

## SRB301MC-24V



- 1 Signalling output
- 3 safety contacts, STOP 0
- Fit for signal evaluation of outputs of safety magnetic switches
- 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

Product type description	SRB 301MC-24V
Article number (order number)	101190684
EAN (European Article Number)	4250116202249
eCl@ss number, Version 9.0	27-37-18-19

#### Certifications

Certificates	TÜV cULus CCC EAC
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#### General data

Product name	SRB 301MC
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	AgSn0, Ag-Ni, self-cleaning, positive drive
Gross weight	250 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
Earth connection detection	Yes
Integral System Diagnostics, status	Yes
Number of auxiliary contacts	1
Number of LEDs	4
Number of openers	2
Number of safety contacts	3

## Safety appraisal

Standards	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	≥ 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 <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
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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, ± 15 %
Restistance 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

Frequency range	50 Hz 60 Hz
Rated operating voltage	24 VAC -15% / +10% 24 VDC -15%/+20%, residual ripple max. 10%
Rated AC voltage for controls, 50 Hz, minimum	20.4 VAC
Rated control voltage at AC 50 Hz, maximum	26.4 VAC
Rated AC voltage for controls, 60 Hz, minimum	20.4 VAC
Rated control voltage at AC 60 Hz, maximum	26.4 VAC
Rated AC voltage for controls at DC minimum	20.4 VDC
Rated control voltage at DC, maximum	28.8 VDC
Electrical power consumption	2 W
Electrical power consumption	4.9 VA
Contact resistance, maximum	0.1 Ω
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, typically	80 ms
Drop-out delay in case of emergency, typically	20 ms
Pull-in delay at automatic start, maximum, typically	100 ms
Pull-in delay at RESET, typically	20 ms

### Electrical data - Safe relay outputs

Switching capacity, minimum	10 VDC
Switching capacity, minimum	10 mA

Switching capacity, maximum	250 VAC
Switching capacity, maximum	8 A

### Electrical data - Digital inputs

Conduction resistance, maximum	40 Ω
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### Electrical data - Relay outputs (auxiliary contacts)

Switching capacity, maximum	24 VDC
Switching capacity, maximum	2 A

### Electrical data - Electromagnetic compatibility (EMC)

EMC-Directive

### Status indication

Indicated operating states	Position relay K2
	Position relay K1
	Internal operating voltage $U_{i}$

### Other data

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

## Pictures

### Product picture (catalogue individual photo)



ID: ksrb3f20

| 89,3 kB | .png | 74.083 x 147.461 mm - 210 x 418

Pixel - 72 dpi

| 743,3 kB | .jpg | 265.642 x 529.167 mm - 753 x 1500

Pixel - 72 dpi

| 154,4 kB | .jpg | 27.093 x 53.933 mm - 320 x 637

Pixel - 300 dpi

### Wiring example

ID: ksr3118

| 112,8 kB | .jpg | 352.778 x 226.483 mm - 1000 x 642  
Pixel - 72 dpi

### Symbol (technical standard)

<b>K</b>	<b>n-op/y</b>	<b>t-cycle</b>
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

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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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