## SRB 324ST V. 3



- Suitable for the signal treatment of potentialfree contacts, e.g. emergency stop command devices, position switches, interlocking devices with and without interlocking function and magnetic safety switches
- Suitable for the signal treatment of potentialloaded outputs, e.g. electronic safety sensors with p-type semi-conductor outputs as well as safety light grids and light curtains
- 1 or 2 channel control
- 3 safety contacts, STOP 0;

2 safety contacts, STOP 1, adjustable $1 \ldots 30$ s

- 4 signalling outputs
- 6 LEDs to show operating conditions
- With hybrid fuse
- Optional: Short-circuit recognition, manual reset with edge detection in fail-safe circuit, automatic reset function


## Approvals

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Ordering details

## Technical data

Standards: IEC/EN 60204-1; EN 60947-5-1; EN ISO 13849-1; IEC 61508
Start conditions:
Automatic or start button (monitored)
Feedback circuit (Y/N):
ON delay with automatic start: $\quad$ typ. 400 ms
ON delay with reset button: typ. 30 ms
Drop-out delay in case of emergency stop: (13-14; 23-24; 33-34): $\leq 30 \mathrm{~ms}$

Drop-out delay on „supply failure":
Rated operating voltage $U_{e}$ : typ. 80 ms
24 VDC -15\%/+20\%, residual ripple max. 10\%; 24 VAC -15\%/+10\%
Frequency range:
Fuse rating for the operating voltage: $50 / 60 \mathrm{~Hz}$
Internal electronic protection tripping current F1: > $2.5 \mathrm{~A}, \mathrm{~F} 2:>50 \mathrm{~mA}(\mathrm{~S} 11-\mathrm{S} 31)$, $>800 \mathrm{~mA}(\mathrm{X} 4)$; reset after disconnection of supply voltage
Internal electronic protection $(\mathrm{Y} / \mathrm{N})$ : yes
Power consumption:
3.2 W; 7.1 VA, plus signalling output

## Monitored inputs:

- Short-circuit recognition: optional
- Wire breakage detection: yes
Earth connection detection: ..... yes
Number of NC contacts: ..... 2
Number of NO contacts: $\max .40 \Omega$
Max. conduction resistance:


## Outputs:

Stop category:
Number of safety contacts: 5 (STOP 0: 13-14; 23-24; 33-34)
(STOP 1: 47-48; 57-58)
Number of auxiliary contacts:
1 (61-62)
Number of signalling outputs:
3 (Y1-Y3)
Max. switching capacity of the safety contacts: (STOP 0: 13-14; 23-24; 33-34): 250 VAC, 8 A
(STOP 1: 47-48; 57-58): 250 VAC, 6 A
ohmic (inductive in case of appropriate protective wiring)
Max. switching capacity of the auxiliary contacts: 24 VDC, 2 A
Max. switching capacity of the signalling outputs:
Utilisation category to EN 60947-5-1:
Fuse rating of the safety contacts:
24 VDC, 100 mA ; residual current: 200 mA AC-15; DC-13
(STOP 0: 13-14; 23-24; 33-34): 8 A slow blow (STOP 1: 47-48; 57-58): 6.3 A slow blow 2 A slow blow
Fuse rating of the auxiliary contacts: $\quad 2$ A slow blow
Fuse rating of the signalling outputs:
Mechanical life: 10 million operations

## Ambient conditions:

| Ambient temperature: | $-25^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Storage and transport temperature: | $-40^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$ |

Protection class: Enclosure: IP40, Terminals: IP20, Clearance: IP54
Mounting: Snaps onto standard DIN rail to EN 60715

Connection type:
Screw terminals, plug-in
Cable section: $0.25 \ldots 2.5 \mathrm{~mm}^{2}$
Dimensions (Height $\times$ Width $\times$ Depth): $\quad 100 \times 45 \times 121 \mathrm{~mm}$

## 

## Classification

Safety parameters:
Standards:
PL:
Category:
PFH value:
SIL:
Mission time:
The PFH values of $2.00 \times 10^{-8} / \mathrm{h}$ and $2.00 \times 10^{-7} / \mathrm{h}$ applie 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.

STOP 0: $\leq 2.00 \times 10^{-8} / \mathrm{h}$; STOP $1: \leq 2.00 \times 10^{-7} / \mathrm{h}$ STOP 0: up to 3; STOP 1: up to 2 STOP 0: up to 3; STOP 1: up to 22
EN ISO 13849-1, IEC 61508, EN 60947-5-1 STOP 0: up to e; STOP 1: up to d

| 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 |

## Safety controllers

## Note

Connection of an AZM 200 solenoid interlock to the SRB 324ST V. 3 safety controller

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The integrated LEDs indicate the following operating states

- Position relay K1
- Position relay K2
- Position relay K 3
- Position relay K4
- Supply voltage $U_{B}$
- Internal operating voltage $U_{i}$


## Wiring diagram



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

