

Detecting Devices



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			Siemens LV 1 · 2010

Detecting Devices

Introduction

Overview



	Position switches, standard				Hinge switches		Open-type
Enclosures							
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	31 x 68 x 33	40 x 78 x 38	30 x 48,5 x 20
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67	IP65	IP66/IP67	IP10 or IP20
Standards							
IEC 60947-5-1	Mounting and operating points acc. to EN 50047	Operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Operating points acc. to EN 50041	Mounting and operating points acc. to EN 50047	Mounting and operating points acc. to EN 50041	Mounting and operating points acc. to EN 50047
Approvals	CE, UL, CSA, CCC				CE, UL, CSA, CCC		
Contact blocks							
2 slow-action contacts	1 NO + 1 NC, 2 NC		1 NO + 1 NC, 2 NC		--		1 NO + 1 NC
2 snap-action contacts	1 NO + 1 NC		1 NO + 1 NC		1 NO + 1 NC		1 NO + 1 NC
2 snap-action contacts, short stroke	1 NO + 1 NC		✓		--		✓
2 snap-action contacts 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
• With make-before-break	1 NO + 2 NC		1 NO + 2 NC		--		1 NO + 2 NC
3 snap-action contacts	1 NO + 2 NC		1 NO + 2 NC		1 NO + 2 NC		1 NO + 2 NC
Special features							
LED status display	✓		✓		✓		--
Increased corrosion protection	✓		✓		✓		--
Explosion protection (ATEX)	--		✓		--	✓	--
ASIsafe integrated	✓		✓		✓		--
Electrical specifications							
Insulation voltage U_i	400 V		400 V		400 V		400 V
Conventional thermal current I_{the}	6 A/10 A (3-/2-pole)		6 A/10 A (3-/2-pole)		6 A/10 A (3-/2-pole)		6 A
Terminals							
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	1 x M20 x 1.5	1 x M20 x 1.5	--
M12 connector socket 4-, 5- or 8-pole	✓	✓	✓	✓	✓	✓	--
Connector socket, 6-pole + PE	--	--	✓	✓	--	--	--
Actuators							
Rounded plungers and roller plungers	✓		✓		--		✓
Roller and angular roller levers	✓		✓		--		--
Spring rod	✓		✓		--		--
Twist levers and rod actuators	✓		✓		--		--
Fork lever	--		✓		--		--
Hinges for mounting	--		--		✓		--
Page							
Complete units	8/20	8/24	8/34	8/38, 8/44	8/66	8/67	8/48
Modular system	8/22	8/26	8/36	8/40	--	--	--
Ambient temperature -40 °C	8/28	8/28	8/42	8/42	--	--	--
ASIsafe	8/74	8/74	8/76	8/76	8/85	8/86	--
ATEX	--	--	8/69	8/69	--	8/72	--

✓ = Available -- Not available



3SE5 232,
3SE5 242,
3SF1 2.4



3SE5 112,
3SE5 122,
3SF1 1.4



3SE5 322,
3SE5 312,
3SF1 3.4



3SE6

	Position switches with separate actuator		Position switches with solenoid interlocking	Magnetically operated switches
Enclosures				
Plastic	✓	--	✓	✓
Metal	✓	✓	✓	--
Dimensions (W x H x D) in mm	31 × 68 × 33, 50 × 53 × 33	40 × 78 × 38, 56 × 78 × 38	54 × 185 × 44	M30 × 44, 19 × 33 × 13, 25 × 88 × 13
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP66/IP67	IP67
Standards				
IEC 60947-5-1	Mounting acc. to EN 50047	Mounting acc. to EN 50041	EN 1088, GS-ET 19	Category 3 or 4 acc. to ISO 13849-1 (EN 954-1)
Approvals	CE, TÜV, UL, CSA, CCC		CE, TÜV, UL, CSA, CCC	CE, TÜV, UL, CSA
Contact blocks				
2 slow-action contacts	1 NO + 1 NC	--	--	--
2 snap-action contacts	--	--	--	--
3 slow-action contacts	1 NO + 2 NC	--	--	--
3 snap-action contacts	--	--	--	--
6 slow-action contacts	--	--	2 × (1 NO + 2 NC)	--
Reed contacts	--	--	--	1 NO + 1 NC, 2 NC
Special features				
LED status display	✓	--	✓	--
Increased corrosion protection	✓	--	✓	--
Explosion protection (ATEX)	✓	--	--	--
ASIsafe integrated	✓	✓	✓	--
Electrical specifications				
Insulation voltage U_i	400 V		400 V	--
Conventional thermal current I_{the}	6 A		6 A	--
Terminals				
Cable entry	1 × M20 × 1.5, 2 × M20 × 1.5	1 × M20 × 1.5, 3 × M20 × 1.5	3 × M20 × 1.5	--
M12 connector socket, 4 or 5-pole	✓	✓	✓	✓
Molded cables	--	--	--	✓
AS-Interface	✓	✓	✓	✓ (through I/O module)
Actuators				
Separate actuators	✓	--	✓	--
Page				
Complete units	8/54	8/55	8/61, 8/62	--
Modular system	--	--	--	8/87
ASIsafe	8/79	8/80	8/83, 8/84	8/87
ATEX	--	8/72	--	--

✓ Available -- Not available

Note:

For safety characteristics see "Appendix"
→ "Standards and approvals" → "Overview"

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Overview

3SE2 ---> 3SE5 position switches

Position switches from the 3SE2 series can be converted to the new switches of the 3SE5 series with the help of this table.

In the 3SE5 series you can choose between complete units and the modular system (basic switch and operating mechanism are available separately) ([see page 8/19](#)).

Old Order No. 3SE2	New Order No. Complete units	New Order No. – modular system		
		Basic switches	Operating mechanisms	Levers
Standard switches, plastic enclosure				
3SE2 200-0C	3SE5232-0BC05	--	--	--
3SE2 200-0D	3SE5232-0BD03	3SE5232-0BC05	3SE5000-0AD03	--
3SE2 200-0DV00-0AA3	--	3SE5232-0BC05	3SE5000-0AD04	--
3SE2 200-0E	3SE5232-0BE10	3SE5232-0BC05	3SE5000-0AE10	--
3SE2 200-0EV00-0AA3	--	3SE5232-0BC05	3SE5000-0AE11	--
3SE2 200-0F	3SE5232-0BF10	3SE5232-0BC05	3SE5000-0AF10	--
3SE2 200-0G	3SE5232-0BK21	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA21
3SE2 200-0GV00-0AG7	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA22
3SE2 200-0L	--	3SE5232-0BC05	3SE5000-0AD10	--
3SE2 200-0M	--	3SE5232-0BC05	3SE5000-0AD10	--
3SE2 200-0MV00-0AA3	--	3SE5232-0BC05	3SE5000-0AD11	--
3SE2 200-0S	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA81
3SE2 200-0U	3SE5232-0BK50	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA50
3SE2 200-0UV00-0AG7	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA51
3SE2 200-0V	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA80
3SE2 200-0W	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA82
3SE2 200-0WV00-0AH0	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA82
3SE2 200-0WV00-0AL8	--	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA83
3SE2 200-0XC	3SE5232-0BC05	--	--	--
3SE2 200-0XG	3SE5232-0BK21	3SE5232-0BC05	3SE5000-0AK00	3SE5000-0AA21
3SE2 200-0XJ	3SE5232-0BD03	3SE5232-0BC05	3SE5000-0AD03	--
3SE2 200-1C	3SE5232-0HC05	--	--	--
3SE2 200-1CV00-0AC4	3SE5234-0HC05-1AC4	--	--	--
3SE2 200-1CV00-0AH0	3SE5232-0HC05	--	--	--
3SE2 200-1CV00-0AH1	3SE5232-0HC05	--	--	--
3SE2 200-1CV01	3SE5232-0FC05	--	--	--
3SE2 200-1CV02	3SE5232-0GC05	--	--	--
3SE2 200-1D	3SE5232-0HD03	3SE5232-0HC05	3SE5000-0AD03	--
3SE2 200-1DV00-0AA3	--	3SE5232-0HC05	3SE5000-0AD04	--
3SE2 200-1DV00-0AC4	3SE5234-0HD03-1AC4	3SE5234-0HC05-1AC4	3SE5000-0AD03	--
3SE2 200-1E	3SE5232-0HE10	3SE5232-0HC05	3SE5000-0AE10	--
3SE2 200-1EV00-0AA3	--	3SE5232-0HC05	3SE5000-0AE11	--
3SE2 200-1EV00-0AC4	--	3SE5234-0HC05-1AC4	3SE5000-0AE10	--
3SE2 200-1EV00-0AG5	3SE5232-0HE10	3SE5232-0HC05	3SE5000-0AE10	--
3SE2 200-1EV00-0AK0	3SE5232-0CE12-1CA0	3SE5232-0CC05-1CA0	3SE5000-0AE12	--
3SE2 200-1F	3SE5232-0HF10	3SE5232-0HC05	3SE5000-0AF10	--
3SE2 200-1FV00-0AA3	--	3SE5232-0HC05	3SE5000-0AF11	--
3SE2 200-1G	3SE5232-0HK21	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA21
3SE2 200-1GA10	3SE5232-0HU21	3SE5232-0HC05	3SE5000-0AU21	--
3SE2 200-1GA11	3SE5232-0HU22	3SE5232-0HC05	3SE5000-0AU22	--
3SE2 200-1GV00-0AA3	--	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA22
3SE2 200-1GV00-0AA5	3SE5232-0HK25	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA25
3SE2 200-1GV00-0AC4	--	3SE5234-0HC05-1AC4	3SE5000-0AK00	3SE5000-0AA21
3SE2 200-1GV00-0AH8	--	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA22
3SE2 200-1L	3SE5232-0HD10	3SE5232-0HC05	3SE5000-0AD10	--
3SE2 200-1M	3SE5232-0HD10	3SE5232-0HC05	3SE5000-0AD10	--
3SE2 200-1R	3SE5232-0HR01	3SE5232-0HC05	3SE5000-0AR01	--
3SE2 200-1RV00-0AH0	3SE5232-0HR01	3SE5232-0HC05	3SE5000-0AR01	--
3SE2 200-1S	--	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA81
3SE2 200-1U	3SE5232-0HK50	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA50
3SE2 200-1V	3SE5232-0HK80	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA80
3SE2 200-1W	3SE5232-0HK82	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA82
3SE2 200-1XC	3SE5232-0HC05	--	--	--
3SE2 200-1XG	3SE5232-0HK21	3SE5232-0HC05	3SE5000-0AK00	3SE5000-0AA21
3SE2 200-1XH	3SE5232-0HC05	--	--	--

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units		New Order No. – modular system			
			Basic switches	Operating mechanisms	Levers	
Standard switches, plastic enclosure						
3SE2 200-3C	3SE5232-0MC05	--	--	--	--	
3SE2 200-3D	--	3SE5232-0MC05	3SE5000-0AD03	--	--	
3SE2 200-3E	--	3SE5232-0MC05	3SE5000-0AE10	--	--	
3SE2 200-3F	--	3SE5232-0MC05	3SE5000-0AF10	--	--	
3SE2 200-3G	--	3SE5232-0MC05	3SE5000-0AK00	3SE5000-0AA21		
3SE2 200-3L	--	3SE5232-0MC05	3SE5000-0AD10	--	--	
3SE2 200-3M	--	3SE5232-0MC05	3SE5000-0AD10	--	--	
3SE2 200-3S	--	3SE5232-0MC05	3SE5000-0AK00	3SE5000-0AA81		
3SE2 200-3U	--	3SE5232-0MC05	3SE5000-0AK00	3SE5000-0AA50		
3SE2 200-3V	--	3SE5232-0MC05	3SE5000-0AK00	3SE5000-0AA80		
3SE2 200-3W	--	3SE5232-0MC05	3SE5000-0AK00	3SE5000-0AA82		
3SE2 200-6C	3SE5232-0KC05	--	--	--	--	
3SE2 200-6D	3SE5232-0KD03	3SE5232-0KC05	3SE5000-0AD03	--	--	
3SE2 200-6E	3SE5232-0KE10	3SE5232-0KC05	3SE5000-0AE10	--	--	
3SE2 200-6F	3SE5232-0KF10	3SE5232-0KC05	3SE5000-0AF10	--	--	
3SE2 200-6G	3SE5232-0KK21	3SE5232-0KC05	3SE5000-0AK00	3SE5000-0AA21		
3SE2 200-6L	3SE5232-0KD10	3SE5232-0KC05	3SE5000-0AD10	--	--	
3SE2 200-6M	3SE5232-0KD10	3SE5232-0KC05	3SE5000-0AD10	--	--	
3SE2 200-6S	--	3SE5232-0KC05	3SE5000-0AK00	3SE5000-0AA81		
3SE2 200-6U	--	3SE5232-0KC05	3SE5000-0AK00	3SE5000-0AA50		
3SE2 200-6V	--	3SE5232-0KC05	3SE5000-0AK00	3SE5000-0AA80		
3SE2 200-6W	--	3SE5232-0KC05	3SE5000-0AK00	3SE5000-0AA82		
3SE2 200-7C	3SE5232-0PC05	--	--	--	--	
3SE2 200-7D	--	3SE5232-0PC05	3SE5000-0AD03	--	--	
3SE2 200-7E	--	3SE5232-0PC05	3SE5000-0AE10	--	--	
3SE2 200-7F	--	3SE5232-0PC05	3SE5000-0AF10	--	--	
3SE2 200-7G	--	3SE5232-0PC05	3SE5000-0AK00	3SE5000-0AA21		
3SE2 200-7L	--	3SE5232-0PC05	3SE5000-0AD10	--	--	
3SE2 200-7M	--	3SE5232-0PC05	3SE5000-0AD10	--	--	
3SE2 200-7S	--	3SE5232-0PC05	3SE5000-0AK00	3SE5000-0AA81		
3SE2 200-7U	--	3SE5232-0PC05	3SE5000-0AK00	3SE5000-0AA50		
3SE2 200-7V	--	3SE5232-0PC05	3SE5000-0AK00	3SE5000-0AA80		
3SE2 200-7W	--	3SE5232-0PC05	3SE5000-0AK00	3SE5000-0AA82		
3SE2 200-8CV00	3SE5232-0LC05	--	--	--	--	
3SE2 200-8DV00	3SE5232-0LD03	3SE5232-0LC05	3SE5000-0AD03	--	--	
3SE2 200-8EV00	3SE5232-0LE10	3SE5232-0LC05	3SE5000-0AE10	--	--	
3SE2 200-8EV00-0AA3	--	3SE5232-0LC05	3SE5000-0AE11	--	--	
3SE2 200-8FV00	3SE5232-0LF10	3SE5232-0LC05	3SE5000-0AF10	--	--	
3SE2 200-8GV00	3SE5232-0LK21	3SE5232-0LC05	3SE5000-0AK00	3SE5000-0AA21		
3SE2 200-8GV00-0AC4	--	3SE5234-0LC05-1AE0	3SE5000-0AK00	3SE5000-0AA21		
3SE2 200-8RV00	--	3SE5232-0LC05	3SE5000-0AR01	--	--	
3SE2 200-8SV00	--	3SE5232-0LC05	3SE5000-0AK00	3SE5000-0AA81		
3SE2 200-8UV00	3SE5232-0LK50	3SE5232-0LC05	3SE5000-0AK00	3SE5000-0AA50		
3SE2 200-8VV00	--	3SE5232-0LC05	3SE5000-0AK00	3SE5000-0AA80		
3SE2 200-8WV00	--	3SE5232-0LC05	3SE5000-0AK00	3SE5000-0AA82		

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units		New Order No. – modular system			
			Basic switches	Operating mechanisms	Levers	
Standard switches, plastic enclosure						
3SE2 210-0C	3SE5242-0BC05		3SE5242-0BC05	--	--	
3SE2 210-0D	3SE5242-0BD03		3SE5242-0BC05	3SE5000-0AD03	--	
3SE2 210-0E	3SE5242-0BE10		3SE5242-0BC05	3SE5000-0AE10	--	
3SE2 210-0F	--		3SE5242-0BC05	3SE5000-0AF10	--	
3SE2 210-0G	3SE5242-0BK21		3SE5242-0BC05	3SE5000-0AK00	3SE5000-0AA21	
3SE2 210-0GV00-0AA3	--		3SE5242-0BC05	3SE5000-0AK00	3SE5000-0AA22	
3SE2 210-0L	--		3SE5242-0BC05	3SE5000-0AD10	--	
3SE2 210-0M	--		3SE5242-0BC05	3SE5000-0AD10	--	
3SE2 210-0S	--		3SE5242-0BC05	3SE5000-0AK00	3SE5000-0AA81	
3SE2 210-0U	--		3SE5242-0BC05	3SE5000-0AK00	3SE5000-0AA50	
3SE2 210-0V	--		3SE5242-0BC05	3SE5000-0AK00	3SE5000-0AA80	
3SE2 210-0W	--		3SE5242-0BC05	3SE5000-0AK00	3SE5000-0AA82	
3SE2 210-1C	3SE5242-0HC05		3SE5242-0HC05	--	--	
3SE2 210-1CV00-0AH0	3SE5242-0HC05		3SE5242-0HC05	--	--	
3SE2 210-1CV01	3SE5242-0FC05		3SE5242-0FC05	--	--	
3SE2 210-1D	3SE5242-0HD03		3SE5242-0HC05	3SE5000-0AD03	--	
3SE2 210-1E	3SE5242-0HE10		3SE5242-0HC05	3SE5000-0AE10	--	
3SE2 210-1EV00-0AA3	--		3SE5242-0HC05	3SE5000-0AE11	--	
3SE2 210-1F	--		3SE5242-0HC05	3SE5000-0AF10	--	
3SE2 210-1G	3SE5242-0HK21		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA21	
3SE2 210-1GV00-0AA3	--		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA22	
3SE2 210-1L	--		3SE5242-0HC05	3SE5000-0AD10	--	
3SE2 210-1M	--		3SE5242-0HC05	3SE5000-0AD10	--	
3SE2 210-1R	--		3SE5242-0HC05	3SE5000-0AR01	--	
3SE2 210-1S	--		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA81	
3SE2 210-1U	3SE5242-0HK50		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA50	
3SE2 210-1UV00-0AH3	--		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA50	
3SE2 210-1V	--		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA80	
3SE2 210-1W	--		3SE5242-0HC05	3SE5000-0AK00	3SE5000-0AA82	
3SE2 210-1XC	3SE5242-0HC05		3SE5242-0HC05	--	--	
3SE2 210-1XH	3SE5242-0HC05		3SE5242-0HC05	--	--	
3SE2 210-1XW	3SE5242-0FC05-8AA0		--	--	--	
3SE2 210-3C	3SE5242-0MC05		--	--	--	
3SE2 210-3D	--		3SE5242-0MC05	3SE5000-0AD03	--	
3SE2 210-3E	--		3SE5242-0MC05	3SE5000-0AE10	--	
3SE2 210-3F	--		3SE5242-0MC05	3SE5000-0AF10	--	
3SE2 210-3G	--		3SE5242-0MC05	3SE5000-0AK00	3SE5000-0AA21	
3SE2 210-3L	--		3SE5242-0MC05	3SE5000-0AD10	--	
3SE2 210-3M	--		3SE5242-0MC05	3SE5000-0AD10	--	
3SE2 210-3S	--		3SE5242-0MC05	3SE5000-0AK00	3SE5000-0AA81	
3SE2 210-3U	--		3SE5242-0MC05	3SE5000-0AK00	3SE5000-0AA50	
3SE2 210-3V	--		3SE5242-0MC05	3SE5000-0AK00	3SE5000-0AA80	
3SE2 210-3W	--		3SE5242-0MC05	3SE5000-0AK00	3SE5000-0AA82	
3SE2 210-8CV00	3SE5242-0LC05		3SE5242-0LC05	--	--	
3SE2 210-8DV00	3SE5242-0LD03		3SE5242-0LC05	3SE5000-0AD03	--	
3SE2 210-8EV00	3SE5242-0LE10		3SE5242-0LC05	3SE5000-0AE10	--	
3SE2 210-8FV00	--		3SE5242-0LC05	3SE5000-0AF10	--	
3SE2 210-8GV00	3SE5242-0LK21		3SE5242-0LC05	3SE5000-0AK00	3SE5000-0AA21	
3SE2 210-8UV00	--		3SE5242-0LC05	3SE5000-0AK00	3SE5000-0AA50	

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units		New Order No. – modular system			
Standard switches, metal enclosures			Basic switches	Operating mechanisms	Levers	
3SE2 100-0A	--		3SE5122-0BA00	--	--	
3SE2 100-0C	3SE5122-0BC02		3SE5122-0BA00	3SE5000-0AC02	--	
3SE2 100-0D	3SE5122-0BD02		3SE5122-0BA00	3SE5000-0AD02	--	
3SE2 100-0DV00-0AK0	--		3SE5122-0BA00-1CA0	3SE5000-0AD02	--	
3SE2 100-0E	3SE5122-0BE01		3SE5122-0BA00	3SE5000-0AE01	--	
3SE2 100-0EV00-0AA3	--		3SE5122-0BA00	3SE5000-0AE02	--	
3SE2 100-0EV00-0AF4	--		3SE5122-1KA00	3SE5000-0AE01	--	
3SE2 100-0EV00-0AK0	--		3SE5122-0BA00-1CA0	3SE5000-0AE03	--	
3SE2 100-0F	3SE5122-0BF01		3SE5122-0BA00	3SE5000-0AF01	--	
3SE2 100-0GW	3SE5122-0BH01		3SE5122-0BA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-0GW00-0AA3	--		3SE5122-0BA00	3SE5000-0AH00	3SE5000-0AA02	
3SE2 100-0UW	3SE5122-0BH50		3SE5122-0BA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-0VW	--		3SE5122-0BA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-0WW	--		3SE5122-0BA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 100-1A	--		3SE5122-0CA00	--	--	
3SE2 100-1C	3SE5122-0CC02		3SE5122-0CA00	3SE5000-0AC02	--	
3SE2 100-1CV00-0AK0	--		3SE5122-0CA00-1CA0	3SE5000-0AC02	--	
3SE2 100-1D	3SE5122-0CD02		3SE5122-0CA00	3SE5000-0AD02	--	
3SE2 100-1DV00-0AA3	--		3SE5122-0CA00	3SE5000-0AD02	--	
3SE2 100-1DV00-0AE0	3SE5122-0CD02-1DA0		3SE5122-0CA00-1DA0	3SE5000-0AD02	--	
3SE2 100-1DV00-0AH3	3SE5122-0CD02		3SE5122-0CA00	3SE5000-0AD02	--	
3SE2 100-1DV00-0AK1	--		3SE5122-0CA00-1CA0	3SE5000-0AD02	--	
3SE2 100-1E	3SE5122-0CE01		3SE5122-0CA00	3SE5000-0AE01	--	
3SE2 100-1EV00-0AA3	3SE5122-0CE02		3SE5122-0CA00	3SE5000-0AE02	--	
3SE2 100-1EV00-0AE0	3SE5122-0CE03-1DA0		--	--	--	
3SE2 100-1EV00-0AK0	--		3SE5122-0CA00-1CA0	3SE5000-0AE03	--	
3SE2 100-1EV00-0AK1	--		3SE5122-0CA00-1CA0	3SE5000-0AE04	--	
3SE2 100-1F	3SE5122-0CF01		3SE5122-0CA00	3SE5000-0AF01	--	
3SE2 100-1FV00-0AA3	--		3SE5122-0CA00	3SE5000-0AF02	--	
3SE2 100-1FV00-0AE0	3SE5122-0CF03-1DA0		3SE5122-0CA00-1DA0	3SE5000-0AF03	--	
3SE2 100-1G	3SE5122-0CH01		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-1GV00-0AA3	3SE5122-0CH02		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA02	
3SE2 100-1GV00-0AK1	--		3SE5122-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA12	
3SE2 100-1GW	3SE5122-0CH01		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-1GW00-0AA3	3SE5122-0CH02		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA02	
3SE2 100-1GW00-0AE0	3SE5122-0CH11-1DA0		--	--	--	
3SE2 100-1GW00-0AK0	--		3SE5122-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA11	
3SE2 100-1GW00-0AK1	--		3SE5122-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA12	
3SE2 100-1R	3SE5122-0CR01		3SE5122-0CA00	3SE5000-0AR01	--	
3SE2 100-1RV00-0AK0	--		3SE5122-0CA00-1CA0	3SE5000-0AR01	--	
3SE2 100-1T	--		3SE5122-0CA00	3SE5000-0AT10	3SE5000-0AT01	
3SE2 100-1U	3SE5122-0CH50		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-1UW	3SE5122-0CH50		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-1UW00-0AA3	--		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA51	
3SE2 100-1UW00-0AA5	--		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA55	
3SE2 100-1V	3SE5122-0CH80		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-1VW	3SE5122-0CH80		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-1W	--		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 100-1WW	--		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 100-1WW00-0AA0	--		3SE5122-0CA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 100-3A	--		3SE5122-0MA00	--	--	
3SE2 100-3C	--		3SE5122-0MA00	3SE5000-0AC02	--	
3SE2 100-3D	--		3SE5122-0MA00	3SE5000-0AD02	--	
3SE2 100-3E	--		3SE5122-0MA00	3SE5000-0AE01	--	
3SE2 100-3F	--		3SE5122-0MA00	3SE5000-0AF01	--	

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units		New Order No. – modular system			
			Basic switches	Operating mechanisms	Levers	
Standard switches, metal enclosures						
3SE2 100-3GW	--		3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-3UW	--		3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-3VW	--		3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-3WW	--		3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 100-6A	--		3SE5122-0KA00	--	--	
3SE2 100-6C	3SE5122-0KC02		3SE5122-0KA00	3SE5000-0AC02	--	
3SE2 100-6CV00-0AK0	--		3SE5122-0KA00-1CA0	3SE5000-0AC02	--	
3SE2 100-6D	3SE5122-0KD02		3SE5122-0KA00	3SE5000-0AD02	--	
3SE2 100-6E	3SE5122-0KE01		3SE5122-0KA00	3SE5000-0AE01	--	
3SE2 100-6F	--		3SE5122-0KA00	3SE5000-0AF01	--	
3SE2 100-6GW	3SE5122-0KH01		3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-6UW	--		3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-6VW	--		3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-7A	--		3SE5122-0PA00	--	--	
3SE2 100-7C	--		3SE5122-0PA00	3SE5000-0AC02	--	
3SE2 100-7D	--		3SE5122-0PA00	3SE5000-0AD02	--	
3SE2 100-7E	--		3SE5122-0PA00	3SE5000-0AE01	--	
3SE2 100-7F	--		3SE5122-0PA00	3SE5000-0AF01	--	
3SE2 100-7GW	--		3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-7UW	--		3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-7VW	--		3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-7WW	--		3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 100-8CV00	3SE5122-0LC02		3SE5122-0LA00	3SE5000-0AC02	--	
3SE2 100-8DV00	3SE5122-0LD02		3SE5122-0LA00	3SE5000-0AD02	--	
3SE2 100-8EV00	3SE5122-0LE01		3SE5122-0LA00	3SE5000-0AE01	--	
3SE2 100-8FV00	--		3SE5122-0LA00	3SE5000-0AF01	--	
3SE2 100-8GW00	3SE5122-0LH01		3SE5122-0LA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 100-8GW00-0AA3	--		3SE5122-0LA00	3SE5000-0AH00	3SE5000-0AA02	
3SE2 100-8RV00	--		3SE5122-0LA00	3SE5000-0AR01	--	
3SE2 100-8UW00	--		3SE5122-0LA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 100-8VW00	--		3SE5122-0LA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 100-8WW00	--		3SE5122-0LA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 120-0A	--		3SE5112-0BA00	--	--	
3SE2 120-0AV00-0AF1	--		3SE5112-1KA00	--	--	
3SE2 120-0C	3SE5112-0BC02		3SE5112-0BA00	3SE5000-0AC02	--	
3SE2 120-0D	3SE5112-0BD02		3SE5112-0BA00	3SE5000-0AD02	--	
3SE2 120-0DV00-0AA3	3SE5112-0BD02		3SE5112-0BA00	3SE5000-0AD02	--	
3SE2 120-0DV00-0AD1	--		3SE5115-0KA00-1AD1	3SE5000-0AD02	--	
3SE2 120-0DV00-0AF7	--		3SE5115-1BA00-1AF2	3SE5000-0AD02	--	
3SE2 120-0DV00-0AK0	--		3SE5112-0BA00-1CA0	3SE5000-0AD02	--	
3SE2 120-0E	3SE5112-0BE01		3SE5112-0BA00	3SE5000-0AE01	--	
3SE2 120-0EV00-0AA3	--		3SE5112-0BA00	3SE5000-0AE02	--	
3SE2 120-0EV00-0AF1	--		3SE5112-1KA00	3SE5000-0AE01	--	
3SE2 120-0EV00-0AK0	--		3SE5112-0BA00-1CA0	3SE5000-0AE03	--	
3SE2 120-0F	3SE5112-0BF01		3SE5112-0BA00	3SE5000-0AF01	--	
3SE2 120-0G	3SE5112-0BH01		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 120-0GV00-0AD1	--		3SE5115-0KA00-1AD1	3SE5000-0AH00	3SE5000-0AA01	
3SE2 120-0GW	3SE5112-0BH01		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 120-0GW00-0AA3	3SE5112-0BH02		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA02	
3SE2 120-0GW00-0AA4	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA04	
3SE2 120-0GW00-0AA5	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA05	
3SE2 120-0GW00-0AA7	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA07	
3SE2 120-0GW00-0AF1	--		3SE5112-1KA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 120-0GW00-0AF2	--		3SE5115-1BA00-1AF2	3SE5000-0AH00	3SE5000-0AA01	
3SE2 120-0GW00-0AG2	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA02	
3SE2 120-0GW00-0AK0	--		3SE5112-0BA00-1CA0	3SE5000-0AH00	3SE5000-0AA11	
3SE2 120-0J	3SE5112-0BH01		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA01	
3SE2 120-0U	3SE5112-0BH50		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 120-0UW	3SE5112-0BH50		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA50	
3SE2 120-0UW00-0AA3	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA51	
3SE2 120-0VW	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA80	
3SE2 120-0WW	--		3SE5112-0BA00	3SE5000-0AH00	3SE5000-0AA82	
3SE2 120-0WW00-0AK0	--		3SE5112-0BA00-1CA0	3SE5000-0AH00	3SE5000-0AA82	

