

Datasheet - SRB-E-402ST

Multi-function safety modules / SRB-E-402ST



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

(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	SRB-E-402ST
Article number	103007221
EAN Code	
eCl@ss	27-37-19-01

Approval

Approval



Classification


Relay outputs

Standards	EN ISO 13849-1, IEC 61508, IEC/EN 62061
PL	up e
Control category	up 4
DC	High
CCF	> 65 points
PFH value	$\leq 1.25 \times 10^{-8}/h$
PFD value	$\leq 5.3 \times 10^{-5}$
SIL	up 3
Mission time	20 Years

Semi-conductor outputs

Standards	EN ISO 13849-1, IEC 61508, IEC/EN 62061
PL	up e
Control category	up 4
PFH value	$\leq 2.66 \times 10^{-9}/h$
PFD value	$\leq 2.42 \times 10^{-5}$
SIL	up 3
Mission time	20 Years

Global Properties

Permanent light	SRB-E-402ST
Standards	IEC/EN 60204-1, EN 60947-5-1, EN ISO 13849-1, IEC 61508, IEC/EN 62061
Compliance with the Directives (Y/N) 	Yes
Mounting	snaps onto standard DIN rail to EN 60715
Terminal designations	IEC/EN 60947-1
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, ventilated
- Material of the contacts	, self-cleaning, positive action
Weight	190
Start conditions	Automatic or Start button (Optional monitored)
Start input (Y/N)	Yes
Feedback circuit (Y/N)	Yes
Start-up test (Y/N)	No
Automatic reset function (Y/N)	Yes
Reset with edge detection (Y/N)	Yes
Pull-in delay	
- ON delay with automatic start	< 150
- ON delay with reset button	< 150
Drop-out delay	
- Drop-out delay in case of power failure	< 10
- Drop-out delay in case of emergency stop	< 10

Mechanical data

Connection type	Screw connection, plug-in
Cable section	
- Min. Cable section	0,25
- Max. Cable section	2.5
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,5
Detachable terminals (Y/N)	Yes
Mechanical life	10.000.000 operations
Electrical lifetime	Derating curve available on request
restistance to shock	30 / 11
Resistance to vibration To EN 60068-2-6	10...55 HZ, Amplitude 0,35 mm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+60
Storage and transport temperature	

- Min. Storage and transport temperature	-40
- Max. Storage and transport temperature	+85
Protection class	
- Protection class-Enclosure	IP40
- Protection class-Terminals	IP20
- Protection class-Clearance	IP54
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage	6 / 4 / 0,8
Overvoltage category	III
- Degree of pollution	2 To IEC/EN 60664-1

Electromagnetic compatibility (EMC)

EMC rating	conforming to EMC Directive
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Electrical data

Rated DC voltage for controls	
- Max. rated DC voltage for controls	19.2
- Max. rated DC voltage for controls	28.8
Rated AC voltage for controls, 50 Hz	
- Min. rated AC voltage for controls, 50 Hz	
- Max. rated AC voltage for controls, 50 Hz	
Rated AC voltage for controls, 60 Hz	
- Min. rated AC voltage for controls, 60 Hz	
- Max. rated AC voltage for controls, 60 Hz	
Contact resistance	100
Power consumption	3.6
Type of actuation	DC
Switch frequency	0,3
Rated insulation voltage	250 / 50
Rated operating voltage	24 -20 / +20, residual ripple 10
Operating current	0,15 A
Frequency range	
Electronic protection (Y/N)	No
Fuse rating for the operating voltage	We recommend a Z type circuit breaker (max. 16 A) either a fine-wire fuse (max. 15A, slow-blow)
Bridging in case of voltage drops	5
Cyclic outputs	> 20 , 10 for each output
Control inputs	24 / 8

Inputs

Monitored inputs

- Short-circuit recognition (Y/N)	Yes
- Wire breakage detection (Y/N)	Yes
- Earth connection detection (Y/N)	Yes
Number of shutters	2
Number of openers	4
Cable length	1500 with 1.5 ; 2500 with 2.5
Conduction resistance	40

