5-1 with the symbol .

Category 3 according to EN ISO 13849-1 can be attained with a safety switch with separate actuator if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK, 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional 3SE5 safety switch.

#### Technical specifications

Type		3SE51...-V.., 3SE52...-V..	3SE2257-XX..	3SE2243-XX..
<b>General data</b>				
<b>Standards</b>		IEC 60947-5-1, EN 60947-5-1, EN ISO 14119		
<b>Rated insulation voltage <math>U_i</math></b>	V	400	500	
<b>Degree of pollution</b> acc. to IEC 60664-1		Class 3	Class 3	
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	6		
<b>Rated operational voltage <math>U_e</math></b>	V	400 AC; over 300 V AC same potential only	500 AC; over 380 V AC same potential only	
<b>Conventional thermal current <math>I_{th}</math></b>	A	6	10	
<b>Rated operational current <math>I_e</math></b>			1-pole	3-pole
• For alternating current 50/60 Hz		$I_e$ / AC-15	$I_e$ / AC-12	$I_e$ / AC-15
- At 24 V	A	6	10	10
- At 120 V	A	6	10	10
- At 240 V	A	4	6	10
- At 400 V	A	4	4	10
- At 500 V	A	--	10	3
• For direct current		$I_e$ / DC-13	$I_e$ / DC-12	$I_e$ / DC-13
- At 24 V	A	3	10	10
- At 125 V	A	0.55	--	--
- At 250 V	A	0.27	--	--
- At 110 V	A	--	4	1
- At 220 V	A	--	1	0.4
- At 400 V	A	0.12	--	--
- At 440 V	A	--	0.5	0.2
<b>Short-circuit protection</b>				
• 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	--	
<b>Mechanical endurance</b>		1 × 10 <sup>6</sup> operating cycles		
<b>Electrical endurance</b>				
• With 3RH.1, 3RT contactors in size S00, S0		1 × 10 <sup>6</sup> operating cycles	> 1 × 10 <sup>6</sup> 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	
<b>Switching frequency</b>		6 000 operating cycles/h		
With 3RH.1, 3RT contactors in size S00, S0				
<b>Minimum pull-out force</b> 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 M20 × 1.5

Version <sup>1)</sup>	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
				Article No.	Price per PU		
<b>Enclosure width 31 mm acc. to EN 50047</b>							
	Slow-action contacts	1 NO + 1 NC --	⊖ 5	<b>3SE5232-0RV40</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊖ ▶ 5	<b>3SE5232-0QV40</b>	1	1 unit	41K
	<b>With increased minimum pull-out force 30 N</b>						
	Slow-action contacts	1 NO + 2 NC --	⊖ 5	<b>3SE5232-0QV40-1AA1</b>	1	1 unit	41K
3SE5232-0RV40							
<b>With M12 device plug, 4-pole (250 V, 4 A)</b>							
	Slow-action contacts	1 NO + 1 NC --	⊖ 5	<b>3SE5234-0RV40-1AC4</b>	1	1 unit	41K
	Slow-action contacts	2 NC --	⊖ 5	<b>3SE5234-0QV40-1AE0</b>	1	1 unit	41K
3SE5234-0RV40-1AC4							
<b>With M12 device plug, 5-pole (125 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>2)</sup></b>							
	Slow-action contacts	2 NC --	⊖ X	<b>3SE5234-0QV40-1AE2</b>	1	1 unit	41K
<b>With 2 LEDs, yellow/green</b>							
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊖ 5	<b>3SE5232-1RV40</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 1 NC 230 V AC	⊖ 5	<b>3SE5232-3RV40</b>	1	1 unit	41K
<b>With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>							
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊖ 5	<b>3SE5234-1RV40-1AF3</b>	1	1 unit	41K
3SE5232-1RV40							

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

<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/58).

<sup>2)</sup> The 3SE5234-.....-1AE2 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.

## 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 M20 × 1.5

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

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

<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/58).

## Position and Safety Switches



### SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

#### With Separate Actuator

3SE5, plastic enclosures &gt; Enclosure width 50 mm

#### Selection and ordering data

2 or 3 contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

Version <sup>1)</sup>	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Enclosure width 50 mm</b>							
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5242-0QV40</b>	1	1 unit	41K
	<b>With increased minimum pull-out force 30 N</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0RV40-1AA1</b>	1	1 unit	41K
3SE5242-0QV40	<b>With 2 LEDs, yellow/green</b>						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5242-1QV40</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5242-3QV40</b>	1	1 unit	41K
3SE5242-1QV40							

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

<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/58).

## 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 M20 × 1.5

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

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

<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/58).



## 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 · Cable entry M20 × 1.5

Version <sup>1)</sup>	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Enclosure width 40 mm acc to EN 50041</b>							
	Slow-action contacts	1 NO + 2 NC --	⊕ ▶	<b>3SE5112-0QV10</b>	1	1 unit	41K
	<b>With increased minimum pull-out force 30 N</b>						
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5112-0QV10-1AA7</b>	1	1 unit	41K
	<b>With M12 device plug, 5-pole (125 V, 4 A)</b>						
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5114-0RV10-1AC5</b>	1	1 unit	41K
	Slow-action contacts	2 NC --	⊕ 5	<b>3SE5114-0QV10-1AE1</b>	1	1 unit	41K
	<b>With M12 device plug, 5-pole (60 V, 4 A), with pin assignment as for SIMATIC ET 200<sup>2)</sup></b>						
	Slow-action contacts	2 NC --	⊕ X	<b>3SE5114-0QV10-1AE3</b>	1	1 unit	41K
	<b>With device plug, 6-pole + PE (250 V, 10 A)</b>						
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5115-0QV10-1AD1</b>	1	1 unit	41K
	<b>With 2 LEDs, yellow/green</b>						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5112-1QV10</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5112-3QV10</b>	1	1 unit	41K
	<b>With M12 device plug, 5-pole (125 V, 4 A), and 2 LEDs</b>						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5114-1RV10-1AF3</b>	1	1 unit	41K
	<b>With device plug, 6-pole + PE (250 V, 10 A), and 2 LEDs</b>						
	Slow-action contacts	1 NO + 1 NC 24 V DC	⊕ 5	<b>3SE5115-1RV10-1AF2</b>	1	1 unit	41K
<b>Enclosure width 56 mm</b>							
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0QV10</b>	1	1 unit	41K
	<b>With increased minimum pull-out force 30 N</b>						
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5122-0QV10-1AA7</b>	1	1 unit	41K
	<b>With 2 LEDs, yellow/green</b>						
	Slow-action contacts	1 NO + 2 NC 24 V DC	⊕ 5	<b>3SE5122-1QV10</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC 230 V AC	⊕ 5	<b>3SE5122-3QV10</b>	1	1 unit	41K

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

<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/58).

<sup>2)</sup> The 3SE5114-.....-1AE3 position switches, prewired with an M12 plug, 5-pole, have the same pin assignment as all compact block I/O modules with a PROFINET connection in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series with IP65/IP67 degree of protection for cabinet-free installation directly at the machine.













# Position and Safety Switches

## SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

### With Separate Actuator

#### Accessories

#### Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>IP66/IP67</b>						
 3SE5000-0AV01		<b>Standard actuator</b> • Length 75.6 mm	▶	<b>3SE5000-0AV01</b>	1	1 unit 41K
 3SE5000-0AV02	5	• With vertical fixing, length 53 mm		<b>3SE5000-0AV02</b>	1	1 unit 41K
 3SE5000-0AV03	5	• With transverse fixing, length 47 mm		<b>3SE5000-0AV03</b>	1	1 unit 41K
 3SE5000-0AW11	5	• With transverse fixing, plastic <sup>1)</sup> , length 40 mm		<b>3SE5000-0AW11</b>	1	1 unit 41K
 3SE5000-0AW51	5	<b>High-grade steel actuator, IP69K<sup>2)</sup></b> • Length 75.6 mm		<b>3SE5000-0AW51</b>	1	1 unit 41K
 3SE5000-0AV06	2	<b>Radius actuator,</b> length 51 mm • Direction of approach from the left		<b>3SE5000-0AV04</b>	1	1 unit 41K
	5	• Direction of approach from the right		<b>3SE5000-0AV06</b>	1	1 unit 41K
 3SE5000-0AV05-1AA6	5	<b>Universal radius actuator</b> • Length 77 mm		<b>3SE5000-0AV05</b>	1	1 unit 41K
	5	• Length 77 mm, tab rotated 90°		<b>3SE5000-0AV05-1AA6</b>	1	1 unit 41K
 3SE5000-0AV07	2	<b>Universal radius actuator, heavy duty</b> • Length 67 mm		<b>3SE5000-0AV07-1AK2</b>	1	1 unit 41K
	5	• Length 77 mm		<b>3SE5000-0AV07</b>	1	1 unit 41K
<b>Optional accessories for 3SE5</b>						
 3SE5000-0AV08-1AA2	5	<b>Protective caps</b> , black rubber For the actuator head, to protect the actuator openings from contamination (Only for enclosure width 40 mm or 56 mm)		<b>3SE5000-0AV08-1AA2</b>	1	1 unit 41K
 3SE5000-0AV08-1AA3	5	<b>Blocking inserts</b> , high-grade steel, for actuator head For up to eight padlocks		<b>3SE5000-0AV08-1AA3</b>	1	1 unit 41K
<b>Connections for 3SE5, 3SE2</b>						
 3SY3127	5	<b>Device plugs, M12, fixed, for M20 x 1.5</b> With connecting cable 0.25 mm <sup>2</sup> , plastic, degree of protection IP67 • 4-pole, for max. 250 V, 4 A		<b>3SY3127</b>	1	1 unit 41K
	5	• 5-pole, for max. 125 V, 4 A		<b>3SY3128</b>	1	1 unit 41K
	NEW X	• 5-pole <sup>3)</sup> , for max. 60 V, 4 A		<b>3SX5100-1SS51</b>	1	1 unit 41K
 3SX9926	NEW X	<b>Connection cable</b> with M12 socket, 5-pole and M12 plug, 5-pole		<b>3SX5601-3SV15</b>	1	1 unit 41K
	2	<b>Cable glands M20 x 1.5</b> Plastic		<b>3SX9926</b>	1	1 unit 41K

<sup>1)</sup> Not suitable for safety switches with tumbler.

<sup>2)</sup> With optimized geometry and suitable for extreme environmental conditions such as -40 °C.

<sup>3)</sup> Suitable for wiring sensors to be connected to all compact block I/O modules in the SIMATIC ET 200eco PN, ET 200eco PN-F and ET 200AL series.

## Position and Safety Switches







### SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

#### With Separate Actuator

3SE2, plastic enclosures &gt; Special width 52 mm

**Selection and ordering data**

1 or 3 contacts · 3 directions of approach · Degree of protection IP67

Version	Operation	SD	Complete units	<input type="checkbox"/>	PU (UNIT, SET, M)	PS*	PG	
		d	Article No.	Price per PU				
<b>Plastic enclosures in special width of 52 mm</b>								
 3SE2243	<b>Lateral and front-end actuation<sup>1)</sup></b>	6 mm stroke						
	• With connecting thread M20 × 1.5							
	- Slow-action contacts 1 NO + 2 NC	Holding force 5 N	⊕ 2	<b>3SE2243-0XX40</b>		1	1 unit	41K
		Holding force 30 N	⊕ 2	<b>3SE2243-0XX</b>		1	1 unit	41K
		With automatic ejection	⊕ 2	<b>3SE2243-0XX30</b>		1	1 unit	41K
	- Slow-action contacts 1 NC	Holding force 5 N	⊕ 15	<b>3SE2257-6XX40</b>		1	1 unit	41K
		Holding force 30 N	⊕ 15	<b>3SE2257-6XX</b>		1	1 unit	41K
		With automatic ejection	⊕ 5	<b>3SE2257-6XX30</b>		1	1 unit	41K
	• With connecting thread M16 × 1.5							
	- Slow-action contacts 1 NO + 2 NC	Holding force 30 N	⊕ 10	<b>3SE2243-0XX18</b>		1	1 unit	41K
<b>Accessories</b>								
 3SX3218   3SX3228   3SX3256   3SX3217   3SX3234	<b>Actuators</b>							
	• Standard actuators ( $r_{\min} = 150$ mm), length 28 mm		2	<b>3SX3218</b>		1	1 unit	41K
	• Universal radius actuator ( $r_{\min} = 45$ mm), length 34 mm		2	<b>3SX3228</b>		1	1 unit	41K
	• Radius actuator, adjustable radius, length 34 mm		10	<b>3SX3256</b>		1	1 unit	41K
	• Ball locating, force adjustable up to max. 100 N by two adjustable screws, length 28 mm		2	<b>3SX3217</b>		1	1 unit	41K
	• Actuator, length 34 mm, with dust protection and slit cover		30	<b>3SX3234</b>		1	1 unit	41K
<b>Accessories</b>								
• Slit cover (1 set = 3 units)		30	<b>3SX3233</b>		1	3 units	41K	

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

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

#### Dust protection

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

#### 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 switches corresponds to the requirements of the fail-safe principle according to EN ISO 14119.

#### Optical signaling equipment

The safety switches with tumbler are available with an optional optical signaling device.

The signaling device indicates the switch position of the interlock and the protective device optically by means of 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.

#### Note:

- The operational voltage must be connected to the corresponding contacts by the customer.
- This voltage for the LEDs must match the operational voltage of the solenoid (same potential).

## Position and Safety Switches

### SIRIUS 3SE5, 3SE2 Mechanical Safety Switches With Tumbler

#### General data

#### Benefits

The new generation of 3SE53 safety switches offers:

- More safety through higher locking forces:
  - 1 300 N with plastic enclosure
  - 2 600 N with metal enclosure
- Various release mechanisms: lock release, escape release and emergency release
- Two contact blocks each with three contacts as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure versions: plastic, metal or with integrated ASIsafe
- An extensive range of actuators
- An optional LED status display 24 V DC, 115 V or 230 V AC for all switch versions
- Devices with ASIsafe electronics integrated in the enclosure/ wired to 8-pole M12 device plug (see page 12/99)
- 3SE5322-1S.21-1AG4 series with high degree of protection IP69, IP69K in accordance with IEC 60529, cover with foamed seal

#### Application

The safety switches with tumbler are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the switched-off machine).

