

SIGUARD Standard Position Switches

Product Overview



safety
INTEGRATED

SIEMENS

3SE supplementary program

SIGUARD position switches

where there is limited space

Applications

The small 3SE3 160 or 3SE3 180 position switches, with their rugged metal enclosures are ideally suited for rugged environments where space is limited.

Advantages

A factory pre-wired 2-meter cable means no connections at the switch. Thus the switch can be easily mounted and installed where space is limited. Both the enclosure as well as the actuator head are made of metal and meet IP 67 enclosure standards.

Actuator		Enclosure width (mm)	Order No.
	Overtravel plunger	30	⊕ 3SE3 180-1C
		40	⊕ 3SE3 160-1C
	Overtravel plunger with M12 thread mounting	30	⊕ 3SE3 180-1CJ
		40	⊕ 3SE3 160-1CJ
	Roller plunger	30	⊕ 3SE3 180-1D
		40	⊕ 3SE3 160-1D
	Roller plunger with M12 thread mounting	30	⊕ 3SE3 180-1DJ
		40	⊕ 3SE3 160-1DJ
	Roller crank	30	⊕ 3SE3 180-1G
		40	⊕ 3SE3 160-1G

SIGUARD short-travel position switches

Precision with short travel

Applications

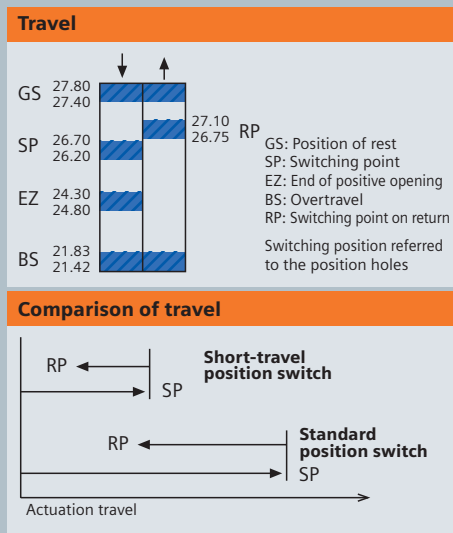
- Precise shutdown is required when the positions of doors and access hatches are monitored. Short-travel position switches are ideally suited for applications such as these.
- They can be used in safety circuits up to Category 4 according to EN 945-1 as the NC contact is positively-opening in compliance with EN 60 947-5-1.

Advantages

- Switching travel and switching hysteresis of the snap-action contacts are significantly reduced
- Precise switching characteristics
- Optimized low-wear characteristics
- Suitable for front and lateral actuation

Actuator	Enclosure width (mm)	Order No.
 Overtravel plunger Contacts 1 NC + 1 NO 6 mm stroke	31	⊕ 3SE2 200-1CV01
 Overtravel plunger Contacts 1 NC + 1 NO 6 mm stroke	50	⊕ 3SE2 210-1CV01

⊕ positively-opening acc. to IEC 60 947-5-1



SIGUARD position switches

Optimally suited for rugged industrial conditions



Wide product range

With the many actuators in line with the functions required in the field, SIGUARD position switches can be used to:

- Monitor protective devices with hinged joints, such as swiveling doors, hatches, covers, etc.
 - Monitor protective devices which can be moved sideways, such as sliding doors, protective gates etc.
 - Detect hazardous machinery motion
- Dimensions, mounting locations and characteristic values are, to a large extent, in conformance with EN 50 047 and EN 50 041.

High reliability

The moving double contacts ensure a high degree of contact reliability at extremely low current and voltage levels, e. g. 5 V DC/1 mA, but they are also suitable for 10A continuous currents.

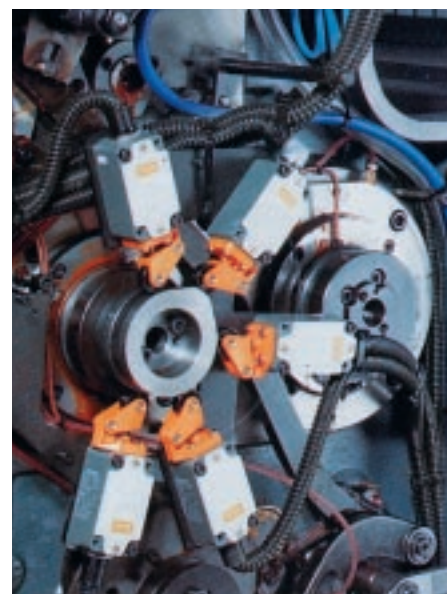
The moving double contacts are electrically isolated from one another. This means that they can be used to switch different control voltages with virtually no limitations.

