

# SRB-NA-R-C.16, ...-C.16/1

**Safety relay array for emergency stop devices, interlocking devices and others**

- ➡ **3 enabling outputs and 1 monitoring output**
- ➡ **Drop-out delayed (1 sec.) enabling outputs**
- ➡ **STOP category 1**
- ➡ **Cross-short recognition**

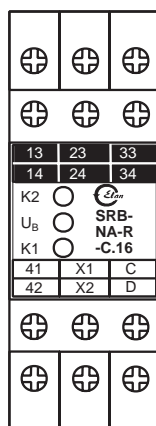
## Features

- Relay output: 3 NO, 1NC (Auxiliary NC for monitoring must not be used in safety enabling circuits!)
- Reset, feedback loop
- NC contacts for monitoring (SRB-NA-R-C.16/1: in series) (SRB-NA-R-C.16: in parallel)
- Input for emergency stop or door monitoring
- LED's for K1, K2, U<sub>B</sub>
- Housing 22.5 mm, made of thermoplastic in accordance with UL-94-V-0, red RAL 3000
- DIN rail mounting  
DIN EN 50 022

## Approvals



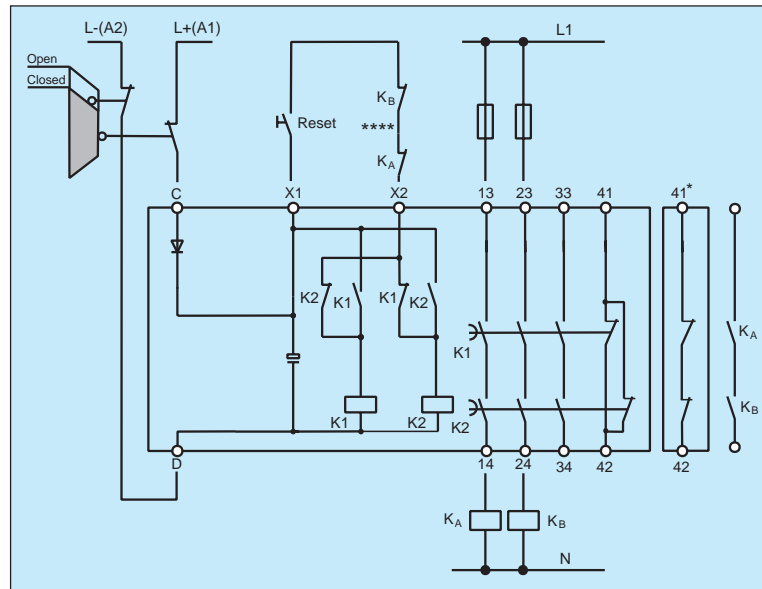
## Front view



## Product range

Type	Enabling outputs	Operating voltage	Part no.
SRB-NA-R-C.16-24VDC	3 NC ÷/1 NC	24 VDC	600 0035
SRB-NA-R-C.16/1-24VDC	3 NC ÷/1 NC	24 VDC	600 0034
SRB-NA-R-C.16-24VAC	3 NC ÷/1 NC	24 VAC	On request

## Wiring diagram



Example for dual-channel door monitoring using two limit switches (one with positive opening contacts) and external reset button.

Dual-channel output, suitable for contact reinforcement or contact multiplication, using relays or contactors with positively guided contacts.

\*\*\*\* = Feedback loop

Wire breakage and earth leakage in the monitoring circuits are detected.

Earth leakage at input D is detected only in mains with insulation leakage monitoring.

An external leading fuse 0.5 A is recommended.

\* Monitoring contacts in series at SRB-NA-R-C.16/1

For further examples refer to page 50/51

## Model specific Technical data

(refer to page 157 for general data)

Operating voltage	24 VDC –15%/+20%, residual ripple max. 10% 24 VAC –15%/+6%
Frequency	50/60 Hz (for AC operating)
Fuse (power supply)	M 0.5 A/250 V
Power consumption	max. 2.5 VA
Switching capacity (enabling contacts)	230 VAC, 6 A ohmic (inductive with suitable suppression)
Fuse (enabling contacts)	6 A slow blowing
Switching capacity (monitoring contacts)	24 V, 2 A ohmic (inductive with suitable suppression)
Fuse (monitoring contacts)	2 A slow blowing
Application category	AC 15/DC 13, DIN VDE 0660 Part 200
Pick-up delay	≤ 50 ms
Drop-out delay	1.1 s –20%/+20% (for $U_B = 24$ VDC)
Contact material / contacts	AgSnO, self cleaning, positively driven
Contact resistance	max. 100 mOhm when new
Air and creeping distances	DIN VDE 0110-1 (04.97), 4 kV/2
Connections	Self lifting screw terminals min. 0.6 qmm, max. 2.5 qmm
Dimensions	H/W/D 82 mm/22.5 mm/98.8 mm
Weight	190 g
Ambient operating temperature	–25 °C ... +45 °C (derating curve page 157)
Mechanical life	10 <sup>7</sup> switching cycles
Terminal labeling	DIN EN 60 445/DIN 40 719 Part 2

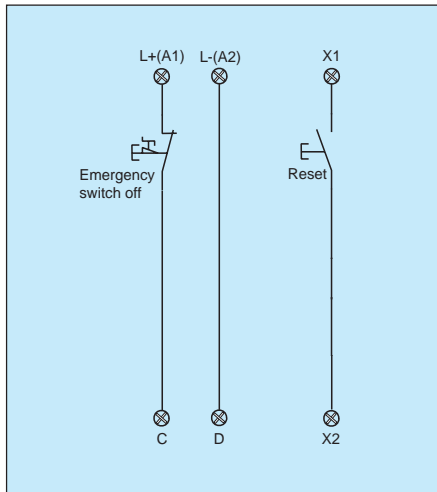
## Wiring example: Input level

Single-channel emergency stop switch according to EN 60 204-1.