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units	New Order No. – modular system		
		Basic switches	Operating mechanisms	Levers
Standard switches, metal enclosures				
3SE2 120-1A	--	3SE5112-0CA00	--	--
3SE2 120-1AV00-0AC5	--	3SE5114-0CA00-1AC5	--	--
3SE2 120-1AV00-0AD4	--	3SE5115-1CA00-1AF2	--	--
3SE2 120-1AV00-0AF0	--	3SE5112-1LA00	--	--
3SE2 120-1AV00-0AF1	--	3SE5112-1LA00	--	--
3SE2 120-1AV00-0AF4	--	3SE5112-3LA00	--	--
3SE2 120-1C	3SE5112-0CC02	3SE5112-0CA00	3SE5000-0AC02	--
3SE2 120-1CV00-0AC5	--	3SE5114-0CA00-1AC5	3SE5000-0AC02	--
3SE2 120-1CV00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AC02	--
3SE2 120-1CV00-0AE0	3SE5112-0CC02-1DA0	3SE5115-0CA00-1DA0	3SE5000-0AC02	--
3SE2 120-1CV00-0AF4	--	3SE5112-3LA00	3SE5000-0AC02	--
3SE2 120-1CV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AC02	--
3SE2 120-1D	3SE5112-0CD02	3SE5112-0CA00	3SE5000-0AD02	--
3SE2 120-1DV00-0AA3	--	3SE5112-0CA00	3SE5000-0AD02	--
3SE2 120-1DV00-0AC4	--	3SE5114-0CA00-1AC5	3SE5000-0AD02	--
3SE2 120-1DV00-0AC5	--	3SE5114-0CA00-1AC5	3SE5000-0AD02	--
3SE2 120-1DV00-0AD0	--	3SE5115-0CA00-1AD0	3SE5000-0AD02	--
3SE2 120-1DV00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AD02	--
3SE2 120-1DV00-0AE0	3SE5112-0CD02-1DA0	--	--	--
3SE2 120-1DV00-0AF0	--	3SE5112-1LA00	3SE5000-0AD02	--
3SE2 120-1DV00-0AF1	--	3SE5112-1LA00	3SE5000-0AD02	--
3SE2 120-1DV00-0AF2	--	3SE5115-1CA00-1AF2	3SE5000-0AD02	--
3SE2 120-1DV00-0AF4	--	3SE5112-3LA00	3SE5000-0AD02	--
3SE2 120-1DV00-0AF6	--	3SE5112-1LA00	3SE5000-0AD02	--
3SE2 120-1DV00-0AF7	--	3SE5115-1CA00-1AF2	3SE5000-0AD02	--
3SE2 120-1DV00-0AJ5	--	3SE5114-1CA00-1AF3	3SE5000-0AD02	--
3SE2 120-1DV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AD02	--
3SE2 120-1E	3SE5112-0CE01	3SE5112-0CA00	3SE5000-0AE01	--
3SE2 120-1EV00-0AA3	--	3SE5112-0CA00	3SE5000-0AE02	--
3SE2 120-1EV00-0AC4	--	3SE5114-0CA00-1AC5	3SE5000-0AE01	--
3SE2 120-1EV00-0AD0	--	3SE5115-0CA00-1AD0	3SE5000-0AE01	--
3SE2 120-1EV00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AE01	--
3SE2 120-1EV00-0AE0	3SE5112-0CE03-1DA0	--	--	--
3SE2 120-1EV00-0AF0	--	3SE5112-1LA00	3SE5000-0AE01	--
3SE2 120-1EV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AE03	--
3SE2 120-1F	3SE5112-0CF01	3SE5112-0CA00	3SE5000-0AF01	--
3SE2 120-1FV00-0AA3	--	3SE5112-0CA00	3SE5000-0AF02	--
3SE2 120-1FV00-0AC4	--	3SE5114-0CA00-1AC5	3SE5000-0AF01	--
3SE2 120-1FV00-0AC5	--	3SE5114-0CA00-1AC5	3SE5000-0AF01	--
3SE2 120-1FV00-0AE0	3SE5112-0CF03-1DA0	--	--	--
3SE2 120-1FV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AF03	--
3SE2 120-1G	3SE5112-0CH01	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GV00-0AA3	3SE5112-0CH02	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GV00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GV00-0AD4	--	3SE5115-1CA00-1AF2	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GV00-0AF0	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GV00-0AF4	--	3SE5112-3LA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GV00-0AF5	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GV00-0AG0	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA15
3SE2 120-1GV00-0AJ5	--	3SE5114-1CA00-1AF3	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA11
3SE2 120-1GV00-0AK3	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA11
3SE2 120-1GW	3SE5112-0CH01	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AA2	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA04
3SE2 120-1GW00-0AA3	3SE5112-0CH02	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AA5	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA05
3SE2 120-1GW00-0AA7	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA07
3SE2 120-1GW00-0AC4	3SE5114-0CH01-1AC5	3SE5114-0CA00-1AC5	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AC5	3SE5114-0CH01-1AC5	3SE5114-0CA00-1AC5	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AD0	--	3SE5115-0CA00-1AD0	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AD3	--	3SE5115-0LA00-1AD1	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AE0	3SE5112-0CH11-1DA0	--	--	--
3SE2 120-1GW00-0AF0	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AF2	--	3SE5115-1CA00-1AF2	3SE5000-0AH00	3SE5000-0AA01

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units	New Order No. – modular system		
		Basic switches	Operating mechanisms	Levers
Standard switches, metal enclosures				
3SE2 120-1GW00-0AF4	--	3SE5112-3LA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AF5	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AF7	--	3SE5115-1CA00-1AF2	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AG1	3SE5 112-0CH01	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1GW00-0AG2	3SE5 112-0CH01	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AG8	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA03
3SE2 120-1GW00-0AJ1	--	3SE5115-0LA00-1AD1	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AJ4	--	3SE5114-0CA00-1AC5	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1GW00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA11
3SE2 120-1GW00-0AK1	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA12
3SE2 120-1J	3SE5112-0CH01	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-1JV00-0AF5	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-1R	3SE5112-0CR01	3SE5112-0CA00	3SE5000-0AR01	--
3SE2 120-1RV00-0AD0	--	3SE5115-0CA00-1AD0	3SE5000-0AR01	--
3SE2 120-1RV00-0AE0	3SE5112-0CR01-1DA0	3SE5112-0CA00-1DA0	3SE5000-0AR01	--
3SE2 120-1RV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AR01	--
3SE2 120-1RV00-0AL0	--	3SE5112-0CA00	3SE5000-0AR02	--
3SE2 120-1RV00-0AL1	--	3SE5112-0CA00	3SE5000-0AR03	--
3SE2 120-1RV00-0AL2	--	3SE5112-0CA00	3SE5000-0AR04	--
3SE2 120-1T	3SE5112-0CT11	3SE5112-0CA00	3SE5000-0AT10	3SE5000-0AT01
3SE2 120-1TV00-0AA3	--	3SE5112-0CA00	3SE5000-0AT10	3SE5000-0AT02
3SE2 120-1TV00-0AC4	--	3SE5114-0CA00-1AC5	3SE5000-0AT10	3SE5000-0AT01
3SE2 120-1TV00-0AE0	3SE5112-0CT13-1DA0	--	--	--
3SE2 120-1TV00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AT10	3SE5000-0AT03
3SE2 120-1U	3SE5112-0CH50	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UV00-0AH4	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UW	3SE5112-0CH50	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UW00-0AA3	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA51
3SE2 120-1UW00-0AA5	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA55
3SE2 120-1UW00-0AA7	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA57
3SE2 120-1UW00-0AC4	--	3SE5114-0CA00-1AC5	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UW00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UW00-0AF0	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UW00-0AF7	--	3SE5115-1CA00-1AF2	3SE5000-0AH00	3SE5000-0AA51
3SE2 120-1UW00-0AG1	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-1UW00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA52
3SE2 120-1UW00-0AK4	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA58
3SE2 120-1V	3SE5112-0CH80	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1VV00-0AF0	--	3SE5112-1LA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1VW	3SE5112-0CH80	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1VW00-0AC4	--	3SE5114-0CA00-1AC5	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1VW00-0AD1	--	3SE5115-0LA00-1AD1	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1VW00-0AG1	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1VW00-0AG6	--	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-1W	3SE5112-0CH82	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-1WW	3SE5112-0CH82	3SE5112-0CA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-1WW00-0AD0	--	3SE5115-0CA00-1AD0	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-1WW00-0AE0	3SE5112-0CH82-1DA0	--	--	--
3SE2 120-1WW00-0AK0	--	3SE5112-0CA00-1CA0	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-3A	--	3SE5112-0MA00	--	--
3SE2 120-3C	--	3SE5112-0MA00	3SE5000-0AC02	--
3SE2 120-3D	--	3SE5112-0MA00	3SE5000-0AD02	--
3SE2 120-3E	--	3SE5112-0MA00	3SE5000-0AE01	--
3SE2 120-3F	--	3SE5112-0MA00	3SE5000-0AF01	--
3SE2 120-3GW	--	3SE5112-0MA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-3UW	--	3SE5112-0MA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-3VW	--	3SE5112-0MA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-3WW	--	3SE5112-0MA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-6A	--	3SE5112-0KA00	--	--
3SE2 120-6C	3SE5112-0KC02	3SE5112-0KA00	3SE5000-0AC02	--
3SE2 120-6D	3SE5112-0KD02	3SE5112-0KA00	3SE5000-0AD02	--
3SE2 120-6DV00-0AA3	--	3SE5112-0KA00	3SE5000-0AD02	--
3SE2 120-6E	3SE5112-0KE01	3SE5112-0KA00	3SE5000-0AE01	--
3SE2 120-6F	--	3SE5112-0KA00	3SE5000-0AF01	--

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units	New Order No. – modular system		
		Basic switches	Operating mechanisms	Levers
Standard switches, metal enclosures				
3SE2 120-6GW	3SE5112-0KH01	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-6GW00-0AA3	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-6GW00-0AG1	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-6GW00-0AG2	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-6GW00-0AG8	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA03
3SE2 120-6GW00-0AK1	--	3SE5112-0KA00-1CA0	3SE5000-0AH00	3SE5000-0AA12
3SE2 120-6UW	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-6VW	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-6WW	--	3SE5112-0KA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-7A	--	3SE5112-0PA00	--	--
3SE2 120-7C	--	3SE5112-0PA00	3SE5000-0AC02	--
3SE2 120-7D	--	3SE5112-0PA00	3SE5000-0AD02	--
3SE2 120-7E	--	3SE5112-0PA00	3SE5000-0AE01	--
3SE2 120-7F	--	3SE5112-0PA00	3SE5000-0AF01	--
3SE2 120-7GW	--	3SE5112-0PA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-7UW	--	3SE5112-0PA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-7VW	--	3SE5112-0PA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-7WW	--	3SE5112-0PA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 120-8AV00	--	3SE5112-0LA00	--	--
3SE2 120-8CV00	3SE5112-0LC02	3SE5112-0LA00	3SE5000-0AC02	--
3SE2 120-8CV00-0AC5	--	3SE5114-0LA00-1AE1	3SE5000-0AC02	--
3SE2 120-8DV00	3SE5112-0LD02	3SE5112-0LA00	3SE5000-0AD02	--
3SE2 120-8DV00-0AC2	--	3SE5115-1LA00-1AD2	3SE5000-0AD02	--
3SE2 120-8DV00-0AC4	--	3SE5114-0LA00-1AE1	3SE5000-0AD02	--
3SE2 120-8DV00-0AC5	--	3SE5114-0LA00-1AE1	3SE5000-0AD02	--
3SE2 120-8DV00-0AJ6	--	3SE5114-0LA00-1AE1	3SE5000-0AD02	--
3SE2 120-8EV00	3SE5112-0LE01	3SE5112-0LA00	3SE5000-0AE01	--
3SE2 120-8EV00-0AC5	--	3SE5114-0LA00-1AE1	3SE5000-0AE01	--
3SE2 120-8FV00	3SE5112-0LF01	3SE5112-0LA00	3SE5000-0AF01	--
3SE2 120-8GW00	3SE5112-0LH01	3SE5112-0LA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-8GW00-0AA3	--	3SE5112-0LA00	3SE5000-0AH00	3SE5000-0AA02
3SE2 120-8GW00-0AC4	--	3SE5114-0LA00-1AE1	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-8GW00-0AC5	--	3SE5114-0LA00-1AE1	3SE5000-0AH00	3SE5000-0AA01
3SE2 120-8GW00-0AK1	--	3SE5112-0LA00-1CA0	3SE5000-0AH00	3SE5000-0AA12
3SE2 120-8RV00	--	3SE5112-0LA00	3SE5000-0AR01	--
3SE2 120-8UW00	3SE5112-0LH50	3SE5112-0LA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 120-8VW00	--	3SE5112-0LA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 120-8WW00	--	3SE5112-0LA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 303-0A	--	3SE5122-0KA00	--	--
3SE2 303-0C	3SE5122-0KC02	3SE5122-0KA00	3SE5000-0AC02	--
3SE2 303-0D	--	3SE5122-0KA00	3SE5000-0AD02	--
3SE2 303-0DV00-0AA3	--	3SE5122-0KA00	3SE5000-0AD02	--
3SE2 303-0E	--	3SE5122-0KA00	3SE5000-0AE01	--
3SE2 303-0F	--	3SE5122-0KA00	3SE5000-0AF01	--
3SE2 303-0GW	--	3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 303-0UW	--	3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 303-0VW	--	3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 303-0WW	--	3SE5122-0KA00	3SE5000-0AH00	3SE5000-0AA82
3SE2 303-1A	--	3SE5122-0PA00	--	--
3SE2 303-1C	--	3SE5122-0PA00	3SE5000-0AC02	--
3SE2 303-1D	--	3SE5122-0PA00	3SE5000-0AD02	--
3SE2 303-1DV00-0AA3	--	3SE5122-0PA00	3SE5000-0AD02	--
3SE2 303-1E	--	3SE5122-0PA00	3SE5000-0AE01	--
3SE2 303-1F	--	3SE5122-0PA00	3SE5000-0AF01	--
3SE2 303-1GW	--	3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 303-1UW	--	3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 303-1VW	--	3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 303-1WW	--	3SE5122-0PA00	3SE5000-0AH00	3SE5000-0AA82

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

Old Order No. 3SE2	New Order No. Complete units	New Order No. – modular system		
		Basic switches	Operating mechanisms	Levers
Standard switches, metal enclosures				
3SE2 303-2A	--	3SE5122-0MA00	--	--
3SE2 303-2C	--	3SE5122-0MA00	3SE5000-0AC02	--
3SE2 303-2D	--	3SE5122-0MA00	3SE5000-0AD02	--
3SE2 303-2DV00-0AA3	--	3SE5122-0MA00	3SE5000-0AD02	--
3SE2 303-2E	--	3SE5122-0MA00	3SE5000-0AE01	--
3SE2 303-2F	--	3SE5122-0MA00	3SE5000-0AF01	--
3SE2 303-2GW	--	3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA01
3SE2 303-2UW	--	3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA50
3SE2 303-2VW	--	3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA80
3SE2 303-2WW	--	3SE5122-0MA00	3SE5000-0AH00	3SE5000-0AA82

3SE2, 3SE3 --> 3SE5 safety switches

Safety position switches with separate actuator from the 3SE2 and 3SE3 series can be converted to the new switches of the 3SE5 series with the help of this table.

Old Order No. 3SE2, 3SE3	New Order No. Complete units
With separate actuator	
3SE2 120-0XX	3SE5112-0QV10
3SE2 120-0XX00-0AF0	3SE5112-1QV10
3SE2 120-4XX	3SE5112-0QV10
3SE2 120-6XX	3SE5112-0QV10
3SE2 120-6XX00-0AC4	3SE5114-0QV10-1AE1
3SE2 200-0XX03	3SE5232-0RV40
3SE2 200-0XX04	3SE5232-0RV40
3SE3 200-0XX13	3SE5232-0RV40
3SE2 200-6XX03	3SE5232-0QV40
3SE2 200-6XX04	3SE5232-0QV40
3SE3 200-6XX13	3SE5232-0QV40

The 3SE2 243 and 3SE2 257 switches with separate actuator and the 3SE2 83 and 3SE2 84 with solenoid interlocking are still available without any restriction.

Old Order No. 3SE3	New Order No. Complete units
With solenoid interlocking	
3SE3 750-3XX00	3SE5 322-0SB21
3SE3 750-6XX00	3SE5 322-0SB21
3SE3 751-3XX00	3SE5 322-0SB23
3SE3 751-6XX00	3SE5 322-0SB23
3SE3 752-3XX00	3SE5 322-0SB22
3SE3 752-6XX00	3SE5 322-0SB22
3SE3 760-3XX00	3SE5 322-0SD21
3SE3 760-3XX01	3SE5 322-0SE21
3SE3 760-6XX00	3SE5 322-0SD21
3SE3 760-6XX01	3SE5 322-0SE21
3SE3 761-3XX00	3SE5 322-0SD23
3SE3 761-3XX01	3SE5 322-0SE23
3SE3 761-6XX00	3SE5 322-0SD23
3SE3 762-3XX00	3SE5 322-0SD22
3SE3 762-3XX01	3SE5 322-0SE22
3SE3 762-6XX00	3SE5 322-0SD22
3SE3 850-3XX00	3SE5 312-0SB11
3SE3 850-6XX00	3SE5 312-0SB11
3SE3 851-3XX00	3SE5 312-0SB13
3SE3 851-6XX00	3SE5 312-0SB13
3SE3 852-3XX00	3SE5 312-0SB12
3SE3 852-6XX00	3SE5 312-0SB12
3SE3 860-3XX00	3SE5 312-0SD11
3SE3 860-3XX01	3SE5 312-0SE11
3SE3 860-6XX00	3SE5 312-0SD11
3SE3 860-6XX01	3SE5 312-0SE11
3SE3 861-3XX00	3SE5 312-0SD13
3SE3 861-3XX01	3SE5 312-0SE13
3SE3 861-6XX00	3SE5 312-0SD13
3SE3 861-6XX01	3SE5 312-0SE13
3SE3 862-3XX00	3SE5 312-0SD12
3SE3 862-3XX01	3SE5 312-0SE12
3SE3 862-6XX00	3SE5 312-0SD12
3SE3 862-6XX01	3SE5 312-0SE12

3SE2, 3SE3, 3SF3 Position Switches

Conversion to 3SE5, 3SF1

AS-Interface 3SF3 --> 3SF1

ASIsafe position switches from the 3SF3 series can be converted to the new switches of the 3SF1 series with the help of this table.

Old Order No. 3SF3	New Order No. Complete units	New Order No. – modular system	
		Basic switches	Operating mechanisms Levers
Standard switches			
3SF3 100-0CV00-0BA2	--	3SF1124-1KA00-1BA2	3SE5000-0AC02
3SF3 100-0DV00-0BA2	--	3SF1124-1KA00-1BA2	3SE5000-0AD02
3SF3 100-0EV00-0BA2	--	3SF1124-1KA00-1BA2	3SE5000-0AE01
3SF3 100-0FV00-0BA2	--	3SF1124-1KA00-1BA2	3SE5000-0AF01
3SF3 100-0GW00-0BA2	--	3SF1124-1KA00-1BA2	3SE5000-0AH00
			3SE5000-0AA01
3SF3 100-1CV00-0BA2	--	3SF1124-1LA00-1BA2	3SE5000-0AC02
3SF3 100-1DV00-0BA2	--	3SF1124-1LA00-1BA2	3SE5000-0AD02
3SF3 100-1EV00-0BA2	--	3SF1124-1LA00-1BA2	3SE5000-0AE01
3SF3 100-1FV00-0BA2	--	3SF1124-1LA00-1BA2	3SE5000-0AF01
3SF3 100-1GW00-0BA2	--	3SF1124-1LA00-1BA2	3SE5000-0AH00
			3SE5000-0AA01
3SF3 120-6CV00-0BA1	--	3SF1114-1KA00-1BA1	3SE5000-0AC02
3SF3 120-6DV00-0BA1	--	3SF1114-1KA00-1BA1	3SE5000-0AD02
3SF3 120-6EV00-0BA1	--	3SF1114-1KA00-1BA1	3SE5000-0AE01
3SF3 120-6FV00-0BA1	--	3SF1114-1KA00-1BA1	3SE5000-0AF01
3SF3 120-6GW00-0BA1	--	3SF1114-1KA00-1BA1	3SE5000-0AH00
			3SE5000-0AA01
3SF3 120-8CV00-0BA1	--	3SF1114-1LA00-1BA1	3SE5000-0AC02
3SF3 120-8DV00-0BA1	--	3SF1114-1LA00-1BA1	3SE5000-0AD02
3SF3 120-8EV00-0BA1	--	3SF1114-1LA00-1BA1	3SE5000-0AE01
3SF3 120-8FV00-0BA1	--	3SF1114-1LA00-1BA1	3SE5000-0AF01
3SF3 120-8GW00-0BA1	--	3SF1114-1LA00-1BA1	3SE5000-0AH00
			3SE5000-0AA01
3SF3 200-6CV00-0BA1	3SF1234-1KC05-1BA1	--	--
3SF3 200-6DV00-0BA1	--	3SF1234-1KC05-1BA1	3SE5000-0AD03
3SF3 200-6EV00-0BA1	--	3SF1234-1KC05-1BA1	3SE5000-0AE10
3SF3 200-6FV00-0BA1	--	3SF1234-1KC05-1BA1	3SE5000-0AF10
3SF3 200-6GV00-0BA1	--	3SF1234-1KC05-1BA1	3SE5000-0AK00
			3SE5000-0AA21
3SF3 200-8CV00-0BA1	3SF1234-1LC05-1BA1	--	--
3SF3 200-8DV00-0BA1	--	3SF1234-1LC05-1BA1	3SE5000-0AD03
3SF3 200-8EV00-0BA1	--	3SF1234-1LC05-1BA1	3SE5000-0AE10
3SF3 200-8FV00-0BA1	--	3SF1234-1LC05-1BA1	3SE5000-0AF10
3SF3 200-8GV00-0BA1	--	3SF1234-1LC05-1BA1	3SE5000-0AK00
			3SE5000-0AA21
3SF3 210-0CV00-0BA2	3SF1244-1KC05-1BA2	--	--
3SF3 210-0DV00-0BA2	--	3SF1244-1KC05-1BA2	3SE5000-0AD03
3SF3 210-0EV00-0BA2	--	3SF1244-1KC05-1BA2	3SE5000-0AE10
3SF3 210-0FV00-0BA2	--	3SF1244-1KC05-1BA2	3SE5000-0AF10
3SF3 210-0GV00-0BA2	--	3SF1244-1KC05-1BA2	3SE5000-0AK00
			3SE5000-0AA21
3SF3 210-1CV00-0BA2	3SF1244-1LC05-1BA2	--	--
3SF3 210-1DV00-0BA2	--	3SF1244-1LC05-1BA2	3SE5000-0AD03
3SF3 210-1EV00-0BA2	--	3SF1244-1LC05-1BA2	3SE5000-0AE10
3SF3 210-1FV00-0BA2	--	3SF1244-1LC05-1BA2	3SE5000-0AF10
3SF3 210-1GV00-0BA2	--	3SF1244-1LC05-1BA2	3SE5000-0AK00
			3SE5000-0AA21

Old Order No. 3SF3	New Order No. Complete units
With separate actuator	
3SF3 120-6XX00-0BA1	3SF1114-1QV10-1BA1
3SF3 200-6XX04-0BA1	3SF1234-1QV40-1BA1
With solenoid interlocking	
3SF3 750-6XX00-0BA1	3SF1 324-1SB21-1BA1
3SF3 760-6XX00-0BA1	3SF1 324-1SD21-1BA1
3SF3 830-6XX00-0BA1	3SF1 314-1SB11-1BA1
3SF3 840-6XX00-0BA1	3SF1 314-1SD11-1BA1
3SF3 850-6XX00-0BA1	3SF1 314-1SB11-1BA1
3SF3 860-6XX00-0BA1	3SF1 314-1SD11-1BA1

3SE5, 3SE2, 3SE3 Position Switches

General data

Overview

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

3SE2 series

The position switches of the 3SE2 series are still available, in particular those switch variants which are not yet covered by the new 3SE5 series, including the complete 3SE2 230 series with 40 mm plastic enclosure and the 3SE2 404 series with metal enclosure and 4 contacts.



3SE2 position switches with plastic and metal enclosures

Modular system

The 3SE5 series features a new 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.

An easy plug-in method enables fast replacement of the actuator heads.



Examples of selection options in the modular system

A conversion table from 3SE2 to 3SE5 can be found on page 8/4.

General data

Design

All enclosure variants have an integrated chlorinated rubber diaphragm (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:

- Open-type position switch IP20 or IP10
- Plastic enclosures acc. to EN 50047, 31 mm wide, 1 cable entry
- Plastic enclosures, 50 mm wide, 2 cable entries
- Metal enclosures acc. to EN 50041, 40 mm wide, 1 cable entry
- Metal enclosures, 56 mm wide, 3 cable entries

The following items are available in addition from the 3SE2 series:

- Plastic enclosures acc. to EN 50041, 40 mm wide
- Metal enclosures, 56 mm wide, 4 contacts

Enclosure versions

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

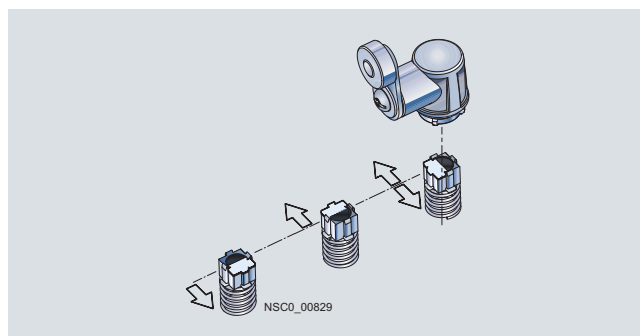
- With contact blocks with two or three contacts (screw terminals) designed as slow-action or snap-action contacts; the slow-action contacts also with make-before-break
- Optional LED status display
- With mounted four- or five-pole M12 connector socket (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole connector socket + PE on the metal enclosures
- Versions with increased corrosion protection
- Versions for operating temperature up to -40 °C
- Metal enclosures for explosion protection (ATEX) ([see page 8/69](#))
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs ([see page 8/73](#))

Actuator variants

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

- Rounded plungers
- Roller plungers
- Roller levers
- Angular roller levers
- Spring rod
- Twist levers and rod actuators
- Fork lever

The actuator rollers are available with various materials and diameters.



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

3SE5, 3SE2, 3SE3 Position Switches

General data

Optional LED indicators

LED indicators
available for all enclosure sizes



The enclosure versions can be supplied with an LED signaling indicator (1 × green + 1 × yellow). This is the first time that optical signaling equipment is also available for small standard enclosures acc. to EN 50047. The LED signaling indicators are available in all common voltages (24 V DC and 230 V AC).

Additional contacts

Exchangeable two and three-pole contact blocks for all enclosure sizes



The three-pole contact block with snap-action or slow-action contacts is regularly available for all enclosure forms. The same installation space is required as for a two-pole block. The version with 1 NO + 2 NC offers for example more safety through redundant shutdowns (2 NC contacts) with simultaneous signaling (1 NO contact). The three-pole blocks are also available with make-before-break and with 2 NO + 1 NC.

Contact reliability

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

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 %.

Benefits

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

- The modular structure of the product range allows a number of versions with a smaller number of bearing types for enclosures and operating mechanisms.
- All actuators around the axis in increments of 22.5° (see picture on page 8/16).
- Rounded and roller plungers acc. 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 on page 8/16).
- All enclosure variants have an integrated chlorinated rubber diaphragm (high functional safety in cold and aggressive environments).
- All contact blocks are replaceable (see page 8/50).
- The three-pole contact blocks are available for all enclosure sizes (see picture on page 8/16).
- **NEW:** Blocks with slow-action contacts 1 NO + 2 NC 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 disconnection and signaling, particularly in the elevator industry.
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save from approx. 20 to 25 % of the time when connecting (see picture on page 8/16).
- The ASIsafe electric component is integrated for the versions with the AS-Interface connection (see page 8/73); an additional adapter is not required.

Application

With the standard position switches, mechanical positions of moved machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can meet 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 best contact blocks suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moved machined 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 60947-5-1 or EN 60947-5-1.

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

Safety position switches

For controls acc. to IEC 60204-1 or 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

IEC 60947-5-1 and EN 60947-5-1 require positive opening of the NC contacts, i. e. 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 acc. to the IEC standard 60947-5-1 with the symbol ☹.

Category 2 acc. to ISO 13849-1 (EN 954-1) can be attained with 3SE5 position switches with ☹, and category 3 or 4 when using an additional position switch, if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges. The operating mechanisms (actuators) must also be connected to the enclosure by keyed techniques. The corresponding operating mechanisms are marked in the catalog with ☹.

Contacts for each application

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

Operating mechanisms for each application

Rounded plungers 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 and angular roller levers

- For actuators made of finely ground steel in the form of cams, straight-edges (approach angle 30°) or cam disks

Spring rod

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

Twist levers and rod actuators

- For a high starting speed ($v = 1.5 \text{ m/s}$)
- Variety of starting options
- Insensitive to oil, grinding dust, ice and coarse-grained material
- With the twist lever the maximum approach angle is always equal to the maximum trailing angle
- Rod actuator – when no actuator with approach and trailing angle is possible
- 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

3SE5, 3SE2, 3SE3 Position Switches

General data

More information

Type		3SE5 1..., 3SE5 2..	3SE2 230, 3SE2 404	Exception: 3SE2 230-8..00
General data				
Standards		IEC 60947-5-1, EN 60947-5-1		
Rated insulation voltage U_i	V	400	500	
Pollution degree acc. to EN 60664-1		Class 3	Class 3	
Rated impulse withstand voltage U_{imp}	kV	6	6	
Rated operational voltage U_e	V	400 V AC, over 300 V AC only for equal potential ¹⁾	AC 500; over 380 V AC only equal potential	AC 500; over 300 V AC only equal potential
Conventional free-air thermal current I_{th}	A	10	6	10
Rated operational current I_e		2-pole	3-pole	2-pole and 4-pole
• With alternating current 50/60 Hz		$I_e/AC-15$	$I_e/AC-15$	$I_e/AC-12$ $I_e/AC-15$
- At 24 V	A	6	6	10
- At 120 V	A	6	3	10
- At 240 V	A	3	1.5	10
- At 400 V	A	--	--	10
- At 500 V	A	--	--	10
• For direct current		$I_e/DC-13$	$I_e/DC-13$	$I_e/DC-12$ $I_e/DC-13$
- At 24 V	A	3	3	10
- At 125 V	A	0.55	0.55	--
- At 250 V	A	0.27	0.27	--
- At 48 V		--	--	6
- At 110 V		--	--	4
- At 220 V	A	--	--	1
- At 440 V	A	--	--	0.5
Short-circuit protection¹⁾				
• With DIAZED fuse links, operational class gG	A	6	6	6
• With fuse links, quick	A	--	10	--
• With miniature circuit breaker, Char. C	A	1	--	--
Mechanical endurance				
• Basic switches		15 × 10 ⁶ operating cycles	30 × 10 ⁶ operating cycles	15 × 10 ⁶ operating cycles
• With spring rod, 3SE5 ...-..R..		10 × 10 ⁶ operating cycles		
• With fork lever 3SE5 1...-..T..		1 × 10 ⁶ operating cycles	--	--
Electrical endurance				
• With 3RH11, 3RT10 16 to 3RT10 26 contactors		10 × 10 ⁶ operating cycles	10 × 10 ⁶ operating cycles	
• For utilization category AC-15 when switching off $I_e/AC-15$ at 240 V		0.1 × 10 ⁶ operating cycles	0.5 × 10 ⁶ operating cycles	
• With utilization category DC-12/DC-13		For direct current depending on the loading of the switch		
Switching frequency with 3RH11, 3RT10 16 to 3RT10 26 contactors		6000 operating cycles/h	6000 operating cycles/h	1800 operating cycles/h
Switching accuracy For repeated switching, measured at the plunger of the contact block	mm	0.05		
Rated data acc. to ☉, ☉ and ☉				
• Rated voltage	V	300	600	600
• Uninterrupted current	A	6	10	10
• Switching capacity		Heavy duty, A 300/ B 300 /Q 300	Heavy duty, A 600/Q 600	Heavy duty, A 300/Q 600

¹⁾ For slow-action contacts 1 NO + 2 NC with make-before-break and 2 NO + 1 NC the following applies: over 250 V AC only equal potential.