Positively-opening contacts (EN 60947-5-1)

Positively-opening contacts are specified in compliance with VDE 0660 Part 200, which is identical to IEC 60 947-5-1 and EN 60 947-5-1.

Positively-opening NC contacts are expressly specified for the electrical equipment of machines. This is designated using the $\ominus$ symbol in compliance with IEC 60 947-5-1 (personnel protection function).

According to 4 EN 60 954-1 Category 4 can be achieved when using SIGUARD position switches. In this case, it is important to correctly select and use the devices and their interaction with fail-safe evaluation units such as 3TK28 Safety Relays, AS-Interface Safety at Work, SIMATIC or SINUMERIK.

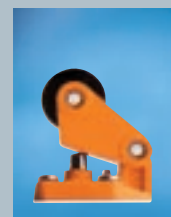
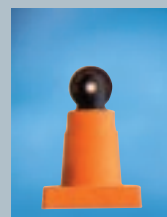
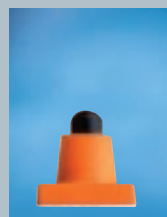


Open-type 3SE30 position switches

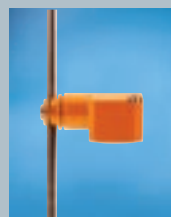
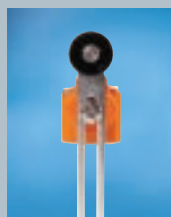


Moving double contacts, degree of protection of the terminals, IP 20, switching chamber IP 40, 6 mm stroke ⊖ positively-opening acc. to IEC 60 947-5-1		Position switch with 2 contacts ↓ V _{max} = 1.5 m/s		Position switch with 3 contacts and repeat plunger ↓ V _{max} = 1.5 m/s
Snap-action contacts	1 NO + 1 NC	⊖ 3SE3 020-1A	Slow-action contacts	1 NO + 2 NC ⊖ 3SE3 023-0A
Slow-action contacts	1 NO + 1 NC	⊖ 3SE3 020-0A	Slow-action contacts	2 NO + 1 NC ⊖ 3SE3 023-1A
Slow-action contacts, make before break	1 NO + 1 NC	⊖ 3SE3 020-3A	Slow-action contacts, make before break	⊖ 3SE3 023-2A
			Slow-action contacts, make before break	⊖ 3SE3 023-3A

Standard 3SE2 position switches with molded-plastic enclosure



Moving double switching contacts, degree of protection IP 66 ☞ positively-opening according to IEC 60 947-5-3				Replacement contact Block	Overtravel plunger 3SX3 160 ↓V _{max} = 1.5 m/s	Roller plunger 3SX3 161 ↓ V _{max} = 1.5 m/s ↔V _{max} = 1 m/s	Roller lever 3SX3 164 ↔V _{max} = 2.5 m/s
					Complete devices with actuator head		
	Narrow enclosure, 40 mm wide, 2 contacts, cable gland 1 x M20 x 1.5	Snap-action contacts	1 NO + 1 NC	3SE3 000-1A	☞ 3SE2 230-1C	☞ 3SE230-1D	☞ 3SE2 230-1E
			1 NO (from 01.04)	3SE3 000-8AV00	☞ 3SE2 230-8CV00	☞ 3SE2 230-8DV00	☞ 3SE2 230-8EV00
		Slow-action contacts	1 NO + 1 NC	3SE3 000-0A	☞ 3SE2 230-0C	☞ 3SE2 230-0D	☞ 3SE2 230-0E
			2 NO	3SE3 000-6A	☞ 3SE2 230-6C	☞ 3SE2 230-6D	☞ 3SE2 230-6E
	Designed in compliance with EN 50 041		2 NO	3SE3 000-7A	3SE2 230-7C	3SE2 230-7D	3SE2 230-7E
		Slow-action contacts, make before break	1 NO + 1 NC	3SE3 000-3A	☞ 3SE2 230-3C	☞ 3SE2 230-3D	☞ 3SE2 230-3E



Angular roller lever metal 3SX3 168 $\uparrow V_{\max} = 2.5 \text{ m/s}$	Roller crank, finely adjustable from 10° to 10° 3SX3 167 $\leftrightarrow V_{\max} = 3 \text{ m/s}$	Roller crank, adjustable length 3SX3 163 $\leftrightarrow V_{\max} = 1 \text{ m/s}$	Rod actuator, molded plastic 3SX3 166 (W), aluminum rod 3SX3 165 (V) $\leftrightarrow V_{\max} = 3 \text{ m/s}$	Spring rod 3SX3 210 All directions $V_{\max} = 1 \text{ m/s}$
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s (The actuator heads can be subsequently replaced by other versions).

