Safety Monitoring Relays

Safety Expansion Unit

- Power requirements-the SR105E will accept 24 VAC/DC
- Outputs—the SR105E has 3 N/O outputs to route power to the coils of power contactors plus 1 N/C auxiliary output for monitoring by the safety monitoring relay
- Expander capability—the SR105E may be used with any other SR Series relay to expand the total available number of N/O outputs to power contactors



Conforms to EN60439-1, EN60947-1/5/7, EN61000-6, EN62061, EN ISO 13849-1 UL and C-UL listed TÜV Rheinland approved

Specifications

| Electrical | All Models | | | | |
|-------------------------------|---|--|--|--|--|
| Power Supply: | ±10%, 50-60 Hz, 24 VAC/DC | | | | |
| Power Consumption: | Approx. 1 VA | | | | |
| Relay Outputs: | 3 N/O + 1 N/C auxiliary monitoring for safety monitoring relay | | | | |
| Output Rating AC: | Inductive AC-15, 4 A/230 V | | | | |
| Output Rating DC: | Inductive DC-13, 2 A/24 V | | | | |
| Min Switched Current/Voltage: | 20 mA/24 V | | | | |
| Impulse Withstand Voltage: | 2500 V | | | | |
| Max Drop-Out Time: | 12 ms (75 ms by removing supply voltage) | | | | |
| Max Output Fuse: | 6 A quick-acting or 4 A slow-acting | | | | |
| Mechanical | | | | | |
| Mounting: | 35 mm (1.38 in.) DIN rail | | | | |
| Case Material: | Fiber-filled Polyamide PA6.6 | | | | |
| Max Wire Size: | 1 x 2.5 mm ² (14 AWG) stranded | | | | |
| Weight: | 230 g (8.1 oz.) | | | | |
| Color: | Red | | | | |
| External Switches: | None | | | | |
| Indication: | Green = K1 Closed, Green = K2 Closed | | | | |
| Mechanical Life: | 1 x 10 ⁷ operations | | | | |
| Environmental | | | | | |
| Enclosure Protection: | IP20 terminals, IP40 (NEMA 1) housing | | | | |
| Operating Temperature: | 24 VAC/DC: -15 to 60°C (5 to 140°F) | | | | |
| | 115 VAC: -15 to 40°C (5 to 104°F) | | | | |
| Humidity: | 93% RH at 104°C (219°F) | | | | |
| Compliance | | | | | |
| Standards: | EN60439-1, EN60947-1/5/7, EN61000-6, EN62061, EN ISO 13849-1 | | | | |
| Approvals/Listings: | CE marked for all applicable directives, UL and C-UL, TÜV Rheinland | | | | |
| Reliability Data | | | | | |
| per EN ISO 13849-1: | Cat 4, PLe, PFHd 1.19E-08 | | | | |

Specifications are subject to change without notice.

Note:

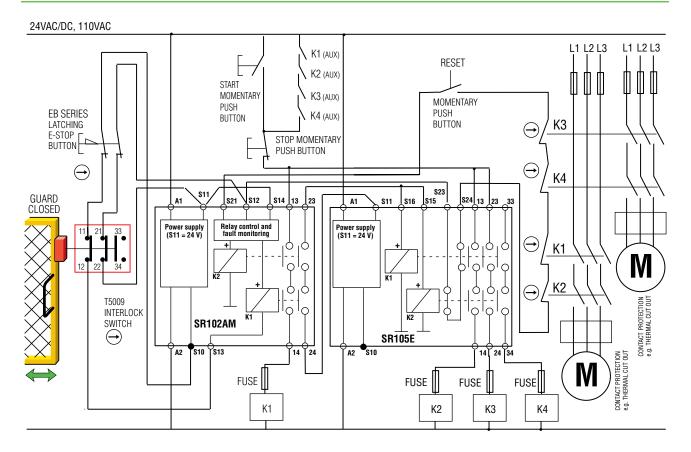
The safety contacts of the STI switches are described as normally closed (N/C)—i.e., with the guard closed, actuator in place, and the machine able to be started.





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Application



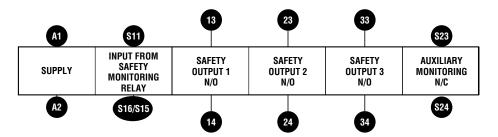
Output Contact Arrangements

Terminal Pin Assignments



| 14 | \otimes | \otimes | S23 | A1 | \otimes | \otimes | 13 |
|----|-----------|-----------|-----|-----|-----------|-----------|----|
| 24 | \otimes | \otimes | S24 | S11 | \otimes | \otimes | 23 |
| 34 | \otimes | \otimes | S10 | S15 | \otimes | \otimes | 33 |
| | \otimes | \otimes | A2 | S16 | \otimes | \otimes | |

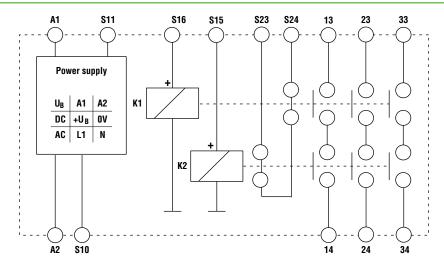
Terminal Connections







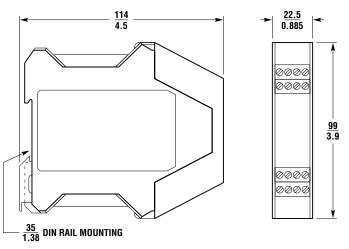
Block Diagram



Dimensions

(mm/in.)

SR105E



Ordering

| Model | Supply | Outputs | Auxiliary | Part No. | |
|----------|-----------|---------|-----------|------------|--|
| SR105E01 | 24 VAC/DC | 3 N/O | 1 N/C | 44510-1051 | |





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