3SE5, 3SE2, 3SE3 Position Switches

General data

Options

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

- ☐ Complete units
- ☒ Modular system

The difference between units is indicated in the selection and ordering data by 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 2 LEDs
- Version with M12 connector socket or 6-pole + PE
- Version with M12 connector socket and with 2 LEDs

For the plastic enclosures with a width of 31 and 50 mm the basic switches are designed as complete units with rounded plunger (acc. to standard).

Online configurator

The online configurator helps you not only to select and order the right switch but also to create complete product documentation.

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

www.siemens.com/industrial-controls/configurators

Complete units

Ordering example

Required:

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

To be ordered:

Version	Complete units ☐	Order No.
Complete units • Enclosure width 31 mm		
	Angular roller levers With metal lever and plastic roller 13 mm Slow-action contacts 1 NO + 1 NC	3SE5 232-0BF10

Modular system

Ordering example 1

Required:

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

To be ordered separately:

Version	Modular system ☒	Order No.
Basic switches • Enclosure width 31 mm		
	With teflon plunger Slow-action contacts 1 NO + 1 NC	3SE5 232-0BC05
+		
Operating mechanisms		
	Angular roller levers Metal lever, plastic roller	3SE5 000-0AF10

Ordering example 2

Required:

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

To be ordered separately:

Version	Modular system ☒	Order No.
Basic switches • Enclosure width 31 mm		
	With teflon plunger Slow-action contacts 1 NO + 1 NC	3SE5 232-0BC05
+		
Twist actuators		
	Twist actuator	3SE5 000-0AK00
	Twist levers High-grade steel lever, plastic roller	3SE5 000-0AA31

3SE5, 3SE2, 3SE3 Position Switches

3SE5, plastic enclosures Enclosure width 31 mm according to EN 50047

Selection and ordering data

Complete units

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

Version		Contacts	LEDs	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
					Order No.	Price per PU					
Complete units ¹⁾ • Enclosure width 31 mm											
 Rounded plunger	Rounded plungers, type B acc. to EN 50047										
	With teflon plunger										
	Slow-action contacts	1 NO + 1 NC	--	⊙ ▶	3SE5 232-0BC05		1	1 unit	102	0.065	
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 232-0CC05		1	1 unit	102	0.065	
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ ▶	3SE5 232-0HC05		1	1 unit	102	0.065	
	Snap-action contacts • Short-stroke, integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 232-0FC05		1	1 unit	102	0.065	
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC	--	⊙ B	3SE5 232-0GC05		1	1 unit	102	0.065	
	Slow-action contacts	1 NO + 2 NC	--	⊙ A	3SE5 232-0KC05		1	1 unit	102	0.075	
	Snap-action contacts	1 NO + 2 NC	--	⊙ A	3SE5 232-0LC05		1	1 unit	102	0.075	
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 232-0MC05		1	1 unit	102	0.075	
Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 232-0PC05		1	1 unit	102	0.075		
 With increased corrosion protection	With increased corrosion protection										
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 232-0BC05-1CA0		1	1 unit	102	0.065	
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 232-0CC05-1CA0		1	1 unit	102	0.065	
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 232-0KC05-1CA0		1	1 unit	102	0.075	
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 232-0LC05-1CA0		1	1 unit	102	0.075	
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 232-0MC05-1CA0		1	1 unit	102	0.075	
	Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 232-0PC05-1CA0		1	1 unit	102	0.075	
	With M12 connector socket, 4-pole (250 V, 4 A)										
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 234-0BC05-1AC4		1	1 unit	102	0.080	
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ A	3SE5 234-0HC05-1AC4		1	1 unit	102	0.080	
 With 2 LEDs	With 2 LEDs, yellow/green										
	Slow-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 232-1KC05		1	1 unit	102	0.070	
	Snap-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 232-1LC05		1	1 unit	102	0.070	
	Slow-action contacts	1 NO + 2 NC	230 V AC	⊙ B	3SE5 232-3KC05		1	1 unit	102	0.070	
	Snap-action contacts	1 NO + 2 NC	230 V AC	⊙ B	3SE5 232-3LC05		1	1 unit	102	0.070	
	With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs										
	Slow-action contacts	1 NO + 1 NC	24 V DC	⊙ B	3SE5 234-1BC05-1AF3		1	1 unit	102	0.080	
	Snap-action contacts	1 NO + 1 NC	24 V DC	⊙ B	3SE5 234-1CC05-1AF3		1	1 unit	102	0.080	
	 Roller plunger	Roller plungers, type C acc. to EN 50047									
		With plastic roller 10 mm									
Slow-action contacts		1 NO + 1 NC	--	⊙ B	3SE5 232-0BD03		1	1 unit	102	0.075	
Snap-action contacts • Integrated ²⁾		1 NO + 1 NC	--	⊙ ▶	3SE5 232-0HD03		1	1 unit	102	0.075	
Snap-action contacts • Short-stroke, integrated ²⁾		1 NO + 1 NC	--	⊙ B	3SE5 232-0FD03		1	1 unit	102	0.075	
Slow-action contacts		1 NO + 2 NC	--	⊙ B	3SE5 232-0KD03		1	1 unit	102	0.080	
Snap-action contacts		1 NO + 2 NC	--	⊙ B	3SE5 232-0LD03		1	1 unit	102	0.080	
Actuator head rotated by 90°											
Snap-action contacts		1 NO + 2 NC	--	⊙ B	3SE5 232-0LD03-1AH0		1	1 unit	102	0.075	
With M12 connector socket, 4-pole (250 V, 4 A)											
Snap-action contacts, integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 234-0HD03-1AC4		1	1 unit	102	0.085		
 Roller plunger with central fixing	Roller plunger with central fixing										
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 232-0HD10		1	1 unit	102	0.100	
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 232-0KD10		1	1 unit	102	0.105	

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.

²⁾ Subsequent replacement of contact blocks is not possible.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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

Version	Contacts	LEDs	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU	kg			
Complete units ¹⁾ • Enclosure width 31 mm									
	Roller levers, type E acc. to EN 50047								
	With metal lever and plastic roller 13 mm								
	Slow-action contacts	1 NO + 1 NC --	⊙ A	3SE5 232-0BE10	1	1 unit	102	0.065	
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	⊙ ►	3SE5 232-0HE10	1	1 unit	102	0.065	
	Slow-action contacts	1 NO + 2 NC --	⊙ B	3SE5 232-0KE10	1	1 unit	102	0.065	
	Snap-action contacts	1 NO + 2 NC --	⊙ B	3SE5 232-0LE10	1	1 unit	102	0.075	
	With M12 connector socket, 4-pole (250 V, 4 A)								
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC --	⊙ B	3SE5 234-0HE10-1AC4	1	1 unit	102	0.075	
	Angular roller levers								
	With metal lever and plastic roller 13 mm								
	Slow-action contacts	1 NO + 1 NC --	⊙ B	3SE5 232-0BF10	1	1 unit	102	0.070	
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	⊙ A	3SE5 232-0HF10	1	1 unit	102	0.070	
	Slow-action contacts	1 NO + 2 NC --	⊙ B	3SE5 232-0KF10	1	1 unit	102	0.080	
	Snap-action contacts	1 NO + 2 NC --	⊙ B	3SE5 232-0LF10	1	1 unit	102	0.070	
	Spring rod								
	Length 142.5 mm, with plastic plunger 50 mm								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	A	3SE5 232-0HR01	1	1 unit	102	0.095	
	With M12 connector socket, 4-pole (250 V, 4 A)								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	B	3SE5 234-0HR01-1AC4	1	1 unit	102	0.135	
	Twist levers, type A acc. to EN 50047								
	With metal lever 21 mm and plastic roller 19 mm								
	Slow-action contacts	1 NO + 1 NC --	⊙ A	3SE5 232-0BK21	1	1 unit	102	0.085	
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	⊙ B	3SE5 232-0HK21	1	1 unit	102	0.085	
	Slow-action contacts	1 NO + 2 NC --	⊙ B	3SE5 232-0KK21	1	1 unit	102	0.100	
	Snap-action contacts	1 NO + 2 NC --	⊙ B	3SE5 232-0LK21	1	1 unit	102	0.100	
	With M12 connector socket, 4-pole (250 V, 4 A)								
	Snap-action contacts, integrated ²⁾	1 NO + 1 NC -	⊙ B	3SE5 234-0HK21-1AC4	1	1 unit	102	0.110	
	Twist levers, adjustable length								
	With metal lever with grid hole and plastic roller 19 mm								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	⊙ A	3SE5 232-0HK60	1	1 unit	102	0.100	
	With metal lever and plastic roller 19 mm								
	Slow-action contacts	1 NO + 1 NC --	B	3SE5 232-0BK50	1	1 unit	102	0.115	
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	►	3SE5 232-0HK50	1	1 unit	102	0.115	
	Snap-action contacts	1 NO + 2 NC --	B	3SE5 232-0LK50	1	1 unit	102	0.120	
	With M12 connector socket, 4-pole (250 V, 4 A)								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	B	3SE5 234-0HK50-1AC4	1	1 unit	102	0.120	
	Rod actuators								
	With aluminum rod, length 200 mm								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	B	3SE5 232-0HK80	1	1 unit	102	0.110	
	With plastic rod, length 200 mm								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	B	3SE5 232-0HK82	1	1 unit	102	0.100	
	With M12 connector socket, 4-pole (250 V, 4 A)								
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	B	3SE5 234-0HK82-1AC4	1	1 unit	102	0.115	

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

¹⁾ Popular versions.

²⁾ Subsequent replacement of contact blocks is not possible.

Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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

Version		Contacts	LEDs	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
					Order No.	Price per PU				
Basic switches • Enclosure width 31 mm (with rounded plunger ¹⁾)										
 Basic switch	With teflon plunger									
	Slow-action contacts	1 NO + 1 NC	--	 ▶	3SE5 232-0BC05		1	1 unit	102	0.065
	Snap-action contacts	1 NO + 1 NC	--	 B	3SE5 232-0CC05		1	1 unit	102	0.065
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	 ▶	3SE5 232-0HC05		1	1 unit	102	0.065
	Snap-action contacts • Short-stroke, integrated ²⁾	1 NO + 1 NC	--	 B	3SE5 232-0FC05		1	1 unit	102	0.065
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC	--	 B	3SE5 232-0GC05		1	1 unit	102	0.065
	Slow-action contacts	1 NO + 2 NC	--	 A	3SE5 232-0KC05		1	1 unit	102	0.075
	Snap-action contacts	1 NO + 2 NC	--	 A	3SE5 232-0LC05		1	1 unit	102	0.075
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	 B	3SE5 232-0MC05		1	1 unit	102	0.075
Slow-action contacts	2 NO + 1 NC	--	 B	3SE5 232-0PC05		1	1 unit	102	0.075	
 With increased corrosion protection	With increased corrosion protection ³⁾									
	Slow-action contacts	1 NO + 1 NC	--	 B	3SE5 232-0BC05-1CA0		1	1 unit	102	0.065
	Snap-action contacts	1 NO + 1 NC	--	 B	3SE5 232-0CC05-1CA0		1	1 unit	102	0.065
	Slow-action contacts	1 NO + 2 NC	--	 B	3SE5 232-0KC05-1CA0		1	1 unit	102	0.075
	Snap-action contacts	1 NO + 2 NC	--	 B	3SE5 232-0LC05-1CA0		1	1 unit	102	0.075
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	 B	3SE5 232-0MC05-1CA0		1	1 unit	102	0.075
	Slow-action contacts	2 NO + 1 NC	--	 B	3SE5 232-0PC05-1CA0		1	1 unit	102	0.075
 With M12 socket	With M12 connector socket, 4-pole (250 V, 4 A)									
	Slow-action contacts	1 NO + 1 NC	--	 B	3SE5 234-0BC05-1AC4		1	1 unit	102	0.080
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	 A	3SE5 234-0HC05-1AC4		1	1 unit	102	0.080
	Slow-action contacts	2 NC	--	 B	3SE5 234-0KC05-1AE0		1	1 unit	102	0.085
	Snap-action contacts	2 NC	--	 A	3SE5 234-0LC05-1AE0		1	1 unit	102	0.085
 With 2 LEDs	With 2 LEDs, yellow/green									
	Slow-action contacts	1 NO + 2 NC	24 V DC	 B	3SE5 232-1KC05		1	1 unit	102	0.070
	Snap-action contacts	1 NO + 2 NC	24 V DC	 B	3SE5 232-1LC05		1	1 unit	102	0.070
	Slow-action contacts	1 NO + 2 NC	230 V AC	 B	3SE5 232-3KC05		1	1 unit	102	0.070
	Snap-action contacts	1 NO + 2 NC	230 V AC	 B	3SE5 232-3LC05		1	1 unit	102	0.070
 With M12 socket- and 2 LEDs	With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs									
	Slow-action contacts	1 NO + 1 NC	24 V DC	 B	3SE5 234-1BC05-1AF3		1	1 unit	102	0.080
	Snap-action contacts	1 NO + 1 NC	24 V DC	 B	3SE5 234-1CC05-1AF3		1	1 unit	102	0.080

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

¹⁾ On the plastic version the basic switch is a complete unit with rounded plunger.

²⁾ Subsequent replacement of contact blocks is not possible.

³⁾ Use corresponding high-grade steel lever.

Note: For selection aid, see page 8/19.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, plastic enclosures
Enclosure width 31 mm according to EN 50047

Version	Diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Operating mechanisms							
 Roller plunger	Roller plunger, type C acc. to EN 50047						
	Plastic rollers	10	⊙ A	3SE5 000-0AD03	1	1 unit	102 0.010
	High-grade steel rollers	10	⊙ B	3SE5 000-0AD04	1	1 unit	102 0.010
 With central fixing	Roller plunger with central fixing						
	Plastic rollers	10	⊙ B	3SE5 000-0AD10	1	1 unit	102 0.035
	High-grade steel rollers	10	⊙ B	3SE5 000-0AD11	1	1 unit	102 0.030
 Roller lever	Roller lever, type E acc. to EN 50047						
	Metal lever, plastic roller	13	⊙ A	3SE5 000-0AE10	1	1 unit	102 0.015
	Metal lever, high-grade steel roller	13	⊙ B	3SE5 000-0AE11	1	1 unit	102 0.020
	High-grade steel lever, plastic roller	13	⊙ B	3SE5 000-0AE12	1	1 unit	102 0.010
	High-grade steel lever, high-grade steel roller	13	⊙ B	3SE5 000-0AE13	1	1 unit	102 0.055
 Angular roller lever	Angular roller levers						
	Metal lever, plastic roller	13	⊙ A	3SE5 000-0AF10	1	1 unit	102 0.015
	Metal lever, high-grade steel roller	13	⊙ B	3SE5 000-0AF11	1	1 unit	102 0.013
	High-grade steel lever, plastic roller	13	⊙ A	3SE5 000-0AF12	1	1 unit	102 0.015
	High-grade steel lever, high-grade steel roller	13	⊙ B	3SE5 000-0AF13	1	1 unit	102 0.020
 Spring rod	Spring rod (for switches with snap-action contacts only)						
	Plastic plunger:						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		B	3SE5 000-0AR01	1	1 unit	102 0.060
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		B	3SE5 000-0AR03	1	1 unit	102 0.020
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		B	3SE5 000-0AR04	1	1 unit	102 0.040
 Spring rod	High-grade steel plunger:						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		B	3SE5 000-0AR02	1	1 unit	102 0.040
Twist actuators							
 Twist actuator	Twist actuators, plastic (without lever)						
	Switching right and/or left, adjustable		⊙ A	3SE5 000-0AK00	1	1 unit	102 0.025
 Twist lever	Levers for twist actuators						
	Twist lever 21 mm, straight, type A acc. to EN 50047						
	Metal lever, plastic roller	19	⊙ A	3SE5 000-0AA21	1	1 unit	102 0.010
	Metal lever, high-grade steel roller	19	⊙ B	3SE5 000-0AA22	1	1 unit	102 0.025
	Metal lever, roller with ball bearing	19	⊙ B	3SE5 000-0AA23	1	1 unit	102 0.020
	Metal lever, plastic roller	30	⊙ B	3SE5 000-0AA25	1	1 unit	102 0.010
	High-grade steel lever, plastic roller	19	⊙ B	3SE5 000-0AA31	1	1 unit	102 0.015
 Twist levers, adjustable length	High-grade steel lever, high-grade steel roller		19	⊙ B	3SE5 000-0AA32	1	1 unit 102 0.022
	Twist levers, adjustable length, with grid holes						
	Metal lever, plastic roller	19	⊙ B	3SE5 000-0AA60	1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19	⊙ B	3SE5 000-0AA61	1	1 unit	102 0.040
	Metal lever, plastic roller	50	⊙ B	3SE5 000-0AA67	1	1 unit	102 0.025
	Metal lever, rubber roller	50	⊙ B	3SE5 000-0AA68	1	1 unit	102 0.045
	High-grade steel lever, plastic roller	19	⊙ B	3SE5 000-0AA62	1	1 unit	102 0.025
 Twist levers, adjustable length	High-grade steel lever, high-grade steel roller		19	⊙ B	3SE5 000-0AA63	1	1 unit 102 0.040
	Twist levers, adjustable length						
	Metal lever, plastic roller	19	A	3SE5 000-0AA50	1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19	B	3SE5 000-0AA51	1	1 unit	102 0.035
	Metal lever, plastic roller	30	B	3SE5 000-0AA55	1	1 unit	102 0.025
	Metal lever, plastic roller	50	B	3SE5 000-0AA57	1	1 unit	102 0.025
	Metal lever, rubber roller	50	B	3SE5 000-0AA58	1	1 unit	102 0.040
 Rod actuator	High-grade steel lever, plastic roller		19	B	3SE5 000-0AA52	1	1 unit 102 0.025
	High-grade steel lever, high-grade steel roller		19	B	3SE5 000-0AA53	1	1 unit 102 0.035
	Rod actuators						
	Aluminum rod, length 200 mm	6	B	3SE5 000-0AA80	1	1 unit	102 0.070
 Rod actuator	Spring rod, length 200 mm	6	B	3SE5 000-0AA81	1	1 unit	102 0.030
	Plastic rod, length 200 mm	6	B	3SE5 000-0AA82	1	1 unit	102 0.020

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
					Order No.	Price per PU	kg			
Complete units ¹⁾ • Enclosure width 50 mm										
 Rounded plunger	Rounded plungers									
	With teflon plunger									
	Slow-action contacts	1 NO + 1 NC	--	⊙ A	3SE5 242-0BC05		1	1 unit	102	0.065
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 242-0CC05		1	1 unit	102	0.065
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ ►	3SE5 242-0HC05		1	1 unit	102	0.065
	Snap-action contacts • Short-stroke, integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 242-0FC05		1	1 unit	102	0.065
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC	--	⊙ B	3SE5 242-0GC05		1	1 unit	102	0.065
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0KC05		1	1 unit	102	0.065
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0LC05		1	1 unit	102	0.065
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 242-0MC05		1	1 unit	102	0.065
Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 242-0PC05		1	1 unit	102	0.065	
 With increased corrosion protection	With increased corrosion protection									
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 242-0BC05-1CA0		1	1 unit	102	0.065
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 242-0HC05-1CA0		1	1 unit	102	0.065
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0KC05-1CA0		1	1 unit	102	0.075
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0LC05-1CA0		1	1 unit	102	0.075
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 242-0MC05-1CA0		1	1 unit	102	0.075
	Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 242-0PC05-1CA0		1	1 unit	102	0.075
 With 2 LEDs	With 2 LEDs, yellow/green									
	Slow-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 242-1KC05		1	1 unit	102	0.070
	Snap-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 242-1LC05		1	1 unit	102	0.070
	Slow-action contacts	1 NO + 2 NC	230 V AC	⊙ B	3SE5 242-3KC05		1	1 unit	102	0.080
	Snap-action contacts	1 NO + 2 NC	230 V AC	⊙ B	3SE5 242-3LC05		1	1 unit	102	0.080
 Roller plunger	Roller plungers									
	With plastic roller 10 mm									
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 242-0BD03		1	1 unit	102	0.075
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ A	3SE5 242-0HD03		1	1 unit	102	0.075
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0LD03		1	1 unit	102	0.080

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.

²⁾ Subsequent replacement of contact blocks is not possible.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU	kg			
Complete units ¹⁾ • Enclosure width 50 mm									
Roller levers									
With metal lever and plastic roller 13 mm									
	Slow-action contacts	1 NO + 1 NC --	⊕ B	3SE5 242-0BE10		1	1 unit	102	0.080
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	⊕ A	3SE5 242-0HE10		1	1 unit	102	0.080
	Snap-action contacts	1 NO + 2 NC --	⊕ B	3SE5 242-0LE10		1	1 unit	102	0.090
With M12 connector socket, 4-pole right (250 V, 4 A)									
	Snap-action contacts	2 NC --	⊕ B	3SE5 244-0LE10-1AE0		1	1 unit	102	0.100
Twist levers									
With metal lever 21 mm and plastic roller 19 mm									
	Slow-action contacts	1 NO + 1 NC --	⊕ B	3SE5 242-0BK21		1	1 unit	102	0.095
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	⊕ A	3SE5 242-0HK21		1	1 unit	102	0.095
	Snap-action contacts	1 NO + 2 NC --	⊕ B	3SE5 242-0LK21		1	1 unit	102	0.105
Twist levers, adjustable length									
With metal lever and plastic roller 19 mm									
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC --	B	3SE5 242-0HK50		1	1 unit	102	0.110

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

¹⁾ Popular versions.

²⁾ Subsequent replacement of contact blocks is not possible.

Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.

3SE5, 3SE2, 3SE3 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	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU	kg			
Basic switches • Enclosure width 50 mm (with rounded plunger ¹⁾)									
 Basic switch	With teflon plunger								
	Slow-action contacts	1 NO + 1 NC	--	⊙ A	3SE5 242-0BC05	1	1 unit	102	0.065
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 242-0CC05	1	1 unit	102	0.065
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ ►	3SE5 242-0HC05	1	1 unit	102	0.065
	Snap-action contacts • Short-stroke, integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 242-0FC05	1	1 unit	102	0.065
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC	--	⊙ B	3SE5 242-0GC05	1	1 unit	102	0.065
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0KC05	1	1 unit	102	0.065
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0LC05	1	1 unit	102	0.065
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 242-0MC05	1	1 unit	102	0.065
Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 242-0PC05	1	1 unit	102	0.065	
 With increased corrosion protection	With increased corrosion protection ³⁾								
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 242-0BC05-1CA0	1	1 unit	102	0.065
	Snap-action contacts • Integrated ²⁾	1 NO + 1 NC	--	⊙ B	3SE5 242-0HC05-1CA0	1	1 unit	102	0.065
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0KC05-1CA0	1	1 unit	102	0.075
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 242-0LC05-1CA0	1	1 unit	102	0.075
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 242-0MC05-1CA0	1	1 unit	102	0.075
	Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 242-0PC05-1CA0	1	1 unit	102	0.075
 With 2 LEDs	With 2 LEDs, yellow/green								
	Slow-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 242-1KC05	1	1 unit	102	0.070
	Snap-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 242-1LC05	1	1 unit	102	0.070
	Slow-action contacts	1 NO + 2 NC	230 V	⊙ B	3SE5 242-3KC05	1	1 unit	102	0.080
Snap-action contacts	1 NO + 2 NC	230 V	⊙ B	3SE5 242-3LC05	1	1 unit	102	0.080	

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

¹⁾ On the plastic version the basic switch is a complete unit with rounded plunger.

²⁾ Subsequent replacement of contact blocks is not possible.

³⁾ Use corresponding high-grade steel lever.

Note: For selection aid, see page 8/19.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, plastic enclosures Enclosure width 50 mm

Version		Diameter	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm		Order No.	Price per PU				kg
Operating mechanisms									
 Roller plunger	Roller plunger, type C acc. to EN 50047								
	Plastic rollers	10	⊙ A	3SE5 000-0AD03		1	1 unit	102	0.010
	High-grade steel rollers	10	⊙ B	3SE5 000-0AD04		1	1 unit	102	0.010
 With central fixing	Roller plunger with central fixing								
	Plastic rollers	10	⊙ B	3SE5 000-0AD10		1	1 unit	102	0.035
	High-grade steel rollers	10	⊙ B	3SE5 000-0AD11		1	1 unit	102	0.030
 Roller lever	Roller lever, type E acc. to EN 50047								
	Metal lever, plastic roller	13	⊙ A	3SE5 000-0AE10		1	1 unit	102	0.015
	Metal lever, high-grade steel roller	13	⊙ B	3SE5 000-0AE11		1	1 unit	102	0.020
	High-grade steel lever, plastic roller	13	⊙ B	3SE5 000-0AE12		1	1 unit	102	0.010
	High-grade steel lever, high-grade steel roller	13	⊙ B	3SE5 000-0AE13		1	1 unit	102	0.055
 Angular roller lever	Angular roller levers								
	Metal lever, plastic roller	13	⊙ A	3SE5 000-0AF10		1	1 unit	102	0.015
	Metal lever, high-grade steel roller	13	⊙ B	3SE5 000-0AF11		1	1 unit	102	0.013
	High-grade steel lever, plastic roller	13	⊙ A	3SE5 000-0AF12		1	1 unit	102	0.015
	High-grade steel lever, high-grade steel roller	13	⊙ B	3SE5 000-0AF13		1	1 unit	102	0.020
 Spring rod	Spring rod (for switches with snap-action contacts only)								
	Plastic plunger:								
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		B	3SE5 000-0AR01		1	1 unit	102	0.060
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		B	3SE5 000-0AR03		1	1 unit	102	0.020
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		B	3SE5 000-0AR04		1	1 unit	102	0.040
	High-grade steel plunger:								
• Length 142.5 mm (spring 50 mm, plunger 50 mm)		B	3SE5 000-0AR02		1	1 unit	102	0.040	
Twist actuators									
 Twist actuator	Twist actuators, plastic (without lever)								
	Switching right and/or left, adjustable		⊙ A	3SE5 000-0AK00		1	1 unit	102	0.025
 Twist lever	Levers for twist actuators								
	Twist lever 21 mm, straight, type A acc. to EN 50047								
	Metal lever, plastic roller	19	⊙ A	3SE5 000-0AA21		1	1 unit	102	0.010
	Metal lever, high-grade steel roller	19	⊙ B	3SE5 000-0AA22		1	1 unit	102	0.025
	Metal lever, roller with ball bearing	19	⊙ B	3SE5 000-0AA23		1	1 unit	102	0.020
	Metal lever, plastic roller	30	⊙ B	3SE5 000-0AA25		1	1 unit	102	0.010
	High-grade steel lever, plastic roller	19	⊙ B	3SE5 000-0AA31		1	1 unit	102	0.015
High-grade steel lever, high-grade steel roller	19	⊙ B	3SE5 000-0AA32		1	1 unit	102	0.022	
 Twist levers, adjustable length	Twist levers, adjustable length, with grid holes								
	Metal lever, plastic roller	19	⊙ B	3SE5 000-0AA60		1	1 unit	102	0.025
	Metal lever, high-grade steel roller	19	⊙ B	3SE5 000-0AA61		1	1 unit	102	0.040
	Metal lever, plastic roller	50	⊙ B	3SE5 000-0AA67		1	1 unit	102	0.025
	Metal lever, rubber roller	50	⊙ B	3SE5 000-0AA68		1	1 unit	102	0.045
	High-grade steel lever, plastic roller	19	⊙ B	3SE5 000-0AA62		1	1 unit	102	0.025
	High-grade steel lever, high-grade steel roller	19	⊙ B	3SE5 000-0AA63		1	1 unit	102	0.040
	Twist levers, adjustable length								
Metal lever, plastic roller	19	A	3SE5 000-0AA50		1	1 unit	102	0.025	
Metal lever, high-grade steel roller	19	B	3SE5 000-0AA51		1	1 unit	102	0.035	
Metal lever, plastic roller	30	B	3SE5 000-0AA55		1	1 unit	102	0.025	
Metal lever, plastic roller	50	B	3SE5 000-0AA57		1	1 unit	102	0.025	
Metal lever, rubber roller	50	B	3SE5 000-0AA58		1	1 unit	102	0.040	
High-grade steel lever, plastic roller	19	B	3SE5 000-0AA52		1	1 unit	102	0.025	
High-grade steel lever, high-grade steel roller	19	B	3SE5 000-0AA53		1	1 unit	102	0.035	
 Rod actuator	Rod actuators								
	Aluminum rod, length 200 mm	6	B	3SE5 000-0AA80		1	1 unit	102	0.070
	Spring rod, length 200 mm	6	B	3SE5 000-0AA81		1	1 unit	102	0.030
	Plastic rod, length 200 mm	6	B	3SE5 000-0AA82		1	1 unit	102	0.020

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, plastic enclosures
Ambient temperature up to -40 °C

Selection and ordering data

Complete units

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

Version	Contacts	LEDs	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Complete units¹⁾ • Enclosure width 31 mm



Twist lever

Twist levers, type A acc. to EN 50047

With high-grade steel lever 21 mm and plastic roller 19 mm

Snap-action contacts 1 NO + 1 NC -- ⊕ A **3SE5 232-0CK31-1AJ0** 1 1 unit 102 0.085



Twist lever,
adjustable length

Twist levers, adjustable length

With high-grade steel lever with grid hole and plastic roller 19 mm

Snap-action contacts 1 NO + 1 NC -- ⊕ A **3SE5 232-0CK62-1AJ0** 1 1 unit 102 0.100

Snap-action contacts 1 NO + 2 NC -- ⊕ B **3SE5 232-0LK62-1AJ0** 1 1 unit 102 0.120

Complete units¹⁾ • Enclosure width 50 mm



Twist lever,
adjustable length

Twist levers

With metal lever 21 mm and plastic roller 19 mm

Snap-action contacts 1 NO + 1 NC -- ⊕ B **3SE5 242-0HK21-1AJ0** 1 1 unit 102 0.095

• Integrated²⁾

Twist levers, adjustable length

With high-grade steel lever with grid hole and plastic roller 19 mm

Snap-action contacts 1 NO + 1 NC -- ⊕ B **3SE5 242-0HK62-1AJ0** 1 1 unit 102 0.115

• Integrated²⁾

Modular system

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

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Basic switches • Enclosure width 31 mm (with rounded plunger¹⁾)



Basic switch

With teflon plunger

Snap-action contacts 1 NO + 1 NC -- ⊕ B **3SE5 232-0CC05-1AJ0** 1 1 unit 102 0.065

Slow-action contacts 1 NO + 2 NC -- ⊕ B **3SE5 232-0KC05-1AJ0** 1 1 unit 102 0.070

Snap-action contacts 1 NO + 2 NC -- ⊕ B **3SE5 232-0LC05-1AJ0** 1 1 unit 102 0.070

Basic switches • Enclosure width 50 mm (with rounded plunger¹⁾)



Basic switch

With teflon plunger

Slow-action contacts 1 NO + 1 NC -- ⊕ B **3SE5 242-0BC05-1AJ0** 1 1 unit 102 0.065

Snap-action contacts 1 NO + 1 NC -- ⊕ B **3SE5 242-0HC05-1AJ0** 1 1 unit 102 0.065

• Integrated²⁾

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

¹⁾ On the plastic version the basic switch is a complete unit with rounded plunger.