⊕ 3SE2 230-1F	⊕ 3SE2 230-1GW	3SE2 230-1U	3SE2 230-1W 3SE2 230-1V	3SE2 230-1R
⊕ 3SE2 230-8FV00	⊕ 3SE2 230-8GW00	3SE2 230-8UW00	3SE2 230-8WW00 3SE2 230-8VW00	3SE2 230-8RV00
⊕ 3SE2 230-0F	⊕ 3SE2 230-0GW	3SE2 230-0U	3SE2 230-0W 3SE2 230-0V	—
⊕ 3SE2 230-6F	⊕ 3SE2 230-6GW	3SE2 230-6U	3SE2 230-6W 3SE2 230-6V	—
3SE2 230-7F	3SE2 230-7GW	3SE2 230-7U	3SE2 230-7W 3SE2 230-7V	—
⊕ 3SE2 230-3F	⊕ 3SE2 230-3GW	—	—	—

Selection criteria for standard SIGUARD position switches

Enclosure design – for all ambient conditions

- | | |
|---|--|
| • Open type IP 20: | Dust-free environments |
| • Molded-plastic enclosure IP 66/IP 67: | Where there is moisture and mechanical stressing |
| • Metal enclosure IP 67: | Additional thermal stressing |
| • In various widths: | 31 mm, 40 mm, 50 mm, 56 mm |

Contacts – for various control tasks

- Snap-action contact (the NC and NO contacts switch simultaneously)
- Slow-action contacts (the NC contact opens and the NO contact closes at different travel positions)
- Snap-action contact, make before break
(this is suitable to initiate a 2nd function in a sequence control before the first function has been disconnected)

Actuators – for the widest range of applications

The following should be taken into careful consideration

- Approach direction
- Actuation speed
- Shape of the actuating element
- Suitable combination of materials



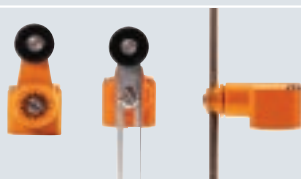
Plunger, overtravel and roller plungers

- Approach in the direction of the stroke or with a bar at right angles to the axis stroke
- Overtravel and roller plungers have an additional overtravel and therefore a longer actuation travel
- We recommend the roller plunger for lateral actuation and a relatively low overtravel
- Roller plungers can be rotated in 90° increments which means that they can be approached from all 4 directions at right angles to the plunge direction



Roller lever and angular roller lever

- For high approach speeds ($v_{\max} = 2.5 \text{ m/s}$)
- Depending on the approach direction (left or right), various approach ($\alpha = 30^\circ$) and exit angles ($\gamma = 45^\circ$) are possible
- The actuator can be rotated in 90° increments
- Actuator elements manufactured out of finely polished steel in the form of cams, rods or cam disks
- Extremely high mechanical lifetime



Roller crank and rod actuator

- For high approach speeds ($v_{\max} = 3 \text{ m/s}$)
- Various approaches are possible
- Insensitive to oil, grinding dust, ice, dirt, coarse materials
- For the roller crank, the max. approach angle is the same as the max. exit angle
- Rod actuator – if it is not possible to use an actuator element with approach and exit angle



Spring rod

- Can be used for undefined actuation and approach conditions which change
- Approach from all directions



Plunger and roller plunger for central mounting with M18 x 1

- Fast mounting
- Simple adjustment
- Is retained the same as a BERO proximity switch



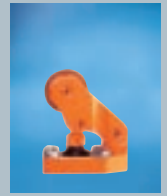
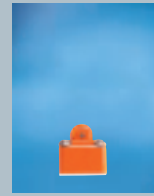
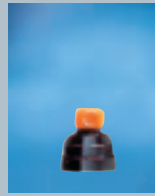
Fork lever

- Can switch in both directions
- Latching actuator
- For backward and forward movements

Device connections

- Metric thread, M20 x 1.5
- With AS-Interface F adapter, direct AS-Interface connection to *Safety at Work*, up to Category 2 according to EN 60 954-1
- With AS-Interface F adapter, direct AS-Interface connection to *Safety at Work*, with M12 socket to connect a second position switch, up to Category 4 acc. to EN 60 954-1

