

Safety Monitoring Relays

SR223SMT

Safety Module Timer Unit

- Power requirements—the SR223SMT will accept 24 VAC/DC or 115 VAC
- Delayed outputs—the SR223SMT has 1 N/O on-delay output, plus 2 N/C off-delay outputs (selectable from 1 second to 31 seconds) to provide delayed unlocking of solenoid locking switches; the delay time begins when power is applied to the SR223SMT
- Monitoring outputs—the SR223SMT has 2 solid-state signaling outputs
- External Device Monitoring (EDM) is provided with a N/C loop between Y1 and Y2 on the SR223SMT
- Diagnostic LEDs provide status indication of supply power, safety outputs, feedback loop, and time delay



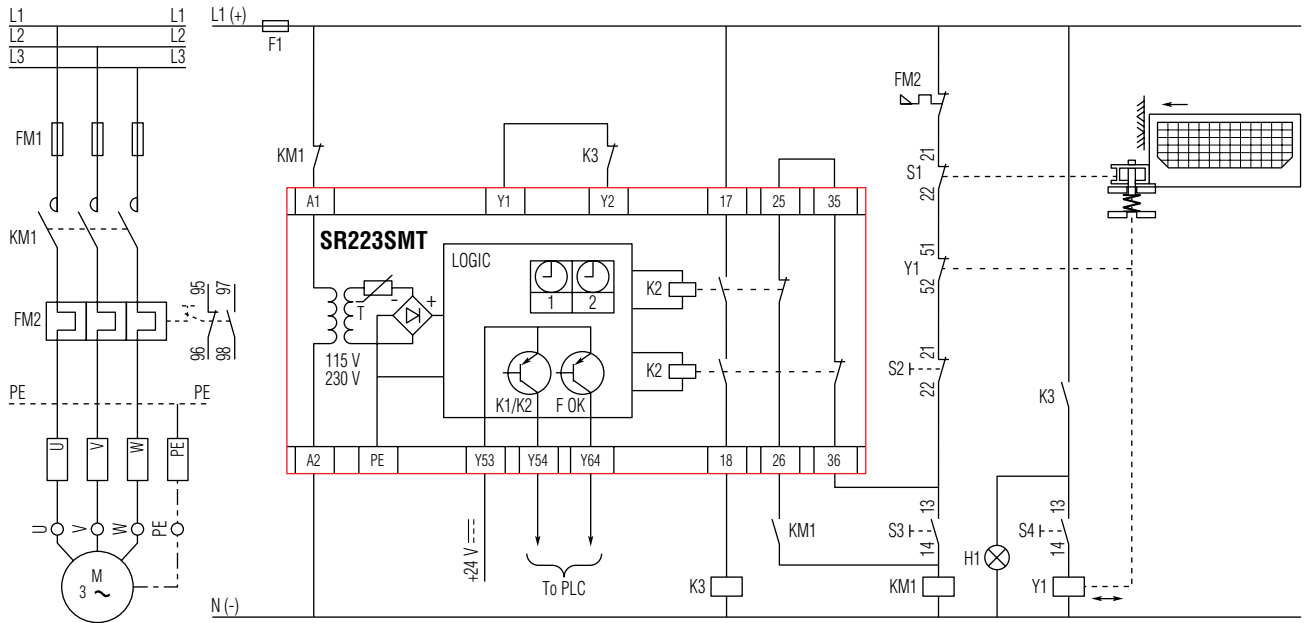
Conforms to EN60947-1/5, EN61000-6, EN62061, EN ISO 12100-2, EN ISO 13849-1/2
UL and C-UL listed
CSA and TÜV Rheinland approved

Specifications

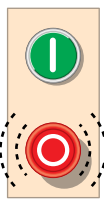
| Electrical | All Models | SR223SMT01 | SR223SMT02 |
|-----------------------------------|---------------------------------------------------------------------------------------------|----------------|------------|
| Power Supply: | ±10% | 24 VAC/DC | 115 VAC |
| Power Consumption: | | ≤ 4.3 VA/2.3 W | ≤ 6.5 VA |
| Internal Fuse: | Electronic | | |
| Safety Inputs: | None | | |
| Relay Outputs: | 1 N/O + 2 N/C switched at preset time delay (1-31 sec.) | | |
| Auxiliary Outputs: | 2 solid state for signaling | | |
| Max. Switched AC: | Inductive AC-15, 1800 VA inrush, 180 VA maintained | | |
| Max. Switched DC: | Inductive DC-13, 1.5 A/24 V | | |
| Min Switched Current/Voltage: | 10 mA/17 V (provided that the contact has never been used with higher loads) | | |
| Impulse Withstand Voltage: | 4000 V | | |
| Max Drop-Out Time: | n/a | | |
| Max Output Fuse: | 4 A slow-acting or 6 A fast-acting | | |
| Reset Mode: | Time function is reset only by interrupting the supply voltage | | |
| External Device Monitoring (EDM): | N/C loop between Y1 and Y2 | | |
| Mechanical | | | |
| Mounting: | 35 mm (1.38 in.) DIN rail | | |
| Case Material: | Polyamide PA6.6 | | |
| Max Wire Size: | 2 x 1.5 mm (16 AWG) stranded | | |
| Weight: | AC version: 360 g (12.7 oz.); DC version: 250 g (8.8 oz.) | | |
| Color: | Red with black body | | |
| External Adjustment: | Time delay via 2 potentiometers | | |
| Indication: | Green: Power on, Green: Outputs activated Green: Feedback closed, Green: Timer activated | | |
| Environmental | | | |
| Enclosure Protection: | IP20 terminals, IP40 (NEMA 1) housing | | |
| Operating Temperature: | -10 to 55°C (14 to 131°F) | | |
| Compliance | | | |
| Standards: | EN60947-1/5, EN61000-6, EN62061, EN ISO 12100-2, EN ISO 13849-1/2/8 | | |
| Approvals/Listings: | CE-marked for all applicable directives, UL and C-UL, CSA, TÜV Rheinland | | |
| Reliability Data | | | |
| per EN ISO 13849-1: | Cat. 3, PLd, PFHd 1.30E-07 | | |

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.