²⁾ Subsequent replacement of contact blocks is not possible.

Note: For selection aid, see page 8/19.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, plastic enclosures
Ambient temperature up to -40 °C

Version	Diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
	mm		Order No.	Price per PU			kg	
Operating mechanisms								
 Roller plunger	Roller plunger, type C acc. to EN 50047 Plastic rollers	10	→ B	3SE5 000-0AD03-1AJ0	1	1 unit	102	0.010
 Roller lever	Roller lever, type E acc. to EN 50047 Metal lever, plastic roller	13	→ B	3SE5 000-0AE10-1AJ0	1	1 unit	102	0.015
	High-grade steel lever, plastic roller	13	→ B	3SE5 000-0AE12-1AJ0	1	1 unit	102	0.015
 Angular roller lever	Angular roller levers Metal lever, plastic roller	13	→ B	3SE5 000-0AF10-1AJ0	1	1 unit	102	0.015
	High-grade steel lever, plastic roller	13	→ B	3SE5 000-0AF12-1AJ0	1	1 unit	102	0.015
Twist actuators								
 Twist actuator	Twist actuators, plastic (without lever) Switching right and/or left, adjustable		→ B	3SE5 000-0AK00-1AJ0	1	1 unit	102	0.025
	Levers for twist actuators							
 Twist lever	Twist lever straight, 21 mm, type A acc. to EN 50047 Metal lever, plastic roller	19	→ B	3SE5 000-0AA21-1AJ0	1	1 unit	102	0.010
	High-grade steel lever, plastic roller	19	→ B	3SE5 000-0AA31-1AJ0	1	1 unit	102	0.010
 Twist lever, adjustable length	Twist levers, adjustable length, with grid holes Metal lever, plastic roller	19	→ B	3SE5 000-0AA60-1AJ0	1	1 unit	102	0.025
	High-grade steel lever, plastic roller	19	→ B	3SE5 000-0AA62-1AJ0	1	1 unit	102	0.025

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE2, plastic enclosures Enclosure width 40 mm according to EN 50041

Selection and ordering data

Complete units

2 contacts · Degree of protection IP66 · Cable entry M20 × 1.5

Version		Contacts		DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
					Order No.	Price per PU				
Complete units ¹⁾ • Enclosure width 40 mm										
 Rounded plunger	Rounded plungers, type B, acc. to EN 50041									
	With plastic plunger									
	Slow-action contacts	1 NO + 1 NC	↻	B	3SE2 230-0C		1	1 unit	102	0.115
	Snap-action contacts	1 NO + 1 NC	↻	B	3SE2 230-1C		1	1 unit	102	0.120
	Slow-action contacts with make-before-break	1 NO + 1 NC	↻	B	3SE2 230-3C		1	1 unit	102	0.115
	Slow-action contacts	2 NO		B	3SE2 230-7C		1	1 unit	102	0.125
	Slow-action contacts	2 NC	↻	B	3SE2 230-6C		1	1 unit	102	0.115
	Snap-action contacts	2 NC	↻	B	3SE2 230-8CV00		1	1 unit	102	0.130
 Roller plunger	Roller levers, type C, acc. to EN 50041									
	With plastic roller 13 mm									
	Slow-action contacts	1 NO + 1 NC	↻	B	3SE2 230-0D		1	1 unit	102	0.120
	Snap-action contacts	1 NO + 1 NC	↻	B	3SE2 230-1D		1	1 unit	102	0.120
	Slow-action contacts with make-before-break	1 NO + 1 NC	↻	B	3SE2 230-3D		1	1 unit	102	0.130
	Slow-action contacts	2 NO		B	3SE2 230-7D		1	1 unit	102	0.135
	Slow-action contacts	2 NC	↻	B	3SE2 230-6D		1	1 unit	102	0.120
	Snap-action contacts	2 NC	↻	B	3SE2 230-8DV00		1	1 unit	102	0.120
 Roller lever	Roller levers									
	With metal lever and plastic roller 22 mm									
	Slow-action contacts	1 NO + 1 NC	↻	B	3SE2 230-0E		1	1 unit	102	0.130
	Snap-action contacts	1 NO + 1 NC	↻	B	3SE2 230-1E		1	1 unit	102	0.130
	Slow-action contacts with make-before-break	1 NO + 1 NC	↻	B	3SE2 230-3E		1	1 unit	102	0.130
	Slow-action contacts	2 NO		B	3SE2 230-7E		1	1 unit	102	0.130
	Slow-action contacts	2 NC	↻	B	3SE2 230-6E		1	1 unit	102	0.130
	Snap-action contacts	2 NC	↻	B	3SE2 230-8EV00		1	1 unit	102	0.130
 Angular roller lever	Angular roller levers									
	With metal lever and plastic roller 22 mm									
	Slow-action contacts	1 NO + 1 NC	↻	B	3SE2 230-0F		1	1 unit	102	0.130
	Snap-action contacts	1 NO + 1 NC	↻	B	3SE2 230-1F		1	1 unit	102	0.132
	Slow-action contacts with make-before-break	1 NO + 1 NC	↻	B	3SE2 230-3F		1	1 unit	102	0.135
	Slow-action contacts	2 NO		C	3SE2 230-7F		1	1 unit	102	0.140
	Slow-action contacts	2 NC	↻	B	3SE2 230-6F		1	1 unit	102	0.135
	Snap-action contacts	2 NC	↻	B	3SE2 230-8FV00		1	1 unit	102	0.150
 Spring rod	Spring rod									
	Length 139.5 mm, with plastic plunger 50 mm									
	Snap-action contacts	1 NO + 1 NC		B	3SE2 230-1R		1	1 unit	102	0.150
	Snap-action contacts	2 NC		B	3SE2 230-8RV00		1	1 unit	102	0.160

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

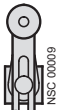
¹⁾ The actuators can be subsequently replaced with other versions (see "Accessories", page 8/32).

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE2, plastic enclosures
Enclosure width 40 mm according to EN 50041

2 contacts · Degree of protection IP66 · Cable entry M20 × 1.5

Version		Contacts		DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
					Order No.	Price per PU				
Complete units ¹⁾ • Enclosure width 40 mm										
 Twist lever	Twist levers, type A acc. to EN 50041									
	With metal lever and plastic roller 19 mm									
	Slow-action contacts	1 NO + 1 NC	⊕ B	3SE2 230-0GW	1	1 unit	102	0.155		
	Snap-action contacts	1 NO + 1 NC	⊕ B	3SE2 230-1GW	1	1 unit	102	0.155		
	Slow-action contacts with make-before-break	1 NO + 1 NC	⊕ B	3SE2 230-3GW	1	1 unit	102	0.150		
	Slow-action contacts	2 NO	B	3SE2 230-7GW	1	1 unit	102	0.150		
	Slow-action contacts	2 NC	⊕ C	3SE2 230-6GW	1	1 unit	102	0.145		
	Snap-action contacts	2 NC	⊕ B	3SE2 230-8GW00	1	1 unit	102	0.180		
 Twist lever, adjustable length	Twist levers, adjustable length									
	With metal lever and plastic roller 19 mm									
	Slow-action contacts	1 NO + 1 NC	B	3SE2 230-0U	1	1 unit	102	0.160		
	Snap-action contacts	1 NO + 1 NC	B	3SE2 230-1U	1	1 unit	102	0.160		
	Slow-action contacts	2 NO	B	3SE2 230-7U	1	1 unit	102	0.160		
	Slow-action contacts	2 NC	C	3SE2 230-6U	1	1 unit	102	0.160		
	Snap-action contacts	2 NC	B	3SE2 230-8UW00	1	1 unit	102	0.170		
 Rod actuator	Rod actuators, type D, acc. to EN 50041									
	With plastic rod, 200 mm									
	Slow-action contacts	1 NO + 1 NC	B	3SE2 230-0W	1	1 unit	102	0.165		
	Snap-action contacts	1 NO + 1 NC	B	3SE2 230-1W	1	1 unit	102	0.160		
	Slow-action contacts	2 NO	B	3SE2 230-7W	1	1 unit	102	0.160		
	Slow-action contacts	2 NC	B	3SE2 230-6W	1	1 unit	102	0.160		
	Snap-action contacts	2 NC	B	3SE2 230-8WW00	1	1 unit	102	0.195		
	With aluminum rod, 200 mm									
	Slow-action contacts	1 NO + 1 NC	C	3SE2 230-0V	1	1 unit	102	0.190		
	Snap-action contacts	1 NO + 1 NC	B	3SE2 230-1V	1	1 unit	102	0.170		
	Slow-action contacts	2 NO	B	3SE2 230-7V	1	1 unit	102	0.170		
	Slow-action contacts	2 NC	B	3SE2 230-6V	1	1 unit	102	0.170		
	Snap-action contacts	2 NC	B	3SE2 230-8VW00	1	1 unit	102	0.200		

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

¹⁾ The actuators can be subsequently replaced with other versions (see "Accessories", page 8/32).

3SE5, 3SE2, 3SE3 Position Switches

3SE2, plastic enclosures Enclosure width 40 mm according to EN 50041

Basic switches without operating mechanism

2 contacts · Degree of protection IP66 · Cable entry M20 × 1.5

Version	Contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
kg								

Basic switches • Enclosure width 40 mm



Basic switch

With plastic plunger

Slow-action contacts	1 NO + 1 NC	B	3SE2 230-0A		1	1 unit	102	0.095
Snap-action contacts	1 NO + 1 NC	B	3SE2 230-1A		1	1 unit	102	0.100
Slow-action contacts with make-before-break	1 NO + 1 NC	B	3SE2 230-3A		1	1 unit	102	0.095
Slow-action contacts	2 NO	B	3SE2 230-7A		1	1 unit	102	0.095
Slow-action contacts	2 NC	B	3SE2 230-6A		1	1 unit	102	0.095

➞ Positive opening acc. to IEC 60947-5-1, Appendix K.

For operating mechanisms for basic switches see Accessories.

Accessories

The operating mechanisms of the position switches in series 3SE2 230 can be subsequently replaced with other versions.

Actuator with fixing screws and seal	Can be used for position switches	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
kg								

Complete actuators



Rounded plungers	3SE2 230-..C	➞ B	3SX3 160		1	1 unit	102	0.020
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Roller plungers	3SE2 230-..D							
• With plastic roller, Ø 13 mm		➞ B	3SX3 161		1	1 unit	102	0.025
• With high-grade steel roller, Ø 13 mm		➞ B	3SX3 262		1	1 unit	102	0.010



Roller levers	3SE2 230-..E							
• With plastic roller, Ø 22 mm		➞ ▶	3SX3 164		1	1 unit	102	0.035
• With high-grade steel roller, Ø 22 mm			—					



Angular roller levers	3SE2 230-..F							
• With plastic roller, Ø 22 mm		➞ B	3SX3 168		1	1 unit	102	0.035
• With high-grade steel roller, Ø 22 mm			—					



Spring rods¹⁾	3SE2 230-..R							
• Spring 50 mm, plastic plunger 50 mm		B	3SX3 210		1	1 unit	102	0.050
• Spring 50 mm, high-grade steel plunger 50 mm		B	3SX3 281		1	1 unit	102	0.060
• Spring 150 mm, plastic plunger 50 mm		B	3SX3 283		1	1 unit	102	0.070
• Spring 150 mm, metal plunger 50 mm		B	3SX3 311		1	1 unit	102	0.080

➞ Positively driven actuator, necessary in safety circuits.

¹⁾ Only for snap-action contacts.

3SE5, 3SE2, 3SE3 Position Switches

3SE2, plastic enclosures
Enclosure width 40 mm according to EN 50041

Actuator with fixing screws and seal	Can be used for position switches	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	
Complete actuators									
  	Twist levers								
	- Finely adjustable from 10° to 10°, 3SE2 230--.GW (supplied with plunger) - With plastic roller, Ø 19 mm	⊙ C	3SX3 167		1	1 unit	102	0.050	
	- Adjustable length, finely adjustable from 10° to 10°, (supplied with plunger) - With plastic roller, Ø 19 mm	B	3SX3 163		1	1 unit	102	0.060	
	Rod actuators Adjustable length								
	With plastic rod, 200 mm (supplied with plunger)	3SE2 230--.W	B	3SX3 166		1	1 unit	102	0.060
	With aluminum rod, 200 mm	3SE2 230--.V	B	3SX3 165		1	1 unit	102	0.070
Actuators with separate twist actuator									
	Twist actuators (without lever)	3SE2 230--.GW, 3SE2 230--.U, 3SE2 230--.V, 3SE2 230--.W	B	3SX3 305		1	1 unit	102	0.030
 3SX3 212  3SX3 301	Twist levers, 30 mm long For round spindle		3SE2 ...--.GW						
	With plastic roller, Ø 19 mm	⊙ ▶	3SX3 212		1	1 unit	102	0.020	
	With high-grade steel roller, Ø 19 mm	⊙ B	3SX3 265		1	1 unit	102	0.025	
	With ball bearing and roller, Ø 19 mm	⊙ B	3SX3 320		1	1 unit	102	0.025	
	With plastic roller, Ø 30 mm	⊙ B	3SX3 278		1	1 unit	102	0.020	
	With plastic roller, Ø 50 mm	⊙ B	3SX3 301		1	1 unit	102	0.020	
	With rubber roller, Ø 50 mm	⊙ B	3SX3 280		1	1 unit	102	0.020	
	Twist levers								
 3SX3 304	Adjustable length	3SE2 230--.U	▶	3SX3 213		1	1 unit	102	0.024
	- Plastic roller, Ø 19 mm	B	3SX3 268		1	1 unit	102	0.030	
	- With high-grade steel roller, Ø 19 mm	B	3SX3 302		1	1 unit	102	0.025	
	- With plastic roller, Ø 30 mm	B	3SX3 304		1	1 unit	102	0.020	
	- With rubber roller, Ø 50 mm	B	3SX3 321		1	1 unit	102	0.025	
	Adjustable length, with grid hole, with plastic roller, Ø 19 mm	⊙ B	3SX3 321		1	1 unit	102	0.025	
	Rod actuators with holder								
	Plastic rod, 200 mm	3SE2 230--.W	▶	3SX3 215		1	1 unit	102	0.031
	Aluminum rod, 200 mm	3SE2 230--.V	▶	3SX3 214		1	1 unit	102	0.032
Rod actuators (without holder)									
	Plastic rod, 200 mm	3SE2 230--.W	▶	3SX3 000		1	1 unit	102	0.008
	Aluminum rod, 200 mm	3SE2 230--.V	B	3SX3 001		1	1 unit	102	0.016

⊙ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU				kg
Complete units ¹⁾ • Enclosure width 40 mm									
 Rounded plunger	Rounded plungers, type B acc. to EN 50041								
	With high-grade steel plungers, with 3 mm overtravel								
	Slow-action contacts	1 NO + 1 NC	--	⌚ B	3SE5 112-0BC02	1	1 unit	102	0.290
	Snap-action contacts	1 NO + 1 NC	--	⌚ ► B	3SE5 112-0CC02	1	1 unit	102	0.290
	Slow-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0KC02	1	1 unit	102	0.300
Snap-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0LC02	1	1 unit	102	0.300	
 Roller plunger	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	--	⌚ B	3SE5 112-0BD02	1	1 unit	102	0.310
	Snap-action contacts	1 NO + 1 NC	--	⌚ ► B	3SE5 112-0CD02	1	1 unit	102	0.310
	Slow-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0KD02	1	1 unit	102	0.320
Snap-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0LD02	1	1 unit	102	0.320	
	With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs								
	Snap-action contacts	1 NO + 1 NC	24 V DC	⌚ C	3SE5 114-1CD02-1AF3	1	1 unit	102	0.320
 Roller lever	Roller levers								
	With metal lever and plastic roller 22 mm								
	Slow-action contacts	1 NO + 1 NC	--	⌚ B	3SE5 112-0BE01	1	1 unit	102	0.300
	Snap-action contacts	1 NO + 1 NC	--	⌚ ► B	3SE5 112-0CE01	1	1 unit	102	0.300
	Slow-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0KE01	1	1 unit	102	0.310
Snap-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0LE01	1	1 unit	102	0.310	
 Angular roller lever	Angular roller levers								
	With metal lever and plastic roller 22 mm								
	Slow-action contacts	1 NO + 1 NC	--	⌚ B	3SE5 112-0BF01	1	1 unit	102	0.310
	Snap-action contacts	1 NO + 1 NC	--	⌚ A	3SE5 112-0CF01	1	1 unit	102	0.310
	Snap-action contacts	1 NO + 2 NC	--	⌚ B	3SE5 112-0LF01	1	1 unit	102	0.320
	Spring rod								
	Length 142.5 mm, with plastic plunger 50 mm								
 Spring rod	Snap-action contacts	1 NO + 1 NC	--	►	3SE5 112-0CR01	1	1 unit	102	0.315

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Popular versions.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU	kg			
Complete units ¹⁾ • Enclosure width 40 mm									
Twist levers, type A acc. to EN 50041									
With metal lever 27 mm and plastic roller 19 mm									
	Slow-action contacts	1 NO + 1 NC --	↻ B	3SE5 112-0BH01		1	1 unit	102	0.345
	Snap-action contacts	1 NO + 1 NC --	↻ ▶	3SE5 112-0CH01		1	1 unit	102	0.345
	Slow-action contacts	1 NO + 2 NC --	↻ B	3SE5 112-0KH01		1	1 unit	102	0.355
	Snap-action contacts	1 NO + 2 NC --	↻ B	3SE5 112-0LH01		1	1 unit	102	0.355
With M12 connector socket, 5-pole (125 V, 4 A)									
	Snap-action contacts	1 NO + 1 NC --	↻ A	3SE5 114-0CH01-1AC5		1	1 unit	102	0.350
With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs									
	Snap-action contacts	1 NO + 1 NC 24 V DC	↻ C	3SE5 114-1CH01-1AF3		1	1 unit	102	0.355
With metal lever 27 mm and high-grade steel roller 19 mm									
	Slow-action contacts	1 NO + 1 NC --	↻ B	3SE5 112-0BH02		1	1 unit	102	0.355
	Snap-action contacts	1 NO + 1 NC --	↻ A	3SE5 112-0CH02		1	1 unit	102	0.355
With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs									
	Snap-action contacts	1 NO + 1 NC --	↻ C	3SE5 114-1CH02-1AF3		1	1 unit	102	0.375
With metal lever 30 mm and plastic roller 19 mm									
	Snap-action contacts	1 NO + 1 NC --	↻ ▶	3SE5 112-0CH24		1	1 unit	102	0.350
Twist levers, adjustable length									
With metal lever with grid hole and plastic roller 19 mm									
	Slow-action contacts	1 NO + 1 NC --	↻ B	3SE5 112-0BH60		1	1 unit	102	0.360
	Snap-action contacts	1 NO + 1 NC --	↻ ▶	3SE5 112-0CH60		1	1 unit	102	0.360
	Snap-action contacts	1 NO + 2 NC --	↻ B	3SE5 112-0LH60		1	1 unit	102	0.370
With metal lever and plastic roller 19 mm									
	Slow-action contacts	1 NO + 1 NC --	B	3SE5 112-0BH50		1	1 unit	102	0.360
	Snap-action contacts	1 NO + 1 NC --	▶	3SE5 112-0CH50		1	1 unit	102	0.360
	Snap-action contacts	1 NO + 2 NC --	B	3SE5 112-0LH50		1	1 unit	102	0.370
With M12 connector socket, 8-pole (30 V, 2 A) and 2 LEDs									
	Snap-action contacts	1 NO + 2 NC 24 V DC	↻ C	3SE5 114-1LH50-1AD4		1	1 unit	102	0.310
With metal lever and high-grade steel roller 19 mm									
	Snap-action contacts	1 NO + 1 NC --	B	3SE5 112-0CH51		1	1 unit	102	0.370
Fork levers, latching									
With metal lever and 2 plastic rollers 19 mm									
	Snap-action contacts	1 NO + 1 NC --	↻ B	3SE5 112-0CT11		1	1 unit	102	0.360
Rod actuators, type D, acc. to EN 50041									
With aluminum rod, length 200 mm									
	Snap-action contacts	1 NO + 1 NC --	▶	3SE5 112-0CH80		1	1 unit	102	0.300
With plastic rod, length 200 mm									
	Snap-action contacts	1 NO + 1 NC --	B	3SE5 112-0CH82		1	1 unit	102	0.300

3SE5, 3SE2, 3SE3 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	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU				kg
Basic switches • Enclosure width 40 mm									
	With M20 × 1.5 connecting thread								
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 112-0BA00	1	1 unit	102	0.260
	Snap-action contacts	1 NO + 1 NC	--	⊙ A	3SE5 112-0CA00	1	1 unit	102	0.260
	• Gold-plated contacts			⊙ D	3SE5 112-0CA00-1AC1	1	1 unit	102	0.260
	Slow-action contacts	1 NO + 2 NC	--	⊙ A	3SE5 112-0KA00	1	1 unit	102	0.270
	Snap-action contacts	1 NO + 2 NC	--	⊙ A	3SE5 112-0LA00	1	1 unit	102	0.270
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 112-0MA00	1	1 unit	102	0.270
Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 112-0PA00	1	1 unit	102	0.270	
	With increased corrosion protection ¹⁾								
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 112-0BA00-1CA0	1	1 unit	102	0.260
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 112-0CA00-1CA0	1	1 unit	102	0.260
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 112-0KA00-1CA0	1	1 unit	102	0.270
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 112-0LA00-1CA0	1	1 unit	102	0.270
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	⊙ B	3SE5 112-0MA00-1CA0	1	1 unit	102	0.270
	Slow-action contacts	2 NO + 1 NC	--	⊙ B	3SE5 112-0PA00-1CA0	1	1 unit	102	0.270
	With M12 connector socket, 5-pole (125 V, 4 A)								
	Slow-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 114-0BA00-1AC5	1	1 unit	102	0.270
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 114-0CA00-1AC5	1	1 unit	102	0.270
	Slow-action contacts	2 NC	--	⊙ B	3SE5 114-0KA00-1AE1	1	1 unit	102	0.280
	Snap-action contacts	2 NC	--	⊙ B	3SE5 114-0LA00-1AE1	1	1 unit	102	0.280
	With connector socket, 6-pole + PE (250 V, 10 A)								
	Slow-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 115-0KA00-1AD1	1	1 unit	102	0.280
	Snap-action contacts	1 NO + 2 NC	--	⊙ B	3SE5 115-0LA00-1AD1	1	1 unit	102	0.280
	With connector socket, 6-pole + PE (250 V, 10 A) and quick-release device								
	Snap-action contacts	1 NO + 1 NC	--	⊙ B	3SE5 115-0CA00-1AD0	1	1 unit	102	0.350
	With 2 LEDs, yellow/green								
	Slow-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 112-1KA00	1	1 unit	102	0.280
	Snap-action contacts	1 NO + 2 NC	24 V DC	⊙ B	3SE5 112-1LA00	1	1 unit	102	0.280
	Slow-action contacts	1 NO + 2 NC	230 V AC	⊙ C	3SE5 112-3KA00	1	1 unit	102	0.280
	Snap-action contacts	1 NO + 2 NC	230 V AC	⊙ C	3SE5 112-3LA00	1	1 unit	102	0.280
	With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs								
	Slow-action contacts	1 NO + 1 NC	24 V DC	⊙ B	3SE5 114-1BA00-1AF3	1	1 unit	102	0.280
	Snap-action contacts	1 NO + 1 NC	24 V DC	⊙ C	3SE5 114-1CA00-1AF3	1	1 unit	102	0.280
	With M12 connector socket, 8-pole (30 V, 2 A) and 2 LEDs								
	Snap-action contacts	1 NO + 2 NC	24 V DC	⊙ C	3SE5 114-1LA00-1AD4	1	1 unit	102	0.310
	With connector socket, 6-pole + PE (10 A), and 2 LEDs								
	Slow-action contacts	1 NO + 1 NC	24 V DC	⊙ B	3SE5 115-1BA00-1AF2	1	1 unit	102	0.290
	Snap-action contacts	1 NO + 1 NC	24 V DC	⊙ B	3SE5 115-1CA00-1AF2	1	1 unit	102	0.290
	Snap-action contacts	2 NC	24 V DC	⊙ B	3SE5 115-1LA00-1AD2	1	1 unit	102	0.300

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

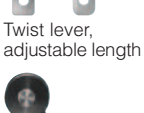
¹⁾ Use corresponding high-grade steel lever.

Note: For selection aid, see page 8/19.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, metal enclosures
Enclosure width 40 mm according to EN 50041

Version	Diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Operating mechanisms							
	Rounded plungers, type B acc. to EN 50041						
	High-grade steel plungers, with 3 mm overtravel		⊙ B	3SE5 000-0AC02	1	1 unit	102 0.030
	Roller plunger, type C acc. to EN 50041						
	High-grade steel roller, with 3 mm overtravel		13 ⊙ B	3SE5 000-0AD02	1	1 unit	102 0.050
	Roller levers						
	Metal lever, plastic roller		22 ⊙ A	3SE5 000-0AE01	1	1 unit	102 0.045
	Metal lever, high-grade steel roller		22 ⊙ B	3SE5 000-0AE02	1	1 unit	102 0.065
	High-grade steel lever, plastic roller		22 ⊙ B	3SE5 000-0AE03	1	1 unit	102 0.040
	High-grade steel lever, high-grade steel roller		22 ⊙ B	3SE5 000-0AE04	1	1 unit	102 0.065
	Angular roller levers						
	Metal lever, plastic roller		22 ⊙ A	3SE5 000-0AF01	1	1 unit	102 0.050
	Metal lever, high-grade steel roller		22 ⊙ B	3SE5 000-0AF02	1	1 unit	102 0.075
	High-grade steel lever, plastic roller		22 ⊙ B	3SE5 000-0AF03	1	1 unit	102 0.050
	High-grade steel lever, high-grade steel roller		22 ⊙ B	3SE5 000-0AF04	1	1 unit	102 0.075
	Spring rod (for switches with snap-action contacts only)						
	Plastic plunger:						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		B	3SE5 000-0AR01	1	1 unit	102 0.060
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)		B	3SE5 000-0AR03	1	1 unit	102 0.020
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)		B	3SE5 000-0AR04	1	1 unit	102 0.040
	High-grade steel plunger:						
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)		B	3SE5 000-0AR02	1	1 unit	102 0.040
	Twist actuators						
	Twist actuators, metal (without lever)						
	• For twist levers and rod actuators, switching right and/or left, adjustable		⊙ A	3SE5 000-0AH00	1	1 unit	102 0.070
	• For fork levers, latching		⊙ B	3SE5 000-0AT10	1	1 unit	102 0.070
	Levers for twist actuators						
	Twist levers, offset, type A acc. to EN 50041						
	Metal lever 27 mm, plastic roller		19 ⊙ A	3SE5 000-0AA01	1	1 unit	102 0.015
	Metal lever 27 mm, high-grade steel roller		19 ⊙ A	3SE5 000-0AA02	1	1 unit	102 0.035
	Metal lever 27 mm, roller with ball bearing		19 ⊙ B	3SE5 000-0AA03	1	1 unit	102 0.020
	Metal lever 27 mm, 2 plastic rollers		19 ⊙ B	3SE5 000-0AA04	1	1 unit	102 0.015
	Metal lever 27 mm, plastic roller		30 ⊙ B	3SE5 000-0AA05	1	1 unit	102 0.015
	Metal lever 27 mm, rubber roller		50 ⊙ B	3SE5 000-0AA08	1	1 unit	102 0.030
	High-grade steel lever 27 mm, plastic roller		19 ⊙ B	3SE5 000-0AA11	1	1 unit	102 0.015
	High-grade steel lever 27 mm, high-grade steel roller		19 ⊙ B	3SE5 000-0AA12	1	1 unit	102 0.025
	Metal lever 35 mm, plastic roller		19 ⊙ B	3SE5 000-0AA15	1	1 unit	102 0.050
	Twist levers 30 mm, straight¹⁾						
	Metal lever, plastic roller		19 ⊙ B	3SE5 000-0AA24	1	1 unit	102 0.020
	Twist levers, adjustable length, with grid holes						
	Metal lever, plastic roller		19 ⊙ B	3SE5 000-0AA60	1	1 unit	102 0.025
	Metal lever, high-grade steel roller		19 ⊙ B	3SE5 000-0AA61	1	1 unit	102 0.040
	Metal lever, rubber roller		50 ⊙ B	3SE5 000-0AA68	1	1 unit	102 0.045
	High-grade steel lever, plastic roller		19 ⊙ B	3SE5 000-0AA62	1	1 unit	102 0.025
	High-grade steel lever, high-grade steel roller		19 ⊙ B	3SE5 000-0AA63	1	1 unit	102 0.040
	Twist levers, adjustable length						
	Metal lever, plastic roller		19 A	3SE5 000-0AA50	1	1 unit	102 0.025
	Metal lever, high-grade steel roller		19 B	3SE5 000-0AA51	1	1 unit	102 0.035
	Metal lever, plastic roller		30 B	3SE5 000-0AA55	1	1 unit	102 0.025
	Metal lever, rubber roller		50 B	3SE5 000-0AA58	1	1 unit	102 0.040
	High-grade steel lever, plastic roller		19 B	3SE5 000-0AA52	1	1 unit	102 0.025
	High-grade steel lever, high-grade steel roller		19 B	3SE5 000-0AA53	1	1 unit	102 0.035
	Fork lever (for switches with snap-action contacts only)						
	2 metal levers, 2 plastic rollers		19 ⊙ B	3SE5 000-0AT01	1	1 unit	102 0.050
	2 metal levers, 2 high-grade steel rollers		19 ⊙ B	3SE5 000-0AT02	1	1 unit	102 0.050
	2 high-grade steel levers, 2 plastic rollers		19 ⊙ B	3SE5 000-0AT03	1	1 unit	102 0.050
	Rod actuators, type D acc. to EN 50041						
	Aluminum rod, length 200 mm		6 B	3SE5 000-0AA80	1	1 unit	102 0.070
	Spring rod, length 200 mm		6 B	3SE5 000-0AA81	1	1 unit	102 0.030
	Plastic rod, length 200 mm		6 B	3SE5 000-0AA82	1	1 unit	102 0.020

⊙ Positively driven actuator, necessary in safety circuits.

¹⁾ Can be mounted on bead (180°).