Standard 3SE2 and 3SF position switches with molded-plastic enclosure



Moving double contacts, degree of protection IP 67
 ☞ positively-opening acc. to IEC 60 947-5-1

Overtravel plunger (basic version)
 ↓ $V_{\max} = 1 \text{ m/s}$

Roller plunger 3SX3 170
 ↔ $V_{\max} = 1 \text{ m/s}$
 ↓ $V_{\max} = 1 \text{ m/s}$

Roller lever 3SX3 171
 ← $V_{\max} = 1 \text{ m/s}$

Complete devices with actuator heads



Narrow enclosure, 31 mm wide, 2 contacts, positively-opening 1 x M20 x 1.5
Design in compliance with EN 50 047

Snap-action contacts

1 NO + 1 NC

☞ 3SE2 200-1C

☞ 3SE2 200-1D

☞ 3SE2 200-1E

2 NC (from 01.04)

☞ 3SE2 200-8CV00

☞ 3SE2 200-8DV00

☞ 3SE2 200-8EV00

Slow-action contacts

1 NO + 1 NC

☞ 3SE2 200-0C

☞ 3SE2 200-0D

☞ 3SE2 200-0E

2 NC

☞ 3SE2 200-6C

☞ 3SE2 200-6D

☞ 3SE2 200-6E

2 NO

3SE2 200-7C

3SE2 200-7D

3SE2 200-7E

Slow-action contacts, make before break

1 NO + 1 NC

☞ 3SE2 200-3C

☞ 3SE2 200-3D

☞ 3SE2 200-3E



with AS-Interface F adapter

Snap-action contacts

1 NC

☞ 3SF3 200-1CV00-0BA1

☞ 3SF3 200-1DV00-0BA1

☞ 3SF3 200-1EV00-0BA1

Slow-action contacts

2 NC

☞ 3SF3 200-6CV00-0BA1

☞ 3SF3 200-6CDV00-0BA1

☞ 3SF3 200-6EV00-0BA1



Wide enclosure, 50 mm wide, 2 contacts, positively-opening 2 x M20 x 1.5

Snap-action contacts

1 NO + 1 NC

☞ 3SE2 210-1C

☞ 3SE2 210-1D

☞ 3SE2 210-1E

2 NC (from 01.04)

☞ 3SE2 210-8CV00

☞ 3SE2 210-8DV00

☞ 3SE2 210-8EV00

Slow-action contacts

1 NO + 1 NC

☞ 3SE2 210-0C

☞ 3SE2 210-0D

☞ 3SE2 210-0E

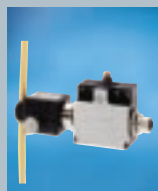
Slow-action contacts, make before break

1 NO + 1 NC

☞ 3SE2 210-3C

☞ 3SE2 210-3D

☞ 3SE2 210-3E



with M12 connector and AS-Interface F adapter

Snap-action contacts

1 NO + 1 NC

☞ 3SF3 210-1CV00-0BA2

☞ 3SF3 210-1DV00-0BA2

☞ 3SF3 210-1EV00-0BA2

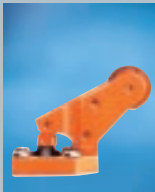
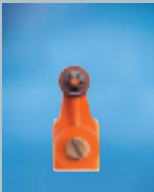
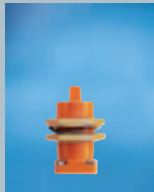
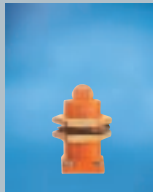
Slow-action contacts

