MSR9T

Description

The MSR9T has one normally closed and one normally open dual-channel input for use with gate interlocks and emergency stop buttons in higher risk applications. The MSR9T is typically used for gate interlocks incorporating the diversity of one positive opening and one non-positive opening interlock.

The MSR9T has output monitoring that can accommodate an automatic/manual reset. Automatic/manual reset can use a jumper or can be used to check operation of the contacts.

The MSR9T has two normally open safety outputs and one normally closed auxiliary output. The safety outputs have independent and redundant internal contacts to support the safety function. The auxiliary contact is a nonsafety output intended to provide an external signal about the status of the safety outputs.

Features

- Category 3 per EN 954-1
- Stop category 0
- One N.C. and one N.O. dual channel input
- Two N.O. safety outputs
- One N.C. auxiliary output
- Automatic reset
- 45 mm wide housing

LED Indicators

Green	Power On
Green	Output On

Specifications

Safety Ratings			
Standards	EN 954-1, ISO13849-1, IEC/EN 60204-1, IEC 60947-5-1, ANSI B11.19, AS4024.1		
Safety Classification	Cat. 3 per EN 954-1 (ISO 13849-1)		
Certifications	CE Marked for all applicable directives, cULus, and c-Tick		
Power Supply			
Input Power Entry	24V AC/DC, 115/230V AC, 50/60 Hz		
Power Consumption	<4V A		
Inputs			
Safety Inputs	1 N.C. & 1 N.O.		
Input Simultaneity	0.5 seconds		
Input Resistance, Max.	500 Ω		
Reset	Auto./Manual		
Response Time	50 ms		
Outputs			
Safety Contacts	2 N.O.		
Auxiliary Contacts	1 N.C.		
Thermal Current/$_{Ith}$	4 A (nonswitching)		
Rated Impulse withstand Voltage	2500V		
Switching Current @ Voltage, Min.	10 mA @ 10V		
Fuses, Output	5 A quick acting (external)		
Electrical Life	220V AC/4A/880VA cosϕ = 0.35...0.1 M 220V AC/1.7A/375VA cosϕ = 0.6...0.5 M 30V DC/2A/60W = 1 M 10V DC/0.01A/0.1W = 2 M		
Mechanical Life	2,000,000 operations		
Utilization Category			
A300/AC-15	(Ue)	240V	120V
	(Ie)	3 A	6 A
A300/DC-13	(Ue)	24V	
	(Ie)	3 A	
Environmental and Physical Characteristics			
Enclosure Type Rating/ Terminal Protection	IP40 (NEMA 1), DIN 0470/ IP20, DIN 0470		
Operating Temperature [C (F)]	-10...+55 ° (14...131 °)		
Vibration	0.75 mm (0.30 in.) peak, 10...55 Hz		
Shock	30 g, 11 ms half-sine		
Mounting	35 mm DIN Rail		
Weight [g (lb)]	210 (0.46)		
Conductor Size, Max.	1 x 2.5 mm2 (14 AWG) stranded, 1 x 4 mm2 (12 AWG) solid		

* Usable for ISO 13849-1:2006 and IEC 62061. Data is based on the following assumptions:
- Mission time/Proof test interval of 20 years
- Functional test at least once within six-month period

Product Selection

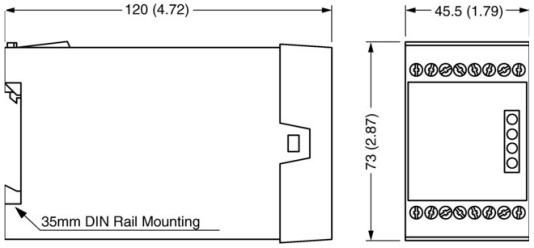
Inputs	Safety Outputs	Auxiliary Outputs	Terminals	Reset Type	Power Supply	Cat. No.
1 N.C. & 1 N.O.	2 N.O.	1 N.C.	Fixed	Auto./Manual	24V AC/DC	440R-F23027
					110/230V AC	440R-F23028

Accessories

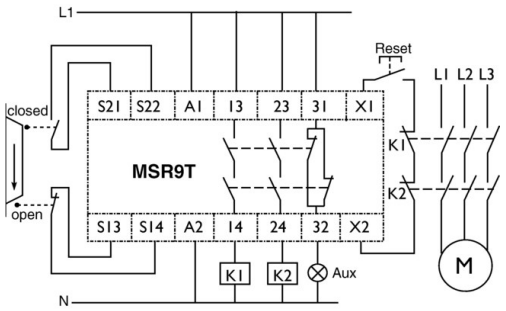
Description	Cat. No.
500 mA fuse—Bussmann Cat. No. ETF-500 mA	440R-A31562

Approximate Dimensions

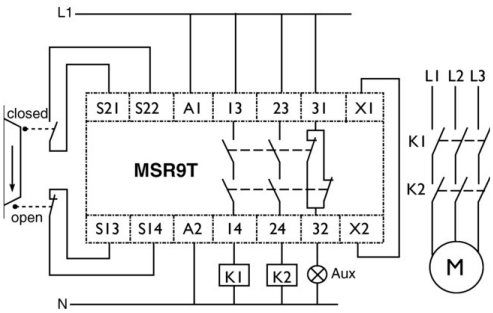
Dimensions are shown in mm (in.). Dimensions are not intended to be used for installation purposes.



Typical Wiring Diagrams



Dual-Channel Safety Gate, Manual Reset, Dual-Channel Output, Monitored Output



Dual-Channel Safety Gate, Automatic Reset, Dual-Channel Output, No Monitored Output

Application Details