Datasheet - SRB 201ZH-24VDC

Two-hand control panels / Monitoring two-hand control panels to EN 574 III A / SRB 201ZH

☒ Preferred typ



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

- Monitoring two-hand control panels to EN 574 III C
- 2 safety contacts, STOP 0
- 1 Signalling output

Ordering details

Product type description	SRB 201ZH-24VDC
Article number	1166524
EAN code	4030661215709

Approval

Approval	BG USA/CAN

Classification

Standards	EN ISO 13849-1, IEC 61508, EN 60947-5-1, EN 574
PL	up e (STOP 0)
Control category	up 4 (STOP 0)
DC	99% (STOP 0)
CCF	>65 points
PFH value	≤ 2,0.0 x 10^{-8}/h (STOP 0)
SIL	up 3 (STOP 0)

Mission time	20 Years
- notice	The PFH value is applicable for the combinations listed in the table for contact load (K) (current through enabling paths) and switching cycle number (n-op/y). In case of 365 operating days per year and a 24-hour operation, this results in the specified switching cycle times (t-cycle) for the relay contacts. Diverging applications on request.

Global Properties

Product name	SRB 201ZH-24VDC
Standards	IEC/EN 60204-1, EN 60947-5-1, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) CE	Yes
Climatic stress	EN 60068-2-78
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	300 g
Start conditions	Start button (monitored)
Start input (Y/N)	No
Feedback circuit (Y/N)	Yes
Start-up test (Y/N)	No
Automatic reset function (Y/N)	Yes
Reset with edge detection (Y/N)	No
Pull-in delay	
- ON delay with automatic start	50 ms
Drop-out delay	
- Drop-out delay in case of emergency stop	30 ms

Mechanical data

Connection type	Screw connection
Cable section	
- Min. Cable section	0,25 mm²
- Max. Cable section	2.5 mm²
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,6 Nm
Detachable terminals (Y/N)	Yes
Mechanical life	10.000.000 operations
Electrical lifetime	Derating curve available on request
restistance to shock	30 g / 11 ms
Resistance to vibration To EN 60068-2-6	10...55 Hz, Amplitude 0,35 mm, ± 15 %

Ambient conditions

Ambient temperature	
- Min. environmental temperature	−25 °C
- Max. environmental temperature	+45 °C

Storage and transport temperature	
- Min. Storage and transport temperature	−40 °C
- Max. Storage and transport temperature	+85 °C
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 U_{imp}	4 kV
- Overvoltage category	III To VDE 0110
- Degree of pollution	2 To IEC/EN 60664-1

Electromagnetic compatibility (EMC)

EMC rating	conforming to EMC Directive

Electrical data

Rated DC voltage for controls	
- Min. rated DC voltage for controls	20.4 V
- Max. rated DC voltage for controls	26.4 V
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	max. 100 mΩ
Power consumption	1.2 W
Type of actuation	DC
Rated operating voltage U_e	24 VDC −15% / +10%, residual ripple max. 10%
Operating current I_e	0,08 A
Electronic protection (Y/N)	Yes
Fuse rating for the operating voltage	Internal electronic trip, F1, F2: tripping current > 0,2 A F3: tripping current > 0,6 A

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 piece
Number of openers	2 piece
Cable length	1500 m with 1.5 mm²; 2500 m with 2.5 mm²
Conduction resistance	max. 40 Ω

Outputs

Stop category	0
Number of safety contacts	2 piece

Number of auxiliary contacts	1 piece
Number of signalling outputs	0 piece
Switching capacity	
- Switching capacity of the safety contacts	max. 250 VAC, 6 A ohmic (inductive in case of appropriate protective wiring) min. 10 V, 10 mA
- Switching capacity of the auxiliary contacts	24 VDC, 2 A
Fuse rating	
- Protection of the safety contacts	6.3 A slow blow
- Fuse rating for the auxiliary contacts	2 A slow blow
Utilisation category To EN 60947-5-1	AC-15: 230 V / 6 A DC-13: 24 V / 6 A
Number of undelayed semi-conductor outputs with signaling function	0 piece
Number of undelayed outputs with signaling function (with contact)	1 piece
Number of delayed semi-conductor outputs with signaling function.	0 piece
Number of delayed outputs with signalling function (with contact).	0 piece
Number of secure undelayed semi-conductor outputs with signaling function	0 piece
Number of secure, undelayed outputs with signaling function, with contact.	2 piece
Number of secure, delayed semi-conductor outputs with signaling function	0 piece
Number of secure, delayed outputs with signaling function (with contact).	0 piece

