

# Ziegler

Redefine Innovative Metering

## Hot Spot 3 Relay



Protector Trip Relay Series  
ANSI No. 49



© Ziegler Instruments Order No. Hot Spot 3 Relay Data sheet-E1.R0-920827-47-2013-EN



### Models available

	
Function / System	Product Type
3 Setpoints	256-PRA
2 Setpoints	256-PRB
1 Setpoint	256-PRC

### Applications

- Motor protection
- Transformer protection
- Gensets protection
- Heating equipments protection
- Ineffective cooling
- Blocked ventilation
- Overloads
- Worn bearings

### Features

- Up to three RTD inputs
- 1mA analogue output
- Three adjustable set points
- Internal differential
- LED trip indication
- Automatic reset
- Three single-pole relay contacts

### Introduction

temperature trip relay has been designed to monitor three separate temperature zones in large electric motors, transformer winding or any temperature conscious equipment such as process lines gas turbines or engine driven generating sets, using Resistance Temperature Detectors (RTDs). The highest of three temperatures is automatically selected and a 0 to 1 milliamp output signal produced. Yellow LEDs are fitted to show which of three sensors is at the highest temperature. The output signal is compared internally with the voltage from up to three set point potentiometers and the difference fed to trigger relay circuits. Red LEDs are used to indicate relay energised. Single pole changeover relay are provided for each set point. In a typical installation the three set points would be set to trip on increasing temperature, in the following sequence :-

1. Initiate cooling/ reset if effective
2. Bring up alarm/ reset if action and cooling effective
3. Shut down

### Specifications

**Input** : Up to 3 inputs, 2 or 3 wire RTD sensors either 10 $\Omega$  Copper or 100 $\Omega$  platinum minimum span 100 $^{\circ}$ C

Auxiliary supply

A.C. : 110, 120, 220, 230, 240 V (specify)  
+/- 20% 50/60Hz

Burden : 4 VA maximum

#### Output Relay(s)

Relay differential : Standard 2% of range

Type : SP Changeover

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

Operations : 0.2 million at the above loads

Reset : Automatic

Standard : De-energise at set point with rising temperature

Indicator O/P : 1 mA into 0 / 4k  $\Omega$  load

#### Other Specifications

Operating temperature : 0 $^{\circ}$ C to +60 $^{\circ}$ C

Storage temperature : -20 $^{\circ}$ C to +70 $^{\circ}$ C

Temp. co-efficient : 0.05% per $^{\circ}$ 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

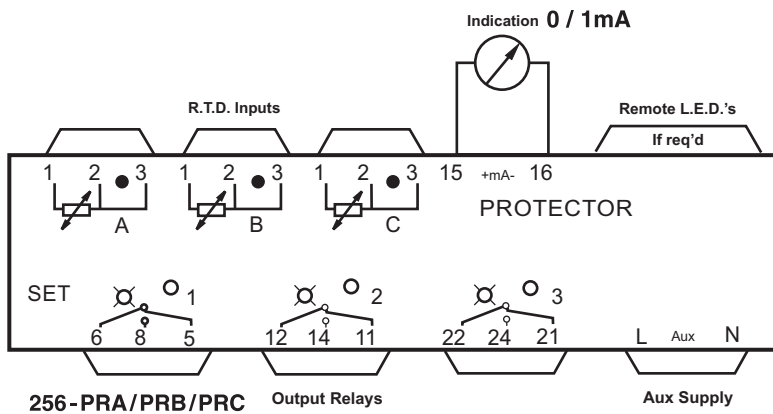
Model 256 dimensions : 150mm(5.9")wide x 70mm(2.8")H x 112mm (4.4") deep

**Weight** : Approximately 1.4Kg

### Options

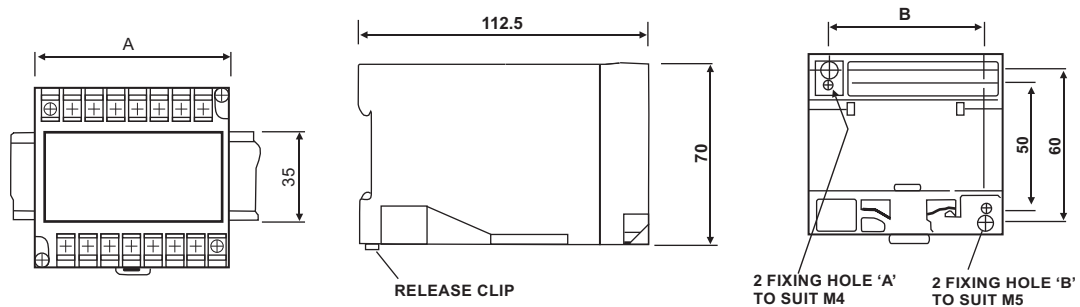
1. An extra 4 terminals can be fitted for remote indication.
2. Relay energising at the set points (rising temperature)

## Connection diagram



## 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.

## ZIEGLER INSTRUMENTS

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