The safety position switches with tumbler have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and tumbler

#### Standards

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

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

#### Approvals

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

Category 3 according to EN ISO 13849-1 can be attained with a safety switch with tumbler if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK or 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional 3SE5 safety switch.

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

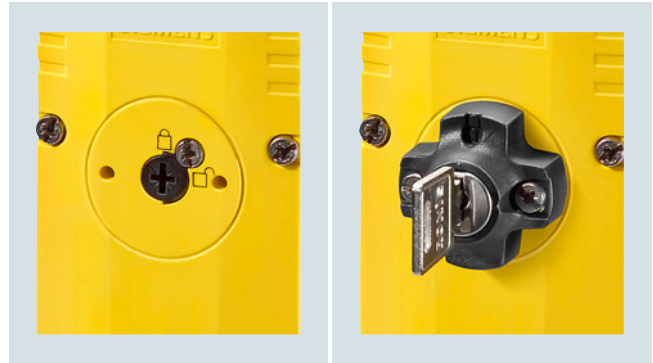
#### Tumbler

The separate actuator works like a key using coding and protects against manipulation. It transmits the locking force to the protective device and helps to monitor its position.

There are two versions of locking:

#### Spring-actuated lock (closed-circuit principle)

- In the standard version, the safety switch locks by means of spring force and releases by means of electromagnetic force. In the case of voltage failure, it reliably prevents the protective device from opening when machine parts are still moving.
- The switch is equipped with an auxiliary release for emergency situations or setup mode.
- An auxiliary release which can be secured with a lock to prevent misuse is available as a version.

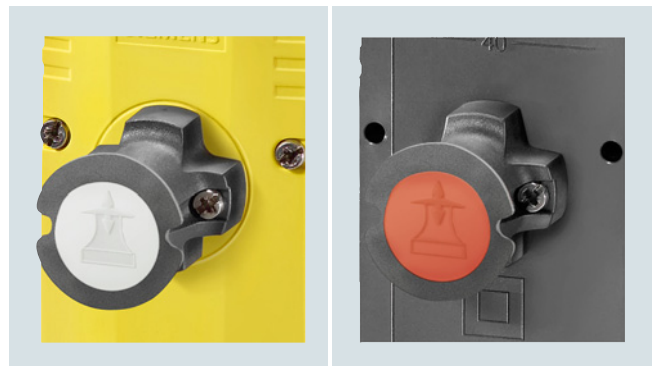


Auxiliary release

Auxiliary release with lock

The 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

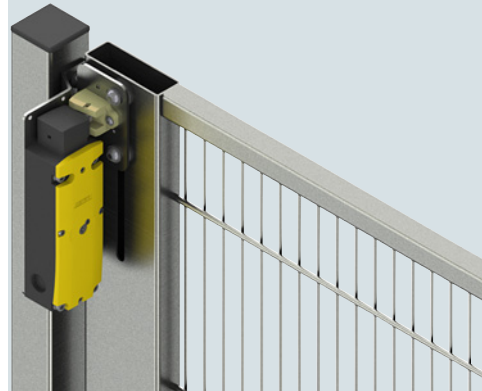
#### General data

#### Examples of door interlocking



X-Lock door interlocking from Axelent

For the addresses of the door interlock manufacturers, see page 16/15.



Door interlocking from Brühl

#### Technical specifications

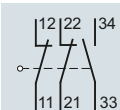
Type		3SE5322	3SE5312
<b>General data</b>			
<b>Standards</b>		IEC/EN 60947-5-1, EN ISO 14119	
<b>Rated insulation voltage <math>U_i</math></b>	V	250	
<b>Degree of pollution</b> acc. to IEC 60664-1		Class 3	
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	4	
<b>Rated operational voltage <math>U_e</math></b>			
• DC	V	24	
• 50/60 Hz AC	V	230	
<b>Conventional thermal current <math>I_{th}</math></b>	A	6	
<b>Rated operational current <math>I_e</math></b>			
• For 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	
<b>Solenoid</b>			
• Locking force, max.	N	1 300	2 600
• Locking force acc. to EN ISO 14119	N	1 000	2 000
• Power consumption at $U_C$	W	3.5	
<b>Short-circuit protection<sup>1)</sup></b>			
• With DIAZED fuse links, utilization category gG	A	6	
• With miniature circuit breaker, C characteristic	A	0.5	
<b>Mechanical endurance</b>	Operat. cycles	$1 \times 10^6$	
<b>Electrical endurance</b>			
• With 3RH.1, 3RT contactors in size S00, S0	Operat. cycles	$1 \times 10^6$	
• For utilization category AC-15 when switching off $I_e$ / AC-15 at 230 V	Operat. cycles	100 000	
• With utilization category DC-12/DC-13		For direct current depending on the loading of the switch	
<b>Switching frequency</b>	Operating cycles/h	6 000	
With 3RH.1, 3RT contactors in size S00, S0			
<b>Shock resistance</b> acc. to IEC 60068-2-27	g/ms	30/11	

<sup>1)</sup> Without any welds according to IEC 60947-5-1.

#### Circuit diagrams

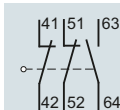
##### Monitoring the actuator

Slow-action contacts 1 NO + 2 NC



##### Monitoring the solenoid

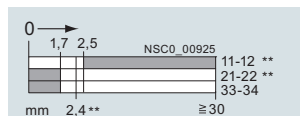
Slow-action contacts 1 NO + 2 NC



#### Operating travel

##### Monitoring the actuator

Slow-action contacts 1 NO + 2 NC









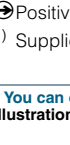

## Position and Safety Switches

### 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 · Locking force 1 300 N

Tumbler <sup>1)</sup>	LEDs	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG	
		V	d	Article No.	Price per PU			
<b>1 300 N locking force · Enclosure width 54 mm</b>								
<b>Spring-actuated locks</b>								
	• With auxiliary release	--	24 DC	⊕ ▶	<b>3SE5322-0SD21</b>	1	1 unit 41K	
		--	115 AC	⊕	<b>3SE5322-0SD22</b>	1	1 unit 41K	
		--	230 AC	⊕	<b>3SE5322-0SD23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5322-1SD21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-2SD22</b>	1	1 unit 41K	
		Yellow/Green	230 AC	⊕	<b>3SE5322-3SD23</b>	1	1 unit 41K	
3SE5322-0SD21	• Additionally an M12 plug, 8-pole <sup>2)</sup>	--	24 DC	<b>NEW</b> ⊕	<b>3SE5324-0SD21-1AE4</b>	1	1 unit 41K	
	- Monitoring: 1 x door, 1 x interlocking	--	24 DC	<b>NEW</b> ⊕	<b>3SE5324-0SD21-1AE5</b>	1	1 unit 41K	
	- Monitoring: 2 x door	--	24 DC	<b>NEW</b> ⊕				
	• With auxiliary release with lock	--	24 DC	⊕	<b>3SE5322-0SE21</b>	1	1 unit 41K	
		--	115 AC	⊕	<b>3SE5322-0SE22</b>	1	1 unit 41K	
		--	230 AC	⊕	<b>3SE5322-0SE23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5322-1SE21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-2SE22</b>	1	1 unit 41K	
		Yellow/Green	230 AC	⊕	<b>3SE5322-3SE23</b>	1	1 unit 41K	
3SE5322-0SE21								
	• With escape release from the front	--	24 DC	⊕	<b>3SE5322-0SF21</b>	1	1 unit 41K	
		--	115 AC	⊕	<b>3SE5322-0SF22</b>	1	1 unit 41K	
		--	230 AC	⊕	<b>3SE5322-0SF23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5322-1SF21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-2SF22</b>	1	1 unit 41K	
		Yellow/Green	230 AC	⊕	<b>3SE5322-3SF23</b>	1	1 unit 41K	
3SE5322-0SF21								
	• With escape release from the front and emergency release from the back	--	24 DC	⊕	<b>3SE5322-0SL21</b>	1	1 unit 41K	
		--	24 DC	⊕				
		--	115 AC	⊕				
		--	230 AC	⊕				
		Yellow/Green	24 DC	⊕	<b>3SE5322-0SG21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-0SG22</b>	1	1 unit 41K	
	Yellow/Green	230 AC	⊕	<b>3SE5322-0SG23</b>	1	1 unit 41K		
3SE5322-0SG21								
	• With escape release from the back and auxiliary release from the front	--	24 DC	⊕	<b>3SE5322-1SG21</b>	1	1 unit 41K	
		--	115 AC	⊕	<b>3SE5322-2SG22</b>	1	1 unit 41K	
		--	230 AC	⊕	<b>3SE5322-3SG23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5322-1SG21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-2SG22</b>	1	1 unit 41K	
		Yellow/Green	230 AC	⊕	<b>3SE5322-3SG23</b>	1	1 unit 41K	
3SE5322-0SG21								
	• With escape release from the back and auxiliary release with lock from the front	--	24 DC	⊕	<b>3SE5322-0SH21</b>	1	1 unit 41K	
		--	24 DC	⊕				
		--	115 AC	⊕				
		--	230 AC	⊕				
		Yellow/Green	24 DC	⊕	<b>3SE5322-0SJ21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-0SJ22</b>	1	1 unit 41K	
	Yellow/Green	230 AC	⊕	<b>3SE5322-0SJ23</b>	1	1 unit 41K		
3SE5322-0SJ21								
	• With emergency release from the back and auxiliary release from the front	--	24 DC	⊕	<b>3SE5322-1SJ21</b>	1	1 unit 41K	
		--	115 AC	⊕	<b>3SE5322-2SJ22</b>	1	1 unit 41K	
		--	230 AC	⊕	<b>3SE5322-3SJ23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5322-1SJ21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-2SJ22</b>	1	1 unit 41K	
		Yellow/Green	230 AC	⊕	<b>3SE5322-3SJ23</b>	1	1 unit 41K	
3SE5322-0SJ21								
<b>Solenoid-locked</b>								
		--	24 DC	⊕ ▶	<b>3SE5322-0SB21</b>	1	1 unit 41K	
		--	115 AC	⊕	<b>3SE5322-0SB22</b>	1	1 unit 41K	
		--	230 AC	⊕	<b>3SE5322-0SB23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5322-1SB21</b>	1	1 unit 41K	
		Yellow/Green	115 AC	⊕	<b>3SE5322-2SB22</b>	1	1 unit 41K	
		Yellow/Green	230 AC	⊕	<b>3SE5322-3SB23</b>	1	1 unit 41K	
		Yellow/Green	24 DC	<b>NEW</b> ⊕	<b>3SE5324-0SB21-1AC8</b>	1	1 unit 41K	
		Yellow/Green	24 DC	⊕	<b>3SE5324-0SB21-1AP0</b>	1	1 unit 41K	
	3SE5322-1SB21	• With M12 plug, 8-pole	Yellow/Green	24 DC	<b>NEW</b> ⊕			
		- Head rotated clockwise by 90°	Yellow/Green	24 DC	⊕			

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

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

<sup>2)</sup> Suitable for connection, e.g. to SIMATIC ET200eco PN-F with connection accessories 3SX5601-3SV18 and Y-cable 6ES7194-6KC00-0XA0, see page 12/67.

## 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 IP69K** · Cable entry 3 × M20 × 1.5 · Locking force 1 300 N

- With foamed seal and special cover

Tumbler <sup>1)</sup>	LEDs	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG
		V	d	Article No.	Price per PU		

