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# Sensing with SIRIUS 3SE Position and Safety Switches

Modular design for all applications

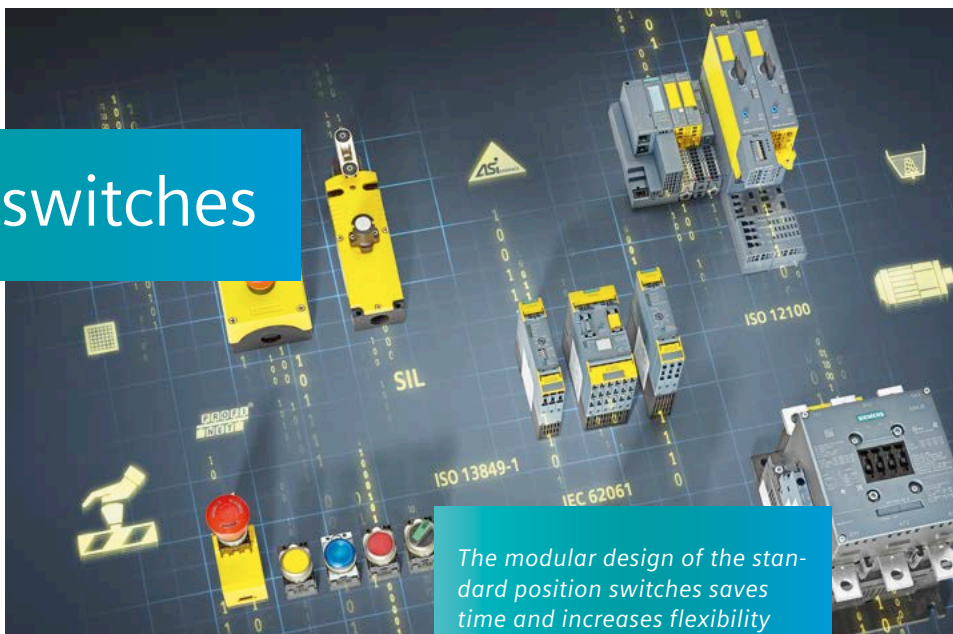
SIRIUS  
Command

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# SIRIUS position switches

## Main advantages at a glance

- Reduced variance and stock-keeping costs due to modular design
- Plug-in design and a standardized interface simplify replacement and installation of the actuator heads
- All actuator heads can be rotated in 22.5° increments
- Quick-connect technology for plastic enclosures (31 mm) reduces mounting times by up to 25%
- Choice of connectors and rollers
- The entire ASIsafe electronics is integrated in a standard enclosure
- LED displays optionally available for all enclosures
- Higher degree of safety with redundant shutdown and additional signaling for versions with 3-pole contact blocks (enclosure dimensions as for 2-pole contact blocks)
- Versions with increased corrosion protection and for use down to -40 °C



The modular design of the standard position switches saves time and increases flexibility during installation of a whole range of switch versions.



Simple plug-in mounting

- 1 Open cover
- 2 Operate the locking lever
- 3 Replace the actuator head
- 4 Lock and close the cover



Quick-connect technology

- 1 Connect connection cable to terminals of contact block
- 2 Insert through slot into opening for screw connection

## Selection of basic switches

	Contacts	Plastic enclosure			Metal enclosure		
		31 mm width	40 mm width	50 mm width	31 mm width	40 mm width	56 mm width
→ Safety switch Positive opening operation according to IEC 60947-5-1							
Switching points according to ...	–	EN 50 047	EN 50 041	EN 50 047	EN 50 047	EN 50 041	EN 50 041
Mounting according to ...	–	EN 50 047	EN 50 041		EN 50 047	EN 50 041	
Degree of protection	–	IP65	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67
Number of screw connections M20 x 1.5	–	1	1	2	1	1	3
Order number for basic switch with snap-action contacts <sup>1)</sup>	1NO/1NC	3SE5232-0CC05	3SE5132-0CA00	3SE5242-0CC05	3SE5212-0CC05	3SE5112-0CA00	3SE5122-0CA00
	1NO/2NC	3SE5232-0LC05	3SE5132-0LA00	3SE5242-0LC05	3SE5212-0LC05	3SE5112-0LA00	3SE5122-0LA00
Order number for basic switch with slow-action contacts <sup>2)</sup>	1NO/1NC	3SE5232-0BC05	3SE5132-0BA00	3SE5242-0BC05	3SE5212-0BC05	3SE5112-0BA00	3SE5122-0BA00
	1NO/2NC	3SE5232-0KC05	3SE5132-0KA00	3SE5242-0KC05	3SE5212-0KC05	3SE5112-0KA00	3SE5122-0KA00

