

2



#### Models Available

**DTC410-01** Thermocouple Input On/Off Digital Temperature Controller

**DTC410-02** PT100 Input On/Off Digital Temperature Controller

#### Product Features

- On/Off temperature control action
- Reverse or direct action
- Relay output
- J, K, T or N type thermocouple inputs
- PT100 input
- 10 to 32Vac/dc or 90 to 260Vac
- Programmable alarm output (10 options)
- Programmable set-point limits
- Standard DIN48 square size
- Plug-in socket or panel mounting
- Matching timers available
- Plug-in sockets also available

## DTC410 Temperature Controllers

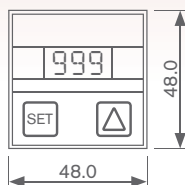
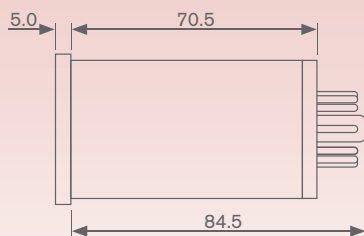
The Tempatron DTC410 series LCD digital temperature controllers are designed for simple on/off control of temperature or processes in a wide range of industrial applications. The controllers operate from a range of thermocouple or 3 wire PT100 (RTD) input sensors and offer simple two button programming, giving an easy set up procedure.

The temperature controllers are housed in a compact DIN48 square enclosure which can either panel mount or surface/DIN rail mount to a socket, and are powered from either 10 to 32Vac/dc or 90 to 260Vac.

The 3 Amp rated single pole changeover relay output contact is isolated from the supply voltage, and the temperature controllers have clear message displays, providing indication of alarms or error status.

## For temperature control in machinery, systems and operational processes

#### Dimensions

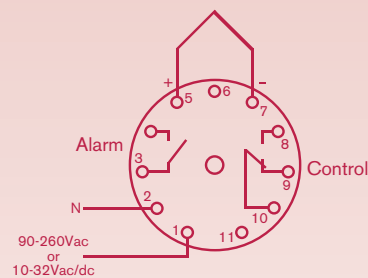


Panel cutout 45mm square (-0.0/+0.5)

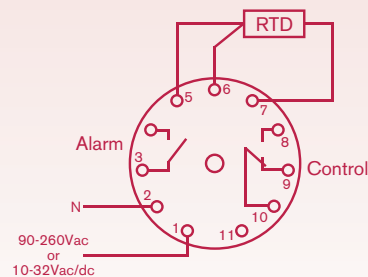
All dimensions in mm

#### Connections

##### Thermocouple Input



##### PT100 RTD Input



#### Note:

The ML models do not have isolation between the power supply and sensor so an isolated or non-earthed sensor must be used.

**Ordering information**

Model	Code	Description
	DTC410	On/Off Digital Temperature Controller

Sensor Input	Code	Description
	01	J, K, T, N Type Thermocouples
	02	PT100 3 Wire

Auxiliary Power	Code	Description
	ML	10-32Vac/dc
	MH	90-260Vac

Plug-in Bases	Code	Description
	CDSR11	11 Pin Rear Screw Panel Socket
	AZ611	11 Pin DIN Rail/Panel Mount Socket
	S11P	11 Pin DIN Rail/Panel Mount Socket

<b>Example</b>	<b>DTC410-01-MH with CDSR11</b>
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**Specification****Gain Accuracy:**

- Thermocouple:  $\pm 0.25\%$  of scale range
- PT100:  $\pm 0.6\%$  of scale range

**Offset Accuracy:**

- Thermocouple Input:  $\pm 5^\circ\text{C}$
- PT100 Input:  $\pm 2^\circ\text{C}$

**Power Supply Voltage:**

- 90 to 260Vac
- 10 to 32Vac/dc

**Burden:**

- $< 1.5\text{VA}$  at 90 to 260Vac
- $< 60\text{mA}$  at 10 to 32Vac/dc

**Frequency:**

- 50/60Hz

**Input Sensor:**

- J, K, T, N type thermocouples
- 3 wire PT100

**Scale Ranges:**

- J Thermocouple:  $-99$  to  $700^\circ\text{C}$  ( $999^\circ\text{F}$ )
- T Thermocouple:  $-99$  to  $300^\circ\text{C}$  ( $570^\circ\text{F}$ )
- K/N Thermocouples:  $-99$  to  $999^\circ\text{C}$  or  $^\circ\text{F}$
- PT100:  $-99$  to  $400^\circ\text{C}$  ( $700^\circ\text{F}$ )

**Hysteresis:**

- 0 to  $9^\circ\text{C}$  programmable (0 = latch)

**Control Relay Output:**

- Single pole changeover contact
- 3A at 240Vac/30Vdc (resistive)

**Alarm Relay Output:**

- Single pole N/O contact
- 3A at 240Vac/30Vdc (resistive)

**Electrical Contact Life:**

- 100,000 operations at rated output

**Memory Back-up:**

- EEPROM

**Operating Temperature:**

- $-10^\circ\text{C}$  to  $50^\circ\text{C}$

**Enclosure Code:**

- Case IP40

**Weight:**

- 200g

**Markings:**

- CE marked (meets EN61010-1 low voltage and EN50081-1/50082-1 EMC directives)

Specification subject to change without notice.

Tempatron: Eltime House, Hall Road, Maldon, Essex, CM9 4NF UK.

# TEMPATRON

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