

Safety Relays

Two Hand Relays

Minotaur MSR35H/HP



Housing with removable terminals shown.



Description

The Minotaur MSR35H/HP is a microprocessor-based, two-hand control monitoring safety relay, with safety rated, solid state outputs.

The input of the MSR35H/HP accepts two switches, each containing one normally open and one normally closed. Both switches must be actuated within 0.5 seconds of each other.

The reset capability of the MSR35H/HP allows it to set up for manual or automatic start and restart.

The outputs include two normally-open safety rated outputs that can be connected to loads up to 2A at 24V DC. These outputs can be used to send a safety stop signal to a machine or manufacturing system.

The MSR35H/HP also has one solid state normally-closed auxiliary output, which must only be used to indicate the status of the MSR35H/HP.

Features

- Cat. 4 per EN954-1
- Cat. IIIC per EN574
- 2 Solid State Safety Outputs
- 1 Solid State Auxiliary Output
- Two-hand control input

Specifications

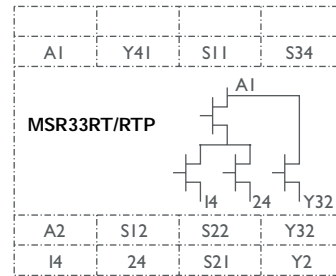
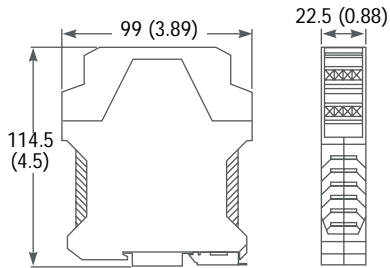
Standards	EN954-1, ISO13849-1, EN574, IEC/EN60204-1, ANSI B11.19, AS4024.1
Safety Category	Cat. 4 per EN954-1 (ISO13849-1) Cat. IIIC per EN574
Approvals	CE for all applicable directives, C-Tick, cULus, TUV
Power Supply	24V DC SELV
Power Consumption	3W
Safety Inputs	1 N.C. & 1 N.O. (Two sets)
Max. Allowable Input Resistance	200 ohms
Outputs	2 N. O. Safety, 1 N.C. Aux,
Output Rating Safety Auxiliary	2A @ 24VDC 50mA @ 24VDC
Fuses, output external	6A slow blow or 10A quick blow
Power On Delay	3s
Response Time	15ms
Recovery Time	20ms
Indication LEDs	Green = Power (Pwr) Green = K1 Closed Green = K2 Closed
Pwr LED 3s Blink Diagnostics Constant 2 Blinks 4 Blinks Continuous Blinking	Initializing Phase Normal Operation Config. change during operation Solid state output switch fault Internal Fault
Operating Temperature	-5°C to +55°C (+14° to +131°F)
Humidity	90% RH
Enclosure Protection	IP40 (NEMA 1), DIN 0470
Terminal Protection	IP20, DIN 0470
Pollution Degree	2
Conductor size	0.2 – 2,5mm ² (24 – 14AWG)
Mounting	35mm DIN rail
Weight	130g (0.287 lbs)
Vibration	10-55Hz, 0.35mm
Shock	10g, 16ms, 100 shocks

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

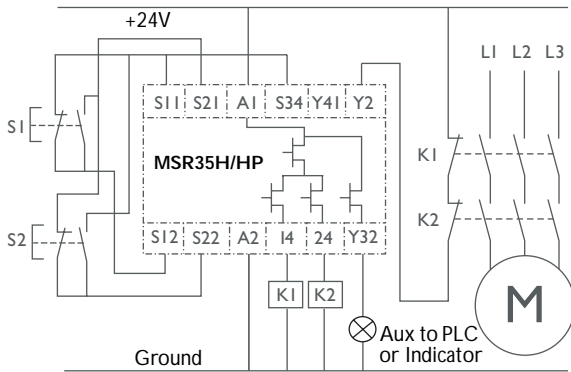
Product Selection

Inputs	Safety Outputs	Auxiliary Outputs	Terminals	Catalogue Number
Two-Hand Control	2 N.O. Solid state	1 N.O. Solid state	Fixed	440R-D23201
			Removable	440R-D23202

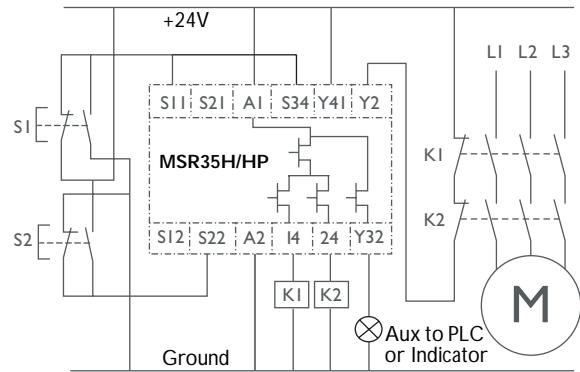
Dimensions—mm (inches) Block Diagram



Typical Wiring Diagrams



*Two-Hand Control, Dual Channel Outputs,
Automatic Reset, Output Monitoring*



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