

250 Series DIN-rail and Wall Mounted Relays

Hot Spot 6 Temperature Relay

The Hot Spot 6 protector is a temperature trip relay accepting up to six inputs from resistance temperature detector (RTD) elements and provides one user adjustable trip point which can be used to initiate alarms, cooling or shutdown when the monitored temperature exceeds the set limit. The relay is ideally suited for the protection of electric motor windings, transformers, generator windings and bearing temperature.

Operation

RTD temperature sensors are often fitted inside electric motors to detect hot spots in the windings or 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.

The Hot Spot 6 protector continuously monitors the six RTD temperature sensors and offers a user adjustable set point and relay contacts. This can be used to raise alarms, switch on cooling systems or shut down the affected equipment. The temperature is compared with the user adjustable set point. There is a red alarm indicator associated with each temperature sensor. When the measured temperature exceeds the set point on one or more inputs the red alarm indicators associated with temperature sensor(s) exceeding the set point temperature will illuminate to indicate which sensors are above the set point. When any input is above the set point, the relay will de-energise, the overall red "Alarm" will illuminate and the green "Safe" will extinguish.

When the temperature on all inputs drops below the set point the relay will reset to the energised condition, the overall red "Alarm" will extinguish and the green "Safe" will illuminate.

Features

Up to 6 RTD inputs
Adjustable set point
Internal differential
LED trip indication
Automatic reset
Single-pole relay contacts

Benefits

Unbalanced supply protection
Sustained overload protection
Single-phasing protection
Blocked ventilation protection
Protection against ineffective cooling
Protection of bearing temperature

Applications

Switchgear
Distribution systems
Generator sets
Control panels
Process control
Motor monitoring
Transformers
Overload protection

Product Codes

Relay	Protection	ANSI no.	Cat. no.
6 RTD inputs	1 set point	49	256-PCC

When ordering please supply the following information:

- System voltage, frequency and required options.
- The type of temperature sensor being used, e.g. Platinum PT100.
- The maximum temperature or meter scale, e.g. 100% = 1mA = 150°C.
- The set point adjustment range, e.g. 0°C to 150°C.