



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 code

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	cULus
	IFA
	CCC

General data

Standards	IEC 61508
	EN 60947-5-1
	EN ISO 13849-1
	EN 60204-1

General data

	EN 62061
Climatic stress	EN 60068-2-78
Housing material	Glass-fibre reinforced thermoplastic, ventilated
Gross weight	175 g
Clearances and creepage distances	EN 60664-1

General data - Features

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 62061
	EN ISO 13849-1
	IEC 61508
Stop-Category	0

Safety classification - Relay outputs

Performance Level, up to	e
Category	4
Diagnostic Coverage (DC) Level	> 99 %
PFH value	$6.00 \times 10^{-9} / \text{h}$
PFD value	4.00×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	3

Safety classification - Relay outputs

Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

Mechanical data

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

Mechanical data - Connection technique

Terminal designations	EN 60947-1
Cable section, minimum	0.25 mm ² , flexible with ferrule
	0.2 mm ² , flexible
	0.2 mm ² , rigid
Cable section, maximum	2.5 mm ² , flexible
	2.5 mm ² , flexible with ferrule
	2.5 mm ² , rigid
Tightening torque of Clips	0.5 Nm
Allowed type of cable	solid single-wire
	flexible
Terminal (mechanical)	Removable screw terminals

Mechanical data - Dimensions

Width	22.5 mm
Height	98 mm
Depth	115 mm

Ambient conditions

IP Degree of protection of the enclosure	IP40
IP Degree of protection of the installation space	IP54
IP Degree of protection of clips or terminals	IP20
Ambient temperature	-25 ... +65 °C
Storage and transport temperature	-40 ... +85 °C
Note (Relative humidity)	non-condensing
Resistance to vibrations	10 ... 55 Hz, Amplitude 0.35 mm
Resistance to shock	30 g / 11 ms

Ambient conditions - Insulation values

Overvoltage category	III
Degree of pollution	2
Rated insulation voltage U_i , Safe relay outputs	250 V
Rated impulse withstand voltage U_{imp} , Safe relay outputs	4 kV

Electrical data

Frequency range	50 Hz
	60 Hz
Operating voltage	24 VAC -15 % / +10 % 24 VDC -15 % / +20 %
Ripple voltage	10 %
Rated operating voltage	24 VAC
Rated operating voltage	24 VDC
Electrical power consumption	2.9 W
Electrical power consumption	5 VA
Note (Electrical data, Fuse rating)	internal fuse
Contact resistance, maximum	0.1 Ω
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, maximum	50 ms
Drop-out delay in case of "emergency stop", maximum	10 ms
Pull-in delay at automatic start, maximum	120 ms
Pull-in delay at RESET, typically	20 ms
Switching frequency, maximum	0.3 Hz
Material of the contacts, electrical	Ag-Ni, self-cleaning, positive drive
Electrical fuse rating, maximum	1 A
Bridging in case of voltage dips, typically	40 ms
Protection circuit, extern	A suitable protective circuit must be provided for inductive loads

Electrical data - Control inputs EDM

Designation, Contactor controls EDM (Feedback circuits)	X2
Current consumption	10 mA
Cable length, maximum	1,500 m with 1.5 mm ²
	2,500 m with 2.5 mm ²

Electrical data - Control inputs EDM

Conduction resistance, maximum	40 Ω
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Electrical data - Safety digital inputs

Designation, Safety inputs	S12 and S22
Current consumption at 24 V	10 mA
Conduction resistance, maximum	40 Ω
Cable length, maximum	1,500 m with 1.5 mm ² 2,500 m with 2.5 mm ²

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
Fuse rating, Safe relay outputs	Safety fuse 10 A quick blow Safety fuse 6 A slow blow
Note	external (Ik = 1000 A) to EN 60947-5-1
Designation, Safe relay outputs	13-14, 23-24 and 33-34

Electrical data - Relay outputs (auxiliary contacts)

Switching capacity, maximum	24 VDC
Switching capacity, maximum	1 A
Fuse rating, Relay outputs (auxiliary contacts)	Safety fuse 1.5 A quick blow Safety fuse 1 A slow blow
Designation, Relay outputs (auxiliary contacts)	41-42

Electrical data - Electromagnetic compatibility (EMC)

EMC rating	EMC-Directive
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Status indication

Indicated operating states	Position relay K1
	Internal operating voltage Ui
	Position relay K2
	UB: Supply voltage on

Other data

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

Pictures

Product picture (catalogue individual photo)



ID: ksrb3f37
| 1.08 MB | .jpg | 855 x 1890 Pixel
| 40.51 KB | .jpg | 158 x 350 Pixel
| 95.41 KB | .png | 210 x 464 Pixel

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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