1 NO + 1 NC

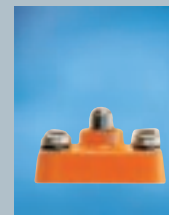
☞ 3SF3 210-0CV00-0BA2

☞ 3SF3 210-0DV00-0BA2

☞ 3SF3 210-0EV00-0BA2

						
Angular roller lever 3SX3 172	Roller crank, finely adjustable from 10° to 10° 3SX3 173	Roller crank, adjustable length 3SX3 174	Rod actuator, molded plastic 3SX3 175 (W), aluminum rod 3SX3 176 (V), spring rod 3SX3 177 (S)	Spring rod 3SX3 178	Overtravel plunger central mounting, with thread M18 x 1 3SX3 180	Roller plunger, central mounting, with thread M18 x 1 3SX3 181
↑ $V_{\max} = 1 \text{ m/s}$	↔ $V_{\max} = 1 \text{ m/s}$	↔ $V_{\max} = 1 \text{ m/s}$	↔ $V_{\max} = 1.5 \text{ m/s}$	$V_{\max} = 1.5 \text{ m/s}$	All directions ↓ $V_{\max} = 1 \text{ m/s}$	↓ $V_{\max} = 1 \text{ m/s}$
(The actuator heads can be subsequently replaced by other versions).						
⊕ 3SE2 200-1F	⊕ 3SE2 200-1G	3SE2 200-1U	3SE2 200-1W 3SE2 200-1V 3SE2 200-1S	3SE2 200-1R	⊕ 3SE2 200-1L	⊕ 3SE2 200-1M
⊕ 3SE2 200-8FV00	⊕ 3SE2 200-8GV00	3SE2 200-8UV00	3SE2 200-8WV00 3SE2 200-8VV00 3SE2 200-8SV00	3SE2 200-8RV00	–	–
⊕ 3SE2 200-0F	⊕ 3SE2 200-0G	3SE2 200-0U	3SE2 200-0W 3SE2 200-0V 3SE2 200-0S	–	⊕ 3SE2 200-0L	⊕ 3SE2 200-0M
⊕ 3SE2 200-6F	⊕ 3SE2 200-6G	3SE2 200-6U	3SE2 200-6W 3SE2 200-6V 3SE2 200-6S	–	⊕ 3SE2 200-6L	⊕ 3SE2 200-6M
3SE2 200-7F	3SE2 200-7G	3SE2 200-7U	3SE2 200-7W 3SE2 200-7V 3SE2 200-7S	–	3SE2 200-7L	3SE2 200-7M
⊕ 3SE2 200-3F	⊕ 3SE2 200-3G	3SE2 200-3U	3SE2 200-3W 3SE2 200-3V 3SE2 200-3S	–	⊕ 3SE2 200-3L	⊕ 3SE2 200-3M
⊕ 3SF3 200-1FV00-0BA1	⊕ 3SF3 200-1GV00-0BA1	–	–	–	–	–
⊕ 3SF3 200-6FV00-0BA1	⊕ 3SF3 200-6GV00-0BA1	–	–	–	–	–
⊕ 3SE2 210-1F	⊕ 3SE2 210-1G	3SE2 210-1U	3SE2 210-1W 3SE2 210-1V 3SE2 210-1SV	3SE2 210-1R	⊕ 3SE2 210-1L	⊕ 3SE2 210-1M
⊕ 3SE2 210-8FV00	⊕ 3SE2 210-8GV00	3SE2 210-8UV00	3SE2 210-8WV00 3SE2 210-8VV00 3SE2 210-8SV00	–	–	–
⊕ 3SE2 210-0F	⊕ 3SE2 210-0G	3SE2 210-0U	3SE2 210-0W 3SE2 210-0V 3SE2 210-0S	–	⊕ 3SE2 210-0L	⊕ 3SE2 210-0M
⊕ 3SE2 210-3F	⊕ 3SE2 210-3G	3SE2 210-3U	3SE2 210-3W 3SE2 210-3V 3SE2 210-3S	–	⊕ 3SE2 210-3L	⊕ 3SE2 210-3M
⊕ 3SF3 210-1FV00-0BA2	⊕ 3SF3 210-1GV00-0BA2	–	–	–	–	–
⊕ 3SF3 210-0FV00-0BA2	⊕ 3SF3 210-0GV00-0BA2	–	–	–	–	–

