

# SRB modules 45 mm wide, standard versions, STOP category 1

- ✚ 4 enabling outputs and 1 monitoring output
- ✚ 1 enabling output drop-out delayed: 0 ... 30 sec.
- ✚ max. load current: 6 Ampere
- ✚ max. safety category: 4
- ✚ 1- or 2-channel triggering
- ✚ Trailing edge function selectable
- ✚ Cross-short recognition selectable
- ✚ Semiconductor monitoring outputs selectable
- ✚ 24 VDC/VAC version
- ✚ Approvals: BG, CSA, UL



Type	Options														
	Enabling outputs STOP cat. 0	Enabling outputs STOP cat. 1*	⇒ max. load current (A)	Auxiliary NC outputs	⇒ max. load current (A)	max. safety category	Time window	Cross-short recognition	Single-channel 1/2	Trailing edge function	External power inputs	Initial start test	24 VDC/VAC	48 VAC	115 VAC
SRB-NA-R-C.35/WE	3	1	6	1	2	4		●	●	●				✓	✓
SRB-NA-R-C.35/KE	3	1	6	1	2	4		●	●	●				✓	✓
SRB-NA-R-C.35/ WE.QS	3	1	6	1	2	4	+		●	●				✓	✓
SRB-NA-R-C.35/ KE.QS	3	1	6	1	2	4	+		●	●				✓	✓

\* = drop-out delay: 0 ... 30 sec.: setting by manufacturer (WE)/setting by customer (KE);

✚ = fixed; ● = selectable; ● = selectable feature; ✓ = in preparation

# SRB-NA-R-C.35

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

- ✎ **4 enabling outputs and 1 monitoring output**
- ✎ **1 enabling output drop-out delayed: 0 ... 30 seconds**
- ✎ **Selectable extras:**
  - Trailing edge function
  - Auto reset

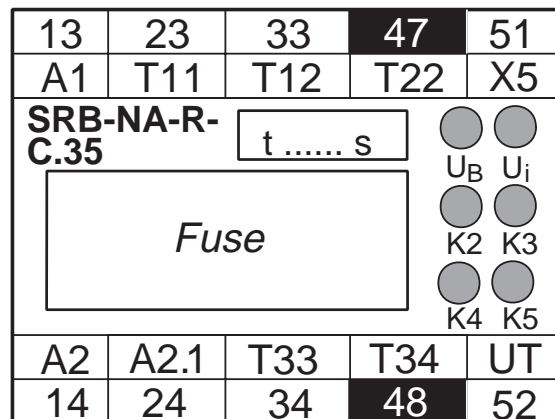
## Features

- Relay output: 4 NO, 1 NC  
1 NO drop out delayed  
(Auxiliary NC for monitoring must not be used in safety enabling circuits!)
- Reset, feedback loop
- Input for emergency stop or door monitoring
- LED's for K2, K3, K4, K5, U<sub>B</sub>, U<sub>i</sub>
- Housing 45 mm, made of thermoplastic in accordance with UL-94-V-0, red RAL 3000
- DIN rail mounting  
DIN EN 50 022