Application



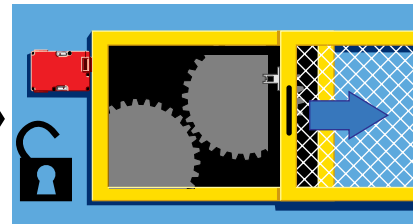
Operation



Stop signal
to SR223SMT
Power is applied
to SR223SMT

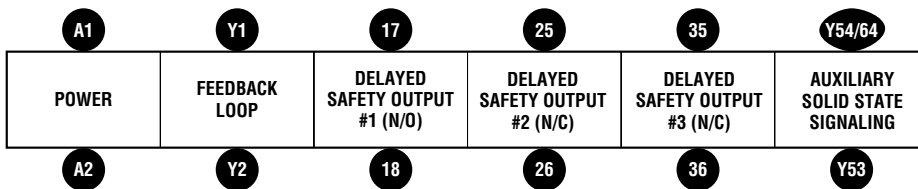


SR223SMT times down to a
preset time then signals guard
locking switch to unlock

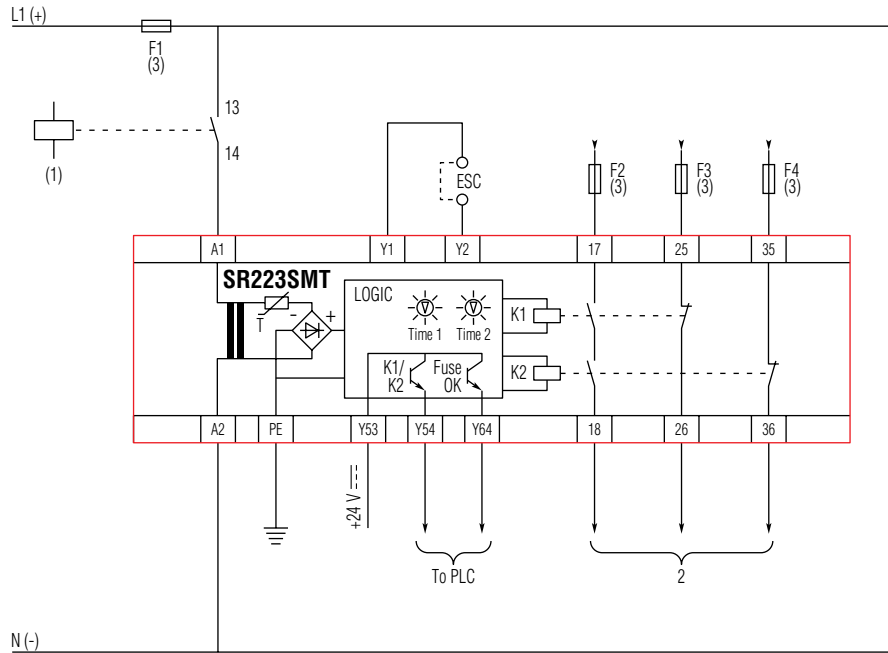


Guard locking switch unlocks guard
allowing safe access to machine

Terminal Connections



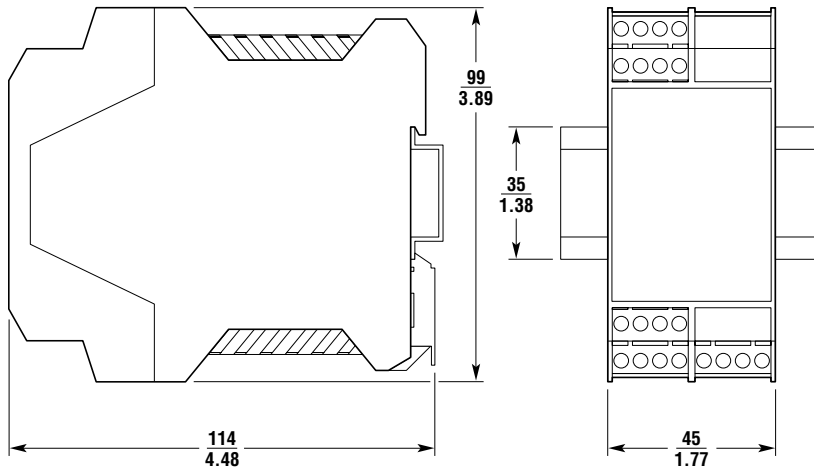
Block Diagram



- (1) Controlling signal
- (2) Floating relay outputs with time delay on energization
- (3) See Technical Data for maximum fuse sizes

Dimensions

(mm/in.)



Ordering

| Model | Supply | Delayed Outputs | Auxiliary | Part No. |
|------------|-----------|-----------------|---------------|------------|
| SR223SMT01 | 24 VAC/DC | 1 N/O + 2 N/C | 2 Solid State | 44510-2231 |
| SR223SMT02 | 115 VAC | 1 N/O + 2 N/C | 2 Solid State | 44510-2232 |

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