Standard 3SE2 and 3SF position switches with metal enclosure



Moving double contacts, degree of protection IP 67

➔ positively-opening acc. to IEC 60 947-5-1

Replacement
contact Block

Plunger
3SX3 100

↓ $V_{max} = 1.5 \text{ m/s}$



**Narrow enclosure,
40 mm wide,**
2 contacts,
positively-opening
1 x M20 x 1.5

**Design in
compliance with
EN 50 041**

with AS-Interface
F adapter



Snap-action contacts

1 NO + 1 NC

3SE3 000-1A

➔ 3SE2 120-1B

2 NC (from 01.04)

3SE3 000-8AV00

➔ 3SE2 120-8BV00

Slow-action contacts

1 NO + 1 NC

3SE3 000-0A

➔ 3SE2 120-0B

2 NC

3SE3 000-6A

➔ 3SE2 120-6B

2 NO

3SE3 000-7A

3SE2 120-7B

Slow-action contacts,
make before break

1 NO + 1 NC

3SE3 000-3A

➔ 3SE2 120-3B

Snap-action contact

1 NC

–

–

Slow-action contact

2 NC

3SE3 000-6A

–



**Wide enclosure,
56 mm wide,**
2 contacts,
positively-opening
3 x M20 x 1.5

Snap-action contacts

1 NO + 1 NC

3SE3 000-1A

➔ 3SE2 100-1B

2 NC (from 01.04)

3SE3 000-8AV00

➔ 3SE2 100-8BV00

Slow-action contacts

1 NO + 1 NC

3SE3 000-0A

➔ 3SE2 100-0B

2 NC

3SE3 000-6A

➔ 3SE2 100-6B

2 NO

3SE3 000-7A

➔ 3SE2 100-7B

Slow-action contacts,
make before break

1 NO + 1 NC

3SE3 000-3A

➔ 3SE2 100-3B

With M12 connector
and AS-Interface
F adapter

Snap-action contact

1 NC

–

–

Slow-action contact

1 NC

–

–



3 contacts,
positively-opening
3 x M20 x 1.5

Slow-action contacts

1 NO + 2 NC

3SE3 003-0A

➔ 3SE2 303-0B

Slow-action contacts

2 NO + 1 NC

3SE3 003-1A

➔ 3SE2 303-1B

Slow-action contacts,
make before break

1 NO + 2 NC

3SE3 003-2A

➔ 3SE2 303-2B

Slow-action contacts,
make before break

2 NO + 1 NC

3SE3 003-3A

➔ 3SE2 303-3B

4 contacts,
positively-opening
3 x M20 x 1.5

Snap-action contacts

2 NO + 2 NC

3SE3 000-1A and
3SE3 010-1A

➔ 3SE2 404-1B

Slow-action contacts

2 NO + 2 NC

3SE3 000-0A and
3SE3 010-0A

➔ 3SE2 404-0B

Slow-action contacts,
make before break

2 NO + 2 NC

3SE3 000-3A and
3SE3 010-3A

➔ 3SE2 404-2B





Overtravel plunger 3SX3 106

↓ $V_{\max} = 1.5 \text{ m/s}$

Roller plunger 3SX3 107

↔ $V_{\max} = 1 \text{ m/s}$

↓ $V_{\max} = 1.5 \text{ m/s}$

Roller lever 3SX3 102

← $V_{\max} = 2.5 \text{ m/s}$

Angular roller lever 3SX3 104

↑ $V_{\max} = 2.5 \text{ m/s}$

Roller crank 3SX3 212 + Round shaft 3SX3 211

↔ $V_{\max} = 3 \text{ m/s}$

Complete devices with actuator heads (the actuator heads can be subsequently replaced by other versions).