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU				kg
Complete units ¹⁾ • Enclosure width 56 mm									
	Rounded plungers								
	With high-grade steel plungers, with 3 mm overtravel								
	Slow-action contacts	1 NO + 1 NC --	⌚ B	3SE5 122-0BC02	1	1 unit	102	0.355	
	Snap-action contacts	1 NO + 1 NC --	⌚ ►	3SE5 122-0CC02	1	1 unit	102	0.355	
	Slow-action contacts	1 NO + 2 NC --	⌚ B	3SE5 122-0KC02	1	1 unit	102	0.365	
	Snap-action contacts	1 NO + 2 NC --	⌚ B	3SE5 122-0LC02	1	1 unit	102	0.365	
	Roller plungers								
	With high-grade steel roller 13 mm, with 3 mm overtravel								
	Slow-action contacts	1 NO + 1 NC --	⌚ B	3SE5 122-0BD02	1	1 unit	102	0.375	
	Snap-action contacts	1 NO + 1 NC --	⌚ A	3SE5 122-0CD02	1	1 unit	102	0.375	
	Slow-action contacts	1 NO + 2 NC --	⌚ B	3SE5 122-0KD02	1	1 unit	102	0.385	
	Snap-action contacts	1 NO + 2 NC --	⌚ B	3SE5 122-0LD02	1	1 unit	102	0.385	
	Roller levers								
	With metal lever and plastic roller 22 mm								
	Slow-action contacts	1 NO + 1 NC --	⌚ B	3SE5 122-0BE01	1	1 unit	102	0.365	
	Snap-action contacts	1 NO + 1 NC --	⌚ A	3SE5 122-0CE01	1	1 unit	102	0.365	
	Slow-action contacts	1 NO + 2 NC --	⌚ B	3SE5 122-0KE01	1	1 unit	102	0.375	
	Snap-action contacts	1 NO + 2 NC --	⌚ B	3SE5 122-0LE01	1	1 unit	102	0.375	
	With metal lever and high-grade steel roller 22 mm								
	Snap-action contacts	1 NO + 1 NC --	⌚ B	3SE5 122-0CE02	1	1 unit	102	0.390	
	Angular roller levers								
	With metal lever and plastic roller 22 mm								
	Slow-action contacts	1 NO + 1 NC --	⌚ B	3SE5 122-0BF01	1	1 unit	102	0.380	
	Snap-action contacts	1 NO + 1 NC --	⌚ B	3SE5 122-0CF01	1	1 unit	102	0.380	
	Spring rod								
	Length 142.5 mm, with plastic plunger 50 mm								
	Snap-action contacts	1 NO + 1 NC --	B	3SE5 122-0CR01	1	1 unit	102	0.385	

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

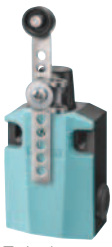
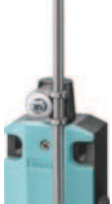
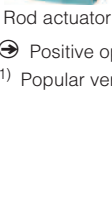
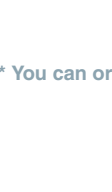
¹⁾ Popular versions.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 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	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg
Complete units¹⁾ • Enclosure width 56 mm								
<i>Twist levers</i>								
	With metal lever 27 mm and plastic roller 19 mm							
	Slow-action contacts	1 NO + 1 NC --	⊕ B	3SE5 122-0BH01	1	1 unit	102	0.410
	Snap-action contacts	1 NO + 1 NC --	⊕ A	3SE5 122-0CH01	1	1 unit	102	0.410
	Slow-action contacts	1 NO + 2 NC --	⊕ B	3SE5 122-0KH01	1	1 unit	102	0.420
	Snap-action contacts	1 NO + 2 NC --	⊕ B	3SE5 122-0LH01	1	1 unit	102	0.420
	With metal lever 27 mm and high-grade steel roller 19 mm							
	Snap-action contacts	1 NO + 1 NC --	⊕ B	3SE5 122-0CH02	1	1 unit	102	0.250
	Snap-action contacts	1 NO + 2 NC --	B	3SE5 122-0LH02	1	1 unit	102	0.250
<i>Twist levers, adjustable length</i>								
	With metal lever with grid hole and plastic roller 19 mm							
	Slow-action contacts	1 NO + 1 NC --	⊕ B	3SE5 122-0BH60	1	1 unit	102	0.250
	Snap-action contacts	1 NO + 1 NC --	⊕ A	3SE5 122-0CH60	1	1 unit	102	0.250
	Snap-action contacts	1 NO + 2 NC --	⊕ B	3SE5 122-0LH60	1	1 unit	102	0.250
	With metal lever and plastic roller 19 mm							
	Slow-action contacts	1 NO + 1 NC --	B	3SE5 122-0BH50	1	1 unit	102	0.420
	Snap-action contacts	1 NO + 1 NC --	A	3SE5 122-0CH50	1	1 unit	102	0.420
	Snap-action contacts	1 NO + 2 NC --	B	3SE5 122-0LH50	1	1 unit	102	0.430
<i>Fork levers, latching</i>								
	With metal lever and 2 plastic rollers 19 mm							
	Snap-action contacts	1 NO + 1 NC --	⊕ B	3SE5 122-0CT11	1	1 unit	102	0.250
<i>Rod actuators</i>								
	With aluminum rod, length 200 mm							
	Snap-action contacts	1 NO + 1 NC --	B	3SE5 122-0CH80	1	1 unit	102	0.250
	With plastic rod, length 200 mm							
	Snap-action contacts	1 NO + 1 NC --	B	3SE5 122-0CH82	1	1 unit	102	0.250

⊕ Positive opening acc. 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" on the next page.

3SE5, 3SE2, 3SE3 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	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
					Order No.	Price per PU				
Basic switches • Enclosure width 56 mm										
	With 3 x M20 x 1.5 connecting thread									
	Slow-action contacts	1 NO + 1 NC	--	 A	3SE5 122-0BA00		1	1 unit	102	0.315
	Snap-action contacts	1 NO + 1 NC	--	 A	3SE5 122-0CA00		1	1 unit	102	0.315
	Slow-action contacts	1 NO + 2 NC	--	 B	3SE5 122-0KA00		1	1 unit	102	0.325
	Snap-action contacts	1 NO + 2 NC	--	 A	3SE5 122-0LA00		1	1 unit	102	0.325
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	 B	3SE5 122-0MA00		1	1 unit	102	0.335
	Slow-action contacts	2 NO + 1 NC	--	 B	3SE5 122-0PA00		1	1 unit	102	0.335
	With increased corrosion protection ¹⁾									
	Slow-action contacts	1 NO + 1 NC	--	 B	3SE5 122-0BA00-1CA0		1	1 unit	102	0.315
	Snap-action contacts	1 NO + 1 NC	--	 B	3SE5 122-0CA00-1CA0		1	1 unit	102	0.315
	Slow-action contacts	1 NO + 2 NC	--	 B	3SE5 122-0KA00-1CA0		1	1 unit	102	0.325
	Snap-action contacts	1 NO + 2 NC	--	 B	3SE5 122-0LA00-1CA0		1	1 unit	102	0.335
	Slow-action contacts with make-before-break	1 NO + 2 NC	--	 B	3SE5 122-0MA00-1CA0		1	1 unit	102	0.335
	Slow-action contacts	2 NO + 1 NC	--	 B	3SE5 122-0PA00-1CA0		1	1 unit	102	0.335
	With 2 LEDs, yellow/green									
	Slow-action contacts	1 NO + 2 NC	24 V DC	 B	3SE5 122-1KA00		1	1 unit	102	0.330
	Snap-action contacts	1 NO + 2 NC	24 V DC	 B	3SE5 122-1LA00		1	1 unit	102	0.330
	Slow-action contacts	1 NO + 2 NC	230 V AC	 B	3SE5 122-3KA00		1	1 unit	102	0.330
	Snap-action contacts	1 NO + 2 NC	230 V AC	 B	3SE5 122-3LA00		1	1 unit	102	0.330

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

¹⁾ Use corresponding high-grade steel lever.

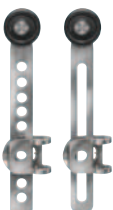
Note: For selection aid, see page 8/19.

Version	Diame-ter	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm	Order No.	Price per PU	kg			
Operating mechanisms								
	Rounded plungers, type B acc. to EN 50041		⊙ B	3SE5 000-0AC02	1	1 unit	102	0.030
	High-grade steel plungers, with 3 mm overtravel							
	Roller plunger, type C acc. to EN 50041		⊙ B	3SE5 000-0AD02	1	1 unit	102	0.050
	High-grade steel roller, with 3 mm overtravel							
	Roller levers		⊙ A	3SE5 000-0AE01	1	1 unit	102	0.045
	Metal lever, plastic roller							
	Metal lever, high-grade steel roller							
	High-grade steel lever, plastic roller							
	High-grade steel lever, high-grade steel roller							
	Angular roller levers		⊙ B	3SE5 000-0AF01	1	1 unit	102	0.050
	Metal lever, plastic roller							
	Metal lever, high-grade steel roller							
	High-grade steel lever, plastic roller							
	High-grade steel lever, high-grade steel roller							
	Spring rod (for switches with snap-action contacts only)		B	3SE5 000-0AR01	1	1 unit	102	0.060
	Plastic plunger:							
	• 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)							
	High-grade steel plunger:							
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)							

⊙ Positively driven actuator, necessary in safety circuits.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, metal enclosures Enclosure width 56 mm

Version	Diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Twist actuators							
	Twist actuators, metal (without lever)						
		• For twist levers and rod actuators, switching right and/or left, adjustable	➡ A	3SE5 000-0AH00	1	1 unit	102 0.070
		• For fork levers, latching	➡ B	3SE5 000-0AT10	1	1 unit	102 0.070
Levers for twist actuators							
	Twist levers 27 mm, offset, type A acc. to EN 50041						
	Metal lever, plastic roller	19	➡ A	3SE5 000-0AA01	1	1 unit	102 0.015
	Metal lever, high-grade steel roller	19	➡ A	3SE5 000-0AA02	1	1 unit	102 0.035
	Metal lever, roller with ball bearing	19	➡ B	3SE5 000-0AA03	1	1 unit	102 0.020
	Metal lever, 2 plastic rollers	19	➡ B	3SE5 000-0AA04	1	1 unit	102 0.015
	Metal lever, plastic roller	30	➡ B	3SE5 000-0AA05	1	1 unit	102 0.015
	Metal lever, plastic roller	50	➡ B	3SE5 000-0AA07	1	1 unit	102 0.020
	Metal lever, rubber roller	50	➡ B	3SE5 000-0AA08	1	1 unit	102 0.030
	High-grade steel lever, plastic roller	19	➡ B	3SE5 000-0AA11	1	1 unit	102 0.015
	High-grade steel lever, high-grade steel roller	19	➡ B	3SE5 000-0AA12	1	1 unit	102 0.025
Twist levers 35 mm, offset							
	Metal lever, plastic roller	19	➡ B	3SE5 000-0AA15	1	1 unit	102 0.050
Twist levers 30 mm, straight ¹⁾							
	Metal lever, plastic roller	19	➡ B	3SE5 000-0AA24	1	1 unit	102 0.020
	Twist levers, adjustable length, with grid holes						
	Metal lever, plastic roller	19	➡ B	3SE5 000-0AA60	1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19	➡ B	3SE5 000-0AA61	1	1 unit	102 0.040
	Metal lever, plastic roller	50	➡ B	3SE5 000-0AA67	1	1 unit	102 0.025
	Metal lever, rubber roller	50	➡ B	3SE5 000-0AA68	1	1 unit	102 0.045
	High-grade steel lever, plastic roller	19	➡ B	3SE5 000-0AA62	1	1 unit	102 0.025
	High-grade steel lever, high-grade steel roller	19	➡ B	3SE5 000-0AA63	1	1 unit	102 0.040
	Twist levers, adjustable length						
	Metal lever, plastic roller	19	A	3SE5 000-0AA50	1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19	B	3SE5 000-0AA51	1	1 unit	102 0.035
	Metal lever, plastic roller	30	B	3SE5 000-0AA55	1	1 unit	102 0.025
	Metal lever, plastic roller	50	B	3SE5 000-0AA57	1	1 unit	102 0.025
	Metal lever, rubber roller	50	B	3SE5 000-0AA58	1	1 unit	102 0.040
	High-grade steel lever, plastic roller	19	B	3SE5 000-0AA52	1	1 unit	102 0.025
High-grade steel lever, high-grade steel roller	19	B	3SE5 000-0AA53	1	1 unit	102 0.035	
	Fork lever (for switches with snap-action contacts only)						
	2 metal levers, 2 plastic rollers	19	➡ B	3SE5 000-0AT01	1	1 unit	102 0.050
	2 metal levers, 2 high-grade steel rollers	19	➡ B	3SE5 000-0AT02	1	1 unit	102 0.050
	2 high-grade steel levers, 2 plastic rollers	19	➡ B	3SE5 000-0AT03	1	1 unit	102 0.050
	2 high-grade steel levers, 2 high-grade steel rollers	19	➡ B	3SE5 000-0AT04	1	1 unit	102 0.050
	Rod actuators, type D acc. to EN 50041						
	Aluminum rod, length 200 mm	6	B	3SE5 000-0AA80	1	1 unit	102 0.070
	Spring rod, length 200 mm	6	B	3SE5 000-0AA81	1	1 unit	102 0.030
	Plastic rod, length 200 mm	6	B	3SE5 000-0AA82	1	1 unit	102 0.020

➡ Positively driven actuator, necessary in safety circuits.

¹⁾ Can be mounted on bead (180°).

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, metal enclosures
Ambient temperature up to -40 °C

Selection and ordering data

Complete units

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

Version	Contacts	LEDs	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Complete units • Enclosure width 40 mm



Twist lever,
adjustable
length

Twist levers, adjustable length

With high-grade steel lever with grid hole and plastic roller 19 mm

Version	Contacts	LEDs	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
3SE5 112-0CH62-1AJ0	1 NO + 1 NC --		⊕ A	Order No.	Price per PU			kg

Modular system

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

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Basic switches • Enclosure width 40 mm



Basic switch

With teflon plunger

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
3SE5 112-0CA00-1AJ0	1 NO + 1 NC --		⊕ B	Order No.	Price per PU			kg
3SE5 112-0KA00-1AJ0	1 NO + 2 NC --		⊕ B					
3SE5 112-0LA00-1AJ0	1 NO + 2 NC --		⊕ B					

Basic switches • Enclosure width 56 mm



Basic switch

With teflon plunger

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
3SE5 122-0CA00-1AJ0	1 NO + 1 NC --		⊕ B	Order No.	Price per PU			kg
3SE5 122-0KA00-1AJ0	1 NO + 2 NC --		⊕ B					
3SE5 122-0LA00-1AJ0	1 NO + 2 NC --		⊕ B					

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

Note: For selection aid, see page 8/19.

3SE5, 3SE2, 3SE3 Position Switches

3SE5, metal enclosures
Ambient temperature up to –40 °C

Version	Diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Operating mechanisms							
 Rounded plunger	Rounded plungers, type B acc. to EN 50041		3SE5 000-0AC02-1AJ0	1	1 unit	102	0.030
	High-grade steel rollers	10 → B					
 Roller plunger	Roller plunger, type C acc. to EN 50041		3SE5 000-0AD02-1AJ0	1	1 unit	102	0.050
	High-grade steel rollers	10 → B					
 Roller lever	Roller levers		3SE5 000-0AE01-1AJ0 3SE5 000-0AE03-1AJ0	1	1 unit	102	0.050
	Metal lever, plastic roller	13 → B					
 Angular roller lever	Angular roller levers		3SE5 000-0AF01-1AJ0 3SE5 000-0AF03-1AJ0	1	1 unit	102	0.050
	Metal lever, plastic roller	13 → B					
 Twist actuator	Twist levers, type A acc. to EN 50041		3SE5 000-0AA01-1AJ0 3SE5 000-0AA11-1AJ0	1	1 unit	102	0.015
	Metal lever, plastic roller	19 → B					
 Twist lever	Twist levers, adjustable length, with grid holes		3SE5 000-0AA60-1AJ0 3SE5 000-0AA62-1AJ0	1	1 unit	102	0.025
	High-grade steel lever, plastic roller	19 → B					
 Twist lever, adjustable length							

→ Positively driven actuator, necessary in safety circuits.

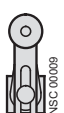
3SE5, 3SE2, 3SE3 Position Switches

3SE2, metal enclosures Enclosure width 56 mm

Selection and ordering data

Complete units

4 contacts · Degree of protection IP67 · Cable entry 3 × (M20 × 1.5)

Version	Contacts	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU			kg
Complete units • Enclosure width 56 mm							
Plungers							
With plastic head and high-grade steel plunger							
	Slow-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-0B	1	1 unit	102 0.355
	Snap-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-1B	1	1 unit	102 0.353
	Slow-action contacts with make-before-break	2 NO + 2 NC	⊕ C	3SE2 404-2B	1	1 unit	102 0.380
Rounded plungers							
With metal head and high-grade steel plunger							
	Slow-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-0C	1	1 unit	102 0.395
	Snap-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-1C	1	1 unit	102 0.385
	Slow-action contacts with make-before-break	2 NO + 2 NC	⊕ C	3SE2 404-2C	1	1 unit	102 0.400
Roller plungers							
With metal head and brass roller, 13 mm							
	Slow-action contacts	2 NO + 2 NC	⊕ C	3SE2 404-0D	1	1 unit	102 0.403
	Snap-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-1D	1	1 unit	102 0.420
	Slow-action contacts with make-before-break	2 NO + 2 NC	⊕ C	3SE2 404-2D	1	1 unit	102 0.420
Roller levers							
With metal lever and plastic roller 22 mm							
	Slow-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-0E	1	1 unit	102 0.381
	Snap-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-1E	1	1 unit	102 0.380
	Slow-action contacts with make-before-break	2 NO + 2 NC	⊕ B	3SE2 404-2E	1	1 unit	102 0.380
Angular roller levers							
With metal lever and plastic roller 22 mm							
	Slow-action contacts	2 NO + 2 NC	⊕ C	3SE2 404-0F	1	1 unit	102 0.380
	Snap-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-1F	1	1 unit	102 0.383
	Slow-action contacts with make-before-break	2 NO + 2 NC	⊕ C	3SE2 404-2F	1	1 unit	102 0.400
Twist levers							
With metal lever and plastic roller 19 mm							
	Slow-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-0GW	1	1 unit	102 0.470
	Snap-action contacts	2 NO + 2 NC	⊕ B	3SE2 404-1GW	1	1 unit	102 0.469
	Slow-action contacts with make-before-break	2 NO + 2 NC	⊕ C	3SE2 404-2GW	1	1 unit	102 0.480
Twist levers, adjustable length							
With metal lever and plastic roller 19 mm							
	Slow-action contacts	2 NO + 2 NC	C	3SE2 404-0UW	1	1 unit	102 0.477
	Snap-action contacts	2 NO + 2 NC	B	3SE2 404-1UW	1	1 unit	102 0.479
	Slow-action contacts with make-before-break	2 NO + 2 NC	C	3SE2 404-2UW	1	1 unit	102 0.380
Rod actuators							
With plastic rod							
	Slow-action contacts	2 NO + 2 NC	C	3SE2 404-0WW	1	1 unit	102 0.380
	Snap-action contacts	2 NO + 2 NC	B	3SE2 404-1WW	1	1 unit	102 0.476
	Slow-action contacts with make-before-break	2 NO + 2 NC	B	3SE2 404-2WW	1	1 unit	102 0.490
With aluminum rod							
	Slow-action contacts	2 NO + 2 NC	C	3SE2 404-0VW	1	1 unit	102 0.490
	Snap-action contacts	2 NO + 2 NC	C	3SE2 404-1VW	1	1 unit	102 0.488
	Slow-action contacts with make-before-break	2 NO + 2 NC	C	3SE2 404-2VW	1	1 unit	102 0.380

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

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE2, metal enclosures
Enclosure width 40 mm / 56 mm

Basic switches without operating mechanism

4 contacts · Degree of protection IP67 · Cable entry 3 × (M20 × 1.5)

Version	Contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
kg								

Basic switches • Enclosure width 56 mm



Basic switch

➡ Positive opening acc. to IEC 60947-5-1, Appendix K.

With plastic plunger

Slow-action contacts	2 NO + 2 NC	➡ C	3SE2 404-0A		1	1 unit	102	0.420
Snap-action contacts	2 NO + 2 NC	➡ B	3SE2 404-1A		1	1 unit	102	0.339

Accessories

The operating mechanisms of the position switches with metal enclosure can be subsequently replaced with other versions.

Version	Can be used for position switches	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
kg								

Complete actuators



3SX3 100

Plungers With screws and gasket	3SE2 ...-.B	➡ ▶	3SX3 100		1	1 unit	102	0.020
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3SX3 106

Rounded plungers With screws and gasket	3SE2 ...-.C	➡ ▶	3SX3 106		1	1 unit	102	0.055
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3SX3 107

Roller plungers With screws and gasket	3SE2 ...-.D							
• With brass roller (standard)		➡ ▶	3SX3 107		1	1 unit	102	0.080
• With high-grade steel roller		➡ B	3SX3 263		1	1 unit	102	0.080



3SX3 102

Roller levers With screws and gasket	3SE2 ...-.E							
• With plastic roller (standard)		➡ ▶	3SX3 102		1	1 unit	102	0.035
• With high-grade steel roller		➡ B	3SX3 275		1	1 unit	102	0.050



3SX3 104

Angular roller levers With screws and gasket	3SE2 ...-.F							
• With plastic roller (standard)		➡ ▶	3SX3 104		1	1 unit	102	0.040
• With high-grade steel roller		➡ B	3SX3 276		1	1 unit	102	0.050

➡ Positively driven actuator, necessary in safety circuits.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE2, metal enclosures Enclosure width 40 mm / 56 mm

Version	Can be used for position switches	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Actuators with separate twist actuator								
 3SX3 211	Twist actuators With round spindle, screws and gasket							
	• Standard	3SE2 ...-.GW, 3SE2 ...-.UW, 3SE2 ...-.VW, 3SE2 ...-.WW	▶ 3SX3 211		1	1 unit	102	0.112
	• Switching right and/or left, adjustable	3SE2 ...-.GW, 3SE2 ...-.UW, 3SE2 ...-.VW, 3SE2 ...-.WW	B 3SX3 307		1	1 unit	102	0.085
	• For fork levers	3SE2 1...-.T	C 3SX3 127		1	1 unit	102	0.131
 3SX3 212	Twist levers, 30 mm long For round spindle							
	• With plastic roller, Ø 19 mm		⊕ ▶ 3SX3 212		1	1 unit	102	0.020
	• With high-grade steel roller, Ø 19 mm		⊕ B 3SX3 265		1	1 unit	102	0.025
	• With ball bearing and roller, Ø 19 mm		⊕ B 3SX3 320		1	1 unit	102	0.025
	• With plastic roller, Ø 30 mm		⊕ B 3SX3 278		1	1 unit	102	0.020
	• With plastic roller, Ø 50 mm		⊕ B 3SX3 301		1	1 unit	102	0.020
 3SX3 301	• With rubber roller, Ø 50 mm		⊕ B 3SX3 280		1	1 unit	102	0.020
	Twist levers, adjustable length With clamp							
	• With plastic roller, Ø 19 mm	3SE2 ...-.UW	▶ 3SX3 213		1	1 unit	102	0.024
	• With high-grade steel roller, Ø 19 mm		B 3SX3 268		1	1 unit	102	0.030
	• With plastic roller, Ø 30 mm		B 3SX3 302		1	1 unit	102	0.025
	• With rubber roller, Ø 50 mm		B 3SX3 304		1	1 unit	102	0.020
 3SX3 213	Roller rods, adjustable length (without clamp)	3SE2 ...-.UW	B 3SY3 024		1	1 unit	102	0.036
	Twist levers, adjustable length with grid hole, With clamp	3SE2 ...-.UW	⊕ B 3SX3 321		1	1 unit	102	0.025
	Rod actuators with holder							
	• Plastic rod, 200 mm	3SE2 ...-.WW	▶ 3SX3 215		1	1 unit	102	0.031
	• Aluminum rod, 200 mm	3SE2 ...-.VW	▶ 3SX3 214		1	1 unit	102	0.032
	Rod actuators (without holder)							
 3SX3 215	• Plastic rod, 200 mm	3SE2 ...-.WW	▶ 3SX3 000		1	1 unit	102	0.008
	• Aluminum rod, 200 mm	3SE2 ...-.VW	B 3SX3 001		1	1 unit	102	0.016
	Fork levers¹⁾							
	• With 2 plastic rollers, Ø 19 mm	3SE2 1...-.T	⊕ B 3SX3 115		1	1 unit	102	0.032
 3SX3 115	• With 2 high-grade steel rollers, Ø 19 mm		⊕ B 3SX3 266		1	1 unit	102	0.050

⊕ Positively driven actuator, necessary in safety circuits.

¹⁾ Only for switches with snap-action contacts.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

3SE3, metal enclosures Compact design with molded cable

Overview

In harsh industrial environments and in installations with limited space, the small 3SE3 160 and 3SE3 180 compact switches are ideal. The switches are already equipped with a molded cable of 2 m in length and can therefore be installed in the smallest spaces.

Both the enclosure and the twist actuator are made of metal and comply with the high IP67 degree of protection. The roller plunger, rounded plunger and twist lever are available as operating mechanisms.

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.

The 3SE3 1 position switch with molded cable is available in different sizes:

- The 3SE3 180 series complies with the EU standard and features a 30 mm wide enclosure with drilled holes at a distance of 20 mm.
- The 3SE3 160 series meets the requirements of the US market and features a 40 mm wide enclosure with drilled holes at a spacing of 25 mm.

Selection and ordering data

2 contacts · Degree of protection IP67 · With 2 m cable

Operating mechanisms		Enclosure width	DT	Snap-action contacts 1 NO + 1 NC	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm		Order No.	Price per PU			kg
Complete units • Enclosure width 30 and 40 mm								
Rounded plungers								
	• Standard mounting	30	→ A	3SE3 180-1C	1	1 unit	102	0.316
		40	→ A	3SE3 160-1C	1	1 unit	102	0.332
	• With M12 connecting thread	30	→ A	3SE3 180-1CJ	1	1 unit	102	0.331
		40	→ A	3SE3 160-1CJ	1	1 unit	102	0.351
Roller plungers								
	• Standard mounting	30	→ A	3SE3 180-1D	1	1 unit	102	0.323
		40	→ A	3SE3 160-1D	1	1 unit	102	0.348
	• With M12 connecting thread	30	→ A	3SE3 180-1DJ	1	1 unit	102	0.334
		40	→ A	3SE3 160-1DJ	1	1 unit	102	0.364
Twist levers								
		30	→ A	3SE3 180-1G	1	1 unit	102	0.366
		40	→ A	3SE3 160-1G	1	1 unit	102	0.395

→ Positive opening acc. to IEC 60947-5-1, Appendix K.

3SE5, 3SE2, 3SE3 Position Switches

Open-type

3SE5, open-type design

Overview



Their compact design makes these switches particularly suitable for use in confined conditions. The fixing dimensions and operating points are acc. to EN 50047.

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

The empty enclosure can be equipped with all switch block variants ([see page 8/50](#)).

Selection and ordering data

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

Version	Contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Plastic enclosures • Enclosure width 30 mm								
With teflon plunger, Ø 6 mm								
 2 contacts	Slow-action contacts	1 NO + 1 NC	⊙ A	3SE5 250-0BC05	1	1 unit	102	0.025
	Snap-action contacts	1 NO + 1 NC	⊙ ▶	3SE5 250-0CC05	1	1 unit	102	0.025
 3 contacts	Slow-action contacts	1 NO + 2 NC	⊙ B	3SE5 250-0KC05	1	1 unit	102	0.035
	Snap-action contacts	1 NO + 2 NC	⊙ A	3SE5 250-0LC05	1	1 unit	102	0.035
	Slow-action contacts with make-before-break	1 NO + 2 NC	⊙ B	3SE5 250-0MC05	1	1 unit	102	0.035
	Slow-action contacts	2 NO + 1 NC	⊙ A	3SE5 250-0PC05	1	1 unit	102	0.035
 Empty enclosures	Empty enclosures without contact block	--	⊙ B	3SE5 250-0AC05	1	1 unit	102	0.015

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

Accessories and Spare Parts

Selection and ordering data

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

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Quick-release devices for enclosure width 40 mm							
 3SY3 110	B	3SY3 110		1	1 unit	102	0.055
	B	3SY3 027		1	1 unit	102	0.080
Plug-in connections for M20 × 1.5 connecting threads							
 3SY3 131	B	3SY3 131		1	1 unit	102	0.030
	A	3SY3 136		1	1 unit	102	0.065
 3SY3 127	B	3SY3 127		1	1 unit	102	0.010
	A	3RX8 000-OCB45		1	1 unit	574	0.015
 3SY3 127	A	3RX8 000-OCC45		1	1 unit	574	0.015
	B	3SY3 128		1	1 unit	102	0.010
 3SY3 134	A	3RX8 000-OCB55		1	1 unit	574	0.016
	A	3RX8 000-OCC55		1	1 unit	574	0.016
 3SY3 134	B	3SY3 134		1	1 unit	102	0.025
	A	3RX8 000-OCB81-1GF0		1	1 unit	574	0.326
Adapters and cable glands for M20 × 1.5 connecting threads							
 3SX9 917	B	3SX9 917		1	1 unit	102	0.035
	D	3SX9 918		1	1 unit	102	0.015
 3SX9 926	A	3SX9 926		1	1 unit	102	0.010

¹⁾ For wiring, a crimping tool is necessary, max. conductor cross-section 1 mm².

