

# Dual Channel Temperature Monitor

2-Channel Temperature Indication plus Built-in Alarms, AC Line Filter and Buzzer

Only  
**\$245**  
(Base Unit)



## DESCRIPTION

The DTM series offers two completely independent channels for temperature monitoring. Totally front key programmable, these units can be programmed to display different type of thermocouples on each channel e.g. Channel

1 can be set to display type 'K' thermocouple, while Channel 2 could be displaying temperature from a type 'J' thermocouple. Also, each channel can be programmed to display in either degree's Centigrade or Fahrenheit.

If desired, the display can be held indefinitely on either channel or automatically scan between the readings on two Channels. Channel display time is programmable and can be set any where from 1 to 999 seconds.

Each Channel on DTM units constantly tracks high and low temperature readings. This feature is useful if the process is not being continuously watched, or must be left unattended e.g. overnight. Temperature extremes are automatically stored and may be displayed with the touch of a key. These stored peaks can be reset to current process temperature at any time, thus allowing retracking of process from a new point.

Four temperature alarms, two for each Channel, are also featured by this series. Additionally, each Channel has one audio/Visual alarm. This alarm turns on an LED on the front panel as well as activates the

## FEATURES

- Displays temperature from Thermistors, RTD's and a wide range of Thermocouples
- Programmable display units -- Centigrade or Fahrenheit
- Totally front key programmable including input type
- Programmable time base for rate
- Auto/manual scanning with HOLD feature
- Two relays and one audio/visual output per channel (optional)
- Output status indication on front panel
- Programmable Channel display time
- Keeps track of process run time
- Built-in buzzer (with alarm option)
- Captures Min/Max readings
- Shows channel differentials (C1-C2, C2-C1)
- Security password for preventing unauthorized program changes



**KAIF DIGITAL**

*...We put you in Control!*

For further information, contact:  
Tel. No: (480) 607-3100 (Ext. 201)

Fax No: (480) 607-3101

[www.kaifdigital.com](http://www.kaifdigital.com)

Buzzer. The buzzer also comes on whenever relay/solidstate outputs are activated. The outputs can be programmed as normally open/noramally closed and latching/non-latching.

Another useful function on these units is the display of Channel differentials. This can be displayed as C1-C2 or C2-C1. Also calculated by the unit is rate of tem-

perature change on each Channel. Time base for this rate is programmable and can be set in seconds.

Process run time is monitored and can be displayed by pushing the TIME key. Display format is HH.MM.SS. This elapsed time can be reset for retracking of time from a new point.

## SPECIFICATIONS

**ANALOG INPUTS:**  
 i) J,K,T,E,R,S,B Thermocouples, Thermistor, RTD  
**Cold junction error:** +/- 1 C (10C to 45c)  
 Open Sensor condition displayed

**RESOLUTION:**  
 Temperature resolution: 1C/1F(Thermocouples)  
 Temperature resolution: 1C/1F(RTDs)  
 Temperature resolution: 0.1C/0.2F(Thermistors)

**ANALOG TO DIGITAL CONVERSION**  
 Dual Slope, integrating, 20,000 count A/D converter  
 Conversion rate: 7 conversions/sec (typical)

**DISPLAY:** Seven red 7-segment LED displays, 0.39 inch height.Negative polarity and Over-range indication.

**DISPLAY TEST:** 8.8.8.8.8.8. on power up

**POWER OPTION**  
 120VAC (60 Hz) (Standard) 220VAC (50 Hz) (Optional)  
 8VDC -- 15VDC @ 900ma (optional)

**OUTPUT (optional)**  
 1.Open collector - 4 open collector outputs, maximum sink capability of 50ma per output  
 2.Relays: Single pole single throw, 1 Amp @ 28Vdc or 0.5 Amp @ 120Vac resistive  
 Output termination: Euro-style plugable connector

<u>TYPE</u>	<u>RANGE</u>	<u>ACCURACY</u>
J	-200 to 1190C -328 to 2174F	+ -1C+ -1cnt + -2F+ -1cnt
K	-170 to 1370C -274 to 2500F	+ -1C+ -1cnt + -2F+ -1cnt
T	-160 to 400C -256 to 752F	+ -1C+ -1cnt + -2F+ -1cnt
E	-185 to 915C -300 to 1675F	+ -1C+ -1cnt + -2F+ -1cnt
R	0C to 1600C 32F to 2900F	+ -3C+ -1cnt + -6F+ -1cnt
S	0 to 1600C 32 to 2900F	+ -3C+ -1cnt + -6F+ -1cnt
B	470 to 1800C 900 to 3300F	+ -3C+ -1cnt + -6F+ -1cnt
RTD-385	-200 to 800C -328 to 1472F	+ -1C+ -1cnt + -2F+ -1cnt
RTD-392	-100 to 450C -148F to 842F	+ -1C+ -1cnt + -2F+ -1cnt
Thermistor	-8.0 to 100.0C 17.2 to 212.0F	+ -0.5C+ -1ct + -1.0F+ -1ct

## Ordering Guide

To find a model number, fill in blanks 1, 2, and 3 with appropriate selection. Refer to ordering example below:

**DTM** /

**1** /

**2** /

**3**

BM = J, K, T & E Thermocouples  
 R = 'R' type Thermocouple  
 S = 'S' type Thermocouple  
 B = 'B' type Thermocouple  
 TH = Thermistor  
 RTD = RTD (.000385 & .000392)

5 = 120VAC  
 6 = 240VAC  
 7 = 15VDC

R = 4 Relays plus two audio/visual outputs  
 OC = 4 Solid State outputs (Open Collector)

**Ordering Example:** DTM/BM/5/R -- Dual-channel Temperature monitor with J,K,T & E Thermocouple inputs, 120vac Power and relay output option.