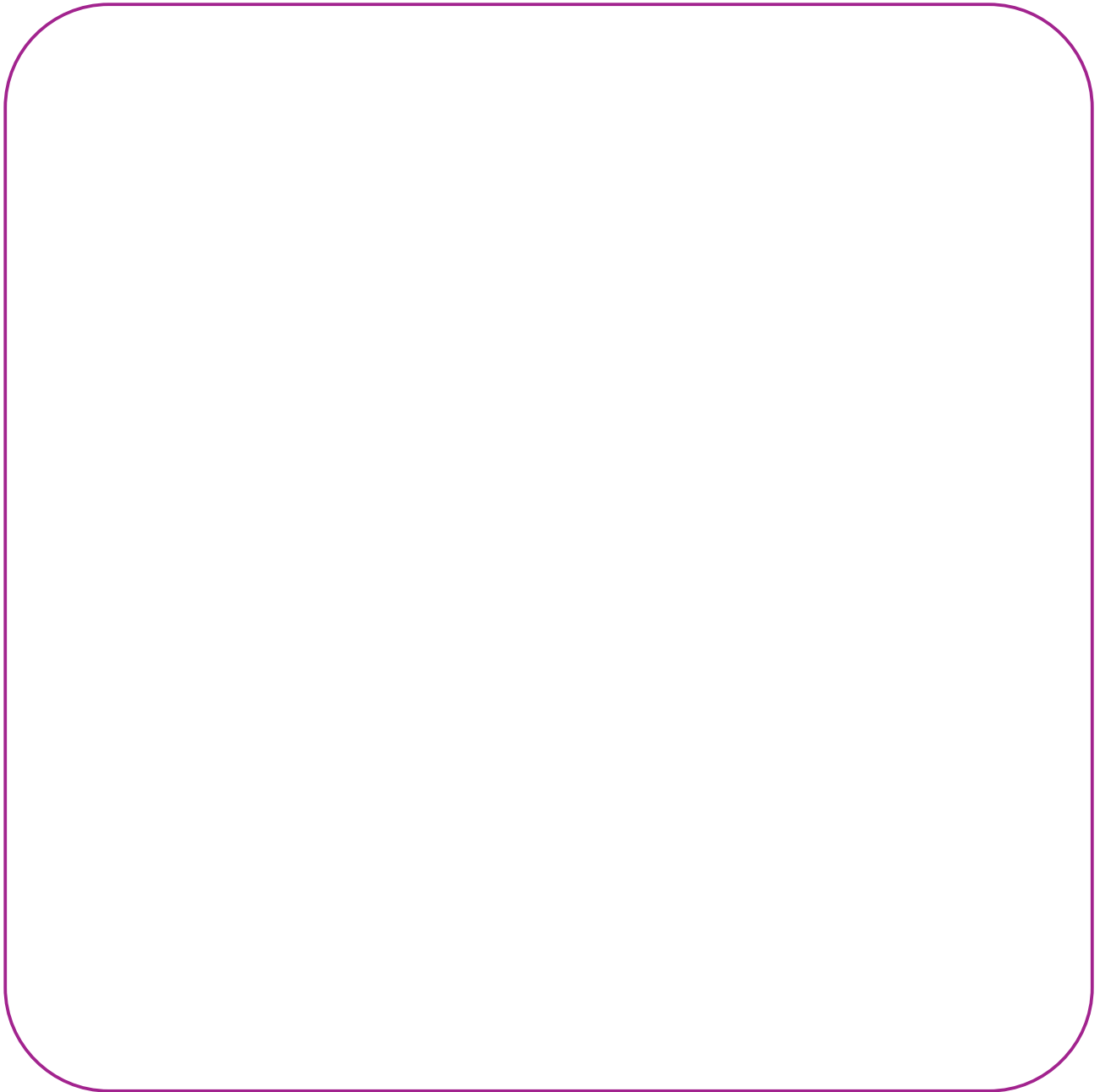


**RISH** *Lay*

The Protector Trip Relay Series

**Data Sheet**

Hot Spot 6 Relay



Measure



Control



Record





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## Model available

	
Function / System	Product Type
Hot Spot 6 Relay	256-PCC

## Applications

These relays can be used for

- Motor protection
- Transformer protection
- Gensets protection
- Heating equipments protection and the protection against
  - Ineffective cooling
  - Blocked ventilation
  - Overloads
  - Worn bearings
  - Locked rotor

## Features

- Upto 6 RTD inputs
- Adjustable set point
- Internal differential
- LED trip indication
- Auto reset

## Introduction

The Rishabh Hot spot 6 is a temperature trip relay accepting up to six inputs from resistance temperature detector ( RTD ) elements.

The temperature trip point, common to all six channels, is user adjustable.

Output is in form of voltage free contacts from a single pole changeover relay, with LED indication of normal ( green ) or tripped ( red ) condition.

Additional red LEDs are fitted to show which of the inputs are exceeding the trip point.

