



SRB101EXi-1A

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

Data

Ordering data

Product type description	SRB101EXI-1A
Article number (order number)	101196285
EAN (European Article Number)	4250116202379
eCl@ss number, Version 9.0	27-37-18-19

Certifications

Certificates	ATEX
	IECEX
	IMMETRO

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	Ⓜ II 3 G Ex nA nC IIC T5 Gc (Installation SRB, in Zone 2) Ⓜ II (2) G [Ex ib Gb] IIC Ⓜ II (2) D [Ex ib Db] IIIC

General data

Product name	SRB101EXI
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 auxiliary contacts	1
Number of LEDs	5
Number of openers	2
Number of safety contacts	1

Safety appraisal

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

Performance Level, Stop 0	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	3

Mechanical data

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

Mechanical data - Connection technique

Terminal Connector	Screw connection rigid or flexible
Terminal designations	IEC/EN 60947-1
Cable section, minimum	0.25 mm ²
Cable section, maximum	2.5 mm ²
Tightening torque of Clips	0.6 Nm

Mechanical data - Dimensions

Width	22.5 mm
Height	100 mm
Depth	121 mm

Ambient conditions

Protection class of the enclosure	IP40
Protection class of the Clearance	IP54
Protection class 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- 10 ... 55 Hz, Amplitude 0.35 mm 2-6	
Resistance to shock	30 g / 11 ms

Ambient conditions - Insulation value

Rated impulse
withstand voltage

4 kV

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 Ω

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 Ω

Electrical data - Electromagnetic compatibility (EMC)

EMC-Directive

Other data

Note (applications)

Safety sensor
Guard system
Emergency-Stop button
Pull-wire emergency stop switches

Notes

Note (General)

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

Circuit example

Note (Wiring diagram)

The wiring diagram is shown with guard doors closed and in de-energised condition. Monitoring 1 guard door(s), each with a magnetic safety sensor of the BNS range
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.
To secure a guard door up to PL e and Category 4
The feedback circuit monitors the position of the contactors KA and KB.
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.

Pictures

Product picture (catalogue individual photo)



ID: ksrb1f05

| 88,5 kB | .png | 74.083 x 147.461 mm - 210 x 418

Pixel - 72 dpi

| 761,0 kB | .jpg | 265.642 x 529.167 mm - 753 x 1500

Pixel - 72 dpi

| 163,0 kB | .jpg | 27.093 x 53.933 mm - 320 x 637

Pixel - 300 dpi

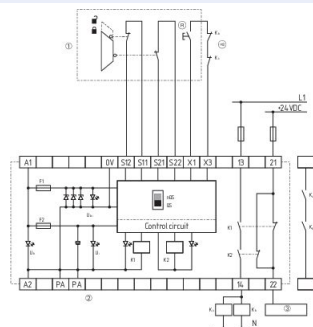
Symbol (technical standard)

K	n-op/y	t-cycle
20 %	525.600	1,0 min
40 %	210.240	2,5 min
60 %	75.087	7,0 min
80 %	30.918	17,0 min
100 %	12.223	43,0 min

ID: kformm02

| 191,1 kB | .jpg | 352.778 x 246.592 mm - 1000 x 699
Pixel - 72 dpi

Wiring example



ID: ksrb1l02

| 161,0 kB | .jpg | 352.425 x 370.417 mm - 999 x 1050
Pixel - 72 dpi
| 36,6 kB | .cdr |

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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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