#### 1 300 N locking force · Enclosure width 54 mm · Degree of protection IP69K

##### Spring-actuated locks

- With auxiliary release

Yellow/  
Green

24 DC

5

**3SE5322-1SD21-1AG4**

1

1 unit

41K



3SE5322-1SD21-1AG4

- With auxiliary release with lock

Yellow/  
Green

24 DC

5

**3SE5322-1SE21-1AG4**

1

1 unit

41K



3SE5322-1SE21-1AG4

- With escape release from the front

Yellow/  
Green

24 DC

5

**3SE5322-1SF21-1AG4**

1

1 unit

41K



3SE5322-1SF21-1AG4

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

Yellow/  
Green

24 DC

5

**3SE5322-1SG21-1AG4**

1

1 unit

41K



3SE5322-1SG21-1AG4

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

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

#### Accessories

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

#### Accessories

##### Cable glands M20 × 1.5

Plastic  
High degree of protection IP69, IEC 60529

5

**3SX5601-1A**

1

1 unit

41K



3SX5601-1A









## 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 · Locking force 2 600 N

Tumbler <sup>1)</sup>	LEDs	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG		
		V	d	Article No.	Price per PU				
<b>2 600 N locking force · Enclosure width 54 mm</b>									
	<b>Spring-actuated locks</b>								
	• With auxiliary release	--	24 DC	⊕ ▶	<b>3SE5312-0SD11</b>	1	1 unit	41K	
		--	115 AC	⊕ 5	<b>3SE5312-0SD12</b>	1	1 unit	41K	
		--	230 AC	⊕ 5	<b>3SE5312-0SD13</b>	1	1 unit	41K	
		Yellow/ Green	24 DC	⊕ 5	<b>3SE5312-1SD11</b>	1	1 unit	41K	
		Yellow/ Green	115 AC	⊕ 5	<b>3SE5312-2SD12</b>	1	1 unit	41K	
Yellow/ Green		230 AC	⊕ 5	<b>3SE5312-3SD13</b>	1	1 unit	41K		
	• With auxiliary release with lock	--	24 DC	⊕ 5	<b>3SE5312-0SE11</b>	1	1 unit	41K	
		--	115 AC	⊕ 5	<b>3SE5312-0SE12</b>	1	1 unit	41K	
		--	230 AC	⊕ 5	<b>3SE5312-0SE13</b>	1	1 unit	41K	
		Yellow/ Green	24 DC	⊕ 5	<b>3SE5312-1SE11</b>	1	1 unit	41K	
		Yellow/ Green	115 AC	⊕ 5	<b>3SE5312-2SE12</b>	1	1 unit	41K	
		Yellow/ Green	230 AC	⊕ 5	<b>3SE5312-3SE13</b>	1	1 unit	41K	
	• With escape release from the front	--	24 DC	⊕ 5	<b>3SE5312-0SF11</b>	1	1 unit	41K	
		--	115 AC	⊕ 5	<b>3SE5312-0SF12</b>	1	1 unit	41K	
		--	230 AC	⊕ 5	<b>3SE5312-0SF13</b>	1	1 unit	41K	
		Yellow/ Green	24 DC	⊕ 5	<b>3SE5312-1SF11</b>	1	1 unit	41K	
		Yellow/ Green	115 AC	⊕ 5	<b>3SE5312-2SF12</b>	1	1 unit	41K	
		Yellow/ Green	230 AC	⊕ 5	<b>3SE5312-3SF13</b>	1	1 unit	41K	
	• With escape release from the back and auxiliary release from the front	--	24 DC	⊕ 5	<b>3SE5312-0SG11</b>	1	1 unit	41K	
		--	115 AC	⊕ 5	<b>3SE5312-0SG12</b>	1	1 unit	41K	
		--	230 AC	⊕ 5	<b>3SE5312-0SG13</b>	1	1 unit	41K	
		Yellow/ Green	24 DC	⊕ 5	<b>3SE5312-1SG11</b>	1	1 unit	41K	
		Yellow/ Green	115 AC	⊕ 5	<b>3SE5312-2SG12</b>	1	1 unit	41K	
		Yellow/ Green	230 AC	⊕ 5	<b>3SE5312-3SG13</b>	1	1 unit	41K	
	• With escape release from the back and auxiliary release with lock from the front	--	24 DC	⊕ 5	<b>3SE5312-0SH11</b>	1	1 unit	41K	
		• With emergency release from the back and auxiliary release from the front	--	24 DC	⊕ 5	<b>3SE5312-0SJ11</b>	1	1 unit	41K
			--	115 AC	⊕ 5	<b>3SE5312-0SJ12</b>	1	1 unit	41K
			--	230 AC	⊕ 5	<b>3SE5312-0SJ13</b>	1	1 unit	41K
			Yellow/ Green	24 DC	⊕ 5	<b>3SE5312-1SJ11</b>	1	1 unit	41K
			Yellow/ Green	115 AC	⊕ 5	<b>3SE5312-2SJ12</b>	1	1 unit	41K
Yellow/ Green	230 AC		⊕ 5	<b>3SE5312-3SJ13</b>	1	1 unit	41K		
	<b>Solenoid-locked</b>	--	24 DC	⊕ ▶	<b>3SE5312-0SB11</b>	1	1 unit	41K	
		--	115 AC	⊕ 5	<b>3SE5312-0SB12</b>	1	1 unit	41K	
		--	230 AC	⊕ 5	<b>3SE5312-0SB13</b>	1	1 unit	41K	
		Yellow/ Green	24 DC	⊕ 5	<b>3SE5312-1SB11</b>	1	1 unit	41K	
		Yellow/ Green	115 AC	⊕ 5	<b>3SE5312-2SB12</b>	1	1 unit	41K	
		Yellow/ Green	230 AC	⊕ 5	<b>3SE5312-3SB13</b>	1	1 unit	41K	

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

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

<sup>2)</sup> Suitable for connection, e.g. to SIMATIC ET200eco PN-F with connection accessories 3SX5601-3SV18 and Y-cable 6ES7194-6KC00-0XA0, see page 12/67.










## 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
<b>IP66/IP67</b>						
 3SE5000-0AV01		<b>Standard actuator</b> • Length 75.6 mm	▶	<b>3SE5000-0AV01</b>	1	1 unit 41K
 3SE5000-0AV02	5	• With vertical fixing, length 53 mm		<b>3SE5000-0AV02</b>	1	1 unit 41K
 3SE5000-0AV03	5	• With transverse fixing, length 47 mm		<b>3SE5000-0AV03</b>	1	1 unit 41K
<b>High-grade steel actuator, IP69K<sup>1)</sup></b>						
 3SE5000-0AW51	5	• Length 75.6 mm		<b>3SE5000-0AW51</b>	1	1 unit 41K
 3SE5000-0AW52	5	• With vertical fixing, length 53 mm		<b>3SE5000-0AW52</b>	1	1 unit 41K
 3SE5000-0AW53	5	• With transverse fixing, length 47 mm		<b>3SE5000-0AW53</b>	1	1 unit 41K
<b>Radius actuator, length 51 mm</b>						
 3SE5000-0AV04	2	• Direction of approach from the left		<b>3SE5000-0AV04</b>	1	1 unit 41K
	5	• Direction of approach from the right		<b>3SE5000-0AV06</b>	1	1 unit 41K
<b>Universal radius actuator</b>						
 3SE5000-0AV05-1AA6	5	• Length 77 mm		<b>3SE5000-0AV05</b>	1	1 unit 41K
	5	• Length 77 mm, tab rotated 90°		<b>3SE5000-0AV05-1AA6</b>	1	1 unit 41K
<b>Universal radius actuator, heavy duty</b>						
 3SE5000-0AV07	2	• Length 67 mm		<b>3SE5000-0AV07-1AK2</b>	1	1 unit 41K
	5	• Length 77 mm		<b>3SE5000-0AV07</b>	1	1 unit 41K

For further plug versions, see page 12/48.










<sup>1)</sup> With optimized geometry and suitable for extreme environmental conditions such as -40 °C.

# Position and Safety Switches

## SIRIUS 3SE5, 3SE2 Mechanical Safety Switches

### With Tumbler

#### Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Optional accessories for 3SE5</b>						
 3SE5000-0AV08-1AA2	5	<b>3SE5000-0AV08-1AA2</b>		1	1 unit	41K
<b>Protective caps</b> , black rubber For the actuator head, to protect the actuator openings from contamination						
 3SE5000-0AV08-1AA3	5	<b>3SE5000-0AV08-1AA3</b>		1	1 unit	41K
<b>Blocking inserts</b> , high-grade steel, for actuator head For up to eight padlocks						
<b>Spare parts for 3SE5</b>						
<b>Spare keys</b>						
	5	<b>3SX5100-1F</b>		1	1 unit	41K
<b>Connection for 3SE5</b>						
<b>M12 device plug, plastic, for M20 x 1.5</b>						
 3SX5100-1SS51	5	<b>3SY3127</b>		1	1 unit	41K
	5	<b>3SY3128</b>		1	1 unit	41K
	<b>NEW</b> X	<b>3SX5100-1SS51</b>		1	1 unit	41K
	<b>NEW</b> 5	<b>3SX5100-1SS08</b>		1	1 unit	41K
<ul style="list-style-type: none"> <li>• 4-pole, for max. 250 V, 4 A, <math>U_{imp} = 2\,500\text{ V}</math></li> <li>• 5-pole, for max. 125 V, 4 A, <math>U_{imp} = 1\,500\text{ V}</math></li> <li>• 5-pole<sup>1)</sup>, for max. 60 V, 4 A, <math>U_{imp} = 800\text{ V}</math></li> <li>• 8-pole<sup>1)</sup>, for max. 30 V, 1.5 A, <math>U_{imp} = 800\text{ V}</math></li> </ul>						
<b>Cable glands M20 x 1.5</b>						
 3SX9926	Plastic					
	2	<b>3SX9926</b>		1	1 unit	41K
<ul style="list-style-type: none"> <li>• Degree of protection IP67</li> <li>• High degree of protection IP69, IEC 60529</li> </ul>						
<b>Connecting cable</b>						
 3SX5601-3SB55	with M12 socket, open end, length 5 m					
	<b>NEW</b> X	<b>3SX5601-3SB54</b>		1	1 unit	41K
	<b>NEW</b> X	<b>3SX5601-3SB55</b>		1	1 unit	41K
<ul style="list-style-type: none"> <li>• 4-pole</li> <li>• 5-pole</li> </ul>						
<b>Connection cable</b>						
 3SX5601-3SV18	<b>NEW</b> X	<b>3SX5601-3SV18</b>		1	1 unit	41K
with M12 socket, 8-pole and M12 plug, 8-pole, length 1 m						
<b>Connecting cable</b>						
 3SX5601-2GA03	with M12 socket, 8-pole, straight, open end					
	Rated voltage 30 V Rated current 2 A					
	2	<b>3SX5601-2GA03</b>		1	1 unit	41K
	2	<b>3SX5601-2GA05</b>		1	1 unit	41K
<ul style="list-style-type: none"> <li>• Length 3 m</li> <li>• Length 5 m</li> <li>• Length 10 m</li> </ul>						
<b>M12 plug</b>						
 6GT2090-0BE00	<b>NEW</b> 1	<b>6GT2090-0BE00</b>		1	5 units	572
Straight, 8-pole						
 6ES7194-6KC00-0XA0	<b>NEW</b>	<b>6ES7194-6KC00-0XA0<sup>2)</sup></b>				
<b>ET200 Y-cable for connecting 1 x two-channel sensor</b>						
with M12 socket, 8-pole on 2 x M12 plugs, 5-pole, length 200 mm						

<sup>1)</sup> Suitable for wiring sensors to be connected to all compact block I/O modules in the SIMATIC ET 200eco PN-F and ET 200AL series.

<sup>2)</sup> Start of delivery on request.

For further plug versions, see page 12/48.

## 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 switching elements designed as snap-action contacts
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 12/102)

For a description of the basic switches, see page 12/5.

##### Operating mechanism

The hinge switches are provided for mounting on hinges. The actuator head is included in the scope of supply. There are two versions:

- Operating mechanism with hollow shaft, inner diameter 8 mm, outer 12 mm
- Operating mechanism with solid shaft, diameter 10 mm

#### 3SE2283 hinge switches

The 3SE2283 hinge switches with integrated hinge are available in a special design. They are particularly suitable for use in machine doors and flaps.

#### Benefits

The 3SE5 hinge switches differ from the previous series through the following new characteristics:

- All actuators can be turned around the axis in increments of 22.5° (see picture, page 12/6).
- The new three-pole contact block 1 NO + 2 NC is available for all enclosure sizes (see picture, page 12/6).
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save approx. 20 to 25% of the time when connecting (see picture, page 12/6).
- The ASIsafe electronics are integrated in the enclosure for the versions with AS-Interface connection (see page 12/87); an additional adapter is not required.

#### Application

The hinge switches are used in those areas where the position of swiveling protective devices such as doors or flaps must be monitored. With these switches, the position of the doors and flaps is converted into electric signals. The switches allow shutdown and signaling without delay in the event of a small opening angle through the snap-action contacts with an operating angle of 10°.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. Dimensions and fixing points of the enclosures are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

#### Standards

IEC/EN 60947-5-1

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

#### Safety position switches

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

#### Safety circuits

The IEC/EN 60947-5-1 standard requires positive opening of the NC contacts. In other words, for the purposes of personal safety, the assured opening of NC contacts is expressly stipulated for the electrical equipment of machines in all safety circuits and marked in accordance with IEC 60947-5-1 with the symbol  $\ominus$ .

Category 4 according to EN ISO 13849-1 can be attained with the 3SE5 hinge switches with  $\ominus$  if the corresponding fail-safe evaluation units are selected and correctly installed, e.g. the 3SK or 3TK28 safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges.

## 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 12/13).

#### Selection and ordering data

##### Complete units



2 or 3 contacts · Degree of protection IP65 (31 mm) or IP67/IP68 (40 mm) · Cable entry M20 × 1.5

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

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

<sup>1)</sup> Contact blocks permanently integrated, replacement not available.

#### Spare parts

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

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 M20 × 1.5

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

#### Metal enclosures · 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

#### Metal enclosures · 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, Appendix K.

##### 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 built-in hinge are particularly suitable for use in doors and flaps of machines that must be closed to ensure the safety of operating personnel. Their thin profile and the compact design allow them to be directly mounted on a hinged protective cover and the stable frame.

#### Benefits

- Easy mounting through use of versions with integrated hinge
- Versions with small operating angle of 4° or 8°
- Protection against personal injury provided by positively driven NC contacts according to IEC 60947-5-1
- Simultaneous shutdown and signaling by 1 NO + 2 NC contacts

#### Technical specifications

Type	3SE2283	
<b>Rated insulation voltage <math>U_i</math></b>	V	250
<b>Conventional thermal current <math>I_{th}</math></b>	A	2.5
<b>Rated operational current <math>I_e</math></b>		
• At AC-15, 120 V	A	4.2
• At AC-15, 250 V	A	2
• At DC-13, 24 V	A	1
<b>Min. make-break capacity</b>		> 5 V/1 mA
<b>Short-circuit protection</b>		
• Operational class gG	A	2
<b>Mechanical endurance</b>		> $1 \times 10^6$ operating cycles
<b>Switching frequency</b>		1 200 operating cycles/h
<b>Positive opening</b>		2 mm after opening point
<b>Enclosure material</b>		Plastic
<b>Degree of protection</b>		IP65
<b>Ambient temperature</b>	°C	-25 ... +65
<b>Shock resistance</b>		30 g / 18 ms
<b>Resistance to vibrations</b>		20 g / 10 ... 200 Hz
<b>Cable entry</b>		2 × (M20 × 1.5)
<b>Screw terminals</b>		0.5 ... 1.5 mm <sup>2</sup> / AWG 15

## Position and Safety Switches

### SIRIUS 3SE5, 3SE2 Mechanical Safety Hinge Switches

#### 3SE2, plastic enclosures > with integrated hinge

##### Selection and ordering data

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

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

##### Plastic enclosures with integrated hinge



3SE2283

##### With integrated hinge

(Scope of supply includes additional hinge and fixing accessories)

##### • Aluminum hinge

- 4° actuating angle	1 NO + 2 NC	⊕ 15	<b>3SE2283-0GA43</b>	1	1 unit	41K
- 4° actuating angle	3 NC	⊕ 5	<b>3SE2283-6GA43</b>	1	1 unit	41K
- 8° actuating angle	1 NO + 2 NC	⊕ 10	<b>3SE2283-0GA53</b>	1	1 unit	41K
- 8° actuating angle	3 NC	⊕ 15	<b>3SE2283-6GA53</b>	1	1 unit	41K

##### • High-grade steel hinge

- 4° actuating angle	1 NO + 2 NC	⊕ 5	<b>3SE2283-0GA44</b>	1	1 unit	41K
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⊕ Positive opening according to IEC 60947-5-1, Appendix K.

