



## SRB-E-301MC

- 1 Signalling contact
- Plug-in screw terminals with coding
- Suitable for applications up to Cat. 4 / PL e und up to SIL 3
- 1 or 2 channel signal evaluation
- Start / feedback circuit monitoring
- Optionally with short-circuit recognition
- 3 safety contacts, stop category 0

## Data

### Ordering data

Product type description	SRB-E-301MC
Article number (order number)	103014374
EAN (European Article Number)	4030661508696
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	BG 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
Climatic stress	EN 60068-2-78
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	Ag-Ni, self-cleaning, positive drive
Gross weight	175 g

## General data - Features

Stop-Category	0
Electronic Fuse	Yes
Wire breakage detection	Yes
Cross-circuit detection	Yes
Removable Terminals	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	5
Number of normally closed (NC)	2
Number of Safety contacts, STOP 0	3

## 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	> 99 %
PFH value	$6.00 \times 10^{-9}$ /h
PFD value	$4.00 \times 10^{-5}$
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

### Mechanical data

Mechanical life, minimum	10,000,000 Operations
Mounting	Snaps onto standard DIN rails to IEC 60715

### Mechanical data - Connection technique

Termination	rigid or flexible Screw connection, plug-in
Terminal designations	IEC 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 $U_{imp}$	4 kV
Overvoltage category	III
Degree of pollution	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	2.9 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	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
Switching frequency, maximum	0.3 Hz
Operating voltage	24 VAC -15 % / 10 % 24 VDC -15 % / 20 %

### 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 - Relay outputs (auxiliary contacts)

Switching capacity, maximum	24 VDC
Switching capacity, maximum	1 A

## Electrical data - Electromagnetic compatibility (EMC)

EMC rating

EMC-Directive

## Status indication

Indicated operating states

Position relay K2  
Position relay K1  
Internal operating voltage  $U_i$   
UB: Supply voltage on

## Other data

Note (applications)

Safety sensor  
Guard system  
hinged safety guard  
Emergency-Stop button  
Pull-wire emergency stop switches  
Safety light curtain  
Safety light barriers

## Pictures

### Product picture (catalogue individual photo)



ID: ksrb3f37

| 1.1 MB | .jpg | 301.625 x 666.75 mm - 855 x 1890 px - 72 dpi

| 95.4 kB | .png | 74.083 x 163.689 mm - 210 x 464 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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