

Thermistor Trip

Many motors, transformers and generators are fitted with positive temperature coefficient thermistor temperature sensors, the addition of a thermistor trip relay will provide full protection against sustained overload, single phasing, locked rotor, blocked ventilation and high ambient temperature. Thermistor trip relays continuously monitor the working temperature inside electrical equipment. When the temperature exceeds a safe limit, the relay can be used to shut equipment down until it regains a safe operating temperature.

Operation

Thermistors are simple low cost temperature sensors. The thermistor trip protector operates by de-energizing a relay when the thermistors detect a critical temperature condition. An illuminated green LED indicates when the temperature is within normal working limits. Any number of thermistors may be used in series connection providing the resistance at normal working temperature is less than 1500 ohms.

There are no user adjustments on this relay.

Model 252-PMT will automatically reset when temperature returns to normal. For Model 252-PMM, fitting a link between terminals R1 and R2 will latch the product in its tripped state when an over temperature condition is detected. The relay can be reset by pressing the front panel reset switch, opening the R1 - R2 link, or interrupting the auxiliary supply.

Features

- Trip range 2500 to 3500 ohms
- Reset range 1500 to 2300 ohms
- LED trip indication
- Automatic or manual reset options
- Double pole relay contacts

Benefits

- High temperature protection
- Sustained overload protection
- Single phasing protection
- Locked rotor protection
- Blocked ventilation protection

Applications

- Switchgear
- Distribution systems
- Generator sets
- Control panels
- Process control
- Motor protection
- Transformers
- Overload protection

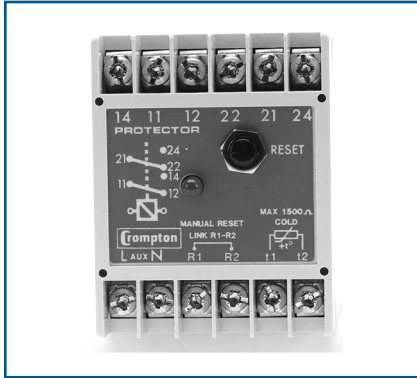
Approvals

- UL and CSA

Product Codes

Relay	Protection	ANSI No.	Catalog No.
PTC Thermistors	Over temperature, manual reset	49	252-PMM
PTC Thermistors	Over temperature, automatic reset	49	252-PMT

Specify system voltage and required options at time of ordering.

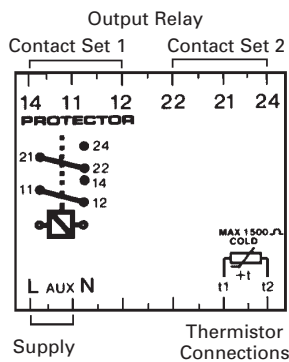


Specification – Thermistor Trip

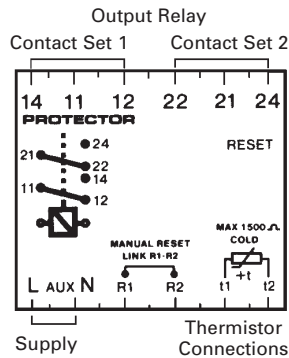
Nominal Voltage	110V, 120V, 220V, 230V or 240V AC $\pm 20\%$.
Input	Positive temperature coefficient thermistors (series connected 1500 Ω at normal temperature)
System Frequency	50/60Hz
Voltage Burden	2VA approx
Overload	1.2 x rating continuously
Trip Level	2500 to 3500 Ω reset 1500 to 2300 Ω
AC Auxiliary Supply Voltage	100V, 110V, 120V, 208V, 220V, 240V, 480V, $\pm 20\%$
DC Auxiliary Supply Voltage	12V, 24V, 48V, 110V or 125V, $\pm 15\%$. Max ripple 15%
Auxiliary Voltage Burden	4VA (max)
Output Relay	Double pole change over
Relay Contact Rating	AC: 240V 5A, non inductive DC: 24V, 5A resistive
Relay Mechanical Life	0.2 million operations at rated loads
Relay Reset	Model 252-PMT: Automatic Model 252-PMM: Manual
Operating Temperature	0°C to +60°C (0°C to +40°C for UL models)
Storage Temperature	-20°C to + 70°C
Temperature Co-efficient	0.05% per °C
Interference Immunity	Electrical stress surge withstand and non-function to ANSI/IEEE C37 90a
Enclosure Style	DIN rail with wall mounting facility
Material	Flame retardant polycarbonate/ABS
Enclosure Integrity	IP50
Compliant With	EMC, LVD, Safety Standard IEC 414 UL File No: E113067 recognized up to 600V CSA File No: LR52592 up to 300V
Model 252 Dimensions	55mm (2.2") wide x 70mm (2.8") high x 112mm (4.4") deep
Weight	0.4Kg approx.

Connections

252-PMT



252-PMM



Dimensions

Model 252

