

# 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



TP488RT-3.3-0

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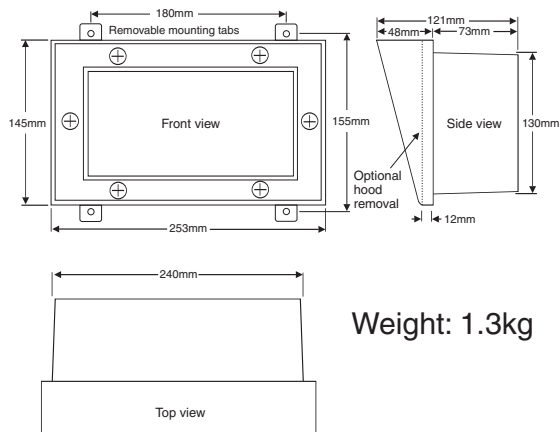
# Specifications

## Technical Specifications

Input Types:	Pt100 RTD, Pt1000 RTD Ni250 RTD, 10Ω copper RTD LM335 temperature sensor
Temperature range:	100Ω = -180°C to 650°C 1000Ω = -180°C to 550°C 250Ω = -110°C to 220°C 10Ω = -200°C to 260°C LM335 = -50°C to 150°C
Accuracy:	0.1% when calibrated For 10Ω copper ±2°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) 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:	4-20mA, 0-1VDC or 0-10VDC re- transmission. Retransmission chan- nel selectable via binary input lines
Isolated Output:	RS232 or RS485 serial communica- tions. Choice of ASCII or Modbus RTU protocols (factory configured)
Isolated Output:	Data logging option with serial communications



Weight: 1.3kg

## Physical Characteristics

Case size:	253mm(w) x 145mm(h) x 85mm(d) to 121mm(d)
Connections:	Plug in screw terminals (maximum 2.5mm <sup>2</sup> wire)
Weight:	1.3kg

## TP488-RT Order Codes

TP488-RT -  -

### Power Supplies

TP488-RT -  -

240VAC .....	<input type="text" value="240"/>
110VAC .....	<input type="text" value="110"/>
12 to 48VDC .....	<input type="text" value="DC"/>
15 to 24VDC non-isolated .....	<input type="text" value="DCN"/>

### Options

TP488-RT -  -

Analog Retransmission (4-20mA, 0-1VDC or 0-10VDC) .....	<input type="text" value="A"/>
RS232 Serial Communications .....	<input type="text" value="2"/>
RS485 Serial Communications .....	<input type="text" value="4"/>
Data Logger, RS232 version 32k memory .....	<input type="text" value="DL2-1"/>
Data Logger, RS232 version 128k memory .....	<input type="text" value="DL2-2"/>
Data Logger, R485 version 32k memory .....	<input type="text" value="DL4-1"/>
Data Logger, R485 version 128k memory .....	<input type="text" value="DL4-2"/>

### Panel Mounting Options

Panel Mounting Kit	LD-MTG-PM-KIT
Hood Removal	LD-HOOD-REMOVAL