##### Accessories/spare parts

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

##### Accessories



3SX3225

##### Additional hinge

(Scope of supply includes fixing accessories)

- Made of aluminum

10	<b>3SX3225</b>	1	1 unit	41K
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## Selection and ordering data





**Enclosure width 31 mm according to EN 50047**

## Complete units

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

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

Complete units<sup>1)</sup> · Enclosure width 31 mm

	<b>Twist levers, 21 mm long, acc. to EN 50047</b> With plastic roller 19 mm Snap-action contacts	1 NO + 2 NC	⊕ 5	<b>3SE5232-0LK21-1AY0</b>	1	1 unit	41K
SE5232-0LK21-1AY0							
	<b>Roller levers, acc. to EN 50047</b> With plastic roller 13 mm Snap-action contacts	1 NO + 2 NC	⊕ 5	<b>3SE5232-0LE10-1AY0</b>	1	1 unit	41K
3SE5232-0LE10-1AY0							
	<b>Rod actuators, acc. to EN 50047</b> Plastic rod, length 200 mm Snap-action contacts	1 NO + 1 NC	30	<b>3SE5232-0HK82-1AY0</b>	1	1 unit	41K
3SE5232-0HK82-1AY0							
	<b>Spring rods</b> Snap-action contacts	1 NO + 1 NC	30	<b>3SE5232-0HR01-1AY0</b>	1	1 unit	41K
3SE5232-0HR01-1AY0							

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

1) Popular versions.

## 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 · Locking force 1 300 N

Tumbler <sup>1)</sup>	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG
	V	d	Article No.	Price per PU		

#### 1 300 N locking force · Enclosure width 54 mm

##### Spring-actuated locks

- With front auxiliary release

24 DC

⊕ 5

**3SE5322-0SD21-1AY0**

1

1 unit

41K



3SE5322-0SD21-1AY0

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

<sup>1)</sup> Supplied without actuator. Please order separately.

### Accessories/spare parts

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

#### Accessories



##### Standard actuator

- Length 75.6 mm

3SE5000-0AV01

▶ **3SE5000-0AV01**

1

1 unit

41K



##### High-grade steel actuator, standard, IP69K<sup>1)</sup>

- Length 75.6 mm

3SE5000-0AW51

5

**3SE5000-0AW51**

1

1 unit

41K



- With vertical fixing, length 53 mm

3SE5000-0AW52

5

**3SE5000-0AW52**

1

1 unit

41K



- With transverse fixing, length 47 mm

3SE5000-0AW53

5

**3SE5000-0AW53**

1

1 unit

41K

<sup>1)</sup> With optimized geometry and suitable for extreme environmental conditions such as -40 °C.

## Selection and ordering data

**Enclosure width 31 mm according to EN 50047**

With increased corrosion protection

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

**Complete units<sup>1)</sup> · Enclosure width 31 mm**

3SE5232-0HU21-1AY0

**Hinge switches, acc. to EN 50047****With hollow shaft D = 8 mm,  
operating angle 10 degrees,**

Snap-action contacts

1 NO + 1 NC ⤴ 30

**3SE5232-0HU21-1AY0**

1 1 unit 41K

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

<sup>1)</sup> With optimized geometry and 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 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 or IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Complete units<sup>1)</sup> · Enclosure width 31 mm</b>							
	<b>Roller plungers, type C, acc. to EN 50047</b> With plastic roller 10 mm, with M12 device plug, 4-pole (250 V, 4 A)						
3SE5234-0CD03-1AJ1	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5234-0CD03-1AJ1</b>	1	1 unit	41K
	<b>Roller plungers with central fixing</b>						
3SE5232-0CD10-1AJ0	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CD10-1AJ0</b>	1	1 unit	41K
	<b>Twist levers, type A, acc. to EN 50047</b> With high-grade steel lever 21 mm and plastic roller 19 mm						
3SE5232-0CK31-1AJ0	Snap-action contacts	1 NO + 1 NC --	⊕ 2	<b>3SE5232-0CK31-1AJ0</b>	1	1 unit	41K
	<b>Twist levers, adjustable length</b> With high-grade steel lever with grid hole and plastic roller 19 mm						
3SE5232-0CK62-1AJ0	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CK62-1AJ0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0LK62-1AJ0</b>	1	1 unit	41K
<b>Complete units<sup>1)</sup> · Enclosure width 50 mm</b>							
	<b>Twist levers</b> With metal lever 21 mm and plastic roller 19 mm						
3SE5242-0HK21-1AJ0	Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0HK21-1AJ0</b>	1	1 unit	41K
	<b>Twist levers, adjustable length</b> With high-grade steel lever with grid hole and plastic roller 19 mm						
3SE5242-0HK62-1AJ0	Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0HK62-1AJ0</b>	1	1 unit	41K

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

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

##### Note:



If the device you require is not available as a complete unit, see [Modular system, page 12/77](#).

## 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 or IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Basic switches - Enclosure width 31 mm (with rounded plunger<sup>1)</sup>)</b>							
<b>With Teflon plunger</b>							
	Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5232-0CC05-1AJ0</b>	1	1 unit	41K
	Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0KC05-1AJ0</b>	1	1 unit	41K
	Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5232-0LC05-1AJ0</b>	1	1 unit	41K
3SE5232-0CC05-1AJ0							
<b>Basic switches - Enclosure width 50 mm (with rounded plunger<sup>1)</sup>)</b>							
<b>With Teflon plunger</b>							
	Slow-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0BC05-1AJ0</b>	1	1 unit	41K
	Snap-action contacts, integrated <sup>2)</sup>	1 NO + 1 NC --	⊕ 5	<b>3SE5242-0HC05-1AJ0</b>	1	1 unit	41K
3SE5242-0BC05-1AJ0							

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

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

<sup>2)</sup> Subsequent replacement of contact blocks is not possible.

#### Note:






For the selection aid, see page 12/15.

## 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

Version	Diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		
<b>Operating mechanisms</b>						
	<b>Roller plungers, type C, acc. to EN 50047</b>					
3SE5000-0AD03-1AJ0	Plastic roller	10	⊕ 5	<b>3SE5000-0AD03-1AJ0</b>	1	1 unit 41K
<b>Roller levers, type E, acc. to EN 50047</b>						
	Metal lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE10-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE12-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE13-1AJ0</b>	1	1 unit 41K
	<b>Angular roller levers</b>					
3SE5000-0AF10-1AJ0	Metal lever, plastic roller	13	⊕ 5	<b>3SE5000-0AF10-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AF12-1AJ0</b>	1	1 unit 41K
<b>Twist actuators</b>						
	<b>Twist actuators, for 31 mm/50 mm, EN 50047</b>					
3SE5000-0AK00-1AJ0	Switching right and/or left, adjustable		⊕ 5	<b>3SE5000-0AK00-1AJ0</b>	1	1 unit 41K
<b>Levers</b>						
<b>Twist levers straight, 21 mm, type A, acc. to EN 50047</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA21-1AJ0</b>	1	1 unit 41K
3SE5000-0AA21-1AJ0	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA31-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA32-1AJ0</b>	1	1 unit 41K
<b>Twist levers, adjustable length, with grid hole</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60-1AJ0</b>	1	1 unit 41K
3SE5000-0AA60-1AJ0	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62-1AJ0</b>	1	1 unit 41K

⊕ Positively driven actuator, necessary in safety circuits.

## SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C Shock and Vibration Test according to Railway Standard

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

#### Enclosure width 40 mm according to EN 50041

##### Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

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

#### Basic switches · Enclosure width 40 mm



3SE5132-0CA00-1AJ0

##### With connecting thread M20 × 1.5

Snap-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5132-0CA00-1AJ0</b>	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5132-0KA00-1AJ0</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5132-0LA00-1AJ0</b>	1	1 unit	41K

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

##### Note:

For the selection aid, [see page 12/15](#).

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

#### Operating mechanisms



3SE5000-0AC03-1AJ0

##### Rounded plungers, type B, acc. to EN 50041

Plastic plungers	10	⊕	5	<b>3SE5000-0AC03-1AJ0</b>	1	1 unit	41K
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3SE5000-0AD05-1AJ0

##### Roller plungers, type C, acc. to EN 50041

Plastic plunger, plastic roller	13	⊕	5	<b>3SE5000-0AD05-1AJ0</b>	1	1 unit	41K
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3SE5000-0AE05-1AJ0

##### Roller levers

Metal lever with plastic roller, plastic base	22	⊕	5	<b>3SE5000-0AE05-1AJ0</b>	1	1 unit	41K
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3SE5000-0AH00-1AJ0

##### Twist actuators, for 31 mm/50 mm, EN 50047

• For twist levers and rod actuators, switching right and/or left, adjustable		⊕	5	<b>3SE5000-0AH00-1AJ0</b>	1	1 unit	41K
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3SE5000-0AA01-1AJ0

##### Levers

##### Twist levers, type A, acc. to EN 50041

Metal lever, plastic roller	19	⊕	5	<b>3SE5000-0AA01-1AJ0</b>	1	1 unit	41K
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High-grade steel lever, plastic roller	19	⊕	5	<b>3SE5000-0AA11-1AJ0</b>	1	1 unit	41K
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3SE5000-0AA60-1AJ0

##### Twist levers, adjustable length, with grid hole

Metal lever, plastic roller	19	⊕	5	<b>3SE5000-0AA60-1AJ0</b>	1	1 unit	41K
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High-grade steel lever, plastic roller	19	⊕	5	<b>3SE5000-0AA62-1AJ0</b>	1	1 unit	41K
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⊕ 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 according to EN 50047

##### Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

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

#### Complete units - Enclosure width 31 mm

##### Rounded plungers, type B, acc. to EN 50047



3SE5212-0CC05-1AJ0

Snap-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5212-0CC05-1AJ0</b>	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5212-0KC05-1AJ0</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕	5	<b>3SE5212-0LC05-1AJ0</b>	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, twist actuator for 40 mm

Snap-action contacts	1 NO + 1 NC --	⊕	5	<b>3SE5212-0CH22-1AJ0</b>	1	1 unit	41K
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⊕ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

##### Note:

If the device you require is not available as a complete unit, see [Modular system, page 12/81](#).



## 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 M20 × 1.5, with increased corrosion protection

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

#### Basic switches - Enclosure width 31 mm (with rounded plunger<sup>1)</sup>)



##### With plunger

Snap-action contacts	1 NO + 1 NC --	⊕ 5	<b>3SE5212-0CC05-1AJ0</b>	1	1 unit	41K
Slow-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0KC05-1AJ0</b>	1	1 unit	41K
Snap-action contacts	1 NO + 2 NC --	⊕ 5	<b>3SE5212-0LC05-1AJ0</b>	1	1 unit	41K

3SE5212-0CC05-1AJ0

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

<sup>1)</sup> For enclosures with widths of 31 mm, the basic switch is a complete unit with rounded plungers.

Note:

For the selection aid, see page 12/15.

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

#### Operating mechanisms



##### Roller plungers, type C, acc. to EN 50047

Plastic roller	10	⊕ 5	<b>3SE5000-0AD03-1AJ0</b>	1	1 unit	41K
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3SE5000-0AD03-1AJ0



##### Roller levers, type E, acc. to EN 50047

Metal lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE10-1AJ0</b>	1	1 unit	41K
High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE12-1AJ0</b>	1	1 unit	41K
High-grade steel lever, high-grade steel roller	13	⊕ 5	<b>3SE5000-0AE13-1AJ0</b>	1	1 unit	41K

3SE5000-0AE10-1AJ0



##### Angular roller levers

Metal lever, plastic roller	13	⊕ 5	<b>3SE5000-0AF10-1AJ0</b>	1	1 unit	41K
High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AF12-1AJ0</b>	1	1 unit	41K

3SE5000-0AF10-1AJ0

#### Twist actuators



##### Twist actuators, for 31 mm/50 mm, EN 50047

Switching right and/or left, adjustable		⊕ 5	<b>3SE5000-0AK00-1AJ0</b>	1	1 unit	41K
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3SE5000-0AK00-1AJ0

#### Levers

##### Twist levers straight, 21 mm, type A, acc. to EN 50047

Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA21-1AJ0</b>	1	1 unit	41K
High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA31-1AJ0</b>	1	1 unit	41K

3SE5000-0AA21-1AJ0



##### Twist levers, adjustable length, with grid hole

Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60-1AJ0</b>	1	1 unit	41K
High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62-1AJ0</b>	1	1 unit	41K

3SE5000-0AA60-1AJ0

⊕ 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 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

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

#### Complete units · Enclosure width 40 mm



3SE5112-0CC02-1AJ0

**Rounded plungers, type B, acc. to EN 50041**  
With high-grade steel plungers, with 3 mm overtravel  
Snap-action contacts

1 NO + 1 NC

⊕ 5

**3SE5112-0CC02-1AJ0**

1

1 unit

41K



3SE5112-0LD02-1AJ0

**Roller plungers, type C, acc. to EN 50041**  
With high-grade steel plungers, with 3 mm overtravel  
Snap-action contacts

1 NO + 2 NC

⊕ 5

**3SE5112-0LD02-1AJ0**

1

1 unit

41K



3SE5112-0LH11-1AJ0

**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

With high-grade steel lever 27 mm and  
high-grade steel roller 19 mm  
Snap-action contacts

2 × (1 NO + 1 NC)

⊕ 10

**3SE5162-0CH12-1AN5**

1

1 unit

41K



3SE5112-0CH62-1AJ0

**Twist levers, adjustable length**  
With high-grade steel lever with grid hole and  
plastic roller 19 mm  
Snap-action contacts

1 NO + 1 NC

⊕ 5

**3SE5112-0CH62-1AJ0**

1

1 unit

41K

#### Complete units · Enclosure width 56 mm, XL, 3 × M20 × 1.5



3SE5162-0CH60-1AJ0

**Twist levers, adjustable length**  
With metal lever with grid hole and  
plastic roller 19 mm  
Snap-action contacts

1 NO + 1 NC

⊕ 5

**3SE5162-0CH60-1AJ0**

1

1 unit

41K

With high-grade steel lever 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, Appendix K or positively driven actuator, necessary in safety circuits.

