



Conforms to EN60204-1, EN954-1, EN292, VDE 0113-1
UL and C-UL listed, BG approved



H
safety monitoring relays

SR107AD, SR108AD and SR109AD Dual Channel Safety Monitoring Relay

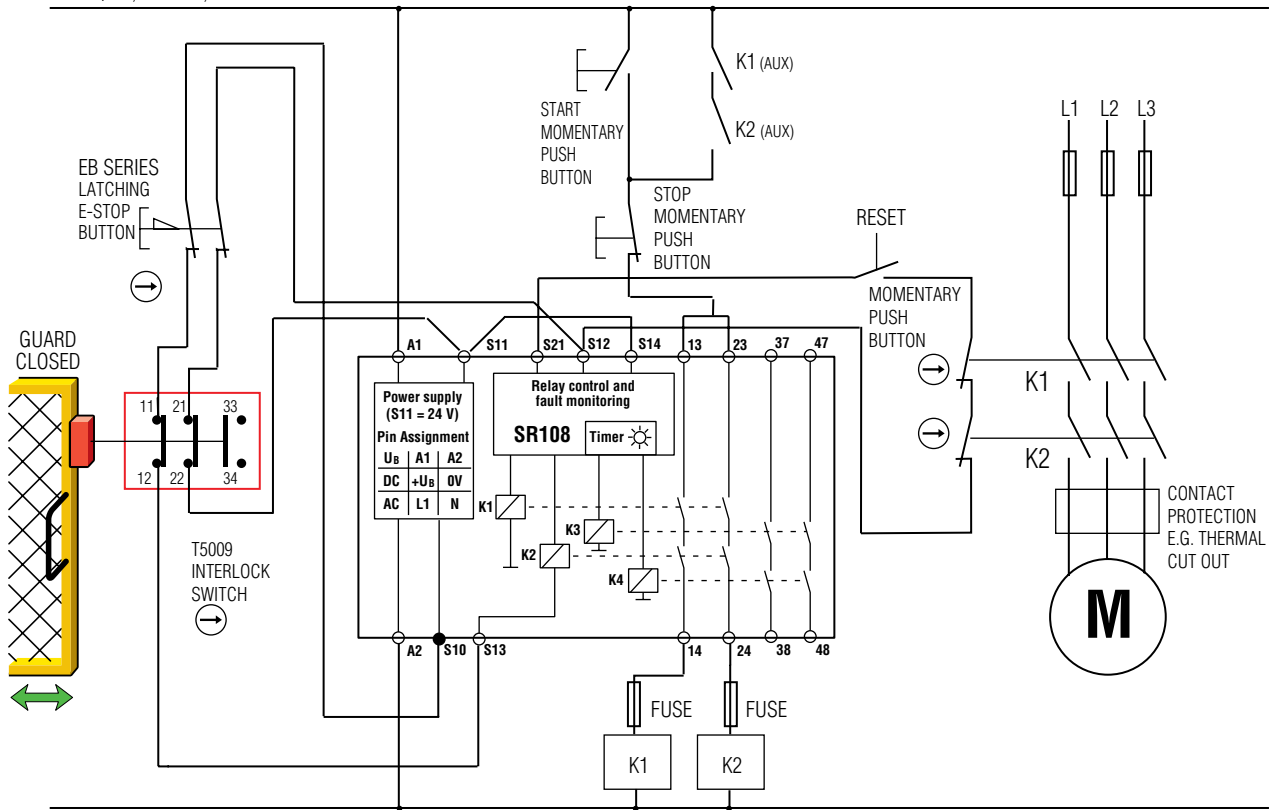
- Power requirements—the SR107AD, SR108AD and SR109AD will accept 24 VAC/DC
- Inputs—the SR107AD, SR108AD and SR109AD will accept single or dual N/C inputs or dual PNP solid-state inputs from a light curtain (see SR102AM for application wiring for a light curtain)
- Outputs—the SR107AD, SR108AD and SR109AD have a total of 4 N/O outputs with 3, 2 or 1 of the outputs with a time delay of 1-30 sec.
- External Device Monitoring (EDM) is provided with a N/C loop between S12 and S21 on the SR107AD, SR108AD and SR109AD
- Reset mode—a monitored manual start or an auto/manual start may be configured with the SR107AD, SR108AD and SR109AD. Monitored manual reset requires closure of the reset circuit followed by opening of the circuit. Reset occurs when circuit is opened. Auto reset requires only closure of the reset circuit as reset occurs when circuit is closed.
- PLC Compatible—The N/O off delayed outputs make it possible to use the SR107AD, SR108AD and SR109AD on machines with Programmable Logic Controllers that require some time to execute an orderly shutdown

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

Application

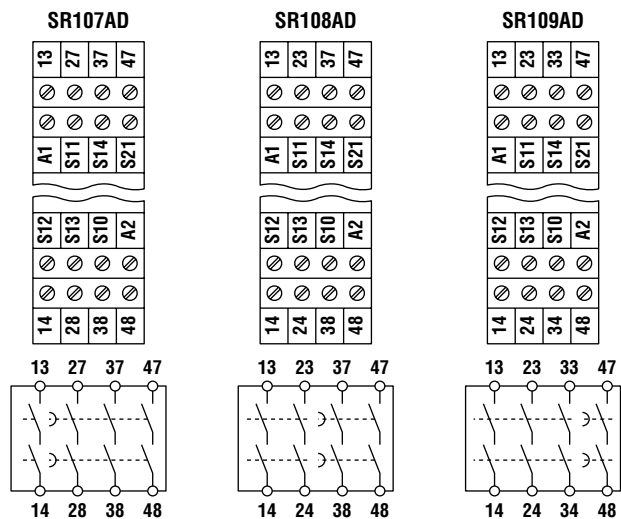
 See the SR102AM for wiring to a light curtain

