SRB 100DR

- Suitable for signal processing of potentialfree outputs, e.g. command devices
- 2 channel control
- 1 safety contact, STOP 0
- Time adjustable from 3 s to 30 s
- Signal processing with trailing edge
- Electronic fuse
- Switching capacity of the safety contacts 8 A
- Extended temperature range
- 4 LEDs to show operating conditions

Technical data

Standards:	IEC/EN 60204-1; EN 60947-5-1; EN ISO 13849-1; IEC 61508
Feedback circuit (Y/N):	no
ON delay with reset button:	typ. 50 ms
Rated operating voltage U_e:	24 VDC −15%/+20% residual ripple max. 10% 24 VAC −15%/+10%
Frequency range:	50 / 60 Hz
Fuse rating for the operating voltage:	Internal electronic protection, tripping current > 500 mA, reset after approx. 1 sec
Internal electronic protection (Y/N):	yes
Power consumption:	3,2 W; 6,0 VA
Monitored inputs:	
- Short-circuit recognition:	no
- Wire breakage detection:	yes
- Earth connection detection:	yes
Number of NC contacts:	2
Number of NO contacts:	0
Max. conduction resistance:	max. 40 Ω
Outputs:	
Number of safety contacts:	1 St. (13-14)
Max. switching capacity of the safety contacts:	250 VAC, 8 A ohmic (inductive in case of appropriate protective wiring)
Utilisation category to EN 60947-5-1:	AC-15; DC-13: EN 60947-5-1: 2007
Mechanical life:	10 million operations
Ambient conditions:	
Ambient temperature:	−25 °C … +60 °C
Storage and transport temperature:	−40 °C … +85 °C
Protection class:	Enclosure: IP40, Terminals: IP20, Clearance: IP54
Mounting:	Snaps onto standard DIN rail to EN 60715
Connection type:	Screw terminals
- min. cable section:	0.25 mm²
- max. cable section:	2.5 mm²
Weight:	250 g
Dimensions (Height x Width x Depth):	100 x 22,5 x 121 mm

Approvals

Ordering details

SRB 100DR

Classification

Safety parameters:

Standards:	EN ISO 13849-1, IEC 61508, EN 60947-5-1
PL:	STOP 0: up to e
Category:	STOP 0: up to 4
PFH value:	STOP 0: ≤ 2,00 x 10^{-8}/h
SIL:	STOP 0: up to 3
Mission time:	20 years

The PFH value of 2.00 x 10^{-8}/h applies to the combinations of contact load (current through enabling contacts) and number of switching cycles (n-op/y) mentioned in the table below. At 365 operating days per year and a 24-hours operation, this results in the below-mentioned switching cycle times (t-cycle) for the relay contacts.
Diverging applications upon request.

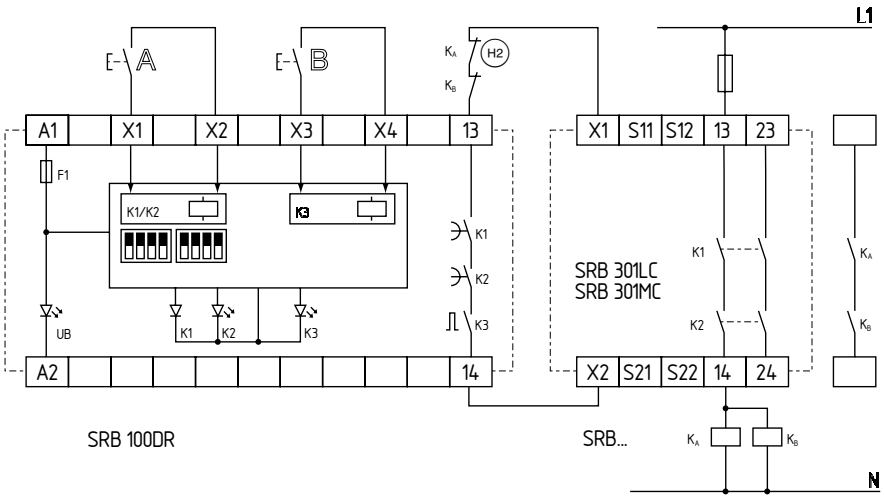
Contact load	n-op/y	t-cycle
20 %	525,600	1.0 min
40 %	210,240	2.5 min
60 %	75,087	7.0 min
80 %	30,918	17.0 min
100 %	12,223	43.0 min

Double reset

Note

- Start configuration: 2 time-dependent reset/on switches 1st and 2nd monitoring time between the 1st and 2nd reset button from 3 … 30 seconds adjustable through DIP switches
- The monitoring time is set through DIP switches located below the cover of the enclosure front. (Factory setting: 3 seconds)
- Actuator configuration: 1-channel control (output impulse approx. 200 ms) of the reset input of a downstream safety relay module
- (H2) = Feedback circuit
- Edge detection:
  After the device is reset, the trailing edge is evaluated, so that errors, e.g. welded contacts or manipulations cannot lead to dangerous situations.
- Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

Wiring diagram



LED

The integrated LEDs indicate the following operating states.

- Position relay K1
- Position relay K2
- Position relay K3
- Supply voltage U_B

Note

- The wiring diagram is shown with guard doors closed and in de-energised condition.