

Archive



## SRB302X3-24VAC/DC-230VAC

- 2 Signalling outputs
- 3 safety contacts, STOP 0
- Suitable for signal processing of outputs connected to potentials (AOPDs), e.g. safety light grids/curtains
- Suitable for signal processing of potential-free outputs, e.g. emergency stop command devices, position switches and solenoid interlocks

### Data

#### Ordering data

Note (Delivery capacity)	Not available!
Product type description	SRB 302X3-24V-230V
Article number (order number)	101181616
EAN (European Article Number)	4250116202119
eCl@ss number, Version 9.0	27-37-18-19

#### Certifications

Certificates	BG cULus EAC
--------------	--------------------

#### General data

Product name	SRB 302X3
Standards	IEC 61508
	IEC/EN 60204-1
	ISO 13849-1
	EN 60947-5-1
Climatic stress	EN 60068-2-78
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	AgSnO. self-cleaning, positive drive
Gross weight	450.000 g

## General data - Features

Stop-Category	0
Electronic Fuse	Yes
Wire breakage detection	Yes
Short-circuit recognition	Yes
Start input	Yes
Feedback circuit	Yes
Automatic reset function	Yes
Reset edge detection	Yes
Earth connection detection	Yes
Integral System Diagnostics, status	Yes
Number of auxiliary contacts	2
Number of LEDs	3
Number of openers	2
Number of safety contacts	3

## Safety appraisal

Standards	EN 60947-5-1 IEC 61508
-----------	---------------------------

## Safety appraisal - Relay outputs

Performance level	e
Control category to EN13849	4
Diagnostic Coverage (DC) Level	> 99 %
PFH-value	$2.00 \times 10^{-8}$ /h
Safety Integrity Level (SIL)	3
Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

## 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 <sup>2</sup>
Cable section, maximum	2.5 mm <sup>2</sup>

Tightening torque of Clips 0.6 Nm

### Mechanical data - Dimensions

Width 45 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 60068-2-6 10 ... 55 Hz, Amplitude 0.35 mm  
Resistance to shock 30 g / 11 ms

### Ambient conditions - Insulation value

Rated impulse withstand voltage 4 kV  
Overvoltage category III  
Degree of pollution to VDE 0110 2

### Electrical data

Frequency range 50 Hz  
60 Hz  
Rated operating voltage 24 VAC -15% / +10%  
24 VDC -15%/+20%, residual ripple max. 10%  
230 VAC -15% / +10%  
Rated AC voltage for controls, 50 Hz, minimum 20.4 VAC  
26.4 VAC  
Rated control voltage at AC 50 Hz, maximum 195.5 VAC  
253 VAC  
Rated AC voltage for controls, 60 Hz, minimum 20.4 VAC  
26.4 VAC  
Rated control voltage at AC 60 Hz, maximum 195.5 VAC  
253 VAC  
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	6 A
Utilisation category DC-13	24 VDC
Utilisation category DC-13	6 A
Electrical power consumption	2.5 W
Electrical power consumption	5 VA
Contact resistance, maximum	0.1 $\Omega$
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, typically	60 ms
Drop-out delay in case of "emergency stop", maximum	20 ms
Pull-in delay at RESET, typically	20 ms

### Electrical data - Digital inputs

Conduction resistance, maximum	40 $\Omega$
--------------------------------	-------------

### Electrical data - Electromagnetic compatibility (EMC)

EMC rating	EMC-Directive
------------	---------------

### Status indication

Indicated operating states	Position relay K2
	Position relay K1

### Other data

Note (applications)	Guard system
	Emergency-Stop button
	Pull-wire emergency stop switches
	Safety light curtain

### Notes

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

### Circuit example

The wiring diagram is shown with guard doors closed and in de-energised condition.

Relay outputs: Suitable for 2 channel control, for increase in capacity or number of contacts by means of contactors or relays with positive-guided contacts.

Note (Wiring diagram)

The control recognises cross-short, cable break and earth leakages in the monitoring circuit.

2 channel control shown for a guard-door monitor with two contacts, of which at least one contact has positive break, with external reset button (R).

(H2) = Feedback circuit

## Pictures

### Product picture (catalogue individual photo)



ID: ksrb3f09

| 80,9 kB | .png | 74.083 x 114.3 mm - 210 x 324 Pixel  
- 72 dpi

| 1,1 MB | .jpg | 342.194 x 529.167 mm - 970 x 1500  
Pixel - 72 dpi

### Wiring example

ID: ksrb3l15

| 125,8 kB | .jpg | 352.778 x 212.019 mm - 1000 x 601  
Pixel - 72 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