**Note:**

If the device you require is not available as a complete unit, see [Modular system, page 12/83](#).




## 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 / 56 mm / 56 mm, XL

##### Modular system

2, 3 or 4 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5, with increased corrosion protection

Version	Contacts	LEDs	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
			d	Article No.	Price per PU		
<b>Basic switches · Enclosure width 40 mm</b>							
<b>With connecting thread M20 × 1.5</b>							
	Snap-action contacts	1 NO + 1 NC	--	⊕ 5	<b>3SE5112-OCA00-1AJ0</b>	1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC	--	⊕ 5	<b>3SE5112-OKA00-1AJ0</b>	1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC	--	⊕ 5	<b>3SE5112-OLA00-1AJ0</b>	1	1 unit 41K
3SE5112-OCA00-1AJ0							
<b>Basic switches · Enclosure width 56 mm</b>							
<b>With 3 x connecting thread M20 × 1.5</b>							
	Snap-action contacts	1 NO + 1 NC	--	⊕ 5	<b>3SE5122-OCA00-1AJ0</b>	1	1 unit 41K
	Slow-action contacts	1 NO + 2 NC	--	⊕ 5	<b>3SE5122-OKA00-1AJ0</b>	1	1 unit 41K
	Snap-action contacts	1 NO + 2 NC	--	⊕ 5	<b>3SE5122-OLA00-1AJ0</b>	1	1 unit 41K
3SE5122-OCA00-1AJ0							
<b>Basic switches · Enclosure width 56 mm, XL</b>							
<b>With 3 x connection thread M20 × 1.5</b>							
	Slow-action contacts	2 × (1 NO + 1 NC)	--	⊕ 5	<b>3SE5162-OBA00-1AJ0</b>	1	1 unit 41K
	Snap-action contacts	2 × (1 NO + 1 NC)	--	⊕ 5	<b>3SE5162-OCA00-1AJ0</b>	1	1 unit 41K
3SE5162-OBA00-1AJ0							

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

##### Note:

For the selection aid, [see page 12/15](#).

## 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	SD	Modular system	PU (UNIT, SET, M)	PS*	PG
	mm	d	Article No.	Price per PU		
<b>Operating mechanisms</b>						
	<b>Rounded plungers, type B, acc. to EN 50041</b> High-grade steel plunger, with 3 mm overtravel	10	⊕ 5	<b>3SE5000-0AC02-1AJ0</b>	1	1 unit 41K
3SE5000-0AC02-1AJ0						
	<b>Roller plungers, type C, acc. to EN 50041</b> High-grade steel roller, with 3 mm overtravel	10	⊕ 5	<b>3SE5000-0AD02-1AJ0</b>	1	1 unit 41K
3SE5000-0AD02-1AJ0						
	<b>Roller levers</b> Metal lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE01-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AE03-1AJ0</b>	1	1 unit 41K
3SE5000-0AE01-1AJ0						
	<b>Angular roller levers</b> Metal lever, plastic roller	13	⊕ 5	<b>3SE5000-0AF01-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, plastic roller	13	⊕ 5	<b>3SE5000-0AF03-1AJ0</b>	1	1 unit 41K
3SE5000-0AF01-1AJ0						
<b>Twist actuators</b>						
	<b>Twist actuators, for 40/56/56 XL mm EN 50041</b> Switching right and/or left, adjustable		⊕ 5	<b>3SE5000-0AH00-1AJ0</b>	1	1 unit 41K
3SE5000-0AH00-1AJ0						
<b>Levers</b>						
	<b>Twist levers, type A, acc. to EN 50041</b> Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA01-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA11-1AJ0</b>	1	1 unit 41K
3SE5000-0AA01-1AJ0						
	<b>Twist levers, adjustable length, with grid hole</b> Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60-1AJ0</b>	1	1 unit 41K
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62-1AJ0</b>	1	1 unit 41K
3SE5000-0AA60-1AJ0						

⊕ Positively driven actuator, necessary in safety circuits.

## SIRIUS 3SE5 Mechanical Position Switches for Ambient Temperatures down to -40 °C Shock and Vibration Test according to Railway Standard

### SIRIUS 3SE5 mechanical safety switches with separate actuator > 3SE5, plastic enclosures

#### Selection and ordering data

##### Enclosure width 31 mm according to EN 50047

##### Complete units

2 or 3 contacts · 5 directions of approach · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · Cable entry M20 × 1.5

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

##### Enclosure width 31 mm acc. to EN 50047



3SE5232-0RV40-1AJ0

##### Ambient temperature down to -40 °C With increased corrosion protection

Slow-action contacts      1 NO + 1 NC --      5      **3SE5232-0RV40-1AJ0**      1      1 unit      41K

#### Accessories/spare parts

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

##### Accessories



3SE5000-0AW11

##### Standard actuator

- With transverse fixing, plastic, length 40 mm

5      **3SE5000-0AW11**      1      1 unit      41K



3SE5000-0AW51

##### High-grade steel actuator<sup>1)</sup>

- 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

<sup>1)</sup> With optimized geometry and 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 56 mm

6 slow-action contacts · 5 directions of approach · Degree of protection IP66/IP67 · Cable entry 3 × M20 × 1.5 · Locking force 1 300 N

Tumbler <sup>1)</sup>	Solenoid, rated operational voltage	SD	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG
	V	d	Article No.	Price per PU		

#### 1 300 N locking force · Enclosure width 54 mm



3SE5322-0SL21-1AJ0

#### Spring-actuated locks

- With escape release from the front and emergency release from the back 24 DC
- With auxiliary release **NEW**
- With escape release from the back and auxiliary release from the front, head rotated through 180° **NEW**

5

X

5

**3SE5322-0SL21-1AJ0**

1

1 unit

41K

**3SE5322-0SD21-1AJ0**

1

1 unit

41K

**3SE5322-0SG21-1AM5**

1

1 unit

41K

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

<sup>1)</sup> Supplied without actuator. Please order separately.

#### Accessories/spare parts

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

#### Accessories



3SE5000-0AV01

#### Standard actuator

- Length 75.6 mm

▶

**3SE5000-0AV01**

1

1 unit

41K



3SE5000-0AW51

#### High-grade steel actuator<sup>1)</sup>

- 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

<sup>1)</sup> With optimized geometry and suitable for extreme environmental conditions such as -40 °C.

### Overview

The 3SF1 position switches with safety-related communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be wired up conventionally.

With the 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.



Examples of selection options in the modular system

### Modular system

The position switches of the 3SF11.4 and 3SF12.4 series are designed as a modular system comprising different versions of the basic switch and an actuator which must be ordered separately. Thanks to the modular design of the switch the end users can select the right solution for their application from numerous versions and install it themselves in a very short time.

### Design

The 3SF1 switches are available in four different enclosure sizes:

- Plastic and metal enclosures according to EN 50047, 31 mm wide, with M12 device plug
- Metal enclosures according to EN 50041, 40 mm wide, with M12 device plug
- Plastic enclosures, 50 mm wide, with M12 device plug and M12 socket
- Metal enclosures, 56 mm wide, with M12 device plug and M12 socket

### Display

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

### Connection

Connection to the AS-Interface is by means of a 4-pole M12 device plug (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) also have an M12 socket for connecting a second position switch. Category 4 according to EN ISO 13849-1 is thus achieved.

### Benefits

The new generation of 3SF1 position switches offers:

- ASIsafe electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs
- Can be integrated easily via TIA Portal

### Application

With the standard position switches, mechanical positions of moving machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can comply with practically all requirements in industry.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moving machine parts. Dimensions, fixing points and characteristics are largely in accordance with the EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

### Standards

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

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

### Approvals

AS-Interface according to IEC/EN 62026-2

With a 3SF1 position switch it is possible to achieve Category 2 according to EN ISO 13849-1 or SIL 1 according to IEC 61508.

Categories 3 or 4 according to EN ISO 13849-1 or SIL 2 or 3 according to IEC 61508 can be achieved by using a second 3SE5 position switch.

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

## Position and Safety Switches

### SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

#### General data

#### Technical specifications

Type	3SF11..., 3SF12..	
<b>General data</b>		
<b>Standards</b>	IEC/EN 60947-5-1, EN ISO 14119	
<b>Acc. to AS-Interface specification</b>		
• I/O configuration/ID configuration	0/B	
• ID1 code/ID2 code (Hex)	F/F	
• Power consumption, overall	mA	≤ 60
<b>Inputs</b>		
• Low signal range	Contact open	
• High signal range	Contact closed, $I_{in}$ dynamic ( $I_{peak} \geq 5$ mA)	
<b>Status display</b>	Green/red dual LED	
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	kV	0.6
<b>EMC strength</b>		
• IEC 61000-1-2	kV	4
• IEC 61000-4-3	V/m	10
• IEC 61000-4-4 (A/B)	kV	1/2
<b>Mechanical endurance</b>		
• Basic switch	15 × 10 <sup>6</sup> operating cycles	
• With separate actuator, 3SF1...-..V..	1 × 10 <sup>6</sup> operating cycles	
<b>PFH value</b>		
Probability of failure upon request of the safety function, with 1 actuation per hour and $B_{10} = 5 \times 10^6$		
• Basic switch	1/h	4 × 10 <sup>-9</sup>
• With separate actuator, 3SF1...-..V..	1/h	2 × 10 <sup>-9</sup>
• Hinge switch, 3SF1...-..U..	1/h	2 × 10 <sup>-9</sup>
<b>Shock resistance</b> acc. to IEC 60068-2-27	30 g / 11 ms	

Type	3SF1234	3SF1134	3SF1244	3SF1214	3SF1114	3SF1124
<b>Enclosure</b>						
<b>Enclosure</b>	Ultramid A3X2G7			Zinc die casting GD Zn Al4 Cu1		
• Material						
• Width	mm	31	40	50	31	40
• Dimensions acc. to EN		EN 50047	EN 50041	--	EN 50047	EN 50041
<b>Degree of protection</b> acc. to IEC 60529		IP65	IP66/IP67			
<b>Ambient temperature</b>						
• During operation	°C	-25 ... +60				
• Storage, transport	°C	-40 ... +80				
<b>Mounting position</b>	Any					

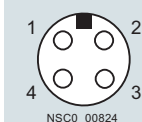
#### Pin assignment

##### M12 device plug, 4-pole



- 1 ASi +
- 2 Not assigned
- 3 ASi -
- 4 Not assigned

##### M12 socket, 4-pole



- 1 Channel 2
- 2 Channel 2
- 3 Not assigned
- 4 Not assigned

#### LEDs

##### Status display (operating state)

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

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

#### Basic switches (with rounded plunger<sup>1)</sup>) · Enclosure width 31 mm acc. to EN 50047



3SF1234-1KC05-1BA1

##### With Teflon plunger

With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact

Slow-action contacts	2 NC	24 V DC	⊕ 5				
Snap-action contacts	2 NC	24 V DC	⊕ 5				

**3SF1234-1KC05-1BA1**

1 1 unit 42A

**3SF1234-1LC05-1BA1**

1 1 unit 42A

#### Basic switches (with rounded plunger<sup>1)</sup>) · Enclosure width 50 mm



3SF1244-1KC05-1BA2

##### With Teflon plunger

With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right

Slow-action contacts	1 NC	24 V DC	⊕ 5				
Snap-action contacts	1 NC	24 V DC	⊕ 5				

**3SF1244-1KC05-1BA2**

1 1 unit 42A

**3SF1244-1LC05-1BA2**

1 1 unit 42A

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

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








#### Note:

For the selection aid, see page 12/15.

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

↻ Positively driven actuator, for use in safety circuits.

<sup>1)</sup> Can be clinch mounted (turned through 180°, rear of lever).

## Position and Safety Switches

### SIRIUS 3SF1 Mechanical Safety Switches for AS-Interface

3SF1, metal enclosures &gt; 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	<input checked="" type="checkbox"/>			
				Article No.	Price per PU		

#### Basic switches (with rounded plunger<sup>1)</sup>) · Enclosure width 31 mm acc. to EN 50047



3SF1214-1KC05-1BA1

##### With plunger

With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact

Slow-action contacts	2 NC	24 V DC	⊕ 5				
Snap-action contacts	2 NC	24 V DC	⊕ 5				

<b>3SF1214-1KC05-1BA1</b>	1	1 unit	42A
<b>3SF1214-1LC05-1BA1</b>	1	1 unit	42A

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

<sup>1)</sup> For enclosures with widths of 31 mm, the basic switch is a complete unit with rounded plungers.









##### Note:

For the selection aid, see page 12/15.

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

↻ Positively driven actuator, for use in safety circuits.

<sup>1)</sup> Can be clinch mounted (turned through 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



With M12 device plug, 4-pole,  
channel 1 on NC contact,  
channel 2 on NC contact

Slow-action contacts 2 NC 24 V DC ⌚ 5

Snap-action contacts 2 NC 24 V DC ⌚ 5

**3SF1114-1KA00-1BA1**

1 1 unit 42A

**3SF1114-1LA00-1BA1**

1 1 unit 42A

3SF1114-1KA00-1BA1

##### Basic switches - Enclosure width 56 mm



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

3SF1124-1KA00-1BA2

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

##### Note:

For the selection aid, see page 12/15.

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

##### Operating mechanisms



3SE5000-0AB01

##### Plain plungers

High-grade steel plunger 10 ⌚ 2

**3SE5000-0AB01**

1 1 unit 41K



3SE5000-0AC02

##### Rounded plungers, type B, acc. to EN 50041

High-grade steel plunger,  
with 3 mm overtravel 10 ⌚ 5

**3SE5000-0AC02**

1 1 unit 41K



3SE5000-0AD02

##### Roller plungers, type C, acc. to EN 50041

High-grade steel roller,  
with 3 mm overtravel 13 ⌚ 5

**3SE5000-0AD02**







1 1 unit 41K

⌚ Positively driven actuator, for use in safety circuits.

