



Conforms to EN60204-1, EN292, and EN692
UL and C-UL listed, CSA and BG approved



H
safety monitoring relays

SR125SMS

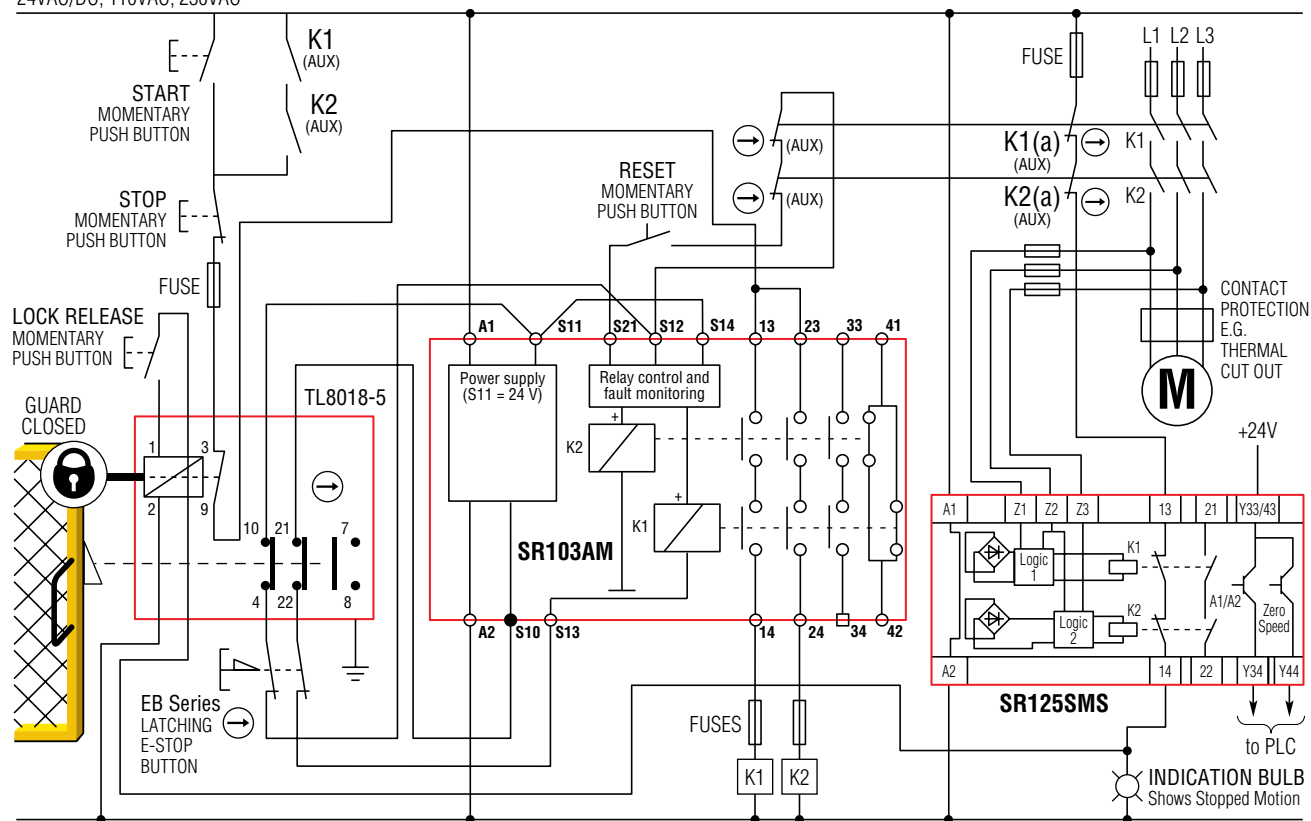
Stop Motion Sensing Unit

- Power requirements—the SR125SMS will accept 24 VDC, 110 VAC, or 220 VAC
- Motion detection input—the SR125SMS detects the stop condition of all types of AC or DC motors by sensing the motor's back EMF across terminals Z1, Z2 and Z3
- Drive compatible—the SR125SMS will function with electronic motor control devices such as variable speed controllers, DC injection brakes, etc.
- Selectable speed limit—the SR125SMS has 1 N/O and 1 N/C outputs that are switched when motor speed reaches the adjustable preset limit (0.01 to 0.10 V) for the particular output
- Auxiliary output—the SR125SMS has 2 solid state auxiliary signaling outputs

A Go to the Engineering Guide
For in-depth information on safety standards and use.