## Approvals



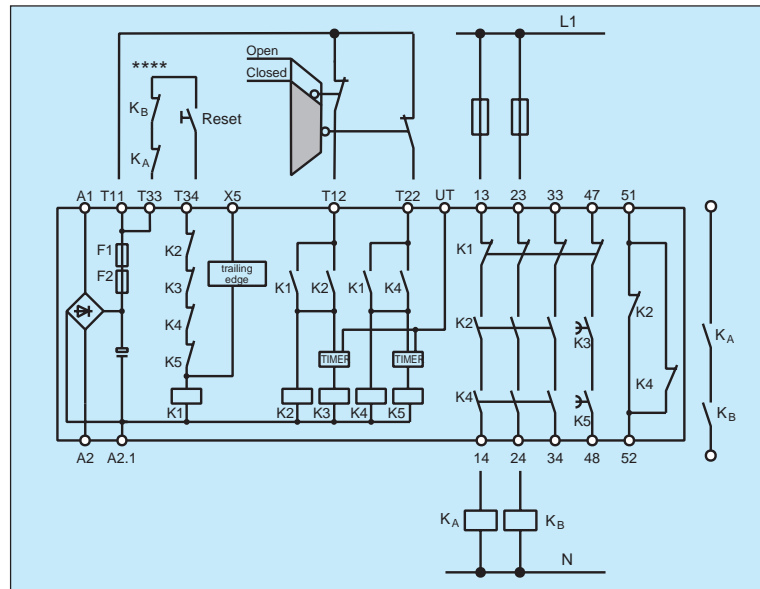
## Front view



## Product range

Type	Enabling outputs	Operating voltage	Part no.
SRB-NA-R-C.35/WE-24V	3 NO/1 NO/1 NC	24 VDC/VAC	600 0763
SRB-NA-R-C.35/KE-24V	3 NO/1 NO/1 NC	24 VDC/VAC	600 0762
SRB-NA-R-C.35/WE-QS-24V	3 NO/1 NO/1 NC	24 VDC/VAC	On request
SRB-NA-R-C.35/KE-QS-24V	3 NO/1 NO/1 NC	24 VDC/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.

For further examples refer to page 70/71

## 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)	F2: T 0.25 A/250 V (internal F1: T 0.5 A/250 V)
Power consumption	max. 3.5 W; 4.7 VA
Switching capacity (enabling contacts)	230 VAC, 6 A ohmic (inductive with suitable suppression) DC 13: 24 V/2 A; AC 15: 230 VAC/3 A
Fuse (enabling contacts)	6 A slow blowing
Switching capacity (monitoring contacts)	max. 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	≤ 200 ms
Drop-out delay	≤ 30 ms
Contact material / contacts	AgCdO 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. 0.5 qmm, max. 2.5 qmm
Dimensions	H/W/D 83 mm/45 mm/140 mm
Weight	280 g
Ambient operating temperature	–25 °C ... +45 °C (derating curve page 157)
Mechanical life	10 <sup>7</sup> switching cycles
Terminal labeling	DIN EN 50 005/DIN 50 013

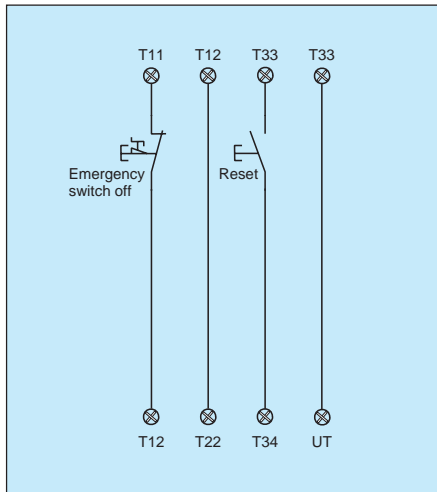
## Wiring example: Input level

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

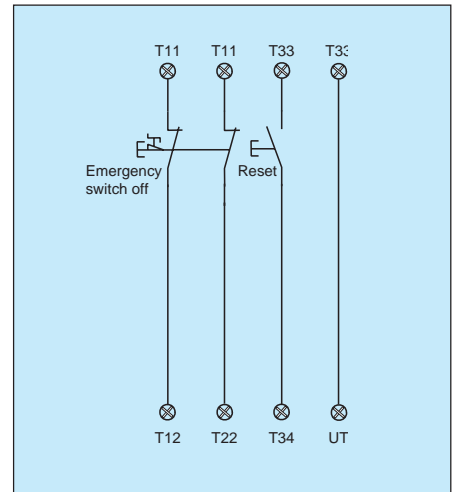
Dual-channel emergency stop switch according to EN 60 204-1.

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

Cross-shorts in the emergency stop circuits are **not detected**.

With external reset button.

Safety category 3 or 4  
in accordance with  
EN 954-1.