## 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	Roller diameter	SD	Modular system	PU (UNIT, SET, M)	PS*	PG	
	mm	d	Article No.	Price per PU			
<b>Operating mechanisms</b>							
	<b>Roller levers</b>						
	Metal lever, plastic roller	22	⊕ 2	<b>3SE5000-0AE01</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AE02</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	22	⊕ 5	<b>3SE5000-0AE03</b>	1	1 unit 41K	
3SE5000-0AE01	High-grade steel lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AE04</b>	1	1 unit 41K	
	<b>Angular roller levers</b>						
	Metal lever, plastic roller	22	⊕ 2	<b>3SE5000-0AF01</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AF02</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	22	⊕ 5	<b>3SE5000-0AF03</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	22	⊕ 5	<b>3SE5000-0AF04</b>	1	1 unit 41K	
	<b>Twist actuators with lever</b>						
	<b>Twist actuators, for 40/56/56 XL mm, EN 50041</b>						
	• For twist levers, switching right or left, adjustable						
	- For enclosure width 40 and 56 mm		⊕ 2	<b>3SE5000-0AH00</b>	1	1 unit 41K	
3SE5000-0AH00	• For fork levers, latching		⊕ 5	<b>3SE5000-0AT10</b>	1	1 unit 41K	
	<b>Levers</b>						
<b>Twist levers 27 mm, offset, type A, acc. to EN 50041</b>							
	Metal lever, plastic roller	19	⊕ 2	<b>3SE5000-0AA01</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	19	⊕ 2	<b>3SE5000-0AA02</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller with ball bearing	19	⊕ 5	<b>3SE5000-0AA03</b>	1	1 unit 41K	
	Metal lever, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AA04</b>	1	1 unit 41K	
	Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA05</b>	1	1 unit 41K	
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA07</b>	1	1 unit 41K	
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA08</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA11</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA12</b>	1	1 unit 41K	
	<b>Twist levers 35 mm, offset</b>						
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA15</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA16</b>	1	1 unit 41K	
<b>Twist levers 30 mm, straight<sup>1)</sup></b>							
Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA24</b>	1	1 unit 41K		
Metal lever, plastic roller	30	⊕ 5	<b>3SE5000-0AA26</b>	1	1 unit 41K		
<b>Twist levers, adjustable length, with grid hole</b>							
	Metal lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA60</b>	1	1 unit 41K	
	Metal lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA61</b>	1	1 unit 41K	
	Metal lever, plastic roller	50	⊕ 5	<b>3SE5000-0AA67</b>	1	1 unit 41K	
	Metal lever, rubber roller	50	⊕ 5	<b>3SE5000-0AA68</b>	1	1 unit 41K	
	High-grade steel lever, plastic roller	19	⊕ 5	<b>3SE5000-0AA62</b>	1	1 unit 41K	
	High-grade steel lever, high-grade steel roller	19	⊕ 5	<b>3SE5000-0AA63</b>	1	1 unit 41K	
	3SE5000-0AA60						
<b>Fork levers (for switches with snap-action contacts only)</b>							
	Metal lever, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AT01</b>	1	1 unit 41K	
	Metal lever, 2 high-grade steel rollers	19	⊕ 5	<b>3SE5000-0AT02</b>	1	1 unit 41K	
	High-grade steel lever, 2 plastic rollers	19	⊕ 5	<b>3SE5000-0AT03</b>	1	1 unit 41K	
	High-grade steel lever, 2 high-grade steel rollers	19	⊕ 5	<b>3SE5000-0AT04</b>	1	1 unit 41K	
3SE5000-0AT01							

⊕ Positively driven actuator, for use in safety circuits.

<sup>1)</sup> Can be clinch mounted (turned through 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 12/98).

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

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety.

A rubber cap to protect the actuator head from contamination is available for operation in dusty environments.

### Display

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

### Connection

Connection to the AS-Interface is by means of a 4-pole M12 device plug (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) also have an M12 socket for connecting a second safety switch. Category 4 according to EN ISO 13849-1 is thus achieved.

### Benefits

The new generation of 3SF1 safety switches with separate actuator offers

- ASIsafe electronics integrated in the enclosure, with low power consumption  $< 60 \text{ mA}$
- An extensive range of actuators
- Status display with three LEDs

### Application

Safety switches with separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons.

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

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the contact blocks best suited for the particular purpose. Dimensions and fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

### Standards

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

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

### Approvals

AS-Interface according to IEC/EN 62026-2

With a 3SF1 safety switch it is possible to achieve Category 3 according to EN ISO 13849-1 or SIL 2 according to IEC 61508.

Category 4 according to EN ISO 13849-1 or SIL 3 according to IEC 61508 can be achieved by using an additional 3SE5 safety switch.

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

## 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)

#### Selection and ordering data

Version <sup>1)</sup>	Contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
<b>Enclosure width 31 mm acc. to EN 50047</b>						
	<b>5 directions of approach</b> With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC	⊕ 5	<b>3SF1234-1QV40-1BA1</b>	1	1 unit 42A
3SF1234-1QV40-1BA1						
<b>Enclosure width 50 mm</b>						
	<b>5 directions of approach</b> With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right Slow-action contacts	1 NC	⊕ 5	<b>3SF1244-1QV40-1BA2</b>	1	1 unit 42A
3SF1244-1QV40-1BA2						

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

<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/98).



## 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

#### Selection and ordering data

Version <sup>1)</sup>	Contacts	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
<b>Enclosure width 31 mm acc. to EN 50047</b>						
	<b>5 directions of approach</b> With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC	⊕ 5	<b>3SF1214-1QV40-1BA1</b>	1	1 unit 42A
3SF1214-1QV40-1BA1						
<b>Enclosure width 40 mm acc. to EN 50041</b>						
	<b>5 directions of approach</b> With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC	⊕ 5	<b>3SF1114-1QV10-1BA1</b>	1	1 unit 42A
3SF1114-1QV10-1BA1						
<b>Enclosure width 56 mm</b>						
	<b>5 directions of approach</b> With M12 device plug, 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right Slow-action contacts	1 NC	⊕ 5	<b>3SF1124-1QV10-1BA2</b>	1	1 unit 42A
3SF1124-1QV10-1BA2						

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



<sup>1)</sup> Supplied without actuator. Please order separately (see page 12/98).

## 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
<b>Actuators</b>						
		<b>Standard actuator</b>				
3SE5000-0AV01		• Length 75.6 mm	▶	<b>3SE5000-0AV01</b>	1	1 unit 41K
		• With vertical fixing, length 53 mm	5	<b>3SE5000-0AV02</b>	1	1 unit 41K
3SE5000-0AV02						
		• With transverse fixing, length 47 mm	5	<b>3SE5000-0AV03</b>	1	1 unit 41K
3SE5000-0AV03						
		• With transverse fixing, plastic <sup>1)</sup> , length 40 mm	5	<b>3SE5000-0AW11</b>	1	1 unit 41K
3SE5000-0AW11						
<b>Radius actuators</b>						
		• Length 51 mm, direction of approach from the left	2	<b>3SE5000-0AV04</b>	1	1 unit 41K
3SE5000-0AV04						
		• Length 51 mm, direction of approach from the right	5	<b>3SE5000-0AV06</b>	1	1 unit 41K
3SE5000-0AV06						
<b>Universal radius actuator</b>						
		• Length 77 mm	5	<b>3SE5000-0AV05</b>	1	1 unit 41K
3SE5000-0AV05-1AA6		• Length 77 mm, tab rotated 90°	5	<b>3SE5000-0AV05-1AA6</b>	1	1 unit 41K
<b>Universal radius actuator, heavy duty</b>						
		• Length 67 mm	2	<b>3SE5000-0AV07-1AK2</b>	1	1 unit 41K
3SE5000-0AV07		• Length 77 mm	5	<b>3SE5000-0AV07</b>	1	1 unit 41K
<b>Optional accessories</b>						
		<b>Protective caps</b> , black rubber For the actuator head, to protect the actuator openings from contamination (Only for enclosure width 40 mm or 56 mm)	5	<b>3SE5000-0AV08-1AA2</b>	1	1 unit 41K
3SE5000-0AV08-1AA2						
		<b>Blocking inserts</b> , high-grade steel, for actuator head For up to eight padlocks	5	<b>3SE5000-0AV08-1AA3</b>	1	1 unit 41K
3SE5000-0AV08-1AA3						

<sup>1)</sup> Not suitable for safety switches with tumbler.

### 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 12/98).

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

A high-grade steel blocking insert for attaching up to eight padlocks is available for even more safety.

A rubber cap to protect the actuator entry of the actuator head from contamination is available for operation of the enclosures in dusty environments.

### Tumbler

There are two versions for interlocking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Solenoid-locked (open-circuit principle)

For more explanations, see page 12/61.

### 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).

### Benefits

The new generation of 3SF13 safety switches with tumbler offers:

- More safety through higher locking forces:
  - 1 300 N for the plastic version
  - 2 600 N for the metal version
- Various release mechanisms: lock release, escape release and emergency release
- ASIsafe electronics integrated in the enclosure; connected through 4-pole M12 device plug
- Current consumption of the solenoid no more than 170 mA
- Two contact blocks as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure versions: plastic, metal
- An extensive range of actuators
- Status display with four LEDs
- 3SF1324-1S.21-1BK4 series with high degree of protection IP69K, IP69 in accordance with IEC 60529, cover with foamed seal

### Application

The safety switches with tumbler are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the switched-off machine).

The safety switches with tumbler have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and tumbler

### Standards

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

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

### Approvals

AS-Interface according to IEC/EN 62026-2

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

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

With a 3SF13 safety switch with tumbler it is possible to achieve Category 3 according to EN ISO 13849-1 or SIL 2 according to IEC 61508.

Category 4 according to EN ISO 13849-1 or SIL 3 according to IEC 61508 can be achieved by using an additional 3SE5 safety switch.

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

## 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 contacts (two-channel) from the actuator, and channel 2 on 1 NC contact from the solenoid. The position switch transfers the information of actuators to a transfer channel because the discrepancy of the two actuator contacts is already evaluated in the switch.

The 3SF1324-1S.21-1BA4 safety switches are also recommended where there are several protective door tumblers and reliable diagnostics and quick restart capability of equipment is required.

- A response is received from the solenoid.
- No opening of the doors required after the solenoid is unlocked.

In connection with an ASIsafe MSS modular safety system or an ET 200SP F-CM AS-i Safety ST module, it is possible to achieve SIL 2 according to IEC 61508 or PL d according to ISO 13849-1. They comply with the standard EN ISO 14119. A TÜV certificate is available.

##### Features:




- Slow-action contacts
- 5 directions of approach
- Solenoid: Rated operational voltage 24 V DC
- 1 300 N locking force
- Degree of protection IP66/IP67 (IP69K)
- Status display with 4 LEDs 24 V DC;  
1: AS-i, 2: FAULT, 3: F-IN1, 4: F-IN2

#### Comparison of versions

Safety switches	Contacts	Achievable safety level	Diagnostics	Reclosing condition after unlocking the solenoid (depending on the type of evaluation)
Type	Actuator/solenoid		Feedback from the solenoid	
3SF1324-1S.21-1BA1	1 NC/1 NC	SIL 1/PL c	✓	Door does <u>not</u> have to be opened
	1 NC/1 NC	SIL 2/PL d	✓	Door must be opened
3SF1324-1S.21-1BA3	2 NC/--	SIL 2/PL d	--	Door does <u>not</u> have to be opened
3SF1324-1S.21-1BA4	2 NC/1 NC	SIL 2/PL d	✓	Door does <u>not</u> have to be opened
3SF1324-1S.21-1BK4 (IP69K)	2 NC/1 NC	SIL 2/PL d	✓	Door does <u>not</u> have to be opened

✓ Available -- Not available

#### Selection and ordering data

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

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

<sup>1)</sup> 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

#### Comparison of versions

Safety switches	Contacts	Achievable safety level	Diagnostics	Reclosing condition after unlocking the solenoid (depending on the type of evaluation)
Type	Actuator/solenoid		Feedback from the solenoid	
3SF1314-1S.11-1BA1	1 NC/1 NC	SIL 1 / PL c	✓	Door does <u>not</u> have to be opened

✓ Available

#### Selection and ordering data

Tumbler <sup>1)</sup>	Contacts Actuator/solenoid	SD	Complete units	PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU		
<b>2 600 N locking force · Enclosure width 54 mm</b>						
	<b>Spring-actuated locks</b>					
	• With auxiliary release	1 NC/1 NC	⊕ 5	<b>3SF1314-1SD11-1BA1</b>	1	1 unit 42A
	• With auxiliary release with lock	1 NC/1 NC	⊕ 5	<b>3SF1314-1SE11-1BA1</b>	1	1 unit 42A
3SF1314-1SD11-1BA1						
	• With escape release from the front	1 NC/1 NC	⊕ 5	<b>3SF1314-1SF11-1BA1</b>	1	1 unit 42A
	• With escape release from the back and auxiliary release from the front	1 NC/1 NC	⊕ 5	<b>3SF1314-1SG11-1BA1</b>	1	1 unit 42A
	• With escape release from the back and auxiliary release with lock from the front	1 NC/1 NC	⊕ 5	<b>3SF1314-1SH11-1BA1</b>	1	1 unit 42A
	• With emergency release from the back and auxiliary release from the front	1 NC/1 NC	⊕ 5	<b>3SF1314-1SJ11-1BA1</b>	1	1 unit 42A
3SF1314-1SF11-1BA1						
	<b>Solenoid-locked</b>	1 NC/1 NC	⊕ 5	<b>3SF1314-1SB11-1BA1</b>	1	1 unit 42A
3SF1314-1SB11-1BA1						

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

<sup>1)</sup> 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 12/87).

