

TEMPERATURE CONTROLLERS

TC400

DIGITAL SET TEMPERATURE CONTROLLER

Key features:

- 48 x 48 mm front of panel mountable
- Digital thumbwheel setting of temperature
- LED indication of relay state
- 10 Amp switching capability

Process temperature is set via a three digit switch on the TC400's front facia. The hundreds digit on each switch bank may be mechanically limited to prevent an over setting of process temperature.

On the standard TC400, power is supplied to the heater circuits through a 10 Amp SPCO relay. (Special versions of the unit are available with an output suitable for driving a remote solid state relay). A front facia LED lights when the relay is energised, indicating when the process is heating.

At the side of the unit, a 'duty ratio' potentiometer allows the operator to adjust the control characteristic to give the best compromise between control accuracy and relay life. Setting this pot. to '0' (fully anti-clockwise) gives a purely on/off control; turning the potentiometer clockwise gives a progressive increase in relay switching rate. (Use a 3mm, flat head screwdriver to adjust this pot.; normal usage would require the relay to switch at 1 or 2 times a minute).

Each controller is supplied pre-calibrated for use with