

- ▶ Base device for Emergency Stop and Safety Gate applications
- ▶ Automatic or Manual Star
- ▶ 3 enabling current paths
- ▶ 1 signaling current path
- ▶ For applications up to safety category 2
- ▶ Stop category 0
- ▶ Width 22.5mm
- ▶ Industrial design



Technical data

1. Functions

Single-channel safety switching device for Emergency Stop and Safety Gate applications.

2. Indicators

Green LED U ON: indication of supply voltage
 Green LED K1,K2 ON/OFF: safety channels enabled

3. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
 Mounted on DIN-Rail TS 35 according to EN 50022
 Mounting position: any
 Shockproof terminal connection according to VBG 4,
 IP rating IP20
 Tightening torque: 0.5 to 0.6Nm
 Terminal capacity:
 2 x 0.14 to 0.75mm² without multicore cable end
 1 x 0.14 to 2.5mm² without multicore cable end
 2 x 0.25 to 0.5mm² flexible with multicore cable ends
 1 x 0.25 to 2.5mm² flexible with multicore cable ends

4. Input circuit

Supply voltage:
 24V AC/DC terminals A1-A2
 Tolerance:
 24V AC/DC -15% to +10%
 Rated frequency: 50 to 60Hz
 Rated consumption:
 24V AC/DC 3.2VA (AC: 1.8W / DC: 1.3W)
 Switch ON peak current: 1.7A
 Duration of operation: 100%
 Residual ripple bei DC: 2.4Vss

5. Output circuit

3 forced normally open contacts (enabling current paths)
 1 forced normally closed contact (signaling current path)
 Rated voltage: 230V AC/DC
 Rated current of enabling paths: max. 8A
 Fusing: gG 8A (MCB B or C)
 Rated current of signaling contacts: max. 5A
 Total current of all paths: max. 12A
 Mechanical life: 10 x 10⁶ operations
 Switching capacity (according to IEC 947-5-1):
 max. 6/min (AC-15: 4A/230V AC)
 max. 60/min (AC-15: 3A/230V AC)
 max. 6/min (DC-13: 4A/24V DC)
 max. 60/min (DC-13: 2.5A/24V DC)
 Insulation voltage: 300V AC (according to IEC 664-1)
 Surge voltage: 4kV, overvoltage category III
 (according to IEC 664-1)
 Release time t_R K1, K2: 80ms

6. Safety circuit

Function: connection of an E-stop or safety gate contact
 Connection: potential free normally open contact between supplying network and terminal A1
 Rated voltage: 24V DC
 Switch ON peak current: 1.7A
 Galvanic separation to power supply: No

6. Reset circuit

Function:
 Manual reset (monitored): terminals Y1-Y3
 Automatic reset: potential free normally open contact terminals Y1-Y2 bridged
 Rated voltage: 24V DC
 Rated current: 90mA
 Peak current: 1500mA
 Short circuit protection: PTC-fuse
 Response time: 2s
 Reset time of fuse: 3s
 Response time (K1,K2)
 Manual reset (monitored) t_{A1}: max. 60ms
 Automatic reset (t_{A2}): max. 60ms
 Pulse length t_M: min. 60ms
 Galvanic separation to power supply: No

7. Ambient conditions

Ambient temperature: -25 to +55°C
 (according to IEC 68-1)
 Storage temperature: -25 to +70°C
 Transport temperature: -25 to +70°C
 Relative Humidity: max. 83% (bei 23°C),
 max. 93% (bei 40°C)
 nach DIN 50016
 Pollution degree: 3 outside, 2 inside
 (according to IEC 664-1)