#### 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
				<input checked="" type="checkbox"/>			
				Article No.	Price per PU		

##### Basic switches · Enclosure width 31 mm acc. to EN 50047



3SF1234-1LC05-1BA1

**With Teflon plunger, with M12 device plug.** 4-pole, channel 1 on NC contact, channel 2 on NC contact

Snap-action contacts

2 NC

24 V DC



5

**3SF1234-1LC05-1BA1**

1

1 unit

42A

##### Basic switches · Enclosure width 50 mm



3SF1244-1LC05-1BA2

**With Teflon plunger, with M12 device plug.** 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right

Snap-action contacts

1 NC

24 V DC



5

**3SF1244-1LC05-1BA2**

1

1 unit

42A

##### Actuator heads



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

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

## 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 12/87).

#### 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
				Article No.	Price per PU		
<b>Basic switches · Enclosure width 31 mm acc. to EN 50047</b>							
	<b>With plunger</b> 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	<b>3SF1214-1LC05-1BA1</b>	1	1 unit 42A
3SF1214-1LC05-1BA1							
<b>Basic switches · Enclosure width 40 mm acc. to EN 50041</b>							
	<b>With M12 device plug</b> , 4-pole, channel 1 on NC contact, channel 2 on NC contact Snap-action contacts	2 NC	24 V DC	⊕ 5	<b>3SF1114-1LA00-1BA1</b>	1	1 unit 42A
3SF1114-1LA00-1BA1							
<b>Basic switches · Enclosure width 56 mm</b>							
	<b>With M12 device plug</b> , 4-pole, channel 1 on NC contact, channel 2 on M12 socket, right Snap-action contacts	1 NC	24 V DC	⊕ 5	<b>3SF1124-1LA00-1BA2</b>	1	1 unit 42A
3SF1124-1LA00-1BA2							
<b>Actuator heads</b>							
	<b>Hollow shaft</b> Operating angle 10°			5	<b>3SE5000-0AU21</b>	1	1 unit 41K
3SE5000-0AU21							
	<b>Solid shaft</b> Operating angle 10°			5	<b>3SE5000-0AU22</b>	1	1 unit 41K
3SE5000-0AU22							

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

## Position and Safety Switches

### SIRIUS 3SE6 Non-Contact Safety Switches

#### Magnet

#### 3SE66, 3SE67 magnetically operated switches

#### Overview



3SE66 contact blocks and 3SE67 switching magnets

A magnetically operated switch comprises a coded switching magnet and a contact block (sensor unit). The switch must be connected to a safety relay, e.g. SIRIUS 3SK1, or a bus system, e.g. SIMATIC ET 200SP, for evaluation. The switches use reed contacts as mechanical contacts. The status of the contacts is monitored using an evaluation unit.



3SE66 contact blocks and 3SE67 switching magnets, supplementary range in new design

#### Safety relays

3SK safety relays can be used worldwide since they possess all the required certification. Since they satisfy the most exacting safety requirements, they are suitable for all kinds of safety applications.

The following can be selected:

- 3SK1 Standard basic units: simple and compact to satisfy all the essential requirements of safety sensor monitoring systems
- 3SK1 Advanced basic units: multifunctional series with relay enabling circuits, semiconductor outputs or time-delay outputs
- 3SK2 basic units: multifunctional series whose functionality is parameterized using software. The basic units have solid-state outputs. Relay outputs from the 3SK1 portfolio can also be connected via device connectors.
- Expansion units for inputs and outputs

The 3SE6806 safety relay is also available with two floating enabling circuits (safe circuits) as NO contact circuits and one floating signaling circuit as an NC contact circuit.

#### Benefits

##### Standard range

- Non-contact round, rectangular, small (25 mm x 33 mm) and larger (25 mm x 88 mm) versions
- Small, compact, safe
- Simple mounting with alignment of sensor and actuator, and concealed installation also easy
- Suitable for restricted spaces

##### Supplementary range

- New design for rectangular shape
- More functionality
- Greater switching intervals and a larger horizontal or vertical displacement
- Various mounting positions possible (e.g. at 90° offset)
- SIL 3 and PL e diagnostics possible because there are two safety contacts and one signaling contact
- LED variant
- Fast connection possible using plug-in variants

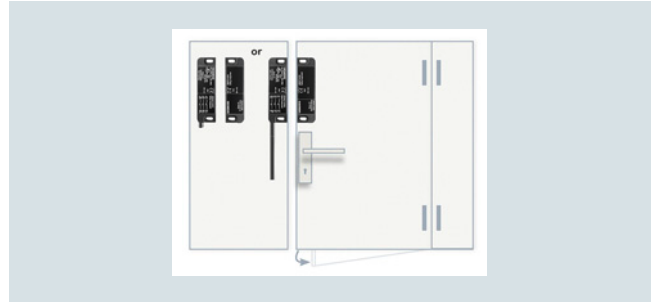


#### Application

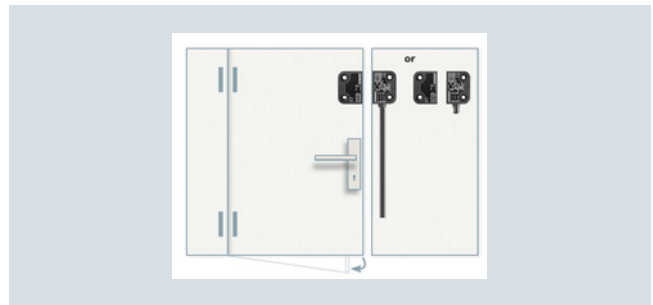
SIRIUS 3SE6 magnetically operated switches are designed for mounting on movable protective guards (hoods, hinged covers, doors, etc.). Evaluation can be performed by means of a safety relay or through connection to a bus system.

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

A magnetic monitoring system comprises one or more magnetically operated switches and an evaluation unit, e.g. a safety relay. When contact blocks 1 NO + 1 NC (+ 1 NC signaling contact) or 2 NC (+ 1 NC signaling contact) are used, the 3SK safety relay, for example, provides a high degree of protection against manipulation and can be installed in safety circuits up to SIL 3 according to IEC 62061 and PL e according to EN ISO 13849-1.



Non-contact safety magnetically operated switches (with plug or cable) for right-hinged door



Non-contact safety magnetically operated switches (with plug or cable) for left-hinged door



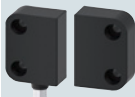





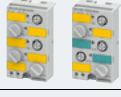

## Position and Safety Switches

### SIRIUS 3SE6 Non-Contact Safety Switches

#### Magnet

#### 3SE66, 3SE67 magnetically operated switches

#### Combination of monitoring units and magnetically operated switches

Monitoring units		Magnetically operated switches (contact block + switching magnet)			Achievable SIL (IEC 61508, IEC 62061) Performance level (EN ISO 13849-1)	
		1 NO + 1 NC 3SE6605-.BA..	2 NC 3SE6604-2BA.. 1 NO + 2 NC 3SE6606-2BA04	---		
						
		3SE6704-.BA	3SE6704-2BA			
		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		
<b>Relay output</b>						
SIRIUS safety relays	3SK1121, 3TK2826		✓	✓	✓	SIL 3/PL e
<b>Solid-state outputs</b>						
SIRIUS safety relays	3SK1112, 3SK1122		--/✓	✓	✓	SIL 3/PL e
	3SK2112, 3SK2122		✓	✓	✓	SIL 3/PL e
ASIsafe compact safety modules	3RK1205, 3RK1405		--	✓	✓	SIL 3/PL e
Modular Safety System (MSS)	3RK3		✓	✓	✓	SIL 3/PL e
SIMATIC S7-1200F	F-DI 16 x 24 V DC		✓	✓	✓	SIL 3/PL e
SIMATIC ET 200SP PROFIsafe	4/8 F-DI, 24 V DC		✓	✓	✓	SIL 3/PL e
SIMATIC ET 200eco	4/8 F-DI, 24 V DC		✓	✓	✓	SIL 3/PL e
SIMATIC ET 200pro	8/16 F-DI, 24 V DC, 4/8 F-DI/4 F-DQ 2 A, 24 V DC, F-Switch		✓	✓	✓	SIL 3/PL e
SIMATIC ET 200SP	8F-DI, 24 V DC F-PM-E, 24 V DC		✓	✓	✓	SIL 3/PL e
SIMATIC ET 200MP	16 F-DI, 24 V DC		✓	✓	✓	SIL 3/PL e

✓ Suitable magnetically operated switch

-- Not available

# 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					
<b>Standard range – Round sensor units</b>								
 3SE6704-1BA	<b>Switching magnet (coded)</b>	M30	--	2	<b>3SE6704-1BA</b>		1	1 unit 41K
 3SE6505-1BA	<b>Contact blocks</b>							
	• With cable 3 m	M30	1 NO + 1 NC	2	<b>3SE6605-1BA</b>		1	1 unit 41K
	• With M12 plug, 4-pole	M30	1 NO + 1 NC	2	<b>3SE6605-1BA02</b>		1	1 unit 41K
<b>Standard range – Rectangular sensor units</b>								
 3SE6704-2BA	<b>Switching magnet (coded)</b>	25 × 88	--	2	<b>3SE6704-2BA</b>		1	1 unit 41K
 3SE660.-2BA	<b>Contact blocks</b>							
	• With cable 3 m	25 × 88	1 NO + 1 NC 2 NC	2	<b>3SE6605-2BA</b>		1	1 unit 41K
				2	<b>3SE6604-2BA</b>		1	1 unit 41K
			1 NO + 2 NC	10	<b>3SE6606-2BA04</b>		1	1 unit 41K
	• With cable 10 m	25 × 88	1 NO + 1 NC 2 NC	5	<b>3SE6605-2BA10</b>		1	1 unit 41K
				2	<b>3SE6604-2BA10</b>		1	1 unit 41K
	• With M8 plug, 4-pole	25 × 88	1 NO + 1 NC 2 NC	2	<b>3SE6605-2BA01</b>		1	1 unit 41K
				2	<b>3SE6604-2BA01</b>		1	1 unit 41K
 3SE660.-3BA	<b>Switching magnet (coded)</b>	25 × 33	--	2	<b>3SE6704-3BA</b>		1	1 unit 41K
	<b>Contact blocks</b>							
	• With cable 3 m	25 × 33	1 NO + 1 NC	2	<b>3SE6605-3BA</b>		1	1 unit 41K
	• With cable 5 m			2	<b>3SE6605-3BA05</b>		1	1 unit 41K
	• With cable 10 m			2	<b>3SE6605-3BA10</b>		1	1 unit 41K
<b>Supplementary range in new design – Rectangular sensor units for left-hinged door</b>								
 3SE6714-2CA	<b>Switching magnets (coded)</b>	25 × 88	--	5	<b>3SE6714-2CA</b>		1	1 unit 41K
	• Same level			5	<b>3SE6724-2CA</b>		1	1 unit 41K
	• 90° offset			5	<b>3SE6724-2CA</b>		1	1 unit 41K
 3SE6614-4CA01	<b>Contact blocks</b>							
	• With M8 plug, 4-pole, with LED	25 × 88	2 NC	5	<b>3SE6614-4CA01</b>		1	1 unit 41K
	• 8 mm Ø, latching connection, plug, 6-pole		2 NC + 1 NC <sup>1)</sup>	5	<b>3SE6617-2CA01</b>		1	1 unit 41K
	• With cable 3 m		2 NC + 1 NC <sup>1)</sup>	5	<b>3SE6617-2CA04</b>		1	1 unit 41K
 3SE6714-3CA	<b>Switching magnets (coded)</b>	26 × 36	--	5	<b>3SE6714-3CA</b>		1	1 unit 41K
	• Same level			5	<b>3SE6724-3CA</b>		1	1 unit 41K
	• 90° offset			5	<b>3SE6724-3CA</b>		1	1 unit 41K
 3SE6616-3CA01	<b>Contact blocks</b>							
	• 8 mm Ø, latching connection, plug, 6-pole	26 × 36	1 NO + 1 NC + 1 NC <sup>1)</sup>	5	<b>3SE6616-3CA01</b>		1	1 unit 41K
			2 NC + 1 NC <sup>1)</sup>	5	<b>3SE6617-3CA01</b>		1	1 unit 41K
	• With cable 3 m		2 NC + 1 NC <sup>1)</sup>	5	<b>3SE6617-3CA04</b>		1	1 unit 41K

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

<sup>1)</sup> 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
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#### Monitoring units

##### 3SK1 safety relays

###### Standard or Advanced basic units

With relay output	24 V DC	6 <sup>1)</sup>	3 NO/1 NC	▶	<b>3SK1121-1AB40</b>		1	1 unit	41L
With semiconductor output	24 V DC	1	2 x F-DQ/ 1 QM	2	<b>3SK1112-1BB40</b>		1	1 unit	41L



3SK1121-1AB40

##### 3SK2 safety relays

###### Basic units

With semiconductor output	24 V DC	5	2 x F-DQ/ 1 QM	2	<b>3SK2112-1AA10</b>		1	1 unit	41L
		10	4 x F-DQ/ 2 QM	2	<b>3SK2122-1AA10</b>		1	1 unit	41L



3SK2112-1AA10

<sup>1)</sup> Only when up to 5 3SK1220 expansion units are used, see page 11/26.

For more monitoring units, see pages 2/1, 8/1, 9/1 and 11/1, as well as Catalog IK Pl.

## Position and Safety Switches

### SIRIUS 3SE6 Non-Contact Safety Switches

#### RFID

#### 3SE63 RFID safety switches

#### Overview



Non-contact RFID safety switch with maximum tamper resistance

RFID 3SE63 non-contact safety switches comply with the highest safety requirements, SIL 3 or Cat. 4, for monitoring the positions of movable protective devices.

An RFID safety switch consists of a coded RFID switch with an 8-pole M12 connection plug and an identical RFID actuator.

The switch is available in several versions:

- Family-coded with M12 plug or with additional 18 N magnetic catch as an option
- Individually coded, programmable once, with M12 plug or with additional 18 N magnetic catch as an option
- Individually coded, programmable more than once (an unlimited number of times), with M12 plug or variant with additional 18 N magnetic catch

The actuator is therefore available in two versions:

- Standard
- With 18 N magnetic catch

The magnetic catch keeps doors and 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

#### Note:

- Keep metal parts and cuttings away from the vicinity of the switch
- Minimum distance between two switches 100 mm

#### Optional accessories (mounting)

- Covers for sealing mounting holes, also suitable for tamper-proofing screw fixings
- Spacers (approx. 3 mm high) to facilitate cleaning under the installation surface when using high-pressure cleaners, for example

#### Coding

##### Family-coded

These safety switches are delivered ready to use, i. e. no programming is necessary.

