

## Datasheet - SRB201ZH-24VDC

Two-hand control panels / Monitoring two-hand control panels to EN 574 III A / SRB201ZH



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

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

### Ordering details

Product type description	SRB201ZH-24VDC
Article number	101163440
EAN Code	4250116201587
eCl@ss	27-37-19-01

### Approval

Approval



### 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	$\leq 2,0 \times 10^{-8}/h$ (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.

K	n-op/y	t-cycle
20 %	525.800	1,0 min
40 %	210.240	2,5 min
60 %	75.087	7,0 min
80 %	30.918	17,0 min
100 %	12.223	43,0 min

## Global Properties

Permanent light	SRB201ZH-24VDC
Standards	IEC/EN 60204-1, EN 60947-5-1, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	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	AgSnO <sub>2</sub> , self-cleaning, positive action
Weight	250
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	typ. 50 ms
Drop-out delay	
- Drop-out delay in case of emergency stop	typ. 30 ms / ≤ 37 ms

## Mechanical data

Connection type	Screw connection
Cable section	
- Min. Cable section	0,25
- Max. Cable section	2.5
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,6
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 %
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	+60 °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	
- Max. rated DC voltage for controls	20.4
- Max. rated DC voltage for controls	26.4
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
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
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

---

<p>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).</p> <p>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.</p> <p>(H2) = Feedback circuit</p> <p>The control recognises cross-short, cable break and earth leakages in the monitoring circuit.</p> <p>Simultaneity monitoring 0,5 seconds</p> <p>The wiring diagram is shown for the de-energised condition.</p>
--

## Documents

---

**Operating instructions and Declaration of conformity** (es) 299 kB, 02.08.2018

Code: mrl\_srb\_201zh\_es

**Operating instructions and Declaration of conformity** (da) 301 kB, 02.08.2018

Code: mrl\_srb\_201zh\_da

**Operating instructions and Declaration of conformity** (de) 275 kB, 18.07.2018

Code: mrl\_srb\_201zh\_de

**Operating instructions and Declaration of conformity** (cn) 441 kB, 23.11.2018

Code: mrl\_srb\_201zh\_cn

**Operating instructions and Declaration of conformity** (pl) 319 kB, 02.08.2018

Code: mrl\_srb\_201zh\_pl

**Operating instructions and Declaration of conformity** (jp) 395 kB, 02.08.2018

Code: mrl\_srb\_201zh\_jp

**Operating instructions and Declaration of conformity** (en) 288 kB, 18.07.2018

Code: mrl\_srb\_201zh\_en

**Operating instructions and Declaration of conformity** (fr) 302 kB, 02.08.2018

Code: mrl\_srb\_201zh\_fr

**Operating instructions and Declaration of conformity** (it) 301 kB, 02.08.2018

Code: mrl\_srb\_201zh\_it

**Operating instructions and Declaration of conformity** (pt) 309 kB, 02.08.2018

Code: mrl\_srb\_201zh\_pt

**Operating instructions and Declaration of conformity** (nl) 299 kB, 02.08.2018

Code: mrl\_srb\_201zh\_nl

**Wiring example** (99) 15 kB, 05.05.2010

Code: Ksrb2I04

**BG-test certificate** (de) 615 kB, 03.07.2018

Code: z\_201p01

**EAC certification** (ru) 1 MB, 15.03.2018

Code: q\_aesp01

## Images

---