24VAC/DC, 110VAC, 230VAC



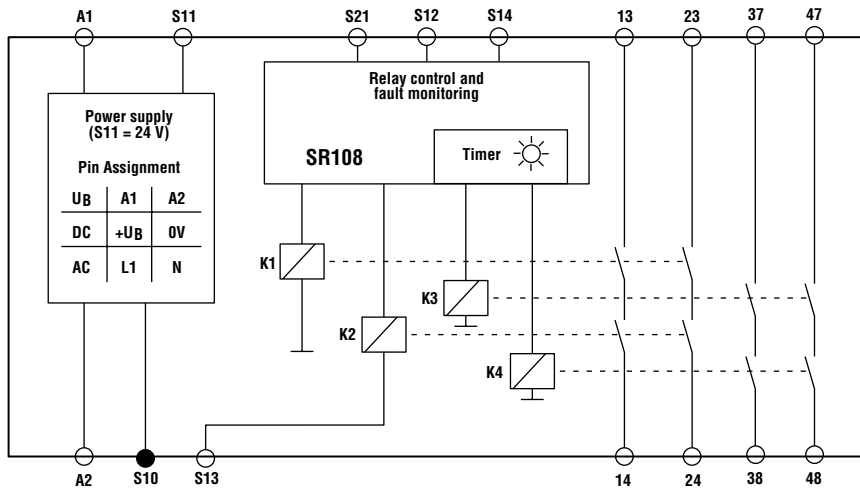
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Terminal Connections and Output Contact Arrangements



SR107AD, SR108AD and SR109AD

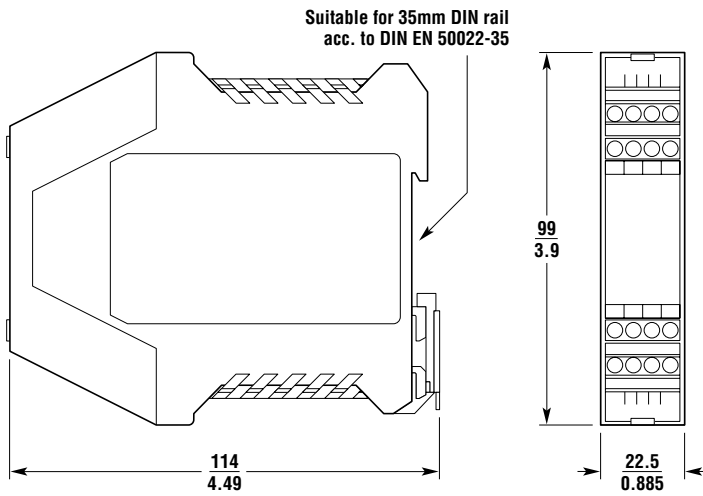
■ Block Diagram



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■ Dimensions — mm/in.



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■ Specifications

Electrical	All Models	SR107AD	SR108AD	SR109AD
Power Supply:	±10%, 50-60 Hz, 24 VAC/DC			
Power Consumption:	4.6 W			
Safety Inputs:	1 N/C or 2 N/C			
Max Input Resistance:	800 Ohms per channel			
Outputs:		1 N/O + 3 N/O delayed	2 N/O + 2 N/O delayed	3 N/O + 1 N/O delayed
Auxiliary Outputs:	None			
Max Switched AC:	Inductive AC-15, 3 A/250 VAC; Resistive AC-12, 8 A/250 V			
Max Switched DC:	Inductive DC-13, 3 A/24 VDC; Resistive DC-12, 8 A/50 V			
Min Switched Current/Voltage:	10 mA/24 V			
Impulse Withstand Voltage:	2500 V			
Max Drop-Out Time:	10 ms (75 ms by removing supply voltage)			
Max Output Fuse:	8 A quick-acting fuse or 6 A slow-acting fuse			
Start Mode:	Monitored manual (S11-S21) or auto/manual (S12-S21)			
External Device Monitoring (EDM):	N/C loop between S12 and S21			
Mechanical				
Mounting:	35 mm (1.38 in.) DIN rail			
Case Material:	Polyamide PA6.6			
Max Wire Size:	1 x 2.5 mm ² (14 AWG) stranded			
Weight:	250 g (8.8 oz.)			
Color:	Red			
External Switches:	Output delay adjustment (1 to 30 sec.)			
Indication:	4, status displays for relays K1 to K4			
Mechanical Life:	1 x 10 ⁶ operations			
Environmental				
Enclosure Protection:	IP20 terminals, IP40 (NEMA 1) housing			
Operating Temperature:	-15 to 40°C (-5 to 140°F)			
Humidity:	93% RH at 104°C (219°F)			
Compliance				
Standards:	EN60204-1, EN954-1, VDE 0113 part 1			
Approvals/Listings:	CE-marked for all applicable directives, UL and C-UL, BG			
Safety Category:	Cat. 4 per EN954-1 (SR107, SR108, SR109 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	Immediate Outputs	Delayed Outputs	Part No.
SR107AD01	24 VAC/DC	2 N/C	1 N/O	3 N/O	44510-1071
SR108AD01	24 VAC/DC	2 N/C	2 N/O	2 N/O	44510-1081
SR109AD01	24 VAC/DC	2 N/C	3 N/O	1 N/O	44510-1091