8 Channel Scanning Temperature Monitor

TP488-RT accepts Pt100, Pt1000 and other Temperature Sensors (see manual)

Ideal for

- Cool rooms, Wineries & Breweries
- Computer Rooms, Laboratories
- Remote Sites
- Boiler Temperatures, Multizone Furnaces
- Tank Level Monitoring
- Mushroom Farms & Hot Houses

Description

The TP488-RT multizone monitor provides the versatility and flexibility needed to suit applications where temperature monitoring from more than one input with relay switching outputs, and/or retransmission (optional), is required.

The TP488-RT display will cycle through the active channels showing the channel number and the value. The cycling rate can be configured via a software function.

All calibration and setting up is achieved by user pushbuttons, using easy to follow messages on the display. Programming functions include decimal point, digital filter, relay setpoint parameters, number of input channels, calibration and scaling.

The TP488-RT accepts Pt100 RTD, Pt1000 RTD, Ni250 RTD, 10Ω copper RTD and LM335 semiconductor temperature sensors.

Each input may be individually calibrated and the instrument retains the calibration values in non volatile memory.

A programmable digital filter improves stability by smoothing out short term interference.

The setpoint relays may be individually configured for setpoint level, hysteresis, high and/or low alarm, relay trip delay, normally open or normally closed operation. Individual relays may be allocated to any input channel or a number of channels.

Flexible programming allows the user to select the number of inputs and outputs required. The instrument will only scan the selected active inputs.

Optional outputs include isolated analog or serial retransmission. A data logging option is available (all active channels logged) with logged data being downloaded via the serial output option.



Features

- Eight Inputs (selectable 1 to 8)
- Eight relay outputs (5 Amp, max. 240VAC)
- TP488-RT measures temperature from Pt100 RTD, Pt1000 RTD, Ni250 RTD, 10Ω copper RTD or LM335 semiconductor sensors
- Flexible alarm functions, relays may be allocated to one or a number of channels
- Programmable 1° or 0.1° resolution
- Displays in °C or °F
- Auto scanning or manual display
- Programmable scan rate
- Digital filter (improves stability)
- Pushbutton calibration & setup
- Optional isolated analog retransmission with binary input channel selection
- Optional serial retransmission RS232 or RS485 (factory configured) with choice of ASCII or Modbus RTU protocols
- Optional data logging version
- Individual calibration for each input
- High Brightness 20mm LED display readable from 10m away
- 240, 110 VAC, isolated 12 to 48VDC or non isolated 15-24VDC operation (factory configured)
- Wallmount/Weatherproof enclosure
- Rugged IP65 construction
- 2 year guarantee

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TP488RT-3.4-0

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Specifications

Technical Specifications

Input Types: Pt100 RTD, Pt1000 RTD

Ni250 RTD, 10Ω copper RTD

 $LM335\ temperature\ sensor$

Temperature range: $100\Omega = -180^{\circ}\text{C} \text{ to } 650^{\circ}\text{C}$

 $1000\Omega = -180^{\circ}\text{C to } 550^{\circ}\text{C}$ $250\Omega = -110^{\circ}\text{C to } 220^{\circ}\text{C}$ $10\Omega = -200^{\circ}\text{C to } 260^{\circ}\text{C}$

LM335 = -50° C to 150° C

Accuracy: 0.1% when calibrated

For 10Ω copper $\pm 2^{\circ}$ C

Sample rate: 0.5 sec per channel (approx) Update rate: 4 seconds (with 8 channels)

Display Scan Rate: Programmable 0-60 sec per channel

ADC Resolution: 1 in 20,000
A/D Conversion: Dual Slope ADC
Microprocessor: MC68HC11 CMOS
Ambient Temperature: -40°C to 60°C

Humidity: 5 to 95% non condensing Display: 4 digit + 1 digit (input channel)

isplay: 4 digit + 1 digit (input channel) red LED, 20mm digit height

Power Supply: AC 240 or 110V 45/65Hz

DC isolated 12 to 48V or DC non-isolated 15 to 24V

(factory configured)
Power Usage: AC supply 15VA max

DC supply typical 500mA (2A peak)

Outputs (standard): 8 x relays (form A) rated 5A max.

240VAC resistive

Relay Action: Programmable N.O. or N.C.

Output Options

Isolated Output:

Isolated Output: 4-20mA, 0-1VDC or 0-10VDC re-

transmission. Retransmission channel selectable via binary input lines

nel selectable via binary input lines RS232 or RS485 serial communica-

tions. Choice of ASCII or Modbus RTU protocols (factory configured)

Isolated Output: Data logging option with serial

communications

Physical Characteristics

Case size: $253\text{mm}(w) \times 145\text{mm}(h) \times 85\text{mm}(d)$ to

121mm(d)

Connections: Plug in screw terminals

(maximum 2.5mm² wire)

Weight: 1.3kg

TP488-RT Order Codes

TP488-RT –
Power Supplies
TP488-RT - XXX -
240VAC
110VAC
12 to 48VDC
15 to 24DC non-isolated
Options TP488-RT - XXX
Analog Retransmission (4-20mA, 0-1VDC or 0-10VDC) A
RS232 Serial Communications
RS485 Serial Communications
Data Logger, RS232 version 32k memory
Data Logger, RS232 version 128k memory
Data Logger, R485 version 32k memory
Data Logger, R485 version 128k memory
Panel Mounting Options
Panel Mounting Kit LD-MTG-PM-KIT
Hood Removal LD-HOOD-REMOVAL