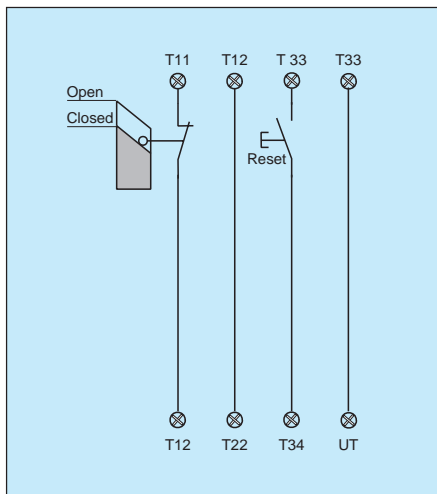
## Wiring example: Input level

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

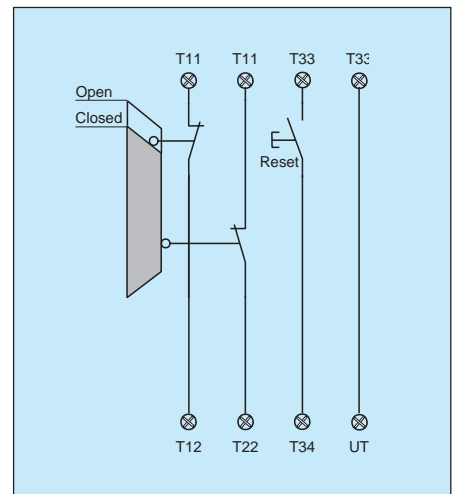
Dual-channel door monitoring according to EN 1088 one limit switch with positive opening contact.

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

Cross-shorts in the door monitoring circuits are **not detected**.

With external reset button  
for increased safety  
requirements.

Safety category 3 or 4  
in accordance with  
EN 954-1.



## Wiring example: Input level (Type QS)

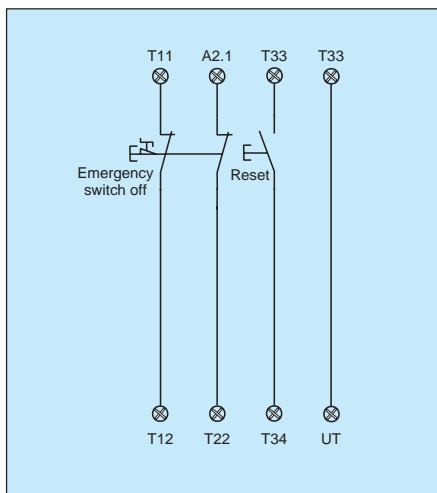
Dual-channel emergency stop switch according to EN 60 204-1.

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 or 4  
in accordance with  
EN 954-1.



## Wiring example: Input level (Type QS)

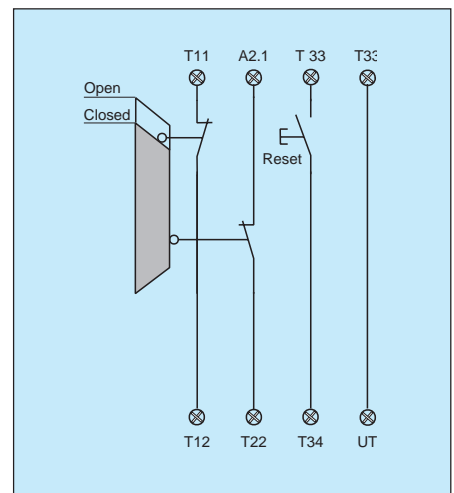
Dual-channel door monitoring according to EN 1088, one limit switch with positive opening contact.

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.