Wire breakage and earth leakage in the emergency stop circuits are detected.

With external reset button.

Safety category 2  
in accordance with  
EN 954-1.



## Wiring example: Input level

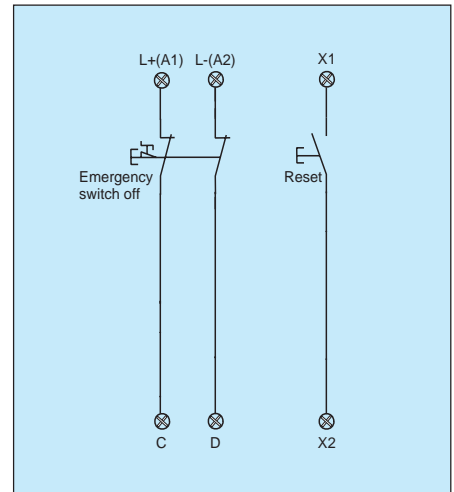
Dual-channel emergency stop switch according to EN 60 204-1.

Wire breakage and earth leakage in the emergency stop circuits are detected.

Cross-shorts in the emergency stop circuits are detected.

With external reset button.

Safety category 3  
in accordance with  
EN 954-1.



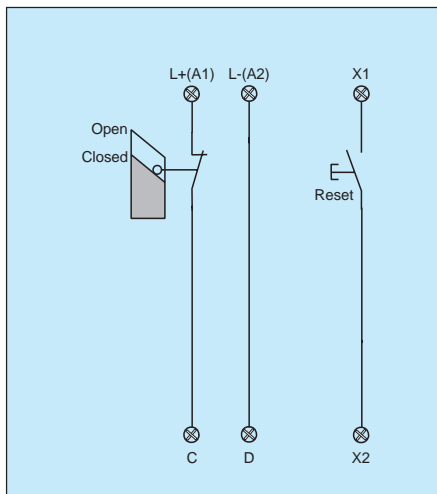
## Wiring example: Input level

Single-channel door monitoring according to EN 1088 limit switch with positive opening contact.

Wire breakage and earth leakage in the door monitoring circuits are detected.

With external reset button  
for increased safety  
requirements.

Safety category 2  
in accordance with  
EN 954-1.



## Wiring example: Input level

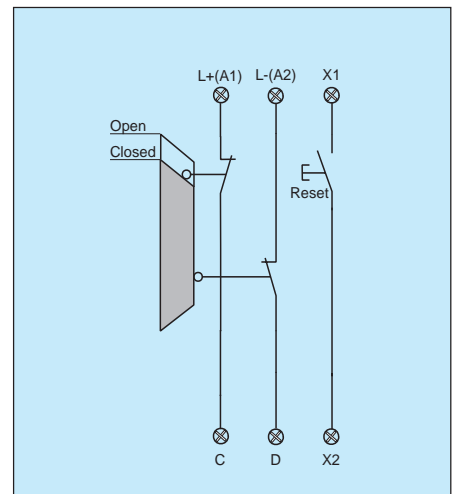
Dual-channel door monitoring according to EN 1088, one limit switch with positive opening contact.

Wire breakage and earth leakage in the door monitoring circuits are detected.

Cross-shorts in the door monitoring circuits are detected.

With external reset button  
for increased safety  
requirements.

Safety category 3  
in accordance with  
EN 954-1.



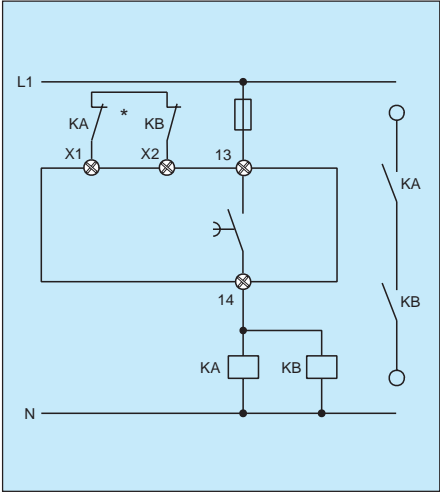
## Safety relevant advice!

The drop-out delay features in the SRB-NA-R-C.16 24 VDC refers to control category 1 "tried and tested components and principles" according to EN 954-1.

**Wiring example:  
Power level**

Single-channel output  
Suitable for contact reinforcement or contact multiplication, using relays or contactors with positively guided contacts.  
**Drop-out delay:**  
Safety category 1 in accordance with EN 954-1.

\* Reset button wired in series to feedback loop.



**Wiring example:  
Power level**

Dual-channel output  
Suitable for contact reinforcement or contact multiplication, using relays or contactors with positively guided contacts.  
**Drop-out delay:**  
Safety category 1 in accordance with EN 954-1.

\* Reset button wired in series to feedback loop.

