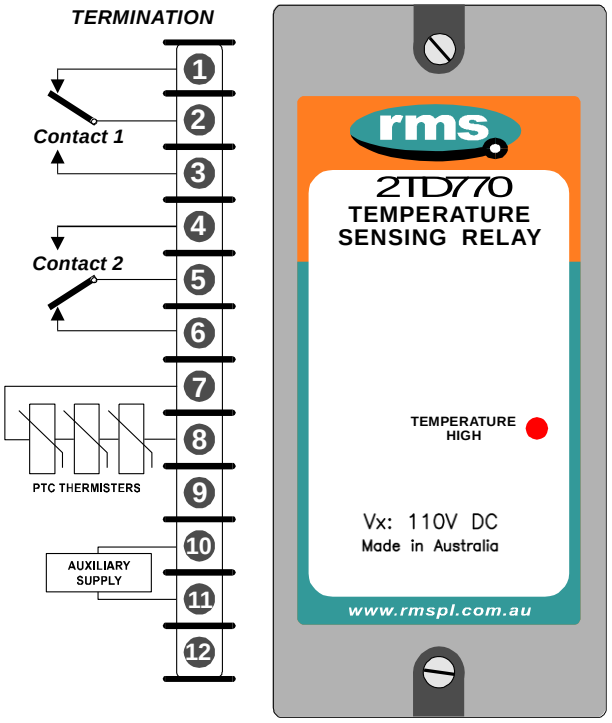
Technical Bulletin

2TD770

700 Series Temperature Sensing Relay

Features

- Ten year factory warranty
- Plug in measuring module
- Double insulated high impact polystyrol case
- Termination socket included for surface mounting enabling front or rear connection with optional DIN rail mounting
- Proven circuit designs based on over 15 years of field service in hundreds of varied & demanding applications
- Tolerance to shock & vibration for generator, compressor & mobile applications



Technical Data

AUXILIARY SUPPLY

Order code	Vx nominal
2TD770-E-S01*	110V DC

* 5kV impulse withstand between auxiliary supply and thermistors

POWER CONSUMPTION
< 3W DC

SUPPLY TOLERANCE
DC -25% to +15% of nominal

STANDARDS CONFORMANCE
AS1023 Part 1 1985
Built in thermal detectors & associated control units.

RESISTANCE INPUT TO OPERATE
2.8K Ohm +/-5% (Fixed setting)

RESISTANCE RELEASE TO OPERATE
1.5K Ohm Approx. (Fixed setting)

PTC THERMISTOR
Philips series 672 or equivalent

THERMISTOR VOLTAGE
4.5V DC

OUTPUT CONTACTS
2 C/O with 1KV isolation across contacts

SWITCHING CAPACITY
5 Amp 250V AC resistive
5 Amp 30V DC resistive

OPERATING TEMPERATURE RANGE
-5 to 55 degrees C.

INSULATION WITHSTAND
In accordance with IEC 255-5: 2KV RMS between input & frame, output & frame, & output & input. 1.2/50 5KV impulse between each terminal & earth, between circuits not normally connected together & between terminals of the same circuit.

NOISE IMMUNITY
Withstands the high frequency interference test detailed in IEC 255-22-1.

Description

Made in Australia

The 2TD770 Series relays are solid state temperature sensing relays for use in motor protection applications where sensors are located in the stator windings. Heavy duty industrial motors are prone to catastrophic failure. If overheating occurs due to such circumstances as locked rotor, restricted cooling or heavy starting conditions.

The 2TD770 can be used to effectively monitor the motor temperature and switch its mechanical output relay to indicate an alarm condition or isolate the power supply.

The 700 Series range of electronic measuring relays are manufactured as a modular approach to electrical system protection & control. Designed to meet rigid Australian & international specifications the 700 Series provide a flexible, cost effective & extremely reliable solution for a multitude of applications under electrically hostile conditions.

Application

Three PTC thermistors (one for each phase) are connected in series to the input terminals of the relay. An increase in local temperature of the motor causes an increase in resistance in the corresponding thermistor. The relay senses the change in resistance and picks up when the temperature increases beyond the preset setting. A visual indication is given by a red LED on the front panel when the output relay is energised.