²⁾ For more cable boxes with molded cable see Industry Mall or Catalog FS 10.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

Accessories and Spare Parts

Version	Color/ contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
kg								
Optional accessories for 3SE51, 3SE52								
	Protective caps, rubber, for rounded plungers acc. to EN 50047, 3SE5...C05	Black	B	3SE5 000-0AC30	1	1 unit	102	0.003
Spare parts for 3SE51, 3SE52								
	Empty enclosures, plastic	Turquoise						
Enclosure width 31 mm	Enclosure width 31 mm		B	3SE5 232-0AC05	1	1 unit	102	0.020
	• With increased corrosion protection		B	3SE5 232-0AC05-1CA0	1	1 unit	102	0.020
	Enclosure width 50 mm		B	3SE5 242-0AC05	1	1 unit	102	0.035
	• With increased corrosion protection		B	3SE5 242-0AC05-1CA0	1	1 unit	102	0.035
	Empty enclosures, metal	Turquoise						
Enclosure width 40 mm	• With increased corrosion protection		B	3SE5 212-0AC05-1CA0	1	1 unit	102	0.115
	Enclosure width 40 mm		B	3SE5 112-0AA00	1	1 unit	102	0.230
	• With increased corrosion protection		B	3SE5 112-0AA00-1CA0	1	1 unit	102	0.230
	Enclosure width 56 mm		B	3SE5 122-0AA00	1	1 unit	102	0.250
	• With increased corrosion protection		B	3SE5 122-0AA00-1CA0	1	1 unit	102	0.250
	Contact blocks with 2 contacts							
2 contacts	• Slow-action contacts	1 NO + 1 NC	⊞ B	3SE5 000-0BA00	1	1 unit	102	0.050
	• Snap-action contacts	1 NO + 1 NC						
	- Standard		⊞ B	3SE5 000-0CA00	1	1 unit	102	0.050
	- Gold-plated contacts		⊞ B	3SE5 000-0CA00-1AC1	1	1 unit	102	0.050
	- 2 x 2 mm switching interval		⊞ B	3SE5 000-0GA00	1	1 unit	102	0.050
	- Short stroke		⊞ B	3SE5 000-0NA00	1	1 unit	102	0.050
	Contact blocks with 3 contacts							
3 contacts	• Slow-action contacts	1 NO + 2 NC	⊞ B	3SE5 000-0KA00	1	1 unit	102	0.060
	• Snap-action contacts	1 NO + 2 NC	⊞ B	3SE5 000-0LA00	1	1 unit	102	0.060
	• Slow-action contacts with make-before-break	1 NO + 2 NC	⊞ B	3SE5 000-0MA00	1	1 unit	102	0.060
	• Slow-action contacts	2 NO + 1 NC	B	3SE5 000-0PA00	1	1 unit	102	0.060

⊞ Positive opening acc. to IEC 60947-5-1, Appendix K.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

Accessories and Spare Parts

Version	Rated voltage LED	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	V							kg

Spare parts for 3SE51, 3SE52

 31 mm, turquoise with LED	Covers for plastic enclosures, width 31 mm							
	• Turquoise with LED	24 DC	B	3SE5 230-1AA00	1	1 unit	102	0.012
		230 AC	B	3SE5 230-3AA00	1	1 unit	102	0.012
	• Yellow	--	B	3SE5 230-0AA00-1AG0	1	1 unit	102	0.010
	• Yellow with LED	24 DC	B	3SE5 230-1AA00-1AG0	1	1 unit	102	0.012
		230 AC	B	3SE5 230-3AA00-1AG0	1	1 unit	102	0.012
 50 mm, turquoise with LED	Covers for plastic enclosures, width 50 mm							
	• Turquoise with LED	24 DC	B	3SE5 240-1AA00	1	1 unit	102	0.015
		230 AC	B	3SE5 240-3AA00	1	1 unit	102	0.015
	• Yellow	--	B	3SE5 240-0AA00-1AG0	1	1 unit	102	0.012
	• Yellow with LED	24 DC	B	3SE5 240-1AA00-1AG0	1	1 unit	102	0.015
		230 AC	B	3SE5 240-3AA00-1AG0	1	1 unit	102	0.015
 40 mm, yellow with LED	Covers for metal enclosures, width 40 mm							
	• Turquoise with LED	24 DC	B	3SE5 110-1AA00	1	1 unit	102	0.060
		230 AC	B	3SE5 110-3AA00	1	1 unit	102	0.060
	• Yellow	--	B	3SE5 110-0AA00-1AG0	1	1 unit	102	0.055
	• Yellow with LED	24 DC	B	3SE5 110-1AA00-1AG0	1	1 unit	102	0.060
		230 AC	B	3SE5 110-3AA00-1AG0	1	1 unit	102	0.060
 56 mm, yellow with LED	Covers for metal enclosures, width 56 mm							
	• Turquoise with LED	24 DC	B	3SE5 120-1AA00	1	1 unit	102	0.085
		230 AC	B	3SE5 120-3AA00	1	1 unit	102	0.085
	• Yellow	--	B	3SE5 120-0AA00-1AG0	1	1 unit	102	0.080
	• Yellow with LED	24 DC	B	3SE5 120-1AA00-1AG0	1	1 unit	102	0.085
		230 AC	B	3SE5 120-3AA00-1AG0	1	1 unit	102	0.085

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches With Separate Actuator

General data

Overview

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

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



Design

Enclosure sizes

The 3SE5 switches are available in various enclosure sizes:

- Plastic enclosures acc. to EN 50047, 31 mm wide, 1 cable entry
- Plastic enclosures, 50 mm wide, 2 cable entries
- Metal enclosures acc. to EN 50041, 40 mm wide, 1 cable entry
- Metal enclosures, 56 mm wide, 3 cable entries

Also available is a switch in the 3SE2 series which has arisen in this form acc. to general market requirements:

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

Enclosure versions

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

- Available with two- or three-pole contact blocks designed as slow-action contacts
- Optional LED status display
- With mounted four- or five-pole M12 connector socket (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole connector socket + PE on the metal enclosures
- Similarly with a combination of connector socket and LED indicators
- Metal enclosures for explosion protection (ATEX) (see page 8/72)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/78)

For a description of the basic switches see page 8/14.

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 twist actuators of the 3SE2 243 and 3SE2 257 switches with special enclosures cannot be changed. The switches can be approached from the two broad sides and from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application (see page 8/56).

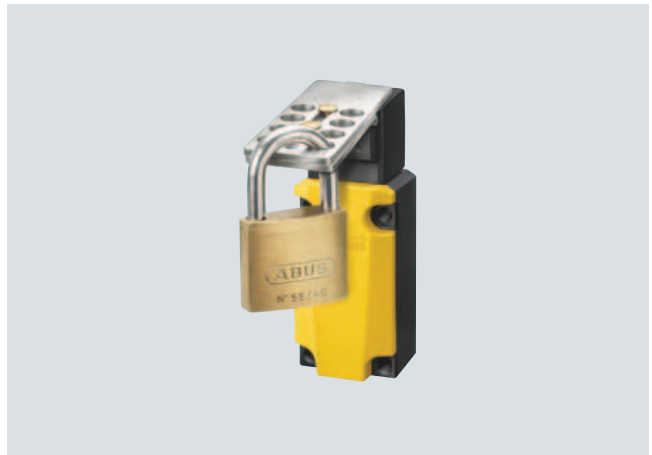
The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Radius actuators

The position switches with radius actuators are particularly suitable for rotatable 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 safety (see page 8/56).



Blocking inserts with padlock

Dust protection

A rubber cap to protect the twist actuator from contamination is available for operation in dusty environments (see page 8/56).

Contact reliability

The new 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".

3SE5, 3SE2, 3SE3 Position Switches With Separate Actuator

General data

Benefits

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

- All enclosure sizes are optionally available with a LED signaling indicator.
- The new three-pole contact block 1 NO + 2 NC is available for all enclosure sizes.
- The plastic enclosure has simple and fast wiring equipment which makes it possible to save from approx. 20 to 25 % of the time when connecting.
- The ASIsafe electric component is integrated for the versions with the AS-Interface connection (see page 8/78); an adapter is not required.

Application

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

The position 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 best contact blocks suited for the particular purpose. Dimensions, 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 60947-5-1 or EN 60947-5-1.

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

Safety position switches

For controls acc. to IEC 60204-1 or 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

IEC 60947-5-1 and EN 60947-5-1 require positive opening of the NC contacts, i. e. 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 acc. to the IEC standard 60947-5-1 with the symbol ☞.

Category 3 acc. to ISO 13849-1 (EN 954-1) can be attained with a position switch with a separate actuator if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional position switch.

More information

Type		3SE5 1...-V.., 3SE5 2...-V..	3SE2 257-XX..	3SE2 243-XX..
General data				
Standards		IEC 60947-5-1, EN 60947-5-1		
Rated insulation voltage U_i	V	400	500	
Pollution degree acc. to EN 60664-1		Class 3	Class 3	
Rated impulse withstand voltage U_{imp}	kV	6		
Rated operational voltage U_e	V	AC 400; over 300 V AC only equal potential	AC 500; over 380 V AC only equal potential	
Conventional free-air thermal current I_{th}	A	6	10	
Rated operational current I_e		2-pole	3-pole	3-pole
• With alternating current 50/60 Hz		I_e / AC-15	I_e / AC-15	I_e / AC-12
- At 24 V	A	6	6	10
- At 120 V	A	6	3	10
- At 240 V	A	3	1.5	10
- At 400 V	A	--	--	10
- At 500 V	A	--	--	10
• For direct current		I_e / DC-13	I_e / DC-13	I_e / DC-12
- At 24 V	A	3	3	10
- At 125 V	A	0.55	0.55	--
- At 250 V	A	0.27	0.27	--
- At 110 V	A	--	--	4
- At 220 V	A	--	--	1
- At 440 V	A	--	--	0.5
Short-circuit protection ¹⁾				
• With DIAZED fuse links, operational class gG	A	6	6	
• With fuse links, quick		--	10	
• With miniature circuit breaker, Char. C	A	1	--	
Mechanical endurance		1 × 10 ⁶ operating cycles		
Electrical endurance				
• With 3RH11, 3RT10 16 to 3RT10 26 contactors		10 × 10 ⁶ operating cycles	> 1 × 10 ⁶ operating cycles	
• For utilization category AC-15 when switching off I_e / AC-15 at 240 V		0.1 × 10 ⁶ operating cycles	0.5 × 10 ⁶ operating cycles	
Switching frequency with 3RH11, 3RT10 16 to 3RT10 26 contactors		6000 operating cycles/h		

3SE5, 3SE2, 3SE3 Position Switches

With Separate Actuator

3SE5, plastic enclosures
Enclosure width 31 mm acc. to EN 50047 / 50 mm

Selection and ordering data

Complete units

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

Version ¹⁾	Contacts	LEDs	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU	kg			
Enclosure width 31 mm acc. to EN 50047									
	5 directions of approach								
	Slow-action contacts	1 NO + 1 NC --	⤵ B	3SE5 232-0RV40		1	1 unit	102	0.150
	Slow-action contacts	1 NO + 2 NC --	⤵ ▶	3SE5 232-0QV40		1	1 unit	102	0.155
With separate actuator									
	With M12 connector socket, 4-pole (250 V, 4 A)								
	Slow-action contacts	1 NO + 1 NC --	⤵ B	3SE5 234-0RV40-1AC4		1	1 unit	102	0.165
	Slow-action contacts	2 NC --	⤵ B	3SE5 234-0QV40-1AE0		1	1 unit	102	0.170
With M12 socket									
	With 2 LEDs, yellow/green								
	Slow-action contacts	1 NO + 1 NC 24 V DC	⤵ B	3SE5 232-1RV40		1	1 unit	102	0.155
	Slow-action contacts	1 NO + 1 NC 230 V AC	⤵ B	3SE5 232-3RV40		1	1 unit	102	0.110
	With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs								
	Slow-action contacts	1 NO + 1 NC 24 V DC	⤵ C	3SE5 234-1RV40-1AF3		1	1 unit	102	0.175
With 2 LEDs									
Enclosure width 50 mm									
	5 directions of approach								
	Slow-action contacts	1 NO + 2 NC --	⤵ B	3SE5 242-0QV40		1	1 unit	102	0.110
With separate actuator									
	With 2 LEDs, yellow/green								
	Slow-action contacts	1 NO + 2 NC 24 V DC	⤵ B	3SE5 242-1QV40		1	1 unit	102	0.120
	Slow-action contacts	1 NO + 2 NC 230 V AC	⤵ C	3SE5 242-3QV40		1	1 unit	102	0.120
With 2 LEDs									

⤵ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 8/56).

3SE5, 3SE2, 3SE3 Position Switches

With Separate Actuator

3SE5, metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Selection and ordering data

Complete units

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

Version ¹⁾	Contacts	LEDs	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
				Order No.	Price per PU	kg				
Enclosure width 40 mm acc. to EN 50041										
	5 directions of approach				▶	3SE5 112-0QV10	1	1 unit	102	0.315
	Slow-action contacts	1 NO + 2 NC	--							
	With M12 connector socket, 5-pole (125 V, 4 A)				C	3SE5 114-0RV10-1AC5	1	1 unit	102	0.325
	Slow-action contacts	1 NO + 1 NC	--							
	Slow-action contacts	2 NC	--		C	3SE5 114-0QV10-1AE1	1	1 unit	102	0.325
	With connector socket, 6-pole + PE (250 V, 10 A)				C	3SE5 115-0QV10-1AD1	1	1 unit	102	0.335
Slow-action contacts	1 NO + 2 NC	--								
	With 2 LEDs, yellow/green				B	3SE5 112-1QV10	1	1 unit	102	0.325
	Slow-action contacts	1 NO + 2 NC	24 V DC							
	Slow-action contacts	1 NO + 2 NC	230 V AC		C	3SE5 112-3QV10	1	1 unit	102	0.325
	With M12 connector socket, 5-pole (125 V, 4 A) and 2 LEDs				C	3SE5 114-1RV10-1AF3	1	1 unit	102	0.325
	Slow-action contacts	1 NO + 1 NC	24 V DC							
	With connector socket, 6-pole + PE (10 A), and 2 LEDs				C	3SE5 115-1RV10-1AF2	1	1 unit	102	0.335
Slow-action contacts	1 NO + 1 NC	24 V DC								
Enclosure width 56 mm										
	5 directions of approach				B	3SE5 122-0QV10	1	1 unit	102	0.360
	Slow-action contacts	1 NO + 2 NC	--							
	With 2 LEDs, yellow/green				B	3SE5 122-1QV10	1	1 unit	102	0.370
	Slow-action contacts	1 NO + 2 NC	24 V DC							
	Slow-action contacts	1 NO + 2 NC	230 V AC		C	3SE5 122-3QV10	1	1 unit	102	0.370
	With 2 LEDs									

➡ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 8/56).

3SE5, 3SE2, 3SE3 Position Switches

With Separate Actuator

Accessories

Selection and ordering data

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Actuators for 3SE5							
 3SE5 000-0AV01		Standard actuators, length 75.6 mm	▶	3SE5 000-0AV01	1	1 unit	102 0.040
 3SE5 000-0AV02	A	With vertical fixing, length 53 mm		3SE5 000-0AV02	1	1 unit	102 0.070
 3SE5 000-0AV03	A	With transverse fixing, length 47 mm		3SE5 000-0AV03	1	1 unit	102 0.070
 3SE5 000-0AV06	A	Radius actuators, length 51 mm		3SE5 000-0AV04	1	1 unit	102 0.070
	A	• Direction of approach from the left		3SE5 000-0AV06	1	1 unit	102 0.070
	A	• Direction of approach from the right		3SE5 000-0AV05	1	1 unit	102 0.090
 3SE5 000-0AV05	A	Universal radius actuator, length 77 mm		3SE5 000-0AV05	1	1 unit	102 0.090
 3SE5 000-0AV07	A	Universal radius actuators, heavy-duty		3SE5 000-0AV07-1AK2	1	1 unit	102 0.120
	A	• Length 67 mm		3SE5 000-0AV07	1	1 unit	102 0.090
		• Length 77 mm					
Optional accessories for 3SE5							
 3SE5 000-0AV08-1AA2	B	Protective caps made of black rubber for the actuator head, to protect the actuator openings from contamination (Only for enclosure width 40 or 56 mm)		3SE5 000-0AV08-1AA2	1	1 unit	102 0.010
 3SE5 000-0AV08-1AA3	B	Blocking inserts , high-grade steel, for twist actuator, for up to 8 padlocks		3SE5 000-0AV08-1AA3	1	1 unit	102 0.065
Connections for 3SE5, 3SE2							
 3SY3 127	B	Connector sockets (4-pole), M12, fixed for M20 × 1.5 For max. 250 V, 4 A With 0.25 mm ² connecting cable, plastic, degree of protection IP67, ambient temperature -40 to +85 °C		3SY3 127	1	1 unit	102 0.010
 3RX8 000	A	Cable boxes (4-pole), M12 With terminal compartment, can be pre-assembled ¹⁾		3RX8 000-0CB45	1	1 unit	574 0.015
	A	Angular cable boxes (4-pole), M12 With terminal compartment, can be pre-assembled ¹⁾		3RX8 000-0CC45	1	1 unit	574 0.015
 3SX9 926	B	Connector sockets (5-pole), M12, fixed for M20 × 1.5 For max. 125 V, 4 A With 0.25 mm ² connecting cable, plastic, degree of protection IP67, ambient temperature -40 to +85 °C		3SY3 128	1	1 unit	102 0.010
	A	Cable boxes (5-pole), M12 With terminal compartment, can be pre-assembled ¹⁾		3RX8 000-0CB55	1	1 unit	574 0.016
	A	Angular cable boxes (5-pole), M12 With terminal compartment, can be pre-assembled ¹⁾		3RX8 000-0CC55	1	1 unit	574 0.016
	A	Cable glands M20 × 1.5 Plastic		3SX9 926	1	1 unit	102 0.010

¹⁾ For cable boxes with molded cable see Industry Mall or Catalog FS 10.

3SE5, 3SE2, 3SE3 Position Switches

With Separate Actuator

3SE2, plastic enclosures
Enclosure width 52 mm

Selection and ordering data

Complete units

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

Version	Operation	DT	Complete units ☐	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU			kg
Molded-plastic enclosures in special width of 52 mm							
	Lateral and front-end actuation¹⁾	6 mm stroke					
	• With M20 × 1.5 connecting thread						
	- Slow-action contacts 1 NO + 2 NC	Extraction force 5 N	⊙ ▶ 3SE2 243-0XX40	1	1 unit	102	0.140
		Extraction force 30 N	⊙ ▶ 3SE2 243-0XX	1	1 unit	102	0.140
		With automatic ejection	⊙ ▶ 3SE2 243-0XX30	1	1 unit	102	0.140
	- Slow-action contacts 1 NC	Extraction force 5 N	⊙ ▶ 3SE2 257-6XX40	1	1 unit	102	0.120
		Extraction force 30 N	⊙ ▶ 3SE2 257-6XX	1	1 unit	102	0.120
		With automatic ejection	⊙ A 3SE2 257-6XX30	1	1 unit	102	0.120
	• With M16×1.5 connecting thread						
	- Slow-action contacts 1 NO + 2 NC	Extraction force 5 N	⊙ A 3SE2 243-0XX48	1	1 unit	102	0.140
		Extraction force 30 N	⊙ A 3SE2 243-0XX18	1	1 unit	102	0.145
		With automatic ejection	⊙ A 3SE2 243-0XX38	1	1 unit	102	0.140
	- Slow-action contacts 1 NC	Extraction force 5 N	⊙ A 3SE2 257-6XX48	1	1 unit	102	0.140
		Extraction force 30 N	⊙ A 3SE2 257-6XX18	1	1 unit	102	0.140
		With automatic ejection	⊙ ▶ 3SE2 257-6XX38	1	1 unit	102	0.140
Accessories							
	Actuators						
	• Standard actuators ($r_{\min} = 150$ mm), length 28 mm	A	3SX3 218	1	1 unit	102	0.020
		A	3SX3 228	1	1 unit	102	0.025
	• Universal radius actuator ($r_{\min} = 45$ mm), length 34 mm						
		D	3SX3 256	1	1 unit	102	0.020
	• Radius actuator, adjustable radius, length 34 mm						
	• Ball locating, force adjustable up to 100 N by 2 screws, length 28 mm	A	3SX3 217	1	1 unit	102	0.035
		D	3SX3 234	1	1 unit	102	0.035
	• Actuator, length 34 mm, with dust protection and slit cover						
Accessories							
	• Slit cover (1 set = 3 units)	D	3SX3 233	1	3 unit(s)	102	0.005

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches With Solenoid Interlocking

General data

Overview

The position switches with solenoid interlocking are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grills 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 solenoid interlocking are comprised of a switch part with electromechanical interlock 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 position switches with solenoid interlocking are offered in plastic or metal enclosures.
Dimensions (W × H × D):

- 3SE5 3: 54 mm × 185 mm × 43.5 mm,
- 3SE2 8: 90 mm × 100 mm (+ head 41.3 mm) × 45 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 3SE5 3 switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application (see page 8/63).

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 position switches with radius actuators are particularly suitable for rotatable 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 safety (see page 8/63).

Dust protection

A rubber cap to protect the twist actuator from contamination is available for operation in dusty environments (see page 8/63).

Solenoid interlocking

There are two versions for locking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Magnetic field lock (open-circuit principle)

The spring-actuated switch is equipped with an auxiliary release for emergency situations or setup mode. Available as options:

- Escape release or
- Emergency release

Contact blocks

The position switches with solenoid interlocking have one contact block each for:

- Monitoring the actuator or the position of the protective door
- Monitoring the position of the solenoid

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

Optical signaling equipment

The position switches with solenoid interlocking are available with an optional optical signaling device.

The signaling device indicates the switch position of the lock and the protective device optically by means of 2 LEDs on the front.

Protective device	Solenoid interlocking	Display	Meaning
Closed	Released	 	Actuator to be pulled
Closed	Locked		Actuator locked
Open	Released		Actuator pulled

Note:

The voltage of the LEDs at the monitored contacts must be the same as the operational voltage of the solenoid (same potential).

3SE5, 3SE2, 3SE3 Position Switches With Solenoid Interlocking

General data

Benefits

The new generation of 3SE5 3 position switches offers:

- More safety through higher locking forces:
 - 1300 N with plastic enclosure
 - 2600 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 variants: Plastic, metal or with integrated ASIsafe
- An extensive range of actuators
- An optional LED status display 24 V DC, 115 V AC or 230 V AC for all switch versions
- Device with ASIsafe electronics integrated in the enclosure (see page 8/82).

Application

The position switches with solenoid interlocking are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grills 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 solenoid interlocking 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 solenoid interlocking

Standards

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

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

Approvals

The switches are approved for use with locking devices acc. to EN 1088 and EN 292, Parts 1 and 2.

3SE5 3 position switches with solenoid interlocking bear the VDE test mark for tested acc. to GS-ET19 (Test Principles of the German Trade Association for Locking Devices with Electromagnetic Interlocks).

3SE2 8 metal-enclosed position switches with solenoid interlocking have been awarded a test certificate from the BIA (Berufsgenossenschaftliches Institut für Arbeitssicherheit).

Category 3 acc. to ISO 13849-1 (EN 954-1) can be attained with a position switch with solenoid interlocking if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching units from the ASIsafe, SIMATIC or SINUMERIK product ranges.

Category 4 can be achieved when using an additional position switch.

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

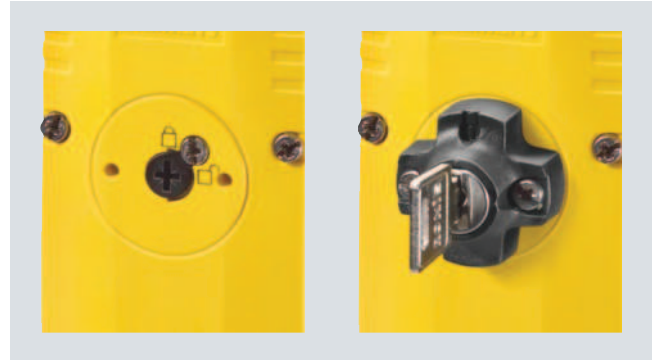
Solenoid interlocking

The separate actuator operates in a similar way to the coding of a key 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 position 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.

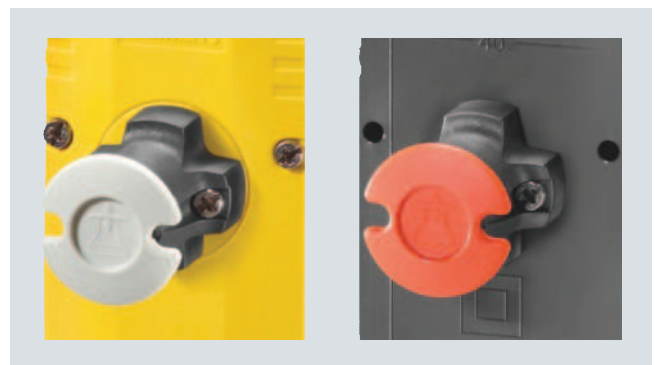


Auxiliary release

Auxiliary release with lock

The new 3SE5 3 position 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 interlocking 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 interlock 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 the mechanical lock.



Escape release from the front

Emergency release from the back

Magnetic field lock (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.

3SE5, 3SE2, 3SE3 Position Switches

With Solenoid Interlocking

General data

More information

Type		3SE5 322	3SE5 312	3SE2 83, 3SE2 84	
General data					
Standards		IEC 60947-5-1, EN 60947-5-1			
Rated insulation voltage U_i	V	250			
Pollution degree acc. to EN 60664-1		Class 3			
Rated impulse withstand voltage U_{imp}	kV	4		6	
Rated operational voltage U_e					
• DC	V	24		24	
• AC 50/60 Hz	V	230		110 ... 130	230
Conventional free-air thermal current I_{th}	A	6		10	
Rated operational current I_e					
• With alternating current 50/60 Hz		I_e / AC-15 or B300		I_e / AC-12	I_e / AC-15
- At 24 V	A	6		10	4
- At 120 V	A	3		10	4
- At 230 V	A	1.5		10	4
• For direct current		I_e / DC-13 or Q300		I_e / DC-12	I_e / DC-13
- At 24 V	A	3		10	3
- At 125 V	A	0.55		--	--
- At 250 V	A	0.27		--	--
- At 60 V		--		5	1.5
- At 110 V		--		2.5	0.7
- At 220 V		--		1	0.3
Solenoid					
• Locking force, max.	N	1300	2600	1820	
• Locking force acc. to GS-ET 19	N	1000	2000	1400	
• Power consumption at U_c	W	3.5		5.2	
Short-circuit protection ¹⁾					
• With DIAZED fuse links, operational class gG	A	6		6	
• With fuse links, quick		--		10	
• With miniature circuit breaker, Char. C	A	0.5		--	
Mechanical endurance		1 × 10 ⁶ operating cycles		1 × 10 ⁶ operating cycles	
Electrical endurance					
• With 3RH11, 3RT10 16 to 3RT10 26 contactors		1 × 10 ⁶ operating cycles		1 × 10 ⁶ operating cycles	
• For utilization category AC-15 with interrupting of I_e / AC-15 at 230 V		1 × 10 ⁵ operating cycles		0.5 × 10 ⁶ operating cycles	
• With utilization category DC-12/DC-13		For direct current depending on the loading of the switch			
Switching frequency with 3RH11, 3RT10 16 to 3RT10 26 contactors		6000 operating cycles/hour			
Shock resistance acc. to IEC 60068-2-27		30 g/11 ms		--	

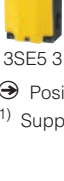
3SE5, 3SE2, 3SE3 Position Switches

With Solenoid Interlocking

3SE5, plastic enclosures
With locking force up to 1200 N

Selection and ordering data

6 slow-action contacts · 5 directions of approach · Cable entry 3 × M20 × 1.5 · Degree of protection IP66/IP67
Locking force 1300 N (1000 N acc. to GS-ET 19)

Interlock ¹⁾	LEDs	Solenoid, rated opera- tional voltage	DT	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		V		Order No.	Price per PU			kg
1300 N locking force · Enclosure width 54 mm								
	Spring-actuated locks							
	• With auxiliary release	--	24 DC	⊙ ▶	3SE5 322-0SD21	1	1 unit	102 0.590
		--	115 AC	⊙ B	3SE5 322-0SD22	1	1 unit	102 0.590
		--	230 AC	⊙ B	3SE5 322-0SD23	1	1 unit	102 0.590
		Yellow/Green	24 DC	⊙ A	3SE5 322-1SD21	1	1 unit	102 0.590
		Yellow/Green	115 AC	⊙ B	3SE5 322-2SD22	1	1 unit	102 0.590
		Yellow/Green	230 AC	⊙ B	3SE5 322-3SD23	1	1 unit	102 0.590
	• With auxiliary release	--	24 DC	⊙ B	3SE5 322-0SE21	1	1 unit	102 0.745
	With lock	--	115 AC	⊙ B	3SE5 322-0SE22	1	1 unit	102 0.745
		--	230 AC	⊙ B	3SE5 322-0SE23	1	1 unit	102 0.745
		Yellow/Green	24 DC	⊙ B	3SE5 322-1SE21	1	1 unit	102 0.745
		Yellow/Green	115 AC	⊙ B	3SE5 322-2SE22	1	1 unit	102 0.745
		Yellow/Green	230 AC	⊙ B	3SE5 322-3SE23	1	1 unit	102 0.745
	• With escape release	--	24 DC	⊙ B	3SE5 322-0SF21	1	1 unit	102 0.590
	from the front	--	115 AC	⊙ B	3SE5 322-0SF22	1	1 unit	102 0.590
		--	230 AC	⊙ B	3SE5 322-0SF23	1	1 unit	102 0.590
		Yellow/Green	24 DC	⊙ B	3SE5 322-1SF21	1	1 unit	102 0.590
		Yellow/Green	115 AC	⊙ B	3SE5 322-2SF22	1	1 unit	102 0.590
		Yellow/Green	230 AC	⊙ B	3SE5 322-3SF23	1	1 unit	102 0.590
	• With escape release	--	24 DC	⊙ B	3SE5 322-0SG21	1	1 unit	102 0.590
	from the back	--	115 AC	⊙ B	3SE5 322-0SG22	1	1 unit	102 0.590
	and auxiliary release	--	230 AC	⊙ B	3SE5 322-0SG23	1	1 unit	102 0.590
	from the front	Yellow/Green	24 DC	⊙ B	3SE5 322-1SG21	1	1 unit	102 0.590
		Yellow/Green	115 AC	⊙ B	3SE5 322-2SG22	1	1 unit	102 0.590
		Yellow/Green	230 AC	⊙ B	3SE5 322-3SG23	1	1 unit	102 0.590
	• With escape release	--	24 DC	⊙ B	3SE5 322-0SH21	1	1 unit	102 0.745
	from the back	--	115 AC	⊙ B	3SE5 322-0SJ21	1	1 unit	102 0.745
	and auxiliary release	--	230 AC	⊙ B	3SE5 322-0SJ22	1	1 unit	102 0.745
	from the front	--	230 AC	⊙ B	3SE5 322-0SJ23	1	1 unit	102 0.745
		Yellow/Green	24 DC	⊙ B	3SE5 322-1SJ21	1	1 unit	102 0.745
		Yellow/Green	115 AC	⊙ B	3SE5 322-2SJ22	1	1 unit	102 0.745
		Yellow/Green	230 AC	⊙ B	3SE5 322-3SJ23	1	1 unit	102 0.745
	Magnetic field lock	--	24 DC	⊙ ▶	3SE5 322-0SB21	1	1 unit	102 0.590
		--	115 AC	⊙ B	3SE5 322-0SB22	1	1 unit	102 0.590
		--	230 AC	⊙ B	3SE5 322-0SB23	1	1 unit	102 0.590
		Yellow/Green	24 DC	⊙ A	3SE5 322-1SB21	1	1 unit	102 0.590
		Yellow/Green	115 AC	⊙ B	3SE5 322-2SB22	1	1 unit	102 0.590
		Yellow/Green	230 AC	⊙ B	3SE5 322-3SB23	1	1 unit	102 0.590

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 8/63).