Functions

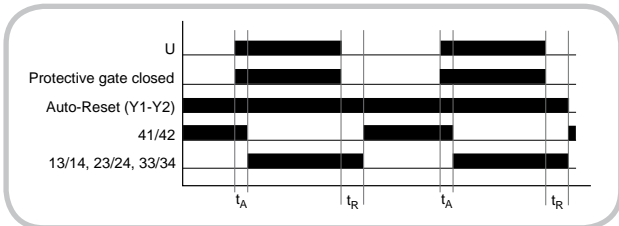
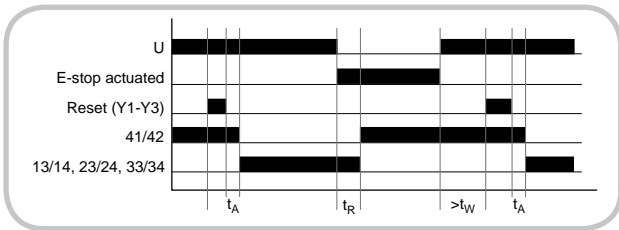
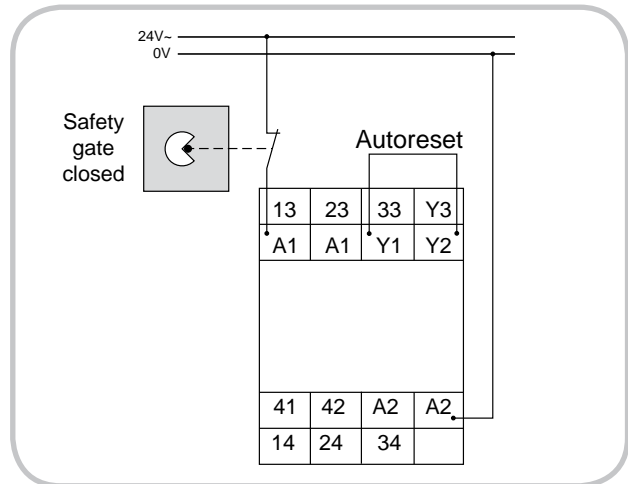
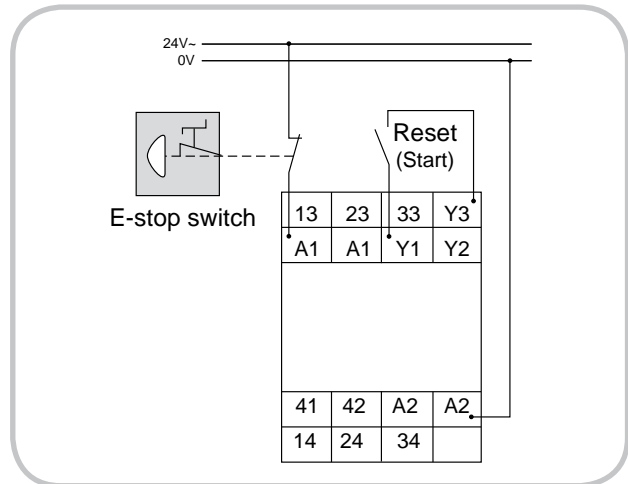
Single-channel safety switching device for Emergency Stop and Safety Gate applications

When supply voltage is applied to terminals A1 and A2 through the not-actuated E-stop switch or protective gate contact, the Starting Lockout is effective. The actuating of the RESET key connected to terminals Y1-Y3 (manual reset) or an bridge at terminals Y1-Y2 activates the control logic. This triggers the relays K1 and K2. The latter become self locking through their own contacts after the response time t_A . At the same time, the relay contacts of K1 and K2 deactivate the control logic.

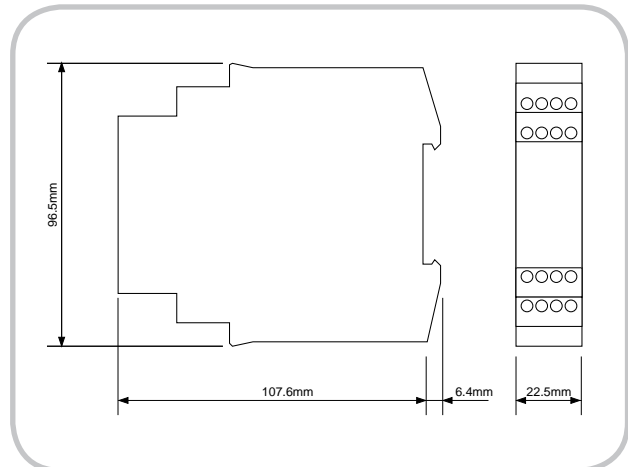
After this switch-on phase, the three enabling current paths (terminals 13-14, 23-24, 33-34), which are intended for the output, are closed and the signaling current path (terminals 41-42) is opened. Two LEDs display the status of the supply voltage (LED U) and the output relays K1 and K2 (LED K1, K2).

If the E-stop switch contact or safety gate contact is opened, the current leads for K1 and K2 are interrupted. The enabling current paths at the output are opened and the control contact is closed.

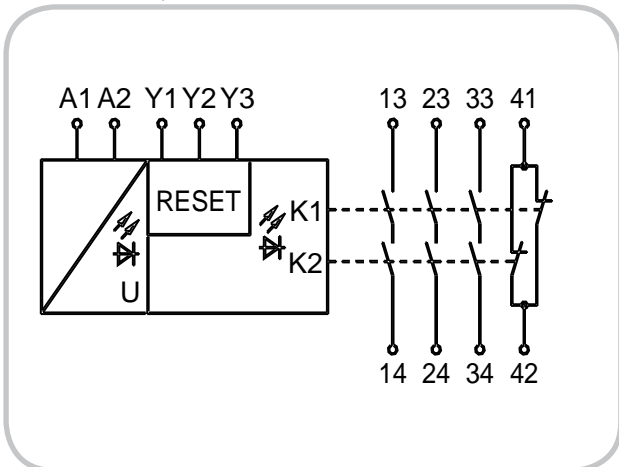
Connections



Dimensions



Internal circuitry



Subject to alterations and errors