## Specifications

<b>Input</b>	: Up to six RTD sensors e.g. 100Ω platinum (Pt100) or 10Ω copper
<b>Ambient Temperature</b>	: 0 to 60°C
<b>Adjustment Range</b>	: 100° C (e.g. 50 to 150° C, 100 to 200° C etc)
<b>User Adjustment</b>	: Screwdriver adjustable, multi-turn potentiometer, access on front panel. Approximately 5° C per turn. Turn anti-clockwise to raise

<b>Operating Time</b>	: trip point.
<b>Repeatability</b>	: <100ms
<b>Reset</b>	: within 1° C
<b>Auxiliary supply</b>	: Automatic. Relay differential (pull-in to drop-out) 4° C nominal
<b>Burden</b>	: A.C. 50/60Hz , 1 10, 120, 220, 230, 240V ± 20% (specify)
	: 6 VA maximum

## Output Relay

<b>Type</b>	: Single Pole Changeover
<b>Rating A.C.</b>	: 240V, 5A non - inductive
<b>D.C.</b>	: 24V 5A resistive
<b>Operations</b>	: 0.2 million at the above loads
<b>Reset</b>	: Automatic

## Other Specifications

<b>Operating temperature</b>	: 0°C to +60° C
<b>Storage temperature</b>	: -20° C to +70° C
<b>Temp. co-efficient</b>	: 0.05% per °C
<b>Interference immunity</b>	: Electrical stress surge withstand and non function to ANSI/IEEE C37 90a
<b>Enclosure style</b>	: DIN-rail with wall mounting facility
<b>Material</b>	: Flame retardant polycarbonate /ABS
<b>Enclosure integrity</b>	: IP 50
<b>Model 256 dimensions</b>	: 150mm(5.9")wide x 70mm(2.8")H x 112mm (4.4") deep
<b>Weight</b>	: Approximately 1.4Kg

## Principle of Operation

Up to six external RTD elements may be connected to the Hot Spot 6. The three wire connection method is recommended, particularly when copper RTDs are used.

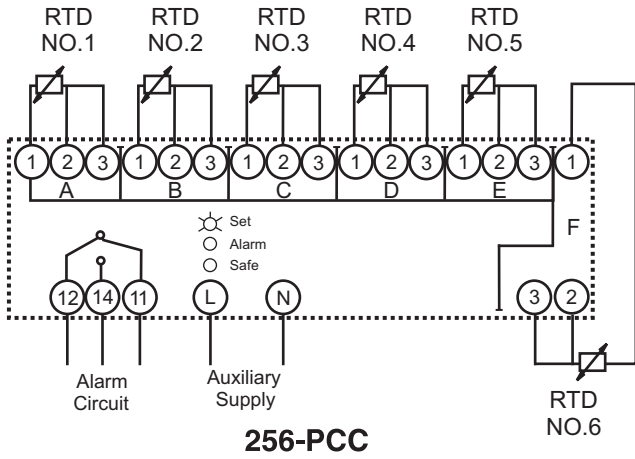
Each RTD forms one limb of a bridge circuit. A change in the resistance of the RTD element with temperature, unbalances the corresponding bridge, the resulting voltage being amplified by an operational amplifier.

The output of each amplifier is compared, in individual comparator circuits, with a common voltage corresponding to the desired temperature trip level.

All comparator outputs are applied to a relay driver via a six input OR gate, energising the output relay if the temperature of one or more of the RTD elements exceeds the desired trip level.

The relay will also be energised if any of the six channels are open circuited.

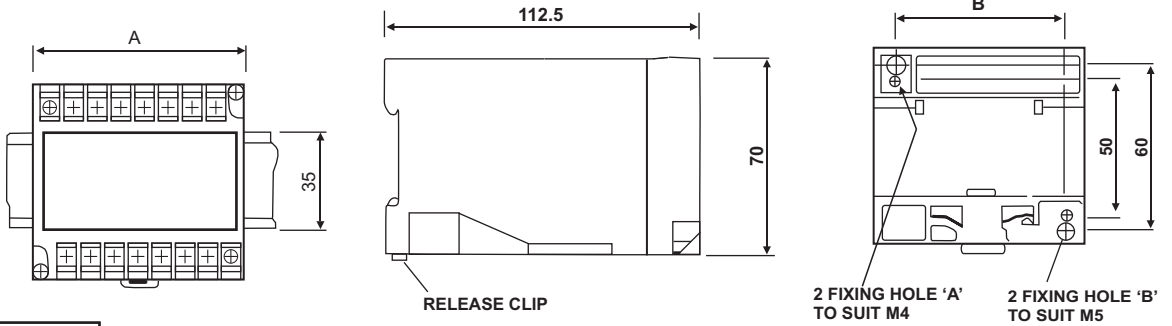
## Connection diagram



When used for less than 6 RTD inputs the unused terminals 1, 2 & 3 must be linked together.

## Dimensions

### Model 256



Model	A	B
256	150	135

## Ordering Information

### Please quote :

1. Product Type.
2. Please specify standard or non standard trip. An energised relay is indicated by a "Lit" red LED. Setpoint can be factory adjusted to your requirements.
3. System Frequency.
4. Auxiliary Voltage where required.
5. Preset Differential where required.
6. On temperature trips quote temperature span and sensor type and set points and trip temperatures.



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