⊕ 3SE2 120-1C

⊕ 3SE2 120-1D

⊕ 3SE2 120-1E

⊕ 3SE2 120-1F

⊕ 3SE2 120-1GW

⊕ 3SE2 120-8CV00

⊕ 3SE2 120-8DV00

⊕ 3SE2 120-8EV00

⊕ 3SE2 120-8FV00

⊕ 3SE2 120-8GW00

⊕ 3SE2 120-0C

⊕ 3SE2 120-0D

⊕ 3SE2 120-0E

⊕ 3SE2 120-0F

⊕ 3SE2 120-0GW

⊕ 3SE2 120-6C

⊕ 3SE2 120-6D

⊕ 3SE2 120-6E

⊕ 3SE2 120-6F

⊕ 3SE2 120-6GW

3SE2 120-7C

3SE2 120-7D

3SE2 120-7E

3SE2 120-7F

3SE2 120-7GW

⊕ 3SE2 120-3C

⊕ 3SE2 120-3D

⊕ 3SE2 120-3E

⊕ 3SE2 120-3F

⊕ 3SE2 120-3GW

⊕ 3SF3 120-1CV00-0BA1

⊕ 3SF3 120-6DV00-0BA1

⊕ 3SF3 120-1EV00-0BA1

⊕ 3SF3 120-1FV00-0BA1

⊕ 3SF3 120-1GW00-0BA1

⊕ 3SF3 120- 6CV00-0BA1

⊕ 3SF3 120-6DV00-0BA1

⊕ 3SF3 120-6EV00-0BA1

⊕ 3SF3 120-6FV00-0BA1

⊕ 3SF3 120-6GW00-0BA1

⊕ 3SE2 100-1C

⊕ 3SE2 100-1D

⊕ 3SE2 100-1E

⊕ 3SE2 100-1F

⊕ 3SE2 100-1GW

⊕ 3SE2100-8CV00

⊕ 3SE2 100-8DV00

⊕ 3SE2 100-8EV00

⊕ 3SE2 100-8FV00

⊕ 3SE2 100-8GW00

⊕ 3SE2 100-0C

⊕ 3SE2 100-0D

⊕ 3SE2 100-0E

⊕ 3SE2 100-0F

⊕ 3SE2 100-0GW

⊕ 3SE2 100-6C

⊕ 3SE2 100-6D

⊕ 3SE2 100-6E

⊕ 3SE2 100-6F

⊕ 3SE2 100-6GW

⊕ 3SE2 100-7C

⊕ 3SE2 100-7D

⊕ 3SE2 100-7E

⊕ 3SE2 100-7F

⊕ 3SE2 100-7GW

⊕ 3SE2 100-3C

⊕ 3SE2 100-3D

⊕ 3SE2 100-3E

⊕ 3SE2 100-3F

⊕ 3SE2 100-3GW

⊕ 3SF3 100-1CV00-0BA2

⊕ 3SF3 100-1DV00-0BA2

⊕ 3SF3 100-1EV00-0BA2

⊕ 3SF3 100-1FV00-0BA2

⊕ 3SF3 100-1GW00-0BA1

⊕ 3SF3 100-0CV00-0BA2

⊕ 3SF3 100-0DV00-0BA2

⊕ 3SF3 100-0EV00-0BA2

⊕ 3SF3 100-0FV00-0BA2

⊕ 3SF3 100-0GW00-0BA1

⊕ 3SE2 303-0C

⊕ 3SE2 303-0D

⊕ 3SE2 303-0E

⊕ 3SE2 303-0F

⊕ 3SE2 303-0GW

⊕ 3SE2 303-1C

⊕ 3SE 2303-1D

⊕ 3SE2 303-1E

⊕ 3SE2 303-1F

⊕ 3SE2 303-1GW

⊕ 3SE2 303-2C

⊕ 3SE2 303-2D

⊕ 3SE2 303-2E

⊕ 3SE2 303-2F

⊕ 3SE2 303-2GW

⊕ 3SE2 303-3C

⊕ 3SE2 303-3D

⊕ 3SE2 303-3E

⊕ 3SE2 303-3F

⊕ 3SE2 303-3GW

⊕ 3SE2 404-1C

⊕ 3SE2 404-1D

⊕ 3SE2 404-1E

⊕ 3SE2 404-1F

⊕ 3SE2 404-1GW

⊕ 3SE2 404-0C

⊕ 3SE2 404-0D

⊕ 3SE2 404-0E

⊕ 3SE2 404-0F

⊕ 3SE2 404-0GW

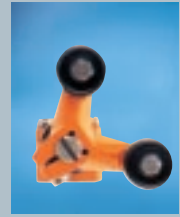
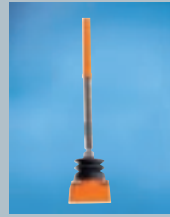
⊕ 3SE2 404-2C

⊕ 3SE2 404-2D

⊕ 3SE2 404-2E

⊕ 3SE2 404-2F

⊕ 3SE2 404-2GW



Roller crank, adjustable length 3SX3 213 + round shaft 3SX3 211 $\Leftrightarrow V_{\max} = 1 \text{ m/s}$	Rod actuator, round shaft 3SX3 211 +		Spring rod 3SX3 126 All directions $V_{\max} = 1 \text{ m/s}$	Fork lever, latching 3SX3 115 + round shaft 3SX3 127 $\Leftrightarrow V_{\max} = 2 \text{ m/s}$
	Molded plastic rod (W) 3SX3 215 $\Leftrightarrow V_{\max} = 3 \text{ m/s}$	Aluminum rod (V) 3SX3 214 $\Leftrightarrow V_{\max} = 3 \text{ m/s}$		
3SE2 120-1UW	3SE2 120-1WW	3SE2 120-1VW	3SE2 120-1R	3SE2 120-1T
3SE2 120-8UW00	3SE2 120-8WW00	3SE2 120-8VW00	3SE2 120-8RV00	–
3SE2 120-0UW	3SE2 120-0WW	3SE2 120-0VW	–	–
3SE2 120-6UW	3SE2 120-6WW	3SE2 120-6VW	–	–
3SE2 120-7UW	3SE2 120-7WW	3SE2 120-7VW	–	–
3SE2 120-3UW	3SE2 120-3WW	3SE2 120-3VW	–	–
–	–	–	–	–
–	–	–	–	–
3SE2 100-1UW	3SE2 100-1WW	3SE2 100-1VW	3SE2 100-1R	3SE2 100-1T
3SE2 100-8UW00	3SE2 100-8WW00	3SE2 100-8VW00	3SE2 100-8RV00	–
3SE2 100-0UW	3SE2 100-0WW	3SE2 100-0VW	–	–
3SE2 100-6UW	3SE2 100-6WW	3SE2 100-6VW	–	–
3SE2 100-7UW	3SE2 100-7WW	3SE2 100-7VW	–	–
3SE2 100-3UW	3SE2 100-3WW	3SE 100-3VW	–	–
–	–	–	–	–
–	–	–	–	–
3SE2 303-0UW	3SE2 303-0WW	3SE2 303-0VW	–	–
3SE2 303-1UW	3SE2 303-1WW	3SE2 303-1VW	–	–
3SE2 303-2UW	3SE2 303-2WW	3SE2 303-2VW	–	–
3SE2 303-3UW	3SE2 303-3WW	3SE2 303-3VW	–	–
3SE2 404-1UW	3SE2 404-1WW	3SE2 404-1VW	–	3SE2 404-1T
3SE2 404-0UW	3SE2 404-0WW	3SE2 404-0VW	–	–
3SE2 404-2UW	3SE2 404-2WW	3SE2 404-2VW	–	–