Application

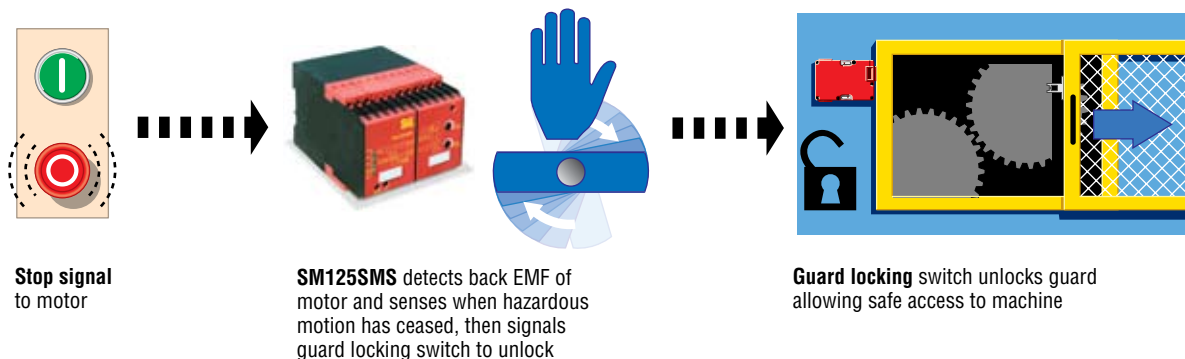
24VAC/DC, 110VAC, 230VAC



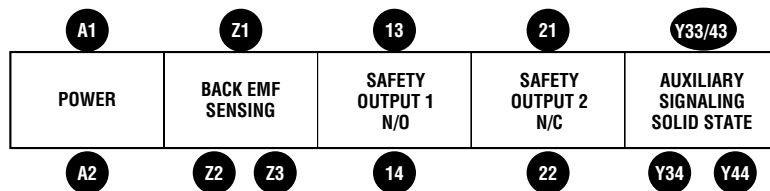
H
safety monitoring relays

For a full explanation of the circuit operating principle and fault detection, see "Common Circuit Examples" in the Engineering Section of this catalog.

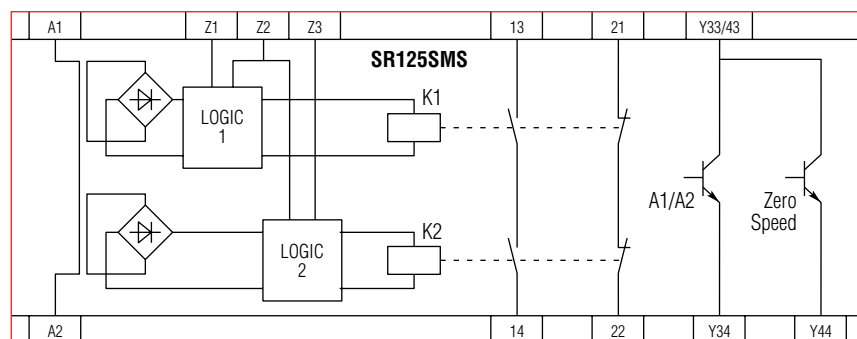
Operation



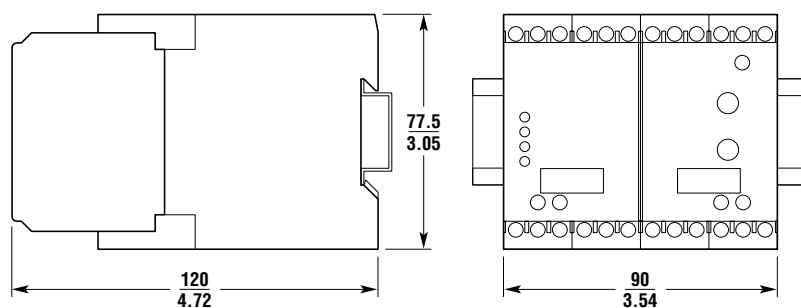
Terminal Connections



■ Block Diagram



■ Dimensions — mm/in.



■ Specifications

Electrical	All Models	SR125SMS00	SR125SMS02	SRS125SMS03
Power Supply:	±10%	24 VDC	110 VAC	220 VAC
Power Consumption:		≤3.5 W	≤7 VA	≤7.5 VA
Internal Fuse:	Electronic			
Safety Inputs:	Back EMF sensing between Z1 and Z2 and Z3			
Maximum Motor Voltage:	500 VAC (0 to 60 Hz)			
Detection Threshold:	0.01 V			
Relay Outputs:	1 N/O + 1 N/C switched at preset detection threshold			
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, 1.2-1.5 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:	n/a			
Mechanical				
Mounting:	35 mm (1.38 in.) DIN rail			
Case Material:	Polyamide PA6.6			
Max Wire Size:	2 x 2.5 mm (14 AWG) stranded			
Weight:	AC: 600 g (21 oz.); DC: 500 g (18 oz.)			
Color:	Red with black body			
External Adjustment:	Motor speed preset via potentiometer			
Indication:	Green = Power On	Green = Channel 1 activated,		
	Green = Channel 2 activated	Green = CH1 + CH2 activated		
Environmental				
Enclosure Protection:	IP20 terminals, IP40 (NEMA 1) housing			
Operating Temperature:	-10 to 55°C (14 to 131°F)			
Compliance				
Standards:	EN1088, EN954-1, EN292, EN692, EN60204-1,			
Approvals/Listings:	CE-marked for all applicable directives, UL and C-UL, CSA, BG			
Safety Category:	Cat. 3 per EN954-1 (SR125SMS internal operation)			

Specifications are subject to change without notice.

Note: The safety contacts of the Omron 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.

■ Ordering

Model	Supply	Inputs	Outputs	Auxiliary	Part No.
SR125SMS00	24 VDC	Back EMF Sensing	1 N/O + 1 N/C	2 Solid State	44510-1250
SR125SMS02	110 VAC	Back EMF Sensing	1 N/O + 1 N/C	2 Solid State	44510-1252
SR125SMS03	230 VAC*	Back EMF Sensing	1 N/O + 1 N/C	2 Solid State	44510-1253

*230 VAC units are available on special order. Minimum quantities may apply.