



SRB-E-402ST

- 2 Safety outputs
- 2 x 1 oder 2-channel control
- 2 safety contacts
- 2 x Start button / Auto-start
- 1 x Monitoring two-hand control panels to ISO 13851
- Two-functions safety monitoring module (double evaluation), 2 x STOP 0

Data

Ordering data

	SRB-E-402ST
	103007221
EAN (European Article Number)	4030661478524
eCl@ss number, Version 9.0	27-37-18-19

Approval - Standards

TÜV
cULus
CCC
EAC

General data

	SRB-E-402ST
	ISO 13849-1
	EN 60947-5-1
	EN 60204-1
	IEC 62061
	IEC 61508
	EN 60068-2-78
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	Ag-Ni, self-cleaning, positive drive
Gross weight	190 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	1
Number of LEDs	6
Number of openers	4
Number of shutters	2
Number of Safety contacts, STOP 0	2
Number of fail-safe outputs, Stop 0	2
Number of Signalling outputs, STOP 0	1

Safety appraisal

ISO 13849-1
IEC 62061
IEC 61508

Safety appraisal - Relay outputs

Performance Level, up to	e
Control category to EN13849	4
Diagnostic Coverage (DC) Level	≥ 99 %
PFH-value	1.25×10^{-8} /h
PFD value	5.30×10^{-5}
Safety Integrity Level (SIL), applicable for	3
Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

Safety appraisal - Fail-safe digital outputs

Performance level, up to	e
Control category to EN13849	4
PFH-value	2.66×10^{-9} /h
PFD value	2.42×10^{-5}
Safety Integrity Level (SIL), applicable for	3
Mission time	20 Year(s)

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, plug-in rigid or flexible
Terminal designations	IEC/EN 60947-1 0.25 mm ² 2.5 mm ²
Tightening torque of Clips	0.5 Nm

Mechanical data - Dimensions

Width	22.5 mm
Height	98 mm
Depth	115 mm

Ambient conditions

	IP40 IP54 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 30 g / 11 ms

Ambient conditions - Insulation value

Rated impulse withstand voltage, relay output	4 kV
Rated impulse withstand voltage, semiconductor output	0.8 kV III 2

Electrical data

Rated operating voltage	24 VDC -20%/+20%, residual ripple max. 10%
Operating current	150 mA
Rated AC voltage for controls at DC minimum	19.2 VDC
Rated control voltage at DC, maximum	28.8 VDC
Electrical power consumption	3.6 W

Contact resistance, maximum	0.1 Ω
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, typically	10 ms
Drop-out delay in case of emergency, typically	10 ms
Pull-in delay at automatic start, maximum, typically	150 ms
Pull-in delay at RESET, typically	150 ms
Switching frequency, maximum	0.3 Hz

Electrical data - Fail-safe digital outputs

Voltage drop U_d , maximum	0.5 V
Current leakage	1 mA
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	2 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	2 A

Electrical data - Safe relay outputs

Voltage, Utilisation category AC15	230 VAC
Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	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 Ω
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Electrical data - Digital Output

Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.1 A

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

Internal operating voltage U_i
Baustein-Status
Fault codes

Other data

Note (applications)

Safety sensor
hinged safety guard
Emergency-Stop button
Pull-wire emergency stop switches
Safety light curtain
Safety light barriers
Two-hand control panels

Pictures

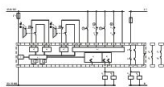
Photo/Product/Catalogue



ID: ksrb4f16

| 126,5 kB | .png | 74.083 x 172.156 mm - 210 x 488
Pixel - 72 dpi
| 1,0 MB | .jpg | 281.869 x 655.814 mm - 799 x 1859
Pixel - 72 dpi

Graphic/Product/Wiring



ID: ksrbel07

| 107,2 kB | .jpg | 352.778 x 172.861 mm - 1000 x 490
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.

Generated on 072021-01-31T12:36:07+01:001201Europe/BerlinSun, 31 Jan 2021 12:36:07

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