

Emergency-Stop and guard door monitoring

SRB 324 ST

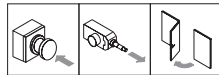


- Suitable for signal processing of potential-free outputs, e.g. emergency-stop command devices, interlocking equipment etc.
- Suitable for signal processing of outputs connected to potentials (AOPD's), e.g. safety light grids/curtains
- 1 or 2 channel control
- 5 enabling paths, two delayed 1...30 s
- 3 signalling contacts (transistor output)
- With hybrid fuse
- Optionally
 - Cross-wire detection
 - Automatic reset function
 - Manual reset with edge detection in fail-safe circuit
- Control Category 4 to EN 954-1
- Green LED indications for relay K1, K2, K3, K4, supply voltage U_B and internal fuse U_i

Technical data

Standards:	IEC/EN 60204-1, EN 954-1, BG-GS-ET-20
Stop category	3x Stop 0, 2x Stop 1 (1 ... 30 s delayed)
Control category:	4
Start conditions:	start, reset button (trailing edge), autostart
Enclosure:	glass-fibre reinforced thermoplastic
Connection:	plug-in, screw terminals
Cable section:	min. 0,2 mm ² , max. 2.5 mm ² solid or multi-strand lead (incl. conductor ferrules)
U_e :	24 VDC -15%/+20%, residual ripple max. 10% 24 VAC -15%/+10%
Frequency range:	50/60 Hz (on AC operational voltage)
I_e :	max. 0.2 A (DC version), plus signalling outputs Y1-Y3
Protection class:	terminals IP 20 enclosure IP 40 to EN 60529
Power consumption:	max. 7.8 VA; 4.8 W plus signalling outputs Y1-Y3
Max. fuse rating:	internal electronic trip F1, tripping current > 0.5 A, reset after disconnection of supply voltage
Monitored inputs	1 or 2 channels
Feedback circuit:	yes
Drive circuits:	S11/S12, S21/S22: max. 28 VDC
Enabling contacts:	5 enabling paths
Utilisation category:	AC-15, DC-13
Switching capacity:	enabling paths "Stop 0": 6 A/230 VAC, 6 A/24 VDC enabling paths "Stop 1": 3 A/230 VAC, 2 A/24 VDC
Fuse rating:	enabling paths: 6 A gG D-fuse
Auxiliary contacts:	61/62:
Switching capacity:	auxiliary contacts: 2 A/24 VDC
Signalling output:	Y1 - Y3: 8 transistor outputs 100 mA total, short-circuit proof
Max. switching frequency:	5 Hz
Contact material:	AgNi, AgSnO, self-cleaning, positive action
Contact resistance:	max. 100 mΩ in new condition
Pull-in delay:	≤ 30 ms
Drop-out delay:	≤ 30 ms
Air clearances and creepage distances:	DIN VDE 0110-1 (04.97), 4 kV/2
Overtoltage category:	III to DIN VDE 0110
Degree of pollution:	2 to DIN VDE 0110
Ambient temperature:	- 25 °C ... + 45 °C (Derating curve on request)
Mechanical life:	10 million operations
Function display:	6 LED
Weight:	480 g
Dimensions:	45 x 100 x 121 mm

Approvals



Ordering details

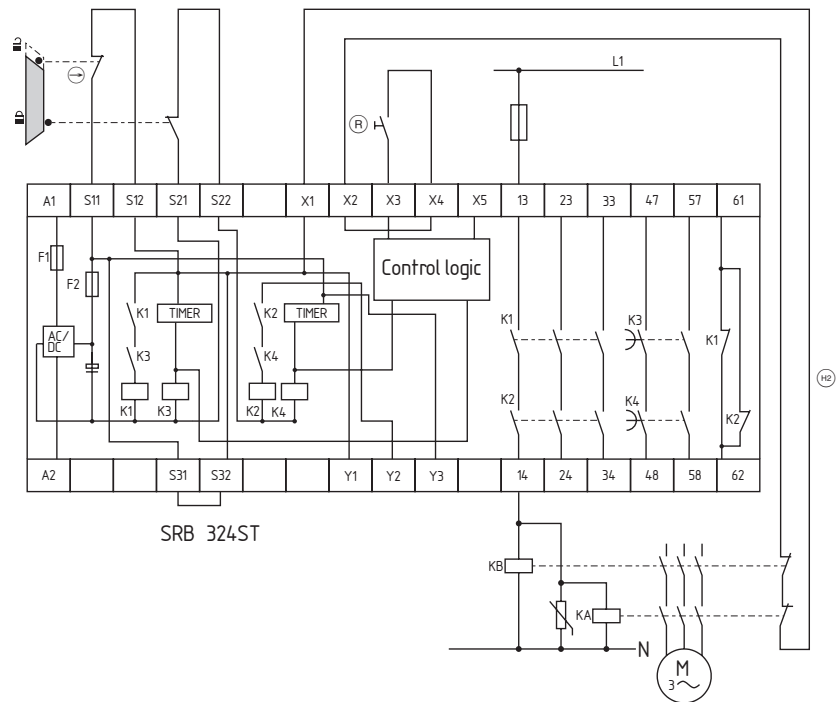
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Note

- Input level: the example shows a 2-channel control of a guard door monitoring with two position switches, wherof one with positive break, external reset button (R); cross-wire monitoring and feedback circuit (HG)
- The control recognises cross short, cable break and earth leakages in the monitoring circuit.
- F1 = Hybrid fuse
- Relay outputs: Suitable for 2 channel control, for increase in capacity or number of contacts by means of contactors or relays with positive-guided contacts.
- For 1-channel control, connect the NC contact to S11/S12 and bridge S12/S32 and S21/S22
- Connect potential p-type outputs of safety light grids/curtains to S12/S32 and bridge S21/S22. The devices must have the same reference potential.
- Automatic start:
The automatic start is programmed by connecting the feedback circuit to the terminals X1/X2. If the feedback circuit is not required, establish a bridge at X1/X2 and X4/X5.
- Drop-out delay:
The enabling path "Stop 1" 37/38 is adjustable for 1 to 30 seconds drop-out delay. Setting of the drop-out delay time is carried out by means of a DIP switch from the front of the enclosure.
- Signalling outputs
Y1 = Status input S12
Y2 = Status input S22
Y3 = Status operating voltage

Wiring diagram



LED

Function indication:

The integrated LEDs indicate the following operating states.

- Position relay K1
- Position relay K2
- Position relay K3
- Position relay K4
- Supply voltage U_B
- Internal operating voltage U_i

Note

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