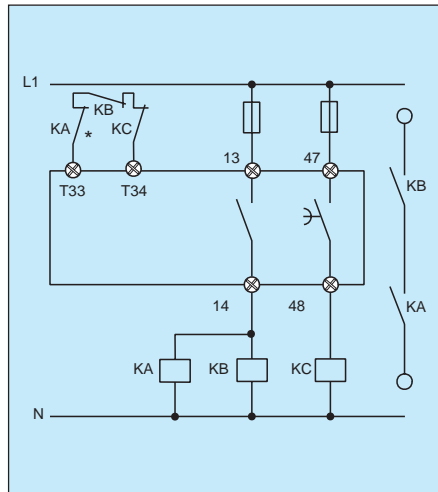
Safety category 3 or 4  
in accordance with  
EN 954-1.



## Wiring example: Power level

### Single-channel output

Suitable for contact reinforcement or contact multiplication, using relays or contactors with positively guided contacts.

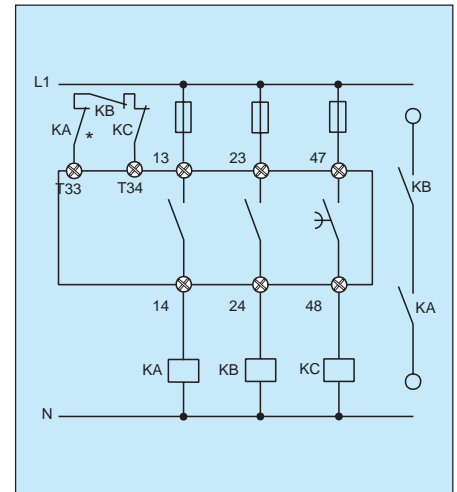


\* Reset button wired in series to feedback loop.

## Wiring example: Power level

### Dual-channel output

Suitable for contact reinforcement or contact multiplication, using relays or contactors with positively guided contacts.



\* Reset button wired in series to feedback loop.

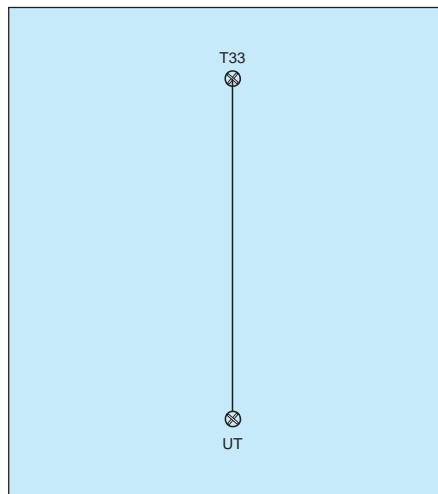
## Advice:

The supply for the electronic timers of the delayed enabling output 47/48 is on terminal UT.

For a controlled operation in case of power lost, supply external power to terminal UT.

### Warning:

If external voltage (24 VDC, no ripple) is applied on terminal UT, a fuse 0.1 A quick blow shall be provided.

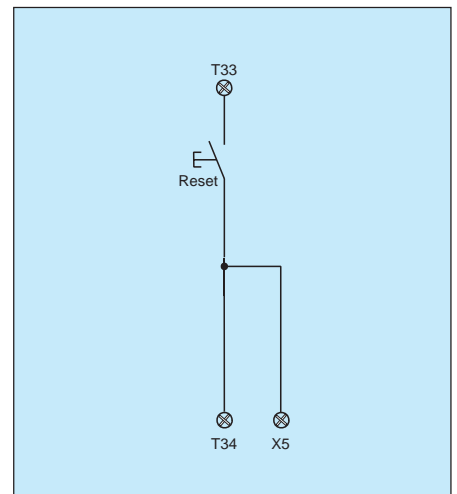


## Wiring example: Input level

Start with trailing edge function.

Module is activated after release of the reset button.

This prevents tampering of the reset button which could lead to an automatic reset.



## Advice:

Drop-out delay of the enabling output 47/48 adjustable 0 ... 30 sec.

Enabling output 47/48 corresponds to Stop-category 1 in accordance with EN 60 204-1.

Enabling output 13/14, 23/24 and 33/34 corresponds to Stop-category 0 in accordance with EN 60 204-1.

