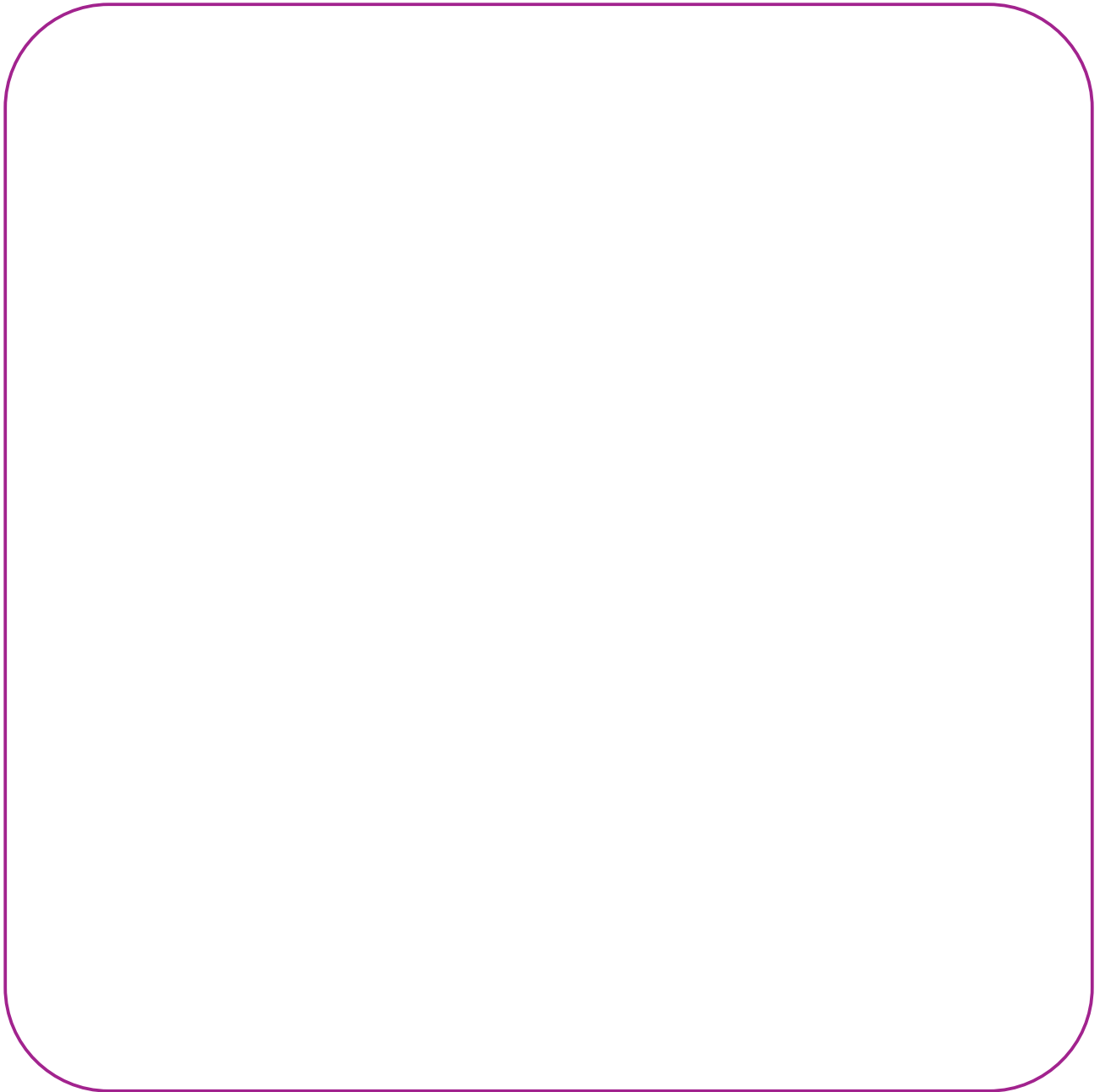




Data Sheet

Thermistor Trip Relay



Models available

	
Function / System	Product Type
Automatic reset	252-PMT
Manual reset	252-PMM

Applications

The Rishabh Thermistor Trip Relay, when used in conjunction with positive temperature co-efficient thermistors, will help protect against:-

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

Features

- LED trip indication
- 2 pole relay contacts
- Auto/Manual reset

Introduction

The protector operates by de-energising a relay when the thermistors fitted into a motor stator 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 total resistance at normal working temperature is less than 1500 ohms.