# SIRIUS position switches: complete units

Our position switches can be ordered in a modular design or as complete units – already fitted with an actuator head. You will find further versions, such as compact switches, non-encapsulated designs or switches for ambient temperatures down to  $-40^{\circ}$  at: [siemens.com/industrial-controls/configurators](https://www.siemens.com/industrial-controls/configurators)

## Plastic or metal enclosure 31 mm wide, according to EN 50 047, with snap-action contacts 1 NO/1NC



Order number, plastic	Order number, metal	Actuator	SR*	PR**
3SE5232-0CC05 →	3SE5212-0CC05 →	Rounded plunger + Teflon plunger	–	–
3SE5232-0HD03 →	3SE5212-0CD03 →	Roller plunger	–	X
3SE5232-0HE10 →	3SE5212-0CE10 →	Roller lever	–	X
3SE5232-0HF10 →	3SE5212-0CF10 →	Angular roller lever	–	X
3SE5232-0HK21 →	3SE5212-0CK21 →	Twist lever	–	X
3SE5232-0HK50	3SE5212-0CK50	Twist lever, infin. adj. length	–	X

## Plastic or metal enclosure 40 mm wide, according to EN 50 041, with snap-action contacts 1 NO/1NC



Order number, plastic	Order number, metal	Actuator	SR*	PR**
3SE5132-0CB01 →	3SE5112-0CB01 →	Plain plunger, high-grade steel	–	–
3SE5132-0CC03 →	3SE5112-0CC02 →	Rounded plunger, high-grade steel	X	–
3SE5132-0CD05 →	3SE5112-0CD02 →	Roller plunger	X	–
3SE5132-0CE05 →	3SE5112-0CE01 →	Roller lever	–	X
3SE5132-0CF05 →	3SE5112-0CF01 →	Angular roller lever	–	X
3SE5132-0CJ01 →	3SE5112-0CH01 →	Twist lever	–	X
3SE5132-0CJ50	3SE5112-0CH50	Twist lever, infinitely adjustable length	–	X
3SE5132-0CJ80	3SE5112-0CH80	Rod actuator, aluminum	–	–
3SE5132-0CR01	3SE5112-0CR01	Spring rod	–	–

## Plastic enclosure 50 mm wide, switching points according to EN 50 047, with snap-action contacts 1 NO/1NC



Order number, plastic	Actuator	SR*	PR**
3SE5242-0CC05 →	Rounded plunger with Teflon plunger	–	–
3SE5242-0HD03 →	Roller plunger	X	–
3SE5242-0HE10 →	Roller lever	–	X
3SE5242-0HK21 →	Twist lever	–	X
3SE5242-0HK50	Twist lever, adjustable length	–	X

## Metal enclosure 56 mm wide, switching points according to EN 50 041, with snap-action contacts 1 NO/1NC



Order number, metal	Actuator	SR*	PR**
3SE5122-0CC02 →	Rounded plunger, high-grade steel	–	–
3SE5122-0CD02 →	Roller plunger	X	–
3SE5122-0CE01 →	Roller lever	–	X
3SE5122-0CH01 →	Twist lever	–	X
3SE5122-0CH50	Twist lever, infinitely adjustable length	–	X

→ = positive opening

\* – with high-grade steel roller

\*\* – with plastic roller

# Mechanical safety switches with separate actuators

Safety switches with a separate actuator are used where the position of doors, covers or protective grilles must be monitored for safety reasons. 3SE5 safety switches with a separate actuator without a locking device have the same enclosures as the 3SE5 position switches (modular system).

