

Thermistor Trip Relay

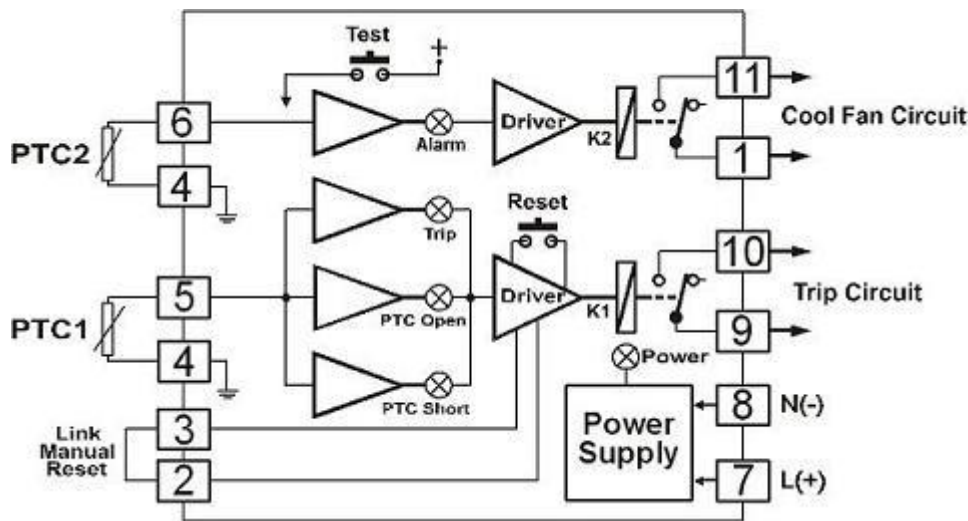
TM395



- Prevent Motor/Transformer damage from high-temp
- PTC Thermistor Sensor
- Two Level Protection (Alarm and Trip)

Thermistor Trip Relay TM395 This device protects electrical equipment- such as motors and transformers- from damage caused by excessive temperatures (over-temperature conditions) by operating in conjunction with a PTC thermistor sensor. PTC sensors exhibit low resistance when the temperature is below the nominal operating temperature; however, when the temperature exceeds this threshold, the resistance increases sharply. Since PTC sensors are available in various types based on their nominal operating temperatures, the specific sensor selected determines the temperature at which the relay activates. The TM395 supports the use of two PTC sensor sets and operates as follows:

1. When the temperature of PTC1 is below the nominal operating temperature, Relay K1 turns ON; however, when the temperature exceeds this level, the relay turns OFF. When the temperature subsequently drops below the nominal operating temperature, the relay turns ON if the TM395 is in Auto Reset mode; if it is in Manual Reset mode, the Reset button must be pressed to turn the relay ON. Additionally, if the PTC sensor experiences a short circuit or an open circuit, the relay turns OFF.
2. When the temperature of PTC2 falls below the nominal operating temperature, Relay K2 turns OFF; when the temperature rises above the nominal operating temperature, Relay K2 turns ON. When the temperature subsequently drops below the nominal operating temperature, Relay K2 turns OFF; however, a switch-off delay can be configured for Relay K2. If this delay function is enabled, Relay K2 will not turn OFF until the set time has elapsed (selectable options: 5, 10, or 20 minutes). Relay K2 is suitable for connection to alarm systems or cooling fans.



Specifications

Thermistor Input

Number of channel: 2 Channels

Input type: PTC Thermistor

Input range: Trip $3200 \Omega \pm 5 \%$,
Reset $2100 \Omega \pm 5 \%$

Mode: Manual or Automatic Reset

Sensor Detection:

Short Circuit $< 50 \Omega$

Open Circuit $> 680 \text{ k}\Omega$

Relay Output

Number of channel: 2 Channels

Relay Type: N.O.

Contact Rating: 3 A @ 250 VAC

Alarm Off Delay: Selectable 0, 5, 10,
20 min

Ordering Information: Specify Alarm off delay, Power supply

Example TM395/10 min/220 VAC

Package Checklist

1. TM395

Power Requirements

Power Supply: 110, 220 VAC

Environmental Limits

Operating Temperature: 0 to 55 °C

Operating Humidity: 5 to 95% RH

Storage Temperature: 0 to 70 °C

Physical Characteristics

Dimension: W50 × H70 × D130 mm.

Mounting: Wall or DIN rail

Connection: Plug-in 11 pins socket

Wiring: Screw terminals

Warranty

Warranty Period: 5 Year