Specifications

Input : Positive temperature coefficient thermistors (series connected)
1500W maximum at normal temperature)

Range : Trip 2500-3500Ω
Reset 1500-2300Ω

Output Relay

Type : D.P. Changeover

Rating A.C. : 240V, 5A non-inductive
D.C. : 24V 5A resistive

Operations : 0.2 million at the above load

Status : Normally energised - green LED illuminated.
De-energised above trip point

Reset : PMT - Automatic
PMM - Manual. Fit link R1-R2 Reset via push

button Automatic - omit link R1-R2

Auxiliary supply : A.C. 50/60Hz 110, 120, 220, 230 & 240 v ± 20%
D.C. 12V, 24V, 48V, 110V or 125V +/-20% including ripple.

Voltage Burden : 4 VA approx.
3 kΩ is normal for the 3 thermistors in a 3 phase motor to trip at 160°C (=750Ω at 23°C)

Other Specifications

Operating temperature : 0° C to +60° C

Storage temperature : -20° C to +70° C

Temp. 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 : IP 50

Model 252 dimensions : 55mm(2.2")wide x 70mm(2.8")H x 112mm (4.4") deep

Weight : Approximately 0.4Kg

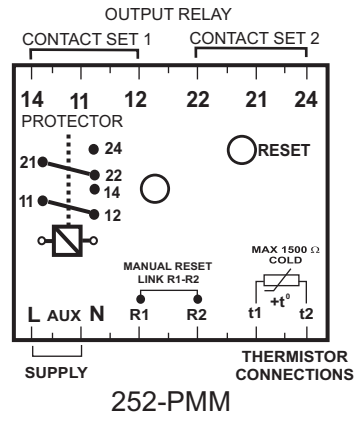
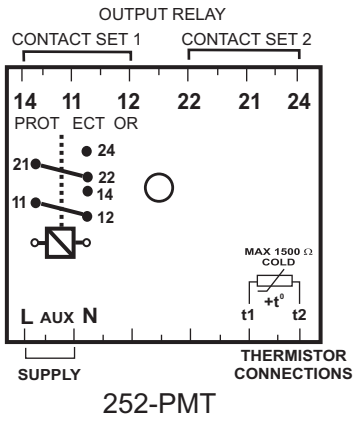
Principle of Operation

The protector comprises a voltage level detector which detects the voltage across the thermistor. At normal temperature, when the thermistor resistance is low, a command signal energises a change-over relay and a green LED showing 'safe' condition.

At a pre-determined temperature, the thermistor resistance increases rapidly, which de-energises the relay. The actual trip temperature is governed by the thermistor characteristic, which can be obtained from the manufacturer's data.

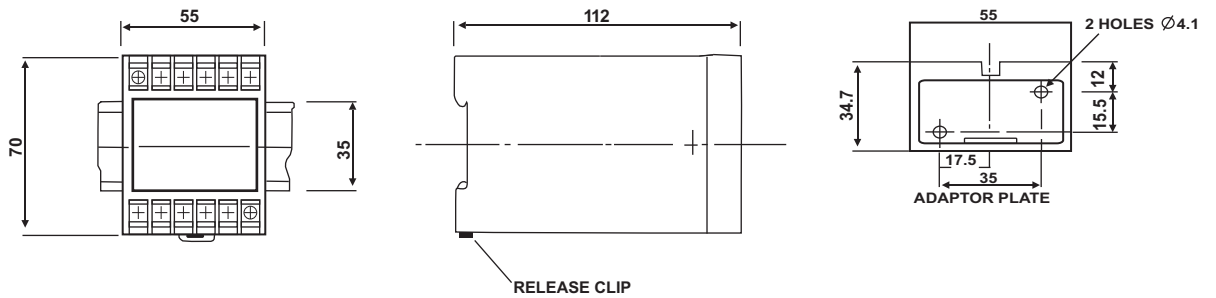
Failure of the supply to the unit or open circuit in thermistor winding will cause the relay to de-energise, thereby providing a fail safe facility.

Connection diagrams



Dimensions

Model 252



Ordering Information

Please quote :

1. Product Type.
2. Auxiliary Voltage where required.
3. Preset Differential where required.
4. On temperature trips quote temperature span and sensor type and set points and trip temperatures.



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