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

## Safety switch with separate actuator, 5 approach directions, without locking device



Order number, plastic	Order number, metal	Enclosure/contact
3SE5232-ORV40	3SE5212-ORV40	31 mm / 1NC+1NO
3SE5232-OQV40	3SE5212-OQV40	31 mm / 2NC+1NO
3SE5132-OQV20	3SE5112-OQV10	40 mm / 2NC+1NO
3SE5242-OQV40	–	50 mm / 2NC+1NO
–	3SE5122-OQV10	56 mm / 2NC+1NO

## Safety switch with separate actuator, 5 approach directions, with locking device, position monitoring. Actuator: 1NO+2NC, magnet:1NO+2NC



Order number, plastic	Order number, metal	Enclosure width
Spring-actuated lock, with auxiliary release		54 mm
3SE5322-OSD21	3SE5312-OSD11	
Spring-actuated lock, with auxiliary release and lock		
3SE5322-OSE21	3SE5312-OSE11	
Magnetically locked		
3SE5322-OSB21	3SE5312-OSB11	

## Actuator



Article No.	Version	Length of actuator
3SE5000-0AV01	Standard metal	75.6 mm
3SE5000-0AW11	Standard plastic (not for switches with locking device)	40 mm
3SE5000-0AV02	With vertical fixing	53 mm
3SE5000-0AV03	With transverse fixing	47 mm
3SE5000-0AV05	Universal radius actuator	77 mm



### Actuators for standard position switch 3SE5 in plastic version 31 mm and 50 mm according to EN 50 047

		Order number		
			with plastic roller	with high-grade steel roller
Roller plunger	→	–	3SE5000-0AD03	3SE5000-0AD04
Roller lever with	Metal lever →	–	3SE5000-0AE10	3SE5000-0AE11
	High-grade steel lever →	–	3SE5000-0AE12	3SE5000-0AE13
Angular roller lever with	Metal lever →	–	3SE5000-0AF10	3SE5000-0AF11
	High-grade steel lever →	–	3SE5000-0AF12	3SE5000-0AF13
Spring rod with plastic plunger 143 mm (only for switches with snap-action contacts)		3SE5000-0AR01	–	–
Twist actuator +	→	+	3SE5000-0AK00 +	+
Twist lever 21 mm with	Metal lever →	–	3SE5000-0AA21	3SE5000-0AA22
	High-grade steel lever →	–	3SE5000-0AA31	3SE5000-0AA32
Adjustable-length twist lever with	Metal lever, infinitely adjustable	–	3SE5000-0AA50	3SE5000-0AA51
	Metal lever with grid bores →	–	3SE5000-0AA60	3SE5000-0AA61
Rod actuator in	Aluminum 200 mm	3SE5000-0AA80	–	–
	Plastic 200 mm	3SE5000-0AA82	–	–

### Actuators for standard position switches 3SE5, plastic version, 40 mm, according to EN 50 041

		Order number		
			with plastic roller	with high-grade steel roller
Plain plunger	→	3SE5000-0AB01	–	–
Roller plunger	→	–	3SE5000-0AD05	3SE5000-0AD06
Rounded plunger	→	3SE5000-0AC03	–	–
Roller lever with metal lever	→	–	3SE5000-0AE05	–
Angular roller lever with metal lever	→	–	3SE5000-0AF05	–
Spring rod with plastic plunger 143 mm (only for switches with snap-action contacts)		3SE5000-0AR01	–	–
Twist actuator +	→	+	3SE5000-0AH00 +	+
Twist lever, 27 mm with	Metal lever →	–	3SE5000-0AA01	3SE5000-0AA02
	High-grade steel lever →	–	3SE5000-0AA11	3SE5000-0AA12
Adjustable-length twist lever with	Metal lever, infinitely adjustable	–	3SE5000-0AA50	3SE5000-0AA51
	Metal lever with grid bores →	–	3SE5000-0AA60	3SE5000-0AA61
Rod actuator in	Aluminum 200 mm	3SE5000-0AA80	–	–
	Plastic 200 mm	3SE5000-0AA82	–	–