Technical data

Type	3SE2 1, 3SE2 2, 3SE2 3, 3SE2 4, 3SE3 0					
Regulations and standards	IEC 60 947-5-1, EN 60 947-5-1 (VDE 0660 Part 200)					
Rated insulation voltage V_i	500 V					
Degree of pollution acc. to DIN VDE 0110	Class 3					
Rated operating voltage V_e	500 V AC; above 380 V AC, only the same potential					
Conventional thermal current I_{th}	10 A					
Rated operating current I_e	AC current 40 to 60 Hz			DC current		
	V_e	$I_e/AC-12$	$I_e/AC-15$	V_e	$I_e/DC-12$	$I_e/DC-13$
	V	A	A	V	A	A
	24	10	10	24	10	10
	125	10	10	48	6	4
	230	10	6	110	4	1
	400	10	4	220	1	0,4
	500	10	3	440	0.5	0.2
Short-circuit protection ¹⁾ , DIAZED fuse inserts						
• Utilization category gL/gG	6 A					
• Characteristic, fast	10 A					
Mechanical endurance	30 x 10 ⁶ operating cycles (15 x 10 ⁶ for 3SE2 2...-8 ...)					
Electrical endurance						
• with 3RH11, 3RT10, 16 up to 3RT10 26 contactors	10 x 10 ⁶ operating cycles (1.8 x 10 ³ for 3SE2...-8...)					
• Utilization category AC-15	0.5 x 10 ⁶ operating cycles when interrupting $I_e/AC-15$ at 230 V					
• Utilization category DC-13	For DC current, the endurance of the contacts does not depend on the current when interrupting, but depends on the voltage, the inductance of the circuit and the switching speed. Generally valid data cannot be given.					
Operating frequency	6 x 10 ³ operating cycles/hour with 3RH11, 3RT10 16 to 3RT10 26 contactors					
Switching accuracy	0.05 mm; when repeatedly switching, measured at the plunger of the contact					
Operating point of snap-action contacts	Constant over the complete endurance time independent of erosion					
Ⓢ Ⓛ and Ⓡ rated data						
• Rated voltage	600 V (300 for SE 2...-8 ...)					
• Continuous current	10 A					
• Switching capacity	Heavy Duty, A 600/Q 600 (A300/Q300 for 3SE2...-8 ...)					
Type	3SE2 200	3SE2 230	3SE2 210	3SE2 120	3SE2 100, 3SE2 303, 3SE2 404	3SE3 0
Enclosure	Glass-fiber reinforced molded plastic			Aluminum (GD-A/Si 12)		—
Degree of protection acc. to IEC 60 529 (VDE 0470 Part 1)	IP 67	IP 66	IP 67	IP 67	IP 67	IP 20
Ambient temperature (in operation)	-30 ... +85 °C					
Mounting position	any					
Cable gland	1 x (M 20 x 1.5)		2 x (M 20 x 1.5)	1 x (M 20 x 1.5)	3 x (M 20 x 1.5)	—
Connection cross-sections						
• Solid conductors	2 x 2.5 mm ²					
• Finely stranded with end sleeves	2 x 1.5 mm ²					
Protective conductor connection inside the enclosure	—	M 3.5				—

¹⁾ Without any welding of any type in accordance with DIN VDE 0660 Part 200

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