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

With Solenoid Interlocking

3SE5, metal enclosures
With locking force up to 2000 N

Selection and ordering data

6 slow-action contacts · 5 directions of approach · Cable entry 3 × M20 × 1.5 · Degree of protection IP66/IP67
Locking force 2600 N (2000 N acc. to GS-ET 19)

Interlock ¹⁾	LEDs	Solenoid, rated opera- tional voltage	DT	Complete units Position monitoring: Actuators: 1 NO + 2 NC Solenoid: 1 NO + 2 NC	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		V		Order No.	Price per PU			kg
2600 N locking force · Enclosure width 54 mm								
	Spring-actuated locks							
	• With auxiliary release	--	24 DC	⊙ ▶	3SE5 312-0SD11	1	1 unit	102 1.030
		--	115 AC	⊙ B	3SE5 312-0SD12	1	1 unit	102 1.030
		--	230 AC	⊙ B	3SE5 312-0SD13	1	1 unit	102 1.030
		Yellow/Green	24 DC	⊙ B	3SE5 312-1SD11	1	1 unit	102 1.040
		Yellow/Green	115 AC	⊙ B	3SE5 312-2SD12	1	1 unit	102 1.040
		Yellow/Green	230 AC	⊙ B	3SE5 312-3SD13	1	1 unit	102 1.040
	• With auxiliary release	--	24 DC	⊙ B	3SE5 312-0SE11	1	1 unit	102 1.180
	With lock	--	115 AC	⊙ B	3SE5 312-0SE12	1	1 unit	102 1.180
		--	230 AC	⊙ B	3SE5 312-0SE13	1	1 unit	102 1.180
		--	48 AC/DC	⊙ C	3SE5 312-0SE14	1	1 unit	102 1.180
		Yellow/Green	24 DC	⊙ B	3SE5 312-1SE11	1	1 unit	102 1.180
		Yellow/Green	115 AC	⊙ B	3SE5 312-2SE12	1	1 unit	102 1.180
		Yellow/Green	230 AC	⊙ B	3SE5 312-3SE13	1	1 unit	102 1.180
	• With escape release	--	24 DC	⊙ B	3SE5 312-0SF11	1	1 unit	102 1.180
	from the front	--	115 AC	⊙ B	3SE5 312-0SF12	1	1 unit	102 1.180
		--	230 AC	⊙ B	3SE5 312-0SF13	1	1 unit	102 1.180
		Yellow/Green	24 DC	⊙ B	3SE5 312-1SF11	1	1 unit	102 1.180
		Yellow/Green	115 AC	⊙ B	3SE5 312-2SF12	1	1 unit	102 1.180
		Yellow/Green	230 AC	⊙ B	3SE5 312-3SF13	1	1 unit	102 1.180
	• With escape release	--	24 DC	⊙ B	3SE5 312-0SG11	1	1 unit	102 1.175
	from the back	--	115 AC	⊙ B	3SE5 312-0SG12	1	1 unit	102 1.175
	and auxiliary release	--	230 AC	⊙ B	3SE5 312-0SG13	1	1 unit	102 1.175
	from the front	Yellow/Green	24 DC	⊙ B	3SE5 312-1SG11	1	1 unit	102 1.180
		Yellow/Green	115 AC	⊙ B	3SE5 312-2SG12	1	1 unit	102 1.180
		Yellow/Green	230 AC	⊙ B	3SE5 312-3SG13	1	1 unit	102 1.180
	• With escape release	--	24 DC	⊙ B	3SE5 312-0SH11	1	1 unit	102 1.180
	from the back	--	115 AC	⊙ B	3SE5 312-0SJ11	1	1 unit	102 1.180
	and auxiliary release	--	230 AC	⊙ B	3SE5 312-0SJ12	1	1 unit	102 1.180
	from the front	--	230 AC	⊙ B	3SE5 312-0SJ13	1	1 unit	102 1.180
		Yellow/Green	24 DC	⊙ B	3SE5 312-1SJ11	1	1 unit	102 1.180
		Yellow/Green	115 AC	⊙ B	3SE5 312-2SJ12	1	1 unit	102 1.180
		Yellow/Green	230 AC	⊙ B	3SE5 312-3SJ13	1	1 unit	102 0.925
	Magnetic field lock	--	24 DC	⊙ ▶	3SE5 312-0SB11	1	1 unit	102 1.030
		--	115 AC	⊙ B	3SE5 312-0SB12	1	1 unit	102 1.030
		--	230 AC	⊙ B	3SE5 312-0SB13	1	1 unit	102 1.030
		Yellow/Green	24 DC	⊙ B	3SE5 312-1SB11	1	1 unit	102 1.040
		Yellow/Green	115 AC	⊙ B	3SE5 312-2SB12	1	1 unit	102 1.040
		Yellow/Green	230 AC	⊙ B	3SE5 312-3SB13	1	1 unit	102 1.040

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 8/63).

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

With Solenoid Interlocking

Accessories

Selection and ordering data

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Actuators for 3SE5							
 3SE5 000-0AV01		▶ 3SE5 000-0AV01		1	1 unit	102	0.040
 3SE5 000-0AV02	A	3SE5 000-0AV02		1	1 unit	102	0.070
 3SE5 000-0AV03	A	3SE5 000-0AV03		1	1 unit	102	0.070
 3SE5 000-0AV04	A	3SE5 000-0AV04		1	1 unit	102	0.070
 3SE5 000-0AV05	A	3SE5 000-0AV05		1	1 unit	102	0.090
 3SE5 000-0AV07	A	3SE5 000-0AV07-1AK2		1	1 unit	102	0.120
	A	3SE5 000-0AV07		1	1 unit	102	0.090
Optional accessories for 3SE5							
 3SE5 000-0AV08-1AA2	B	3SE5 000-0AV08-1AA2		1	1 unit	102	0.010
 3SE5 000-0AV08-1AA3	B	3SE5 000-0AV08-1AA3		1	1 unit	102	0.065
Spare parts for 3SE5							
Spare keys	B	3SX5 100-1F		1	1 unit	102	0.015
Connections for 3SE5, 3SE2							
 3SY3 127	B	3SY3 127		1	1 unit	102	0.010
 3RX8 000	A	3RX8 000-0CB45		1	1 unit	574	0.015
	A	3RX8 000-0CC45		1	1 unit	574	0.015
 3SX9 926	B	3SY3 128		1	1 unit	102	0.010
	A	3RX8 000-0CB55		1	1 unit	574	0.016
	A	3RX8 000-0CC55		1	1 unit	574	0.016
	A	3SX9 926		1	1 unit	102	0.010

¹⁾ For cable boxes with molded cable see Industry Mall or Catalog FS 10.

3SE5, 3SE2, 3SE3 Position Switches

With Solenoid Interlocking

3SE2, metal enclosures
With locking force up to 1800 N

Selection and ordering data

4 slow-action contacts · 4 directions of approach · Locking force 1800 N (1400 N acc. to GS-ET 19) · Degree of protection IP67

	Interlock/ Signaling equipment	Slow-action contacts Position monitoring		Solenoid, rated operational voltage V	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
		Actuators	Solenoid			Order No.	Price per PU				
 With auxiliary release	Spring-actuated locks¹⁾ 6 mm stroke										
	• Auxiliary release, sealable	1 NO + 1 NC 2 NC	24 DC	⊕ A	3SE2 840-0XX00		1	1 unit	102	0.885	
			110 AC	⊕ A	3SE2 842-0XX00		1	1 unit	102	0.890	
			230 AC	⊕ A	3SE2 841-0XX00		1	1 unit	102	0.875	
	• Auxiliary release with lock	1 NO + 1 NC 2 NC	24 DC	⊕ A	3SE2 840-0XX01		1	1 unit	102	0.935	
			110 AC	⊕ A	3SE2 842-0XX01		1	1 unit	102	0.925	
			230 AC	⊕ A	3SE2 841-0XX01		1	1 unit	102	0.920	
	Magnetic field locks¹⁾										
	• Standard	1 NO + 1 NC 2 NC	24 DC	⊕ A	3SE2 830-0XX00		1	1 unit	102	0.890	
			110 AC	⊕ A	3SE2 832-0XX00		1	1 unit	102	0.855	
230 AC			⊕ A	3SE2 831-0XX00		1	1 unit	102	0.855		
 With lock	Spring-actuated locks¹⁾ 6 mm stroke										
	• Auxiliary release, sealable	2 NC 2 NC	24 DC	⊕ A	3SE2 840-6XX00		1	1 unit	102	0.885	
			110 AC	⊕ A	3SE2 842-6XX00		1	1 unit	102	0.880	
			230 AC	⊕ A	3SE2 841-6XX00		1	1 unit	102	0.880	
	• Auxiliary release with lock	2 NC 2 NC	24 DC	⊕ A	3SE2 840-6XX01		1	1 unit	102	0.965	
			110 AC	⊕ A	3SE2 842-6XX01		1	1 unit	102	0.960	
			230 AC	⊕ A	3SE2 841-6XX01		1	1 unit	102	0.925	
	Magnetic field locks¹⁾										
	• Standard	2 NC 2 NC	24 DC	⊕ A	3SE2 830-6XX00		1	1 unit	102	0.885	
			110 AC	⊕ D	3SE2 832-6XX00		1	1 unit	102	0.855	
230 AC			⊕ A	3SE2 831-6XX00		1	1 unit	102	0.850		
 With optical signal- ing equipment	Spring-actuated locks¹⁾ 6 mm stroke										
	• Auxiliary release, sealable	1 NO + 1 NC 1 NO + 1 NC	24 DC	⊕ A	3SE2 840-1XX00		1	1 unit	102	0.875	
			110 AC	⊕ A	3SE2 842-1XX00		1	1 unit	102	0.890	
			230 AC	⊕ A	3SE2 841-1XX00		1	1 unit	102	0.870	
	• Auxiliary release, sealable, and with optical signaling equipment ²⁾	1 NO + 1 NC 1 NO + 1 NC	24 DC	⊕ A	3SE2 840-1XX20		1	1 unit	102	0.905	
			110 AC	⊕ A	3SE2 842-1XX20		1	1 unit	102	0.885	
			230 AC	⊕ A	3SE2 841-1XX20		1	1 unit	102	0.880	
	• Auxiliary release with lock and with optical signaling equipment ²⁾	1 NO + 1 NC 1 NO + 1 NC	24 DC	⊕ A	3SE2 840-1XX32		1	1 unit	102	0.945	
			110 AC	⊕ A	3SE2 842-1XX32		1	1 unit	102	0.935	
			230 AC	⊕ A	3SE2 841-1XX32		1	1 unit	102	0.930	
Magnetic field locks¹⁾											
• Standard	1 NO + 1 NC 1 NO + 1 NC	24 DC	⊕ A	3SE2 830-1XX00		1	1 unit	102	0.870		
		110 AC	⊕ A	3SE2 832-1XX00		1	1 unit	102	0.855		
		230 AC	⊕ A	3SE2 831-1XX00		1	1 unit	102	0.875		
• With optical signaling equipment ²⁾	1 NO + 1 NC 1 NO + 1 NC	24 DC	⊕ A	3SE2 830-1XX20		1	1 unit	102	0.880		
		110 AC	⊕ A	3SE2 832-1XX20		1	1 unit	102	0.865		
		230 AC	⊕ A	3SE2 831-1XX20		1	1 unit	102	0.875		
    	Actuators										
	• Standard actuator, length 79 mm			►	3SX3 197		1	1 unit	102	0.035	
				B	3SX3 207		1	1 unit	102	0.045	
				►	3SX3 206		1	1 unit	102	0.025	
				A	3SX3 306		1	1 unit	102	0.025	
				A	3SX3 203		1	1 unit	102	0.120	

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

¹⁾ Supplied without actuator.

²⁾ On the version with optical signaling equipment the contacts are not electrically separated.

3SE5, 3SE2, 3SE3 Position Switches

Hinge Switches

General data

Overview

3SE5 hinge switches have the same enclosures as the standard switches (modular system).



Hinge switches

Design

Enclosure sizes

The 3SE5 switches are available as complete units in two enclosure sizes:

- Plastic enclosures acc. to EN 50047, 31 mm wide, 1 cable entry
- Metal enclosures acc. to EN 50041, 40 mm wide, 1 cable entry

Enclosure versions

Various basic versions can be selected for the enclosures:

- Available with two or three-pole contact blocks designed as snap-action contacts
- Metal enclosures for explosion protection (ATEX) (see page 8/72)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/85)

For a description of the basic switches see page 8/14.

Operating mechanisms

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

Benefits

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

- All actuators around the axis in increments of 22.5° (see picture on page 8/16).
- The new three-pole contact block 1 NO + 2 NC is available for all enclosure sizes (see picture on page 8/16).
- The plastic enclosure with a width of 31 mm has simple and fast wiring equipment which makes it possible to save from approx. 20 to 25 % of the time when connecting (see picture on page 8/16).
- The ASIsafe electric component is integrated for the versions with the AS-Interface connection (see page 8/73); an additional adapter is not required.

Application

The hinge switches are used in those areas where the position of swivelable protective devices such as doors or flaps must be monitored. The position of the doors and hinge switches is converted into electric signals with the switches. The switches allows 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 best contact blocks 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 60947-5-1 or EN 60947-5-1.

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

Safety position switches

For controls acc. to IEC 60204-1 or 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

IEC 60947-5-1 and EN 60947-5-1 require positive opening of the NC contacts, i. e. 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 acc. to IEC 60947-5-1 with the symbol ☞.

Category 4 acc. to EN 954-1 can be attained with the 3SE5 hinge switches with ☞ if the corresponding failsafe evaluation units are selected and correctly installed, e. g. the 3TK28 safety relays or matching devices from the ASIsafe, SIMATIC or SINUMERIK product ranges.

3SE5, 3SE2, 3SE3 Position Switches

Hinge Switches

3SE5, plastic enclosures
Enclosure width 31 mm according to EN 50047

Selection and ordering data

Complete units

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

Version	Snap-action contacts	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU			kg
Plastic enclosures • Enclosure width 31 mm acc. to EN 50047							
	With hollow shaft						
	Operating angle 10°	1 NO + 1 NC → B	3SE5 232-0HU21	1	1 unit	102	0.080
	Operating angle 10°	1 NO + 2 NC → B	3SE5 232-0LU21	1	1 unit	102	0.080
	With solid shaft						
	Operating angle 10°	1 NO + 1 NC → B	3SE5 232-0HU22	1	1 unit	102	0.110
	Operating angle 10°	1 NO + 2 NC → B	3SE5 232-0LU22	1	1 unit	102	0.120

With hollow shaft

With solid shaft

→ Positive opening acc. to IEC 60947-5-1, Appendix K.

Accessories/spare parts

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							kg
Actuator heads							
	With hollow shaft						
	Operating angle 10°	B	3SE5 000-0AU21	1	1 unit	102	0.030
	With solid shaft						
	Operating angle 10°	B	3SE5 000-0AU22	1	1 unit	102	0.052

Note:

The respective actuators are included in the scope of supply for the complete units.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

Hinge Switches

3SE5, metal enclosures
Enclosure width 40 mm

Selection and ordering data

Complete units

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

Version	Snap-action contacts	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Order No.			Price per PU				
Metal enclosures • Enclosure width 40 mm acc. to EN 50041							
	With hollow shaft Operating angle 10°	1 NO + 2 NC → B	3SE5 112-0LU21	1	1 unit	102	0.295
	With solid shaft Operating angle 10°	1 NO + 2 NC → B	3SE5 112-0LU22	1	1 unit	102	0.315

→ Positive opening acc. to IEC 60947-5-1, Appendix K.

Accessories/spare parts

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Actuator heads							
	With hollow shaft Operating angle 10°	B	3SE5 000-0AU21	1	1 unit	102	0.030
	With solid shaft Operating angle 10°	B	3SE5 000-0AU22	1	1 unit	102	0.052

Note:

The respective actuators are included in the scope of supply for the complete units.

3SE5, 3SE2, 3SE3 Position Switches

Hinge Switches

3SE2, plastic enclosures With integrated hinge

Overview

The 3SE2 283 hinge switches 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 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°
- Protection against personal injury provided by positively driven NC contacts acc. to IEC 60947-5-1
- Simultaneous shutdown and reporting by 1 NO + 2 NC contacts

Selection and ordering data

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

Version	Slow-action contacts	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			☐				
			Order No.	Price per PU			kg

Plastic enclosures with integrated hinge



3SE2 283

With integrated hinge

(delivered with additional hinge and fixing accessories)

• Aluminum hinge

- Operating angle 4°

1 NO + 2 NC



A

3SE2 283-0GA43

1

1 unit

102

0.425

- Operating angle 4°

3 NC



A

3SE2 283-6GA43

1

1 unit

102

0.425

- Operating angle 8°

1 NO + 2 NC



D

3SE2 283-0GA53

1

1 unit

102

0.420

- Operating angle 8°

3 NC



C

3SE2 283-6GA53

1

1 unit

102

0.420

• High-grade steel hinge

- Operating angle 4°

1 NO + 2 NC



A

3SE2 283-0GA44

1

1 unit

102

0.800

- Operating angle 4°

3 NC



C

3SE2 283-6GA44

1

1 unit

102

0.800

➞ Positive opening acc. to IEC 60947-5-1, Appendix K.

Accessories/spare parts

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							kg

Accessories



3SX3 225

Additional hinges

(delivered with fixing accessories)

• Made of aluminum



D

3SX3 225

1

1 unit

102

0.160

• Made of high-grade steel



D

3SX3 231

1

1 unit

102

0.330

3SE5, 3SE2, 3SE3 Position Switches For Explosion Protection (ATEX)

3SE5, metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Overview



The position switch in the metal enclosure including the hinge switch and the switch with a separate actuator is also available in versions for operation in areas with combustible dust. They are not approved for areas with a gas explosion hazard.

To achieve the maximum possible safety in these areas, the legislators of most countries have drawn up requirements in the form of laws, regulations and standards which these switches comply with to the letter.

These switches comply with Directive 94/9/EC II2D (ATEX 95) of the European Union and are approved for Zone 21/22.

The switches have a grounding screw on the outside of the enclosure. The connection openings are closed with protective caps upon delivery.

See Chapter 20 "Appendix" --> "Standards and approvals" --> "Type overview of approved devices for potentially explosive areas (ATEX explosion protection)".

Selection and ordering data

Complete units

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

Version	Snap-action contacts	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU			kg
Enclosure width 40 mm acc. to EN 50041							
 Rounded plunger  Roller lever	With M20 × 1.5 connecting thread						
	Snap-action contacts	1 NO + 1 NC					
	• Rounded plungers, high-grade steel, with 3 mm overtravel	⊙ B	3SE5 112-0CC02-1DA0	1	1 unit	102	0.290
	• Roller plungers, high-grade steel roller, with 3 mm overtravel	⊙ B	3SE5 112-0CD02-1DA0	1	1 unit	102	0.310
	• Roller lever, high-grade steel lever, plastic roller	⊙ B	3SE5 112-0CE03-1DA0	1	1 unit	102	0.300
	• Angular roller lever, high-grade steel lever, plastic roller	⊙ B	3SE5 112-0CF03-1DA0	1	1 unit	102	0.320
	• Spring rod, length 142.5 mm Plastic plunger	B	3SE5 112-0CR01-1DA0	1	1 unit	102	0.315
	• Twist lever, high-grade steel lever, plastic roller	⊙ B	3SE5 112-0CH11-1DA0	1	1 unit	102	0.360
	• Twist lever, adjustable length High-grade steel lever, plastic roller	B	3SE5 112-0CH52-1DA0	1	1 unit	102	0.360
	• Fork lever, high-grade steel lever, plastic roller	⊙ B	3SE5 112-0CT13-1DA0	1	1 unit	102	0.360
	• Rod actuators, aluminum rod, length 200 mm	B	3SE5 112-0CH80-1DA0	1	1 unit	102	0.300
	• Rod actuators, plastic rod, length 200 mm	B	3SE5 112-0CH82-1DA0	1	1 unit	102	0.300
Enclosure width 56 mm							
 Twist lever	With 3 x M20 x 1.5 connecting thread						
	Snap-action contacts	1 NO + 1 NC					
	• Rounded plunger, high-grade steel, with overtravel	⊙ B	3SE5 122-0CC02-1DA0	1	1 unit	102	0.355
	• Roller plunger, high-grade steel roller	⊙ B	3SE5 122-0CD02-1DA0	1	1 unit	102	0.380
	• Roller lever, high-grade steel lever, plastic roller	⊙ B	3SE5 122-0CE03-1DA0	1	1 unit	102	0.375
	• Angular roller lever, high-grade steel lever, plastic roller	⊙ B	3SE5 122-0CF03-1DA0	1	1 unit	102	0.390
	• Spring rod, length 142.5 mm Plastic plunger	B	3SE5 122-0CR01-1DA0	1	1 unit	102	0.390
	• Twist lever, high-grade steel lever, plastic roller	⊙ B	3SE5 122-0CH11-1DA0	1	1 unit	102	0.410

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

Note: If the device you require is not available as a complete unit, see "Modular system" on the next page.

* You can order this quantity or a multiple thereof.

3SE5, 3SE2, 3SE3 Position Switches

For Explosion Protection (ATEX)

3SE5, metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Modular system

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

Version		Contacts	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
				Order No.	Price per PU	kg				
Basic switches • Enclosure width 40 mm acc. to EN 50041										
 Basic switch	With M20 × 1.5 connecting thread									
	Slow-action contacts	1 NO + 1 NC	⊕ B	3SE5 112-0BA00-1DA0			1	1 unit	102 0.260	
	Snap-action contacts	1 NO + 1 NC	⊕ B	3SE5 112-0CA00-1DA0			1	1 unit	102 0.260	
	Slow-action contacts	1 NO + 2 NC	⊕ B	3SE5 112-0KA00-1DA0			1	1 unit	102 0.270	
	Snap-action contacts	1 NO + 2 NC	⊕ B	3SE5 112-0LA00-1DA0			1	1 unit	102 0.270	
	Slow-action contacts with make-before-break	1 NO + 2 NC	⊕ B	3SE5 112-0MA00-1DA0			1	1 unit	102 0.270	
Slow-action contacts			2 NO + 1 NC	B	3SE5 112-0PA00-1DA0			1	1 unit	102 0.270
Basic switches • Enclosure width 56 mm										
 Basic switch	With 3 x M20 x 1.5 connecting thread									
	Slow-action contacts	1 NO + 1 NC	⊕ B	3SE5 122-0BA00-1DA0			1	1 unit	102 0.325	
	Snap-action contacts	1 NO + 1 NC	⊕ B	3SE5 122-0CA00-1DA0			1	1 unit	102 0.325	
	Slow-action contacts	1 NO + 2 NC	⊕ B	3SE5 122-0KA00-1DA0			1	1 unit	102 0.335	
	Snap-action contacts	1 NO + 2 NC	⊕ B	3SE5 122-0LA00-1DA0			1	1 unit	102 0.335	
	Slow-action contacts with make-before-break	1 NO + 2 NC	⊕ B	3SE5 122-0MA00-1DA0			1	1 unit	102 0.335	
Slow-action contacts			2 NO + 1 NC	B	3SE5 122-0PA00-1DA0			1	1 unit	102 0.335

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

Note: For selection aid, see page 8/19.

Version	Dia-me-ter	DT	Modular system		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.						
mm			Order No.	Price per PU	kg									
Operating mechanisms														
 Rounded plunger	Rounded plungers, type B, acc. to EN 50041		➡ B	3SE5 000-0AC02	1	1 unit	102	0.030						
	High-grade steel plungers, with 3 mm over-travel													
 Roller plunger	Roller plungers, type C acc. to EN 50041		➡ B	3SE5 000-0AD02	1	1 unit	102	0.050						
	13	High-grade steel roller, with 3 mm overtravel												
 Roller lever	Roller levers		➡ A	3SE5 000-0AE01	1	1 unit	102	0.045						
	22	Metal lever, plastic roller												
	22	Metal lever, high-grade steel roller							➡ B	3SE5 000-0AE02	1	1 unit	102	0.065
	22	High-grade steel lever, plastic roller							➡ B	3SE5 000-0AE03	1	1 unit	102	0.040
	22	High-grade steel lever, high-grade steel roller							➡ B	3SE5 000-0AE04	1	1 unit	102	0.065
 Angular roller lever	Angular roller levers		➡ A	3SE5 000-0AF01	1	1 unit	102	0.050						
	22	Metal lever, plastic roller												
	22	Metal lever, high-grade steel roller							➡ B	3SE5 000-0AF02	1	1 unit	102	0.075
	22	High-grade steel lever, plastic roller							➡ B	3SE5 000-0AF03	1	1 unit	102	0.050
	22	High-grade steel lever, high-grade steel roller							➡ B	3SE5 000-0AF04	1	1 unit	102	0.075
 Spring rod	Spring rod (for switches with snap-action contacts only)		B	3SE5 000-0AR01	1	1 unit	102	0.060						
	Plastic plunger:													
	• 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)													
	High-grade steel plunger:													
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)													

⊕ Positively driven actuator, necessary in safety circuits.

3SE5, 3SE2, 3SE3 Position Switches

For Explosion Protection (ATEX)

3SE5, metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Version	Diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Twist actuators							
 Twist actuator	Twist actuators, metal (without lever)						
	• For twist levers and rod actuators, switching right and/or left, adjustable						
	- For enclosure width 40 and 56 mm						
		⊙ A	3SE5 000-0AH00		1	1 unit	102 0.070
		⊙ B	3SE5 000-0AT10		1	1 unit	102 0.070
Levers for twist actuators							
 Twist lever	Twist levers 27 mm, offset, type A, acc. to EN 50041						
	Metal lever, plastic roller	19 ⊙ A	3SE5 000-0AA01		1	1 unit	102 0.015
	Metal lever, high-grade steel roller	19 ⊙ A	3SE5 000-0AA02		1	1 unit	102 0.035
	Metal lever, roller with ball bearing	19 ⊙ B	3SE5 000-0AA03		1	1 unit	102 0.020
	Metal lever, 2 plastic rollers	19 ⊙ B	3SE5 000-0AA04		1	1 unit	102 0.015
	Metal lever, plastic roller	30 ⊙ B	3SE5 000-0AA05		1	1 unit	102 0.015
	Metal lever, rubber roller	50 ⊙ B	3SE5 000-0AA08		1	1 unit	102 0.030
	High-grade steel lever, plastic roller	19 ⊙ B	3SE5 000-0AA11		1	1 unit	102 0.015
	High-grade steel lever, high-grade steel roller	19 ⊙ B	3SE5 000-0AA12		1	1 unit	102 0.025
 Twist levers, adjustable length	Twist levers 35 mm, offset						
	Metal lever, plastic roller	19 ⊙ B	3SE5 000-0AA15		1	1 unit	102 0.050
	Twist levers 30 mm, straight¹⁾						
	Metal lever, plastic roller	19 ⊙ B	3SE5 000-0AA24		1	1 unit	102 0.020
 Fork lever	Twist levers, adjustable length, with grid holes						
	Metal lever, plastic roller	19 ⊙ B	3SE5 000-0AA60		1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19 ⊙ B	3SE5 000-0AA61		1	1 unit	102 0.040
	Metal lever, rubber roller	50 ⊙ B	3SE5 000-0AA68		1	1 unit	102 0.045
	High-grade steel lever, plastic roller	19 ⊙ B	3SE5 000-0AA62		1	1 unit	102 0.025
	High-grade steel lever, high-grade steel roller	19 ⊙ B	3SE5 000-0AA63		1	1 unit	102 0.040
 Rod actuator	Twist levers, adjustable length						
	Metal lever, plastic roller	19 A	3SE5 000-0AA50		1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19 B	3SE5 000-0AA51		1	1 unit	102 0.035
	Metal lever, plastic roller	30 B	3SE5 000-0AA55		1	1 unit	102 0.025
	Metal lever, rubber roller	50 B	3SE5 000-0AA58		1	1 unit	102 0.040
	High-grade steel lever, plastic roller	19 B	3SE5 000-0AA52		1	1 unit	102 0.025
	High-grade steel lever, high-grade steel roller	19 B	3SE5 000-0AA53		1	1 unit	102 0.035
 Fork lever	Fork lever (for switches with snap-action contacts only)						
	2 metal levers, 2 plastic rollers	19 ⊙ B	3SE5 000-0AT01		1	1 unit	102 0.050
	2 metal levers, 2 high-grade steel rollers	19 ⊙ B	3SE5 000-0AT02		1	1 unit	102 0.050
	2 high-grade steel levers, 2 plastic rollers	19 ⊙ B	3SE5 000-0AT03		1	1 unit	102 0.050
	2 high-grade steel levers, 2 high-grade steel rollers	19 ⊙ B	3SE5 000-0AT04		1	1 unit	102 0.050
 Rod actuator	Rod actuators, type D, acc. to EN 50041						
	Aluminum rod, length 200 mm	6 B	3SE5 000-0AA80		1	1 unit	102 0.070
	Spring rod, length 200 mm	6 B	3SE5 000-0AA81		1	1 unit	102 0.030
	Plastic rod, length 200 mm	6 B	3SE5 000-0AA82		1	1 unit	102 0.020

⊙ Positively driven actuator, necessary in safety circuits.

¹⁾ Can be mounted on bead (180°).

3SE5, 3SE2, 3SE3 Position Switches

For Explosion Protection (ATEX)

3SE5, metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Position switches with separate actuator · Complete units

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

Version ¹⁾	Contacts	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU	kg			
Enclosure width 40 mm acc. to EN 50041								
	With M20 × 1.5 connecting thread							
	Slow-action contacts	1 NO + 2 NC → B	3SE5 112-0QV10-1DA0	1	1 unit	102	0.315	
With separate actuator								
Enclosure width 56 mm								
	With 3 x M20 x 1.5 connecting thread							
	Slow-action contacts	1 NO + 2 NC → B	3SE5 122-0QV10-1DA0	1	1 unit	102	0.250	
With separate actuator								

➡ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately (see page 8/56).

Hinge switches · Complete units

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

Version	Snap-action contacts	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
			Order No.	Price per PU	kg				
Enclosure width 40 mm acc. to EN 50041									
	With hollow shaft , Ø 8/12 mm Operating angle 10°		1 NO + 2 NC	↔ B	3SE5 112-0LU21-1DA0	1	1 unit	102	0.295
	With solid shaft , Ø = 10 mm Operating angle 10°		1 NO + 2 NC	↔ B	3SE5 112-0LU22-1DA0	1	1 unit	102	0.315

➡ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, can be used in safety circuits.

Overview

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

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 3SF1 1.4 and 3SF1 2.4 series are constructed from 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 user can select the right solution for his application from numerous versions and install it himself in a very short time.

Design

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

- Plastic enclosures acc. to EN 50047, 31 mm wide, with M12 plug
- Plastic enclosures, 50 mm wide, with M12 plug and M12 socket
- Metal enclosures acc. to EN 50041, 40 mm wide, with M12 plug
- Metal enclosures, 56 mm wide, with M12 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 connector socket (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 acc. to EN 954-1 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

Application

With the standard position switches, mechanical positions of moved machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can meet 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 best contact blocks suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moved machined 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 Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

Approvals

AS-Interface acc. to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve category 2 acc. to ISO 13849-1 (EN 954-1) or SIL 1 acc. to IEC 61508.

Categories 3 or 4 acc. to ISO 13849-1 (EN 954-1) or SIL 2 or 3 acc. to IEC 61508 can be achieved by using a second 3SE5 position switch.

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

3SF1 AS-Interface Position Switches

Plastic enclosures
Enclosure width 31 mm acc. 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 connector socket

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Basic switches (with rounded plunger¹⁾) · Enclosure width 31 mm acc. to EN 50047



With teflon plunger

With M12 connector socket, 4-pole,
channel 1 on NC contact,
channel 2 on NC contact

Slow-action contacts	2 NC	24 V DC	⊕ C	3SF1 234-1KC05-1BA1	1	1 unit	121	0.170
Snap-action contacts	2 NC	24 V DC	⊕ B	3SF1 234-1LC05-1BA1	1	1 unit	121	0.170

ASIsafe basic switch

Basic switches (with rounded plunger¹⁾) · Enclosure width 50 mm



With teflon plunger

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

Slow-action contacts	1 NC	24 V DC	⊕ C	3SF1 244-1KC05-1BA2	1	1 unit	121	0.180
Snap-action contacts	1 NC	24 V DC	⊕ C	3SF1 244-1LC05-1BA2	1	1 unit	121	0.180

ASIsafe basic switch

⊕ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, can be used in safety circuits.

