



## SRB200EXi-1A

- Automatic reset function
- 2 safety contacts
- Suitable for signal processing of emergency stop control devices, interlocking equipment, etc

## Data

### Ordering data

EAN (European Article Number) 4250116202386

eCl@ss number, Version 9.0 27-37-18-19

eCl@ss number, Version 11.0 27-37-18-19

ETIM number, version 6.0 EC001449




### Approval - Standards

Certificates TÜV  
INMETRO  
TÜV EX

### Explosion protection

Explosion protection: regulations EN 60079-0  
EN 60079-11  
EN 60079-15



Explosion protection zones	1 21
Explosion protection category	2D 2G
Explosion protection designation	<div> <div>  </div> <div>II 3 G Ex nA nC IIC T5 Gc (Installation SRB, in Zone 2)</div> </div> <div> <div>  </div> <div>II (2) G [Ex ib Gb] IIC</div> </div> <div> <div>  </div> <div>II (2) D [Ex ib Db] IIIC</div> </div>

## General data

Climatic stress	EN 60068-2-78
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	AgSn0. self-cleaning, positive drive
Gross weight	230 g

## General data - Features

Stop-Category	0
Wire breakage detection	Yes
Short-circuit recognition	Yes
Feedback circuit	Yes
Automatic reset function	Yes
Earth connection detection	Yes
Integral System Diagnostics, status	Yes
Number of LEDs	5
Number of openers	2
Number of safety contacts	2

## Safety appraisal



Standards	EN ISO 13849-1 EN 60947-5-1 IEC 61508
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### Safety appraisal - Relay outputs

Performance level, stop 0, up to	e
Category, Stop 0	4
Diagnostic Coverage (DC) Level, Stop 0	$\geq 99 \%$
PFH-Value Stop 0	$2.00 \times 10^{-8} /h$
Safety Integrity Level (SIL), Stop 0, suitable for applications in	3
Mission time	15 Year(s)
Common Cause Failure (CCF), minimum	65

### Mechanical data

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

### Mechanical data - Connection technique

Terminal Connector	Screw connection rigid or flexible
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	0.6 Nm

### Mechanical data - Dimensions



Width	22.5 mm
Height	100 mm
Depth	121 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 to EN 60068-2-6	10 ... 55 Hz, Amplitude 0.35 mm
Resistance to shock	30 g / 11 ms

## Ambient conditions - Insulation value

Rated impulse withstand voltage $U_{imp}$	4 kV
Overvoltage category	III
Degree of pollution to IEC/EN 60664-1	2

## Electrical data

Operating Current	57 mA
Rated operating voltage	24 VDC -15%/+20%, residual ripple max. 10%



Rated AC voltage for controls at DC minimum	20.4 VDC
Rated control voltage at DC, maximum	28.8 VDC
Utilisation category AC-15	230 VAC
Utilisation category AC-15	2 A
Utilisation category DC-13	24 VDC
Utilisation category DC-13	2 A
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	20 ms
Drop-out delay in case of "emergency stop", maximum	20 ms
Pull-in delay at automatic start, maximum, typically	300 ms
Pull-in delay at RESET, typically	20 ms

### Electrical data - Digital inputs

Conduction resistance, maximum	30 $\Omega$
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### Electrical data - Electromagnetic compatibility (EMC)

EMC rating	EMC-Directive
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## Other data

Note (applications)	Safety sensor Guard system Emergency-Stop button Pull-wire emergency stop switches
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## Notes

Note (General)	Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.
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## Circuit example

Note (Wiring diagram)	<p>The wiring diagram is shown with guard doors closed and in de-energised condition.</p> <p>Monitoring 1 guard door(s), each with a magnetic safety sensor of the BNS range</p> <p>If only one external relay or contactor is used to switch the load, the system can be classified in Control Category 3 to ISO 13849-1, if exclusion of the fault "Failure of the external contactor" can be substantiated and is documented, e.g. by using a reliable down-rated contactor. A second contactor leads to an increase in the level of security by redundant switching to switch the load off.</p> <p>To secure a guard door up to PL e and Category 4</p> <p>The feedback circuit monitors the position of the contactors KA and KB.</p> <p>Automatic start: The automatic start is programmed by connecting the feedback circuit to the terminals X1/X2. If the feedback circuit is not required, establish a bridge.</p>
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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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