

# TEMPERATURE MONITOR/CONTROLLERS

( MICROCONTROLLER BASED)

**Introduction:**

MPTC ranges of programmable temperature controllers are available in eight different regular models apart from tailor made solutions virtually covering all industrial and research applications meeting all electrical, thermal, mechanical, and environmental specifications. These temperature controllers are first choice for online monitoring/control of temperature generation, transmission/distribution or at user end. These controllers also find application in heavy electrical engineering industries, defense, and process industries. Electrical/mechanical m/c testing instrument, industrial electronics, railway, and avionics and many research and development activities. These controllers are compatible to any standard thermocouple/RTD and display with very high degree of accuracy/repeatability/reliability. These temperature controllers are available in different constructional material like ceramic-coated ms/poly carbonate.

**Benefits:**

- Simple installation and operational compatibility(J/K/S/T/RTD)
- Consistent performance over large temperature range (70°C)
- Scaled directly in ceceius with repeatable accuracy.
- Auto zero offset without drift./available in differential mode.
- All standards din sizes and custom sizes.



**MSTC-00099.9**



**MDTC-1999**



**MDTC-199**

**Digital Temperature controller/indicator**

Range<+/-9999degree cel

Model	Temperature-range(+/-)	Sensor	Analogue signal	chopper Frequency k.hz	Display	Model	Temperature-range(+/-)	Sensor	Analogue signal	k.hz	Display
MDTC-00099.9	1999.9/1999	J/K/RTD	75/ option	0-50	LCD/LED	MDTM-00099.9	1999.9/1999	J/K/RTD	75/ option	0-50	LCD/LED
MDTC-00999.9	199.99/1999	J/K/RTD	75/ option	0-50	LCD/LED	MDTM-00999.9	199.99/1999	J/K/RTD	75/ option	0-50	LCD/LED
MDTC-09999.9	19999.9/19999	J/K/RTD	75/ option	0-50	LCD/LED	MDTM-09999.9	19999.9/19999	J/K/RTD	75/ option	0-50	LCD/LED
MDTC-9999.99	1999.99/19999	J/K/RTD	75/ option	0-50	LCD/LED	MDTM-9999.99	1999.99/19999	J/K/RTD	75/ option	0-50	LCD/LED

**General electrical/mechanical specifications:**

Operating voltage: 220 volts A.C.(50-20,000 Hz )/ 12 volts D.C. with battery back-up  
 Temperature range: 199.9/1999/19999 degree cel  
 Sensor: J/K/S/TRTD or signal conditioner generating-5/12 volts AC/DC/4-20 mili-amps  
 Permissible harmonic: upto 33% of principle harmonic  
 Signal Frequency: modulated signal at 10-50 kilo Hz  
 Accuracy: 0.5/1.0/3.0 % reading  
 Repeatability: 100%  
 Resolution: 0.01/0.1/1 degree cel.  
 Response time: 1000 sample/sec  
 Burden: less than 100 micro/mili OC /full scales current or better  
 Linearity adjustment: upto 100 micro/mili OC  
 Input imedence: ultra low(<0.01000 micro OC /burdon),  
 Filtering: low pass( adjustable) MPTA-9999990402  
 Offset: variable upto 10,000 micro/mili OC (manual/auto)  
 CMMR: >80 db at 10-15 thermal Hz  
 Isolation: > 100 giga ohm  
 Control: two set point control( low/high in slide mode/PID mode/synchronous mode  
 Display: 3 1/2, 4 1/2  
 Size: 48x48/48x96/96x96/192x96 , m.m./5x8x8 inches  
 Interface:RS-232



**MDTM-99999.9**

**NOTES:**  
 The numeral after product code indicates the temperature range .last digit corresponds to size of panel (48x48-1, 48x96-2, 96x96-3, 96x192-4 As for example, MDTC-999991 corresponds to 99999 volts (max) and panel body is ceramic coated mild steel.