

250 Series DIN Rail and Wall Mounted - Hot Spot 3

MetersUSA
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Protection against

- » Ineffective cooling
- » Blocked ventilation
- » Overloads
- » Worn bearings
- » Loss of one phase
- » Under voltage
- » Unbalanced voltage

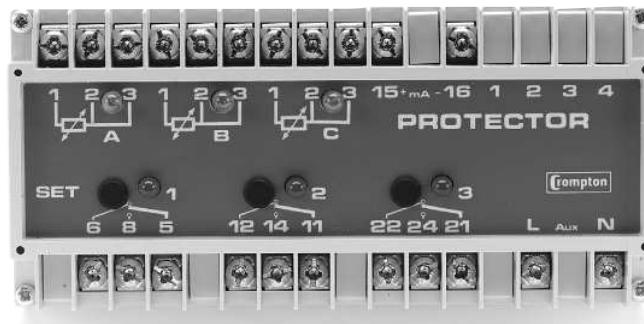
Application

- » Motor protection
- » Transformer protection
- » Gensets protection
- » Heating equipment

Select an analog or digital indicator from our range.



Protector Relays



The Crompton Hot Spot 3 relay accepts up to three inputs from resistance temperature detectors (RTD) and provides up to three user adjustable trip points which can be used to initiate alarms, cooling systems or shutdown.

The relay can be used to protect:

- Electric motor windings
- Transformers
- Generator windings
- Bearing temperature

Introduction

This Crompton Hot Spot Protector monitors three temperature zones. RTD temperature sensors are often fitted inside electric motors to detect hot spots in the windings or the bearings. RTD sensors are popular because they offer a good accuracy for a reasonable price. The same sensors can be used inside transformers, generator sets, gas turbines or as part of a process control system.

Hot spots can be caused by many conditions, such as overloads, over voltage, unbalanced supply, worn bearings, ineffective cooling,

poor ventilation, shorted turns, insulation breakdown, single phasing etc.

This product offers up to three user adjustable setpoints and relay contacts. These can be used to raise alarms, switch on cooling systems or shut down the effected equipment.

The product features a 1mA analog output signal for remote temperature indication.

Product Function

The protector continuously monitors the three RTD temperature sensors. The highest temperature is indicated with a yellow LED, and can be accurately measured or displayed using the 0/1mA analog output signal. The temperature is compared with the user adjustable setpoints. When the measured temperature exceeds the setpoint, the relay

will de-energize, and a red LED illuminated to indicate the trip condition. When the temperature drops below the setpoint, the relay will reset to the energized condition, and the LED will extinguish.

Three product models offer one, two or three adjustable setpoints.

Information Required

When ordering please supply the following information:

- The type of temperature sensor being used, e.g. Platinum PT100
- The maximum temperature or meter scale, e.g. 100% = 1mA = 150°C
- The setpoint adjustment range, e.g. 0°C to 150°C.

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Specification

Approvals:	U.L. recognized	Rating:	
Input:	Up to 3 inputs, 2 or 3 wire RTD sensors either 10Ω Copper or 100Ω Platinum minimum span 100°C	A.C:	240V, 5A non-inductive
		D.C:	24V, 5A resistive
		Operations:	0.2 million at the above loads
Auxiliary Supply:	A.C 50/60Hz, 110, 120, 220, 230 & 240V ±20% (specify)	Reset:	Automatic de-energize at set point with rising temperature
	D.C. - contact factory	Standard:	
Output Relay(s):		Indicator O/P:	1mA into 0/4kΩ load
Relay differential:	Standard 2% of range	Burden:	4VA maximum
Type:	S P changeover		

Product Code Examples

Relay	Protection	ANSI No.	A.C. Aux power	Catalogue No.
3 RTD inputs	3 trip points	49	120V	256-PRAU-R* -BX-DG-RO-LI
3 RTD inputs	2 trip points	49	120V	256-PRBU-R* -BX-DG-RO-LI
3 RTD inputs	1 trip point	49	120V	256-PRCU-R* -BX-DG-RO-LI

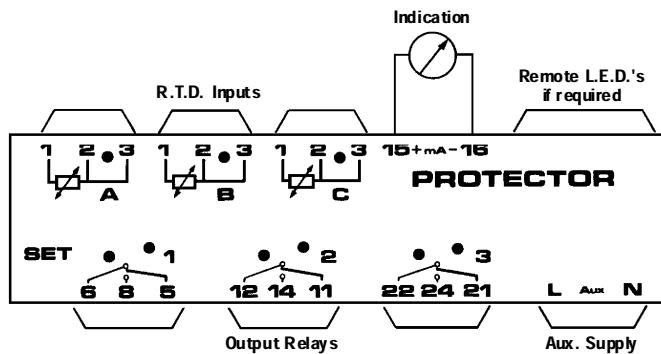
Optional indicating instrument •0 77-05KA-FA

(specify scale)

R * Specify type and temperature range

Connection Diagrams

256-PRA
256-PRB
256-PRC



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