



## SRB-E-212ST

- Plug-in screw terminals with coding
- STOP 0 / 1 Function
- 1 oder 2-channel control
- 2 safety contacts STOP 0
- 1 Safety output STOP 1
- Drop-out delay 0 ... 30

## Data

### Ordering data

Product type description	SRB-E-212ST
Article number (order number)	103007222
EAN (European Article Number)	4030661478487
eCl@ss number, version 12.0	27-37-18-19
eCl@ss number, version 11.0	27-37-18-19
eCl@ss number, version 9.0	27-37-18-19
ETIM number, version 7.0	EC001449
ETIM number, version 6.0	EC001449

### Approvals - Standards

Certificates	TÜV cULus CCC EAC
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### General data

Standards	EN IEC 62061 EN ISO 13849-1 EN IEC 60947-5-1 EN IEC 60947-5-3 EN IEC 60947-5-5 EN IEC 61508 EN IEC 60204-1 EN IEC 60947-1
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	Ag-Ni, self-cleaning, positive drive
Gross weight	170 g

## General data - Features

Stop-Category	0 1
Wire breakage detection	Yes
Cross-circuit detection	Yes
Removable Terminals	Yes
Start input	Yes
Feedback circuit	Yes
Automatic reset function	Yes
Reset edge detection	Yes
Earth connection detection	Yes
Integral system diagnostics, status	Yes
Integral system diagnostics, error code	Yes
Number of LEDs	6
Number of normally closed (NC)	2
Number of normally open (NO)	1
Number of Safety contacts, STOP 0	2
Number of safety digital outputs, Stop 1	1
Number of Signalling outputs, STOP 0	1
Number of Signalling outputs, STOP 1	1

## Safety classification

Standards	EN ISO 13849-1 EN IEC 62061 EN IEC 61508
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## Safety classification - Relay outputs

Performance Level, up to	e
Category	4
Diagnostic Coverage (DC) Level	> 94 %
PFH value	$1.25 \times 10^{-8}$ /h
PFD value	$5.30 \times 10^{-5}$
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

## Safety classification - Fail-safe digital outputs

Performance Level, up to	e
Category	4
PFH value	$2.66 \times 10^{-9}$ /h
PFD value	$2.42 \times 10^{-5}$
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)

## Mechanical data

Mechanical life, minimum	10,000,000 Operations
Mounting	Snaps onto standard DIN rail to EN 60715

## Mechanical data - Connection technique

Termination	rigid or flexible Screw connection, plug-in
Terminal designations	IEC/EN 60947-1
Cable section, minimum	0.25 mm <sup>2</sup>
Cable section, maximum	2.5 mm <sup>2</sup>
Tightening torque of Clips	0.5 Nm

## Mechanical data - Dimensions

Width	22.5 mm
Height	98 mm
Depth	115 mm

## Ambient conditions

Degree of protection of the enclosure	IP40
Degree of protection of the mounting space	IP54
Degree of protection of clips or terminals	IP20
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+60 °C
Storage and transport temperature, minimum	-40 °C
Storage and transport temperature, maximum	+85 °C
Resistance to vibrations	10 ... 55 Hz, Amplitude 0.35 mm
Resistance to shock	30 g / 11 ms

## Ambient conditions - Insulation values

Rated impulse withstand voltage $U_{imp}$ , relay output	4 kV
Rated impulse withstand voltage $U_{imp}$ , semiconductor output	0.8 kV
Overvoltage category	III

**Electrical data**

Rated operating voltage	24 VDC -20%/+20%, residual ripple max. 10%
Rated AC voltage for controls at DC minimum	19.2 VDC
Rated control voltage at DC, maximum	28.8 VDC
Electrical power consumption	3 W
Contact resistance, maximum	0.1 $\Omega$
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, typically	10 ms
Drop-out delay in case of emergency, typically	10 ms
Pull-in delay at automatic start, maximum, typically	150 ms
Pull-in delay at RESET, typically	150 ms
Switching frequency, maximum	0.3 Hz
Operating voltage	24 VDC -20 % / 20 %

**Electrical data - Safety digital outputs**

Voltage drop $U_d$ , maximum	0.5 V
Leakage current $I_r$ , maximum	1 mA
Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	2 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2 A

**Electrical data - Safe relay outputs**

Voltage, Utilisation category AC-15	230 VAC
Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	4 A

Switching capacity, minimum	10 VDC
Switching capacity, minimum	10 mA
Switching capacity, maximum	250 VAC
Switching capacity, maximum	6 A

### Electrical data - Digital inputs

Conduction resistance, maximum	40 $\Omega$
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### Electrical data - Digital Output

Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.1 A

### Electrical data - Electromagnetic compatibility (EMC)

EMC rating	EMC-Directive
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### Status indication

Indicated operating states	Internal operating voltage $U_i$ Baustein-Status Fault codes
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### Other data

Note (applications)	Safety sensor hinged safety guard Emergency-Stop button Pull-wire emergency stop switches Safety light curtain Two-hand control panels
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## Pictures

## Product picture (catalogue individual photo)

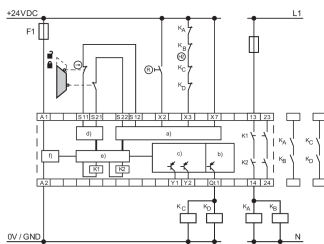


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| 1.0 MB | .jpg | 281.869 x 655.814 mm - 799 x 1859 px - 72 dpi

| 125.1 kB | .png | 74.083 x 172.156 mm - 210 x 488 px - 72 dpi

## Wiring example



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| 1.3 MB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi

| 125.2 kB | .jpg | 352.778 x 258.233 mm - 1000 x 732 px - 72 dpi

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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