

# Monitoring Safety Relays

## Minotaur MSR8T



### Description

The MSR8T has 1 N.C. single channel input for use with gate interlocks and emergency stop buttons in lower risk applications.

The MSR8T 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 MSR8T has 3 N.O. safety outputs and 2 N.C. auxiliary outputs. The safety outputs have independent and redundant internal contacts to help ensure the safety function. The auxiliary contacts are nonsafety outputs intended to provide an external signals about the status of the safety outputs.

The MSR8T can be used either as an extension unit to other Minotaur units or as an independent single channel input device. When used as an extension unit, the MSR8T inputs are connected to one of the outputs on the host unit. The outputs on the MSR8T will then mimic the outputs on the host unit.

### Features

- Category 3 per EN 954-1
- Stop category 0
- 1 N. C. single channel input
- 3 N.O. safety outputs
- 2 N.C. auxiliary output
- 45mm wide housing

### Specifications

Standards	EN 954-1, ISO13849-1, IEC/EN 60204-1, IEC 60947-5-1, ANSI B11.19, AS4024.1
Category	Cat. 3 per EN 954-1 (ISO 13849-1)
Approvals	C-Tick, CE marked for all applicable directives and cULus
Power Supply	24V AC/DC or 110/230V AC 50/60Hz
Power Consumption	<4VA
Safety Inputs	1 N.C.
Maximum Input Resistance	200 Ω
Reset	Automatic/Manual
Outputs	3 N.O. Safety; 2 N.C. Auxiliary
① Output Utilization per IEC 60947-5-1 (Inductive)	B300 AC-15 4A/250V AC, 4A/120V AC P300 DC-13; 3A/24V DC
Thermal Current (non switching)	4A
Fuses Input (internal, replace.) Output (external)	500mA time lag 5A quick acting
Min. Switched Current/Voltage	10mA/10V
Maximum Dropout Time	90ms
Indication LEDs	Red = Power On Green = Output On
Impulse Withstand Voltage	2500V
Installation Group	C in accordance with VDE 0110
Pollution Degree	3
Operating Temperature	-10°C to +55°C (+14°F to +131°F)
Humidity	90% RH
Enclosure Protection	IP40, (NEMA 1), DIN 0470
Terminal Protection	IP20, DIN 0470
Conductor Size	1 x 2.5mm <sup>2</sup> (14AWG) stranded, 1 x 4mm <sup>2</sup> (12AWG) solid
Torque Settings—terminal screws	1N·m (8.85lb·in)
Case Material	Red Polycarbonate
Mounting	35mm DIN rail
Weight	210g (0.46lbs)
Electrical Life	220V AC/4A/880VA cosφ=0.35 220V AC/1.7A/375VA cosφ=0.6 30V DC/2A/60W 10V DC/0.01A/0.1W
Mechanical Life	2,000,000 operations
Vibration	0.75mm (0.30in) peak, 10-55Hz
Shock	30g, 11ms half sine

① See Output Ratings on page 1-29 for details. Consult factory for ratings not shown.

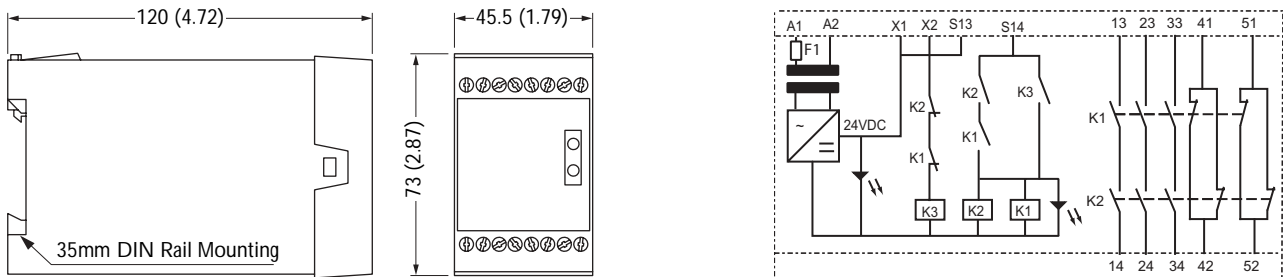
**Product Selection**

Type	Safety Outputs	Auxiliary Outputs	Power Supply	Catalogue Number
1 N.C.	3 N.O.	2 N.C.	24V AC/DC	440R-E23030
			110/230V AC	440R-E23031

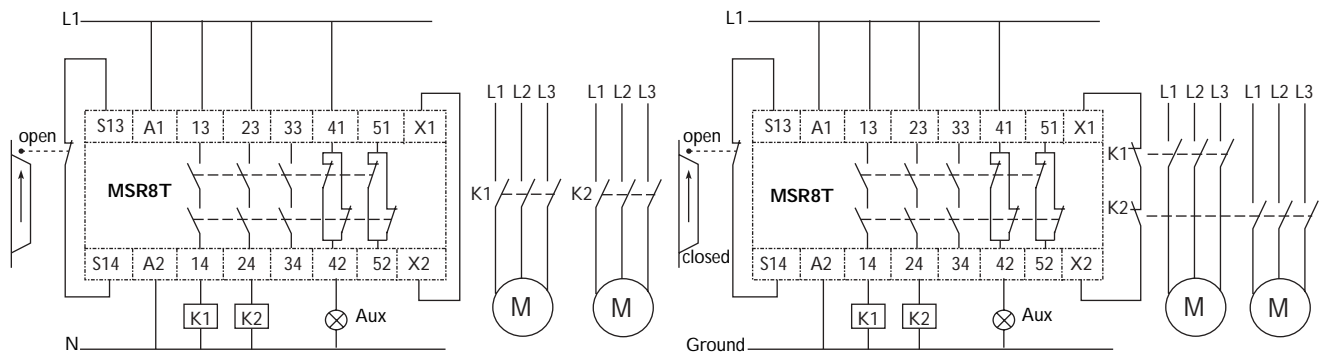
**Accessories**

Description	Page Number	Catalogue Number
500mA Fuse	14-6	440R-A31562

**Dimensions—mm (inches) Block Diagram**



**Typical Wiring Diagrams**



*Single-Channel Safety Gate, Automatic Reset,  
Single-Channel Output, No Monitored Output*

*Single-Channel Safety Gate, Automatic Reset,  
Single-Channel Output, Monitored Output*

**Application Details**