→ = positive opening



### Actuators for standard position switches 3SE5, metal version, 31 mm, according to EN 50 047

		Order number		
			with plastic roller	with high-grade steel roller
Plain plunger	→	3SE5000-0AB01	–	–
Roller plunger	→	–	3SE5000-0AD03	3SE5000-0AD04
Roller lever with	Metal lever →	–	3SE5000-0AE10	3SE5000-0AE11
	High-grade steel lever →	–	3SE5000-0AE12	3SE5000-0AE13
Angular roller lever with	Metal lever →	–	3SE5000-0AF10	3SE5000-0AF11
	High-grade steel lever →	–	3SE5000-0AF12	3SE5000-0AF13
Spring rod with plastic plunger 143 mm (only for switches with snap-action contacts)		3SE5000-0AR01	–	–
Twist actuator +	→	+	+	+
Twist lever, 27 mm with	Metal lever →	–	3SE5000-0AA21	3SE5000-0AA22
	High-grade steel lever →	–	3SE5000-0AA31	3SE5000-0AA32
Adjustable-length twist lever with	Metal lever, infinitely adjustable →	–	3SE5000-0AA50	3SE5000-0AA51
	Metal lever with grid bores →	–	3SE5000-0AA60	3SE5000-0AA61
Rod actuator in	Aluminum 200 mm	3SE5000-0AA80	–	–
	Plastic 200 mm	3SE5000-0AA82	–	–

### Actuators for standard position switches 3SE5, metal version, 40 mm and 56 mm, according to EN 50 041

		Order number		
			with plastic roller	with high-grade steel roller
Plain plunger	→	3SE5000-0AB01	–	–
Rounded plunger with overtravel, high-grade steel	→	3SE5000-0AC02	–	–
Roller plunger, with overtravel	→	–	–	3SE5000-0AD02
Roller lever with	Metal lever →	–	3SE5000-0AE01	3SE5000-0AE02
	High-grade steel lever →	–	3SE5000-0AE03	3SE5000-0AE04
Angular roller lever with	Metal lever →	–	3SE5000-0AF01	3SE5000-0AF02
	High-grade steel lever →	–	3SE5000-0AF03	3SE5000-0AF04
Spring rod with plastic plunger 143 mm (only for switches with snap-action contacts)		3SE5000-0AR01	–	–
Twist actuator +	→	+	+	+
Twist lever, 27 mm with	Metal lever →	–	3SE5000-0AA01	3SE5000-0AA02
	High-grade steel lever →	–	3SE5000-0AA11	3SE5000-0AA12
Adjustable-length twist lever with	Metal lever, infinitely adjustable →	–	3SE5000-0AA50	3SE5000-0AA51
	Metal lever with grid bores →	–	3SE5000-0AA60	3SE5000-0AA61
Rod actuator in	Aluminum 200 mm	3SE5000-0AA80	–	–
	Plastic 200 mm	3SE5000-0AA82	–	–

→ = positive opening

# SIRIUS 3SE6

## non-contact safety switches

RFID 3SE63 non-contact safety switches and 3SE66/67 magnetically operated switches comply with the highest SIL 3 or Cat. 4 safety requirements for monitoring the positions of movable protective devices. The switch must be connected to a safety relay, e.g. SIRIUS 3SK1/3SK2, or a bus system, e.g. SIMATIC ET 200SP, for evaluation.



### Rectangular safety switches 25 mm x 91 mm

#### Non-contact RFID safety switches

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



Order number	Description
<b>RFID safety switch</b>	
3SE6315-0BB01	Family coded
3SE6315-0BB02	Individually coded, multiple teach-in capability
<b>Actuator</b>	
3SE6310-0BC01	Standard
<b>Connection cable</b>	
3SX5601-2GA05	5 m, M12 socket, 8-pole

### Rectangular safety switch, large 25 mm x 88 mm or small 25 mm x 33 mm

#### Non-contact magnetically operated safety switch

A magnetically operated switch comprises a coded switching magnet and an identical contact block (sensor unit). The switches use reed contacts as mechanical contacts.



Order number	Description
<b>Magnetically operated switch, contact block 25x88 mm</b>	
3SE6604-2BA	With cable 3 m, 1NO+1NC
3SE6604-2BA01	With M8 plug, 4-pole, 1NO+1NC
<b>Actuator, switching magnet (coded), 25 x 88 mm</b>	
3SE6704-2BA	
<b>Magnetically operated switch, contact block 25x33 mm</b>	
3SE6605-3BA	With cable 3 m, 1NO+1NC
<b>Actuator, switching magnet (coded), 25 x 33 mm</b>	
3SE6704-3BA	
<b>Connection cable</b>	
3SX5601-3GA05	5 m, M8 socket, 4-pole

Technical information and support are available at [www.siemens.com/SIOS](http://www.siemens.com/SIOS) or in the Industry Online Support App.



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