##### Individually coded, programmable once

The assignment of safety switch and actuator thus created is irreversible.

The actuator is programmed simply by routine during startup, thus permanently preventing any form of tampering by means of a replacement actuator.

##### Individually coded, programmable several times

The procedure for programming a new actuator can be repeated an unlimited number of times. When a new actuator is programmed the previous code becomes invalid. A protected coding process allows new actuators to be programmed for service purposes.

After this, a ten-minute lockout provides 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.

#### Mode of operation of the diagnostics LEDs

The safety switch indicates not only its operating state, but also faults by means of LEDs in three colors at the ends of the RFID switch.

- The green LED indicates readiness for operation when the control supply voltage is connected.
- The yellow LED indicates that there is an actuator in detection range. If the actuator is in the switching interval threshold, this is indicated by flashing. This flashing can be used to identify a change in the distance between sensor and actuator at an early stage (e.g. as a result of the sagging of a protective door). The installation should be tested before the distance increases further, the safety outputs switch off and the machine stops.
- The red LED indicates the individual causes of the fault by means of defined flashing frequencies.

#### Benefits

- Maximum tamper resistance by means of individual coding of switches and actuators at the highest safety level
- Plastic enclosure with integrated plug
- Two solid-state short-circuit-proof safety outputs, each 250 mA
- Integrated crossover, open circuit and external voltage monitoring, with series circuit as far as the control cabinet
- Safety and diagnostics signals can be connected in series
- Series connection of safety circuits in Cat. 4/PL e/SIL 3
- LED status indication including switching interval threshold indication for quick and easy adjustment during installation and maintenance
- Short-circuit-proof conventional diagnostics output
- Optional version with magnetic catch for interlocking hinge switches or small doors even when de-energized
- Highly rugged thanks to the use of tested enclosure materials, resistant to aggressive cleaning products, with a degree of protection of up to IP69K  
IP69 does not automatically mean that it can be used outdoors. The devices must be installed with corresponding protection for this purpose. UV radiation additionally affects the enclosure
- Fine adjustment thanks to slotted holes
- Little adjustment or maintenance required
- Molded switch allows it to be used as an end stop for small and medium-sized doors

#### Technical specifications

Type	3SE63	
<b>General data</b>		
<b>Standards</b>	IEC 60947-5-3, IEC 61508, EN ISO 13849-1, EN ISO 14119	
<b>Enclosure material</b>	Glass-fiber reinforced thermoplast, self-extinguishing	
<b>Degree of protection</b>	IP65/IP67/IP69K	
<b>Ambient temperature</b>		
• During operation	°C	-25 ... +70
• During storage, transport	°C	-25 ... +85
<b>Shock resistance</b>	30 g / 11 ms	
<b>Vibration resistance</b>	10 ... 55 Hz, amplitude 1 mm	

#### Application

RFID non-contact safety switches are designed for use in safety circuits, and are used to monitor the positions of movable protective devices. They monitor the positions of rotating, laterally sliding or removable protective devices using the coded electronic actuator.

Their high degree of protection (IP69K) and the use of cleaning-product-resistant materials means that these switches are optimized for use under extreme environmental conditions.

Their electronic operating principle makes these switches ideal for metalworking machinery.

The switches have a larger switching interval and switching displacement than mechanical switches, improve the mounting tolerance of the protective door, and offer a wide range of diagnostics options.

The RFID switches can be connected to all standard evaluation units suitable for solid-state inputs and in which the built-in crossover monitoring function can be deactivated, e.g.:

Monitoring units	
<b>Relay output</b>	
SIRIUS safety relays	3SK1111-. AB30, 3SK1121
SIRIUS safety relays	3TK2826-.BB4.
<b>Solid-state outputs</b>	
SIRIUS safety relays	3SK1112, 3SK1122, 3SK2112, 3SK2122
SIRIUS safety relays	3TK2841, 3TK2842, 3TK2845, 3TK2853-.BB40
Modular Safety System (MSS)	
3RK3 (safe inputs)	
SIMATIC ET 200S	6ES7138-4FA0.-0AB0 6ES7138-4FC0.-0AB0
SIMATIC ET 200M	6ES7326-1BK0.-0AB0
SIMATIC ET 200eco	6ES7148-3FA00-0XB0
SIMATIC ET 200pro	6ES7148-4F.00-0AB0
SIMATIC ET 200SP	6ES7136-6BA00-0CA0 6ES7136-6PA00-0BC0
SIMATIC ET 200MP	6ES7526-3BH00-0AB0
SIMATIC S7-1200F	6ES7226-6BA32-0XB0

These safety categories can be achieved in safety circuits:

- Category 4 according to EN ISO 13849-1
- PL e according to EN ISO 13849-1
- SIL 3 according to IEC 61508

Type	3SE63	
<b>Electrical specifications</b>		
<b>Rated insulation voltage <math>U_i</math></b>	V	32
<b>Degree of pollution</b> acc. to IEC 60664-1		3
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	V	800
<b>Rated conditional short-circuit current</b>	A	100
<b>Rated operational voltage <math>U_e</math></b> (PELV acc. to EN 60204-1)	V DC	24 -15/+10%
<b>Protection class</b>	II	
<b>Overvoltage category</b>	III	
<b>Rated operational current <math>I_e</math></b>	A	0.6
<b>Lowest operational current <math>I_m</math></b>	mA	0.5
<b>No-load current <math>I_0</math></b>	mA	35

# Position and Safety Switches

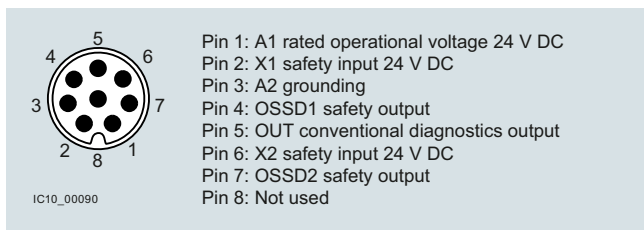
## SIRIUS 3SE6 Non-Contact Safety Switches

### RFID

#### 3SE63 RFID safety switches

Type	3SE63	
<b>Inputs/outputs</b>		
<b>Safety inputs X1/X2</b>		
• Input voltage	V DC	24 -15/+10%
• Power consumption per input	mA	5
<b>Safety outputs OSSD1/OSSD2</b>		
		p-switching
• 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
<b>Diagnostics output</b>		
		p-switching
• 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

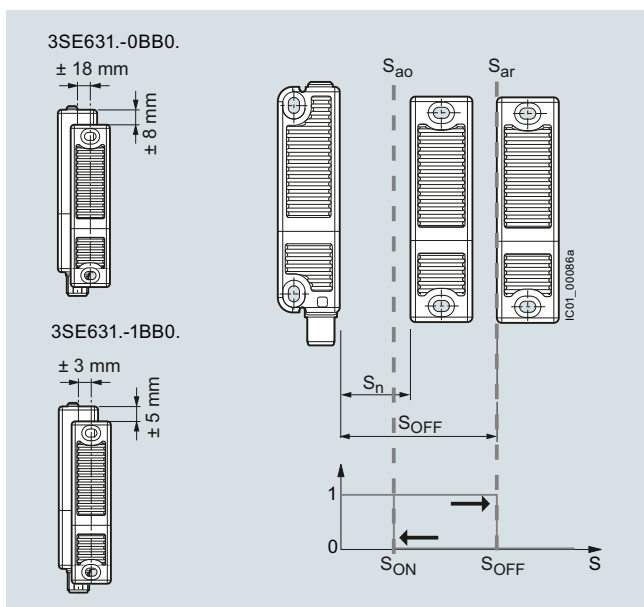
#### Pin assignment



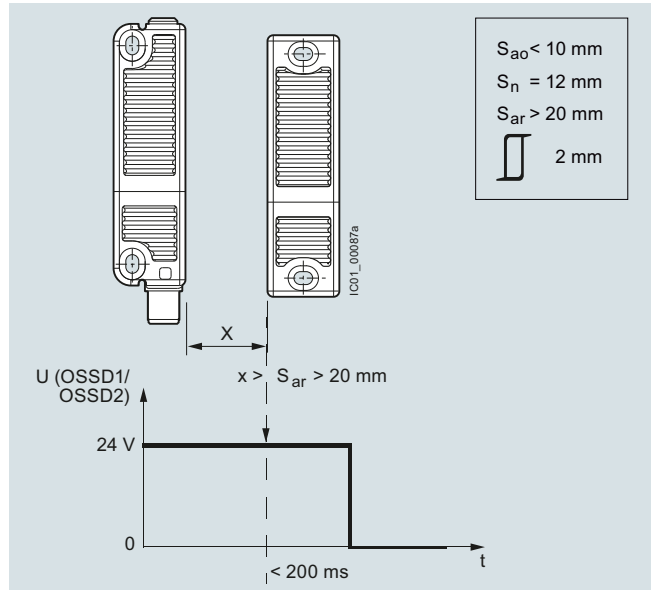
Pin assignment

#### Directions of approach and switching interval

The side area permits a maximum height offset of the switch and actuator of  $\pm 8$  mm (e.g. mounting tolerance or due to sagging of the protective door). The transverse offset also equals max.  $\pm 18$  mm.



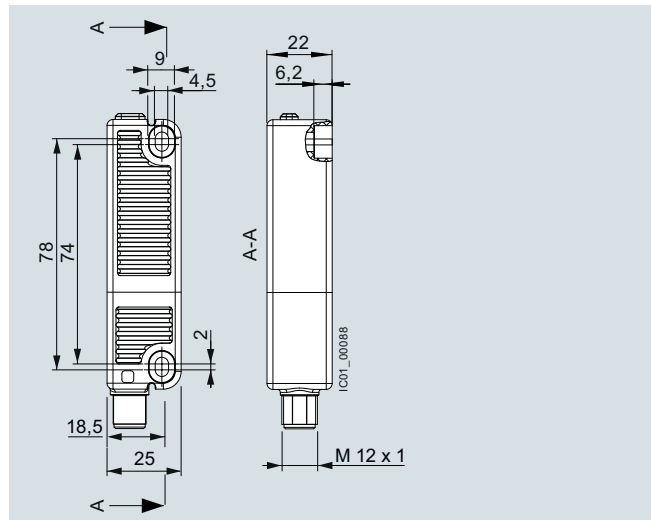
Switching interval: Output signal with hysteresis



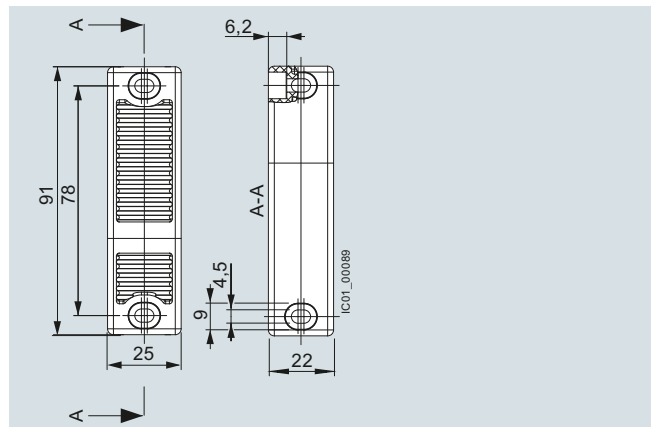
Switching interval: Output signal with OFF delay

#### Dimensional drawings

##### RFID switch 3SE6315





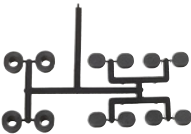


##### RFID actuator 3SE6310





#### Selection and ordering data

With M12 connection plug, 8-pole

Version/coding	Latching/length	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d							
<b>Rectangular safety switches 91 mm x 25 mm<sup>1)</sup></b>							
	<b>RFID safety switch</b>						
	• Family-coded	None	2	<b>3SE6315-0BB01</b>		1	1 unit 41K
		With 18 N magnetic catch	2	<b>3SE6315-1BB01</b>		1	1 unit 41K
	• Individually coded, programmable several times	None	2	<b>3SE6315-0BB02</b>		1	1 unit 41K
		With 18 N magnetic catch	5	<b>3SE6315-1BB02</b>		1	1 unit 41K
	• Individually coded, programmable once	None	2	<b>3SE6315-0BB03</b>		1	1 unit 41K
	With 18 N magnetic catch	5	<b>3SE6315-1BB03</b>		1	1 unit 41K	
	<b>RFID actuator</b>						
	• Standard	None	2	<b>3SE6310-0BC01</b>		1	1 unit 41K
		With 18 N magnetic catch	2	<b>3SE6310-1BC01</b>		1	1 unit 41K
<b>Optional accessories</b>							
	<b>Covers and spacers</b>		2	<b>3SX5600-1G</b>		1	1 unit 41K
	One pack (1 unit) contains 8 covers and 4 spacers						
	<b>Connecting cable</b>						
	with M12 socket, 8-pole, straight, open end	Length 3 m	2	<b>3SX5601-2GA03</b>		1	1 unit 41K
		Length 5 m	2	<b>3SX5601-2GA05</b>		1	1 unit 41K
	Length 10 m	2	<b>3SX5601-2GA10</b>		1	1 unit 41K	
	Rated voltage 30 V						
	Rated current 2 A						
	<b>Adapter cable<sup>2)</sup></b>						
	with M12 socket, 8-pole on M12 plug, 5-pole, for connection, e.g. to SIMATIC ET200eco PN-F	Length 0.5 m	<b>NEW</b> X	<b>3SX5601-3SV00-1AK3</b>		1	1 unit 41K

<sup>1)</sup> Not connectable via AS-i modules.

<sup>2)</sup> If necessary, extend with connection cable 3SX5601-3SV15, length 1 m, see page 12/48.

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

## Position and Safety Switches

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