LED switching conditions display

LED switching conditions display (Y/N)	Yes
Number of LED´s	2 piece
LED switching conditions display	
- The integrated LEDs indicate the following operating states.	
- Position relay K1	
- Position relay K2	

Miscellaneous data

Applications	 Two-hand control panels

Dimensions

Dimensions	
- Width	22.5 mm
- Height	100 mm
- Depth	121 mm

notice

Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

notice - Wiring example

Button A and B: 1 NC contact / 1 NO contact (note: the NC contact of the buttons A and B must be opened, before the NO contact closes. No overlapping contacts to avoid triggering of fuse F1 und F2).

Relay outputs: Suitable for 2 channel control, for increase in capacity or number of contacts by means of contactors or relays with positive-guided contacts.

(H2) = Feedback circuit

The control recognises cross-short, cable break and earth leakages in the monitoring circuit.

Simultaneity monitoring 0,5 seconds

The wiring diagram is shown for the de-energised condition.

Documents

Operating instructions and Declaration of conformity (es) 589 kB, 22.09.2011
Code: mrl_srb_201zh_es

Operating instructions and Declaration of conformity (it) 587 kB, 22.09.2011
Code: mrl_srb_201zh_it

Operating instructions and Declaration of conformity (jp) 671 kB, 22.09.2011
Code: mrl_srb_201zh_jp

Operating instructions and Declaration of conformity (en) 579 kB, 24.08.2011
Code: mrl_srb_201zh_en

Operating instructions and Declaration of conformity (de) 586 kB, 24.08.2011
Code: mrl_srb_201zh_de

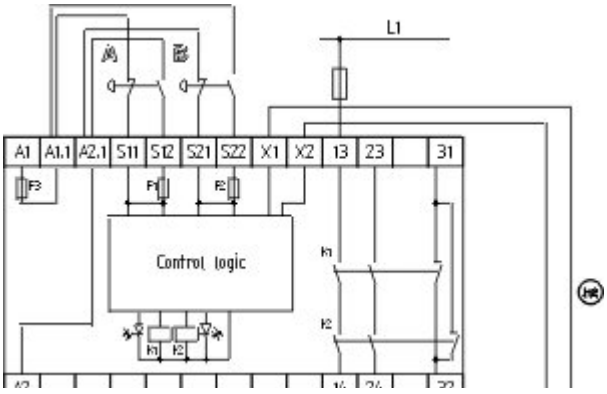
Operating instructions and Declaration of conformity (nl) 590 kB, 22.09.2011
Code: mrl_srb_201zh_nl

Operating instructions and Declaration of conformity (fr) 588 kB, 22.09.2011
Code: mrl_srb_201zh_fr

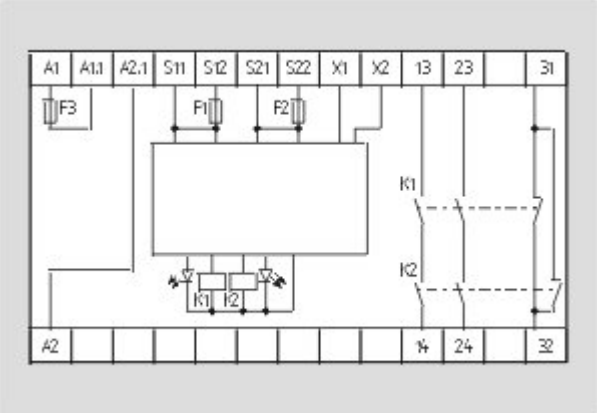
Wiring example (99) 15 kB, 05.05.2010
Code: Ksrb2l04

BG-test certificate (de) 40 kB, 28.02.2005
Code: z_201p01

Images



Wiring example



Internal wiring diagram

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