



## 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 9.0	27-37-18-19
eCl@ss number, Version 11.0	27-37-18-19
eCl@ss number, Version 12.0	27-37-18-19
ETIM number, version 7.0	EC001449
ETIM number, version 6.0	EC001449

### Approval - Standards

Certificates	BG cULus CCC EAC
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### General data

Standards	EN ISO 13849-1 IEC 61508 EN 60947-5-1 IEC 62061 IEC 60204-1
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
Short-circuit recognition	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 openers	2
Number of Safety contacts, STOP 0	3

### Safety appraisal

Standards	IEC 62061 IEC 61508 EN ISO 13849-1
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### Safety appraisal - Relay outputs

Performance Level, up to	e
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Control category to EN13849	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

Terminal Connector	Screw connection, plug-in rigid or flexible
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 to EN 60068-2-6	10 ... 55 Hz, Amplitude 0.35 mm
Restistance 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

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

### 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
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### Status indication

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