¹⁾ On the plastic version the basic switch is a complete unit with rounded plunger.

Note: For selection aid, see page 8/19.

For 4-pole cable boxes see page 8/49.

3SF1 AS-Interface Position Switches

Plastic enclosures
Enclosure width 31 mm acc. to EN 50047 / 50 mm

Version	Roller diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Operating mechanisms							
 Roller plunger	Roller plunger, type C acc. to EN 50047						
	Plastic rollers	10	⤵ A	3SE5 000-0AD03	1	1 unit	102 0.010
	High-grade steel rollers	10	⤵ B	3SE5 000-0AD04	1	1 unit	102 0.010
 With central fixing	Roller plungers with central fixing						
	Plastic rollers	10	⤵ B	3SE5 000-0AD10	1	1 unit	102 0.035
	High-grade steel rollers	10	⤵ B	3SE5 000-0AD11	1	1 unit	102 0.030
 Roller lever	Roller lever, type E acc. to EN 50047						
	Metal lever, plastic roller	13	⤵ A	3SE5 000-0AE10	1	1 unit	102 0.015
	Metal lever, high-grade steel roller	13	⤵ B	3SE5 000-0AE11	1	1 unit	102 0.020
	High-grade steel lever, plastic roller	13	⤵ B	3SE5 000-0AE12	1	1 unit	102 0.010
	High-grade steel lever, high-grade steel roller	13	⤵ B	3SE5 000-0AE13	1	1 unit	102 0.055
 Angular roller lever	Angular roller levers						
	Metal lever, plastic roller	13	⤵ A	3SE5 000-0AF10	1	1 unit	102 0.015
	Metal lever, high-grade steel roller	13	⤵ B	3SE5 000-0AF11	1	1 unit	102 0.013
	High-grade steel lever, plastic roller	13	⤵ A	3SE5 000-0AF12	1	1 unit	102 0.015
	High-grade steel lever, high-grade steel roller	13	⤵ B	3SE5 000-0AF13	1	1 unit	102 0.020
Twist actuators with lever							
 Twist actuator	Twist actuators, plastic (without lever)						
	Switching right or left, adjustable		⤵ A	3SE5 000-0AK00	1	1 unit	102 0.025
Levers for twist actuators							
 Twist lever	Twist levers, type A acc. to EN 50047						
	Metal lever, plastic roller	19	⤵ A	3SE5 000-0AA21	1	1 unit	102 0.010
	Metal lever, high-grade steel roller	19	⤵ B	3SE5 000-0AA22	1	1 unit	102 0.025
	Metal lever, roller with ball bearing	19	⤵ B	3SE5 000-0AA23	1	1 unit	102 0.020
	Metal lever, plastic roller	30	⤵ B	3SE5 000-0AA25	1	1 unit	102 0.010
	High-grade steel lever, plastic roller	19	⤵ B	3SE5 000-0AA31	1	1 unit	102 0.015
	High-grade steel lever, high-grade steel roller	19	⤵ B	3SE5 000-0AA32	1	1 unit	102 0.022
 Twist lever, adjustable length	Twist lever, adjustable length, with grid holes						
	Metal lever, plastic roller	19	⤵ B	3SE5 000-0AA60	1	1 unit	102 0.025
	Metal lever, high-grade steel roller	19	⤵ B	3SE5 000-0AA61	1	1 unit	102 0.040
	Metal lever, plastic roller	50	⤵ B	3SE5 000-0AA67	1	1 unit	102 0.025
	Metal lever, rubber roller	50	⤵ B	3SE5 000-0AA68	1	1 unit	102 0.045
	High-grade steel lever, plastic roller	19	⤵ B	3SE5 000-0AA62	1	1 unit	102 0.025
	High-grade steel lever, high-grade steel roller	19	⤵ B	3SE5 000-0AA63	1	1 unit	102 0.040

⤵ Positively driven actuator, usable in safety circuits.

* You can order this quantity or a multiple thereof.

3SF1 AS-Interface Position Switches

Metal enclosures
Enclosure width 40 mm acc. 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 connector socket

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Basic switches · Enclosure width 40 mm acc. to EN 50041



With M12 connector socket, 4-pole,
channel 1 on NC contact,
channel 2 on NC contact

Slow-action contacts	2 NC	24 V DC	➡	C
Snap-action contacts	2 NC	24 V DC	➡	B

3SF1 114-1KA00-1BA1

1

1 unit

121

0.400

3SF1 114-1LA00-1BA1

1

1 unit

121

0.400

ASIsafe basic switch

Basic switches · Enclosure width 56 mm



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

Slow-action contacts	1 NC	24 V DC	➡	C
Snap-action contacts	1 NC	24 V DC	➡	C

3SF1 124-1KA00-1BA2

1

1 unit

121

0.470

3SF1 124-1LA00-1BA2

1

1 unit

121

0.470

ASIsafe basic switch

➡ Positive opening acc. to IEC 60947-5-1, Appendix K, or positively driven actuator, can be used in safety circuits.

1) On the version with a width of 31 mm the basic switch is a complete unit with rounded plunger.

Note: For selection aid, see page 8/19.

For 4-pole cable boxes see page 8/49.

3SF1 AS-Interface Position Switches

Metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Version	Roller diameter	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm		Order No.	Price per PU			kg
Operating mechanisms							
	Rounded plungers, type B, acc. to EN 50041						
	High-grade steel plungers, with 3 mm overtravel	⊙ B	3SE5 000-0AC02	1	1 unit	102	0.030
	Roller plungers, type C acc. to EN 50041						
	High-grade steel roller, with 3 mm overtravel	13 ⊙ B	3SE5 000-0AD02	1	1 unit	102	0.050
	Roller levers						
	Metal lever, plastic roller	22 ⊙ A	3SE5 000-0AE01	1	1 unit	102	0.045
	Metal lever, high-grade steel roller	22 ⊙ B	3SE5 000-0AE02	1	1 unit	102	0.065
	High-grade steel lever, plastic roller	22 ⊙ B	3SE5 000-0AE03	1	1 unit	102	0.040
	Angular roller levers						
	Metal lever, plastic roller	22 ⊙ A	3SE5 000-0AF01	1	1 unit	102	0.050
	Metal lever, high-grade steel roller	22 ⊙ B	3SE5 000-0AF02	1	1 unit	102	0.075
	High-grade steel lever, plastic roller	22 ⊙ B	3SE5 000-0AF03	1	1 unit	102	0.050
	High-grade steel lever, high-grade steel roller	22 ⊙ B	3SE5 000-0AF04	1	1 unit	102	0.075
Twist actuators with lever							
	Twist actuators, metal (without lever)						
	• For twist levers, switching right or left, adjustable - For enclosure width 40 and 56 mm	⊙ A	3SE5 000-0AH00	1	1 unit	102	0.070
	• For fork levers, latching	⊙ B	3SE5 000-0AT10	1	1 unit	102	0.070
Levers for twist actuators							
	Twist levers 27 mm, offset, type A, acc. to EN 50041						
	Metal lever, plastic roller	19 ⊙ A	3SE5 000-0AA01	1	1 unit	102	0.015
	Metal lever, high-grade steel roller	19 ⊙ A	3SE5 000-0AA02	1	1 unit	102	0.035
	Metal lever, roller with ball bearing	19 ⊙ B	3SE5 000-0AA03	1	1 unit	102	0.020
	Metal lever, 2 plastic rollers	19 ⊙ B	3SE5 000-0AA04	1	1 unit	102	0.015
	Metal lever, plastic roller	30 ⊙ B	3SE5 000-0AA05	1	1 unit	102	0.015
	Metal lever, plastic roller	50 ⊙ B	3SE5 000-0AA07	1	1 unit	102	0.020
	Metal levers, rubber roller	50 ⊙ B	3SE5 000-0AA08	1	1 unit	102	0.030
	High-grade steel lever, plastic roller	19 ⊙ B	3SE5 000-0AA11	1	1 unit	102	0.015
	High-grade steel lever, high-grade steel roller	19 ⊙ B	3SE5 000-0AA12	1	1 unit	102	0.025
	Twist levers 35 mm, offset						
	Metal lever, plastic roller	19 ⊙ B	3SE5 000-0AA15	1	1 unit	102	0.050
	Twist levers 30 mm, straight¹⁾						
	Metal lever, plastic roller	19 ⊙ B	3SE5 000-0AA24	1	1 unit	102	0.020
	Twist lever, adjustable length, with grid holes						
	Metal lever, plastic roller	19 ⊙ B	3SE5 000-0AA60	1	1 unit	102	0.025
	Metal lever, high-grade steel roller	19 ⊙ B	3SE5 000-0AA61	1	1 unit	102	0.040
	Metal lever, plastic roller	50 ⊙ B	3SE5 000-0AA67	1	1 unit	102	0.025
	Metal lever, rubber roller	50 ⊙ B	3SE5 000-0AA68	1	1 unit	102	0.045
	High-grade steel lever, plastic roller	19 ⊙ B	3SE5 000-0AA62	1	1 unit	102	0.025
	High-grade steel lever, high-grade steel roller	19 ⊙ B	3SE5 000-0AA63	1	1 unit	102	0.040
	Fork lever (for switches with snap-action contacts only)						
	Metal lever, 2 plastic rollers	19 ⊙ B	3SE5 000-0AT01	1	1 unit	102	0.050
	Metal lever, 2 high-grade steel rollers	19 ⊙ B	3SE5 000-0AT02	1	1 unit	102	0.050
	High-grade steel lever, 2 plastic rollers	19 ⊙ B	3SE5 000-0AT03	1	1 unit	102	0.050
	High-grade steel lever, 2 high-grade steel rollers	19 ⊙ B	3SE5 000-0AT04	1	1 unit	102	0.050

⊙ Positively driven actuator, usable in safety circuits.

¹⁾ Can be mounted on bead (180°).

* You can order this quantity or a multiple thereof.

3SF1 AS-Interface Position Switches

With Separate Actuator

General data

Overview

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

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



3SF1 position switches with separate actuator and with integrated ASIsafe electronics

3SF1 position switches with separate actuator have the same enclosures as the standard switches.

Operation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through $4 \times 90^\circ$. The switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application.

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 metal enclosure 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 connector socket (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 acc. to EN 954-1 is thus achieved.

Benefits

The new generation of 3SF1 position 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

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

The position 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 best contact blocks suited for the particular purpose. Dimensions, 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 Switchgear and Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Circuit Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

Approvals

AS-Interface acc. to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve category 3 acc. to ISO 13849-1 (EN 954-1) or SIL 2 acc. to IEC 61508.

Category 4 acc. to ISO 13849-1 (EN 954-1) or SIL 3 acc. to IEC 61508 can be achieved by using a second 3SE5 position switch.

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

3SF1 AS-Interface Position Switches

With Separate Actuator

Plastic enclosures
Enclosure width 31 mm acc. to EN 50047 / 50 mm

Overview

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC;
1: F-IN1, 2: F-IN2, 3: AS-I/FAULT
- Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm)

Selection and ordering data

Version ¹⁾	Contacts	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU	kg			
Enclosure width 31 mm acc. to EN 50047								
	5 directions of approach With M12 connector socket, 4-pole; channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC		3SF1 234-1QV40-1BA1	1	1 unit	121	0.210
Enclosure width 50 mm								
	5 directions of approach With M12 connector socket, 4-pole; channel 1 on NC, channel 2 on M12 socket, right Slow-action contacts	1 NC		3SF1 244-1QV40-1BA2	1	1 unit	121	0.220

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.
¹⁾ Supplied without actuator. Please order separately.

3SF1 AS-Interface Position Switches

With Separate Actuator

Metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Overview

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC;
1: F-IN1, 2: F-IN2, 3: AS-I/FAULT
- Degree of protection IP66/IP67

Selection and ordering data

Version ¹⁾	Contacts	DT	Complete units		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Order No.				Price per PU				kg
Enclosure width 40 mm acc. to EN 50041								
	5 directions of approach With M12 connector socket, 4-pole; channel 1 on NC contact, channel 2 on NC contact Slow-action contacts	2 NC		B	3SF1 114-1QV10-1BA1	1	1 unit	121 0.550
Enclosure width 56 mm								
	5 directions of approach With M12 connector socket, 4-pole; channel 1 on NC, channel 2 on M12 socket, right Slow-action contacts	1 NC		C	3SF1 124-1QV10-1BA2	1	1 unit	121 0.600

⊙ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.

* You can order this quantity or a multiple thereof.

3SF1 AS-Interface Position Switches

With Separate Actuator

Accessories

Overview

Version		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Actuators								
	Actuators							
	• Standard actuators, length 75.6 mm	▶	3SE5 000-0AV01		1	1 unit	102	0.040
	• With vertical fixing, length 53 mm	A	3SE5 000-0AV02		1	1 unit	102	0.070
	• With transverse fixing, length 47 mm	A	3SE5 000-0AV03		1	1 unit	102	0.070
	• Radius actuator, left, length 51 mm, direction of approach from the left	A	3SE5 000-0AV04		1	1 unit	102	0.070
	• Radius actuator, length 51 mm, direction of approach from the right	A	3SE5 000-0AV06		1	1 unit	102	0.070
	• Universal radius actuator, length 77 mm	A	3SE5 000-0AV05		1	1 unit	102	0.090
	• Universal radius actuators, heavy-duty	A	3SE5 000-0AV07-1AK2		1	1 unit	102	0.120
	- Length 67 mm	A	3SE5 000-0AV07		1	1 unit	102	0.090
	- Length 77 mm							
Optional accessories								
	Protective caps made of black rubber for the actuator head, to protect the actuator openings from contamination (Only for enclosure width 40 or 56 mm)	B	3SE5 000-0AV08-1AA2		1	1 unit	102	0.010
	Blocking inserts , high-grade steel, for actuator head, for up to 8 padlocks	B	3SE5 000-0AV08-1AA3		1	1 unit	102	0.065
Connections for 3SF1								
	Cable boxes (4-pole), M12 With terminal compartment, can be pre-assembled ¹⁾	A	3RX8 000-0CB45		1	1 unit	574	0.015
	Angular cable boxes (4-pole), M12 With terminal compartment, can be pre-assembled ¹⁾	A	3RX8 000-0CC45		1	1 unit	574	0.015
	Coupling plugs (4-pole), M12 With terminal compartment, can be pre-assembled	A	3RX8 000-0CD45		1	1 unit	574	0.022
	Angular coupling plugs (4-pole), M12 With terminal compartment, can be pre-assembled	A	3RX8 000-0CE45		1	1 unit	574	0.022

¹⁾ For cable boxes with molded cable see Industry Mall or Catalog FS 10.

3SF1 AS-Interface Position Switches

With Solenoid Interlocking

General data

Overview

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

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



3SF1 position switches with solenoid interlocking and integrated ASIsafe electronics

Operation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through $4 \times 90^\circ$. The switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application.

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 enclosure from contamination is available for operation in dusty environments.

Solenoid interlocking

There are two versions for locking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Magnetic field lock (open-circuit principle)

For more explanations see page 8/59.

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 connector socket (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 3SF1 3 position switches with solenoid interlocking offers:

- More safety through higher locking forces:
 - 1300 N for the plastic version
 - 2600 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 connector socket
- Current consumption of the solenoid max. 170 mA
- Two contact blocks as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure variants: Plastic, metal
- An extensive range of actuators
- Status display with four LEDs

Application

The position switches with solenoid interlocking are exceptional safety-related devices which prevent an unforeseen or intentional opening of protective doors, protective grills 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 solenoid interlocking 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 solenoid interlocking

Standards

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

The mechanical design of the switch corresponds to the requirements of the failsafe principle acc. to EN 1088.

Approvals

AS-Interface acc. to EN 50295 and IEC 62026-2.

The switches are approved for use with locking devices acc. to EN 1088 and EN 292, Parts 1 and 2.

3SE5 3 position switches with solenoid interlocking bear the VDE test mark for tested acc. to GS-ET19 (Test Principles of the German Trade Association for Locking Devices with Electromagnetic Interlocks).

With a 3SF1 3 position switch it is possible to achieve category 3 acc. to ISO 13849-1 (EN 954-1) or SIL 2 acc. to IEC 61508.

Category 4 acc. to ISO 13849-1 (EN 954-1) or SIL 3 acc. to IEC 61508 can be achieved by using a second 3SE5 position switch.

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

3SF1 AS-Interface Position Switches

With Solenoid Interlocking

Plastic enclosures
With locking force greater than 1200 N

Overview

5 directions of approach · Degree of protection IP66/IP67

- Slow-action contacts:
 - Version -1BA1: ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the solenoid
 - Version -1BA3: ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the actuator
- Solenoid: Rated operational voltage 24 V DC
- Locking force 1300 N (1000 N acc. to GS-ET 19)
- Status display with 4 LEDs 24 V DC;
 - 1: AS-i, 2: FAULT, 3: F-IN1, 4: F-IN2

Selection and ordering data

Interlock ¹⁾	Contacts Actua- tors/Sole- noids	DT	Complete units	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Order No.	Price per PU						kg
1300 N locking force · Enclosure width 54 mm							
	Spring-actuated locks						
	• With auxiliary release	1 NC/1 NC → B	3SF1 324-1SD21-1BA1	1	1 unit	121	0.600
	• With auxiliary release	2 NC/-- → C	3SF1 324-1SD21-1BA3	1	1 unit	121	0.600
	• With auxiliary release with lock	1 NC/1 NC → C	3SF1 324-1SE21-1BA1	1	1 unit	121	0.760
	• With escape release from the front	1 NC/1 NC → C	3SF1 324-1SF21-1BA1	1	1 unit	121	0.620
	• With escape release from the back and auxiliary release from the front	1 NC/1 NC → C	3SF1 324-1SG21-1BA1	1	1 unit	121	0.640
	• With emergency release from the back and auxiliary release from the front	1 NC/1 NC → C	3SF1 324-1SJ21-1BA1	1	1 unit	121	0.650
	Magnetic field lock						
		1 NC/1 NC → C	3SF1 324-1SB21-1BA1	1	1 unit	121	0.600
		2 NC/-- → C	3SF1 324-1SB21-1BA3	1	1 unit	121	0.600
Actuators							
	Actuators						
	• Standard actuators, length 75.6 mm	►	3SE5 000-0AV01	1	1 unit	102	0.040
	• With vertical fixing, length 53 mm	A	3SE5 000-0AV02	1	1 unit	102	0.070
	• With transverse fixing, length 47 mm	A	3SE5 000-0AV03	1	1 unit	102	0.070
	• Radius actuators, length 51 mm						
	- Direction of approach from the left	A	3SE5 000-0AV04	1	1 unit	102	0.070
	- Direction of approach from the right	A	3SE5 000-0AV06	1	1 unit	102	0.070
	• Universal radius actuator, length 77 mm	A	3SE5 000-0AV05	1	1 unit	102	0.090
	• Universal radius actuators, heavy-duty						
	- Length 67 mm	A	3SE5 000-0AV07-1AK2	1	1 unit	102	0.120
	- Length 77 mm	A	3SE5 000-0AV07	1	1 unit	102	0.090

→ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.

For 4-pole cable boxes and optional accessories see page 8/63.

* You can order this quantity or a multiple thereof.

3SF1 AS-Interface Position Switches

With Solenoid Interlocking

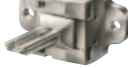
Metal enclosures
With locking force greater than 2000 N

Overview

5 directions of approach · Degree of protection IP66/IP67

- Slow-action contacts:
ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the solenoid
- Solenoid: Rated operational voltage 24 V DC
- Locking force 2600 N (2000 N acc. to GS-ET 19)
- Status display with 4 LEDs 24 V DC;
1: AS-i, 2: FAULT, 3: F-IN1, 4: F-IN2

Selection and ordering data

Interlock ¹⁾	Contacts Actua-tors/Sole-noids	DT	Complete units ☐	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			Order No.	Price per PU			kg
2600 N locking force · Enclosure width 54 mm							
	Spring-actuated locks						
	• With auxiliary release	1 NC/1 NC	→ C	3SF1 314-1SD11-1BA1	1	1 unit	121 1.060
	• With auxiliary release with lock	1 NC/1 NC	→ C	3SF1 314-1SE11-1BA1	1	1 unit	121 1.220
							
	3SF1 314-1SD21-...						
	• With escape release from the front	1 NC/1 NC	→ C	3SF1 314-1SF11-1BA1	1	1 unit	121 1.060
	• With escape release from the back and auxiliary release from the front	1 NC/1 NC	→ C	3SF1 314-1SG11-1BA1	1	1 unit	121 1.080
	• With emergency release from the back and auxiliary release from the front	1 NC/1 NC	→ C	3SF1 314-1SJ11-1BA1	1	1 unit	121 1.100
	3SF1 314-1SF21-...						
	Magnetic field lock	1 NC/1 NC	→ C	3SF1 314-1SB11-1BA1	1	1 unit	121 1.060
	3SF1 314-1BF21-...						
Actuators							
	Actuators						
	• Standard actuators, length 75.6 mm		▶	3SE5 000-0AV01	1	1 unit	102 0.040
	• With vertical fixing, length 53 mm		A	3SE5 000-0AV02	1	1 unit	102 0.070
	• With transverse fixing, length 47 mm		A	3SE5 000-0AV03	1	1 unit	102 0.070
	• Radius actuators, length 51 mm						
	- Direction of approach from the left		A	3SE5 000-0AV04	1	1 unit	102 0.070
	- Direction of approach from the right		A	3SE5 000-0AV06	1	1 unit	102 0.070
	• Universal radius actuator, length 77 mm		A	3SE5 000-0AV05	1	1 unit	102 0.090
	• Universal radius actuators, heavy-duty						
	- Length 67 mm		A	3SE5 000-0AV07-1AK2	1	1 unit	102 0.120
	- Length 77 mm		A	3SE5 000-0AV07	1	1 unit	102 0.090

→ Positive opening acc. to IEC 60947-5-1, Appendix K.

¹⁾ Supplied without actuator. Please order separately.

For 4-pole cable boxes and optional accessories see page 8/63.

3SF1 AS-Interface Position Switches

Hinge Switches

Plastic enclosures
Enclosure width 31 mm acc. to EN 50047 / 50 mm

Overview

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

With the 3SF1 position 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 twist actuator must be ordered separately. The basic switches correspond to the position switches of the standard version (only use versions with snap-action contacts).

The standards and approvals are the same as for the 3SF1 standard switches ([see page 8/73](#)).

Selection and ordering data

Modular system

1 or 2 contacts · 3 LEDs · Degree of protection IP65 (31 mm) or IP66/IP67 (50 mm) · M12 connector socket

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

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



With teflon plunger, with M12 connector socket, 4-pole
channel 1 on NC contact,
channel 2 on NC contact

Snap-action contacts 2 NC 24 V DC ⤴ B **3SF1 234-1LC05-1BA1** 1 1 unit 121 0.170

ASIsafe basic switch

Basic switches · Enclosure width 50 mm



With teflon plunger, with M12 connector socket, 4-pole
channel 1 on NC contact,
channel 2 on M12 socket, right

Snap-action contacts 1 NC 24 V DC ⤴ C **3SF1 244-1LC05-1BA2** 1 1 unit 121 0.180

ASIsafe basic switch

Actuator heads



Twist actuator with hollow shaft

With hollow shaft
Operating angle 10°

B **3SE5 000-0AU21** 1 1 unit 102 0.030



Twist actuator with solid shaft

With solid shaft
Operating angle 10°

B **3SE5 000-0AU22** 1 1 unit 102 0.052

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

For 4-pole cable boxes see [page 8/49](#).

3SF1 AS-Interface Position Switches

Hinge Switches

Metal enclosures
Enclosure width 40 mm acc. to EN 50041 / 56 mm

Overview

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

With the 3SF1 position 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 twist actuator must be ordered separately. The basic switches correspond to the position switches of the standard version (only use versions with snap-action contacts).

The standards and approvals are the same as for the 3SF1 standard switches ([see page 8/73](#)).

Selection and ordering data

Modular system

1 or 2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 connector socket

Version	Contacts	LEDs	DT	Modular system	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU			kg

Basic switches · Enclosure width 40 mm acc. to EN 50041



ASIsafe basic switch

With M12 connector socket, 4-pole
Channel 1 on NC contact,
channel 2 on NC contact

Snap-action contacts

2 NC

24 V DC



B

3SF1 114-1LA00-1BA1

1

1 unit

121

0.400

Basic switches · Enclosure width 56 mm



ASIsafe basic switch

With M12 connector socket, 4-pole
Channel 1 on NC contact,
channel 2 on M12 socket, right

Snap-action contacts

1 NC

24 V DC



C

3SF1 124-1LA00-1BA2

1

1 unit

121

0.470

Actuator heads



Twist actuator with hollow shaft

Hollow shaft

Operating angle 10°

B

3SE5 000-0AU21

1

1 unit

102

0.030



Twist actuator with solid shaft

Solid shaft

Operating angle 10°

B

3SE5 000-0AU22

1

1 unit

102

0.052

➞ Positive opening acc. to IEC 60947-5-1, Appendix K.

For 4-pole cable boxes see [page 8/49](#).

Overview

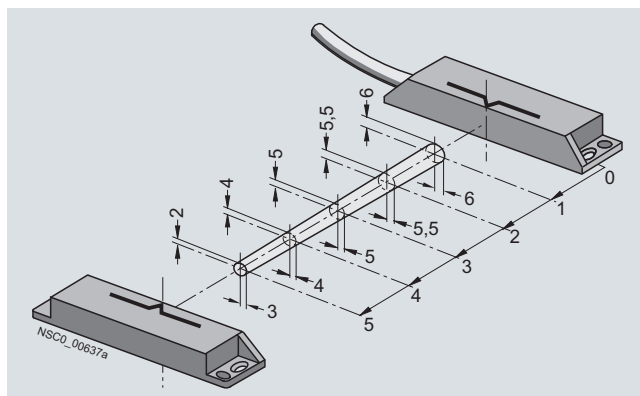


Switching magnets and contact blocks

A magnetically operated switch is comprised of a coded switching magnet and a contact block (sensor unit). Evaluation requires a safety relay or connection to a bus system.

3SE6 806 safety relay

Up to six protective devices (sensors) can be connected to the safety relay.



Enabling range (example)

The device has six current-sourcing semiconductor outputs (Y1 ... Y6), which report the state of the connected protective devices.

The 3SE6 806 safety relay has two floating enabling circuits (safe circuits) as NO contact circuits and one floating signaling circuit as a NC circuit. The number of enabling circuits can be increased by adding one or more 3TK28 30 expansion modules.

Application

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

The 3SE6 6 non-contact, magnetically operated safety switches stand out due to their enclosed design with degree of protection IP67. 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 are used the 3SE6 806 safety relay provides a high degree of protection against manipulation and can be installed in safety circuits up to Category 3 acc. to ISO 13849-1 (EN 954-1).

Combination of monitoring unit and magnetically operated switch

Monitoring units		Magnetically operated switches (contact block + switching magnet)				Achievable category (EN 954-1)/ Performance level (EN ISO 13849-1)
		1 NC + 1 NO 3SE6 605-1BA 3SE6 704-1BA	3SE6 605-2BA 3SE6 704-2BA	3SE6 605-3BA 3SE6 704-3BA	2 NC 3SE6 604-2BA 3SE6 704-2BA	
Relay outputs						
SIRIUS safety relays, 6-fold	3SE6 806-2CD00	✓	✓	✓	--	Cat. 3
SIRIUS safety relays	3TK28 26	✓	✓	✓	✓	Cat. 4/e
Solid-state outputs						
SIRIUS safety relays	3TK28 40	--	--	--	✓	Cat. 3/d
	3TK28 41, 3TK28 42, 3TK28 45	--	--	--	✓	Cat. 4/e
SIRIUS safety relays with contactor relay	3TK28 50, 3TK28 51, 3TK28 52	--	--	--	✓	Cat. 3/d
	3TK28 53	--	--	--	✓	Cat. 4/e
SIRIUS safe load feeders	3RA71 0.	--	--	--	✓	Cat. 3
	3RA71 1.	--	--	--	✓	Cat. 4
ASIsafe compact safety modules	3RK1 205, 3RK1 405	--	--	--	✓	Cat. 4
SIMATIC S7-31xF-2 DP or SIMATIC ET 200M	SM 326 F, 24 DI, 24 V DC, SM 326 F, 8 DI, NAMUR	✓	✓	✓	✓	Cat. 4
SIMATIC ET 200S PROFIsafe	4/8 F-DI / 3 F-DO, 24 V DC	✓	✓	✓	✓	Cat. 3
	4/8 F DI, 24 V DC	✓	✓	✓	✓	Cat. 4
SIMATIC ET 200eco	4/8 F DI, 24 V DC	✓	✓	✓	✓	Cat. 4
SIMATIC ET 200pro	8/16 F-DI, 24 V DC, 4/8 F-DI / 4 F-DO 2 A, 24 V DC, F-Switch	✓	✓	✓	✓	Cat. 4
Modular Safety System	3RK3	✓	✓	✓	✓	Cat. 4/e

3SE6 Magnetically Operated Switches

Magnetic monitoring systems

Selection and ordering data

Version	Size	Contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
mm									
Round sensor units									
	Switching magnets (coded)	M30	A	3SE6 704-1BA		1	1 unit	102	0.035
	Contact blocks								
	• With cable, 3 m	M30	1 NO + 1 NC	A	3SE6 605-1BA	1	1 unit	102	0.165
	• With M12 plug, 4-pole	M30	1 NO + 1 NC	C	3SE6 605-1BA02	1	1 unit	102	0.040
Rectangular sensor units									
	Switching magnets (coded)	25 × 88	A	3SE6 704-2BA		1	1 unit	102	0.027
	Contact blocks								
	• With cable, 3 m	25 × 88	1 NO + 1 NC	A	3SE6 605-2BA	1	1 unit	102	0.165
			2 NC	A	3SE6 604-2BA	1	1 unit	102	0.165
	• With M8 plug, 4-pole	25 × 88	1 NO + 1 NC	C	3SE6 605-2BA01	1	1 unit	102	0.040
			2 NC	C	3SE6 604-2BA01	1	1 unit	102	0.130
	Switching magnets (coded)	25 × 33	A	3SE6 704-3BA		1	1 unit	102	0.014
	Contact blocks with cable, 3 m	25 × 33	1 NO + 1 NC	A	3SE6 605-3BA	1	1 unit	102	0.150
Accessories									
	Spacers	25 × 88	D	3SX3 260		1	1 unit	102	0.015
	Spacers	25 × 33	D	3SX3 261		1	1 unit	102	0.010
Version	Number of sensors	Enabling/signaling circuits	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

Monitoring units									
	Safety relays with relay output, 6-fold	6	2 NO / 1 NC	B	3SE6 806-2CD00	1	1 unit	102	0.200
	Rated control supply voltage 24 V DC								

For more monitoring units, see Chapters 6 and 7 and Catalog IK PI.