Outputs

Stop category	0
Number of safety contacts	2 x STOP 0
Number of safety outputs	2 x STOP 0
Number of auxiliary contacts	1 x STOP 0
Number of signalling outputs	1 x STOP 0
Relay outputs	
Switching capacity of the safety contacts	250 , 6 A ohmic 10 / 10 (inductive in case of appropriate protective wiring)
Protection of the safety contacts	Safety fuse 10 A quick-blow, 6 A slow blow
Utilisation category	AC-15: 230 V / 4 A DC-13: 24 V / 4 A
Switching capacity of the auxiliary contacts	24 , 1 A
Fuse rating for the auxiliary contacts	2.5 A quick-blow, 2 A slow blow
Semi-conductor outputs	
Switching capacity of the safety outputs	2 A (inductive in case of appropriate protective wiring)
Voltage drop	< 0,5
Residual current	< 1
Test impulse width	< 1 < 100
Fuse rating for the safety outputs	
Utilisation category	DC-13: 24 V / 2 A
Switching capacity of the signaling/diagnostic outputs	24 / 100
Fuse rating for the signaling/diagnostic outputs	Internal electronic trip

LED switching conditions display

LED switching conditions display (Y/N)	Yes
Number of LED's	6
LED fault codes	Yes

Miscellaneous data

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

Dimensions	
- Width	22.5
- Height	98
- Depth	115

Documents

Operating instructions and Declaration of conformity (en) 923 kB, 17.07.2018

Code: mrl_srb-e-402st_en

Operating instructions and Declaration of conformity (it) 944 kB, 23.08.2018

Code: mrl_srb-e-402st_it

Operating instructions and Declaration of conformity (de) 908 kB, 17.07.2018

Code: mrl_srb-e-402st_de

Operating instructions and Declaration of conformity (pt) 937 kB, 24.08.2018

Code: mrl_srb-e-402st_pt

Operating instructions and Declaration of conformity (fr) 951 kB, 23.08.2018

Code: mrl_srb-e-402st_fr

Operating instructions and Declaration of conformity (jp) 1 MB, 13.03.2019

Code: mrl_srb-e-402st_jp

Operating instructions and Declaration of conformity (cn) 1 MB, 23.11.2018

Code: mrl_srb-e-402st_cn

Operating instructions and Declaration of conformity (pl) 966 kB, 23.08.2018

Code: mrl_srb-e-402st_pl

Operating instructions and Declaration of conformity (es) 946 kB, 24.08.2018

Code: mrl_srb-e-402st_es

Operating instructions and Declaration of conformity (nl) 941 kB, 23.08.2018

Code: mrl_srb-e-402st_nl

BG-test certificate (de, en) 428 kB, 11.10.2018

Code: z_srbep01

Brochure (pt) 1 MB, 30.01.2018

Code: b_srb-e_pt

Brochure (it) 1 MB, 31.01.2018

Code: b_srb-e_it

Brochure (es) 1 MB, 14.02.2018

Code: b_srb-e_es

Brochure (en) 1 MB, 15.02.2018

Code: b_srb-e_en

Brochure (de) 1 MB, 15.02.2018

Code: b_srb-e_de

Brochure (br) 1 MB, 08.11.2018

Code: b_srb-e_br

Brochure (cs) 1 MB, 05.03.2019

Code: b_srb-e_cs

Brochure (fr) 1 MB, 23.08.2018

Code: b_srb-e_fr

Brochure (pl) 1 MB, 06.08.2018

Code: b_srb-e_pl

CCC certification (cn) 460 kB, 24.07.2017

Code: q_srbp11

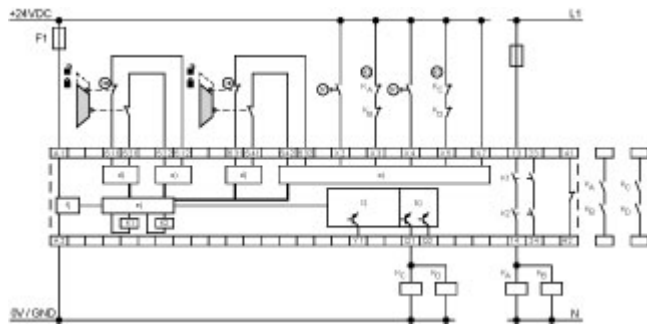
CCC certification (en) 460 kB, 24.07.2017

Code: q_srbp12

EAC certification (ru) 1 MB, 15.03.2018

Code: q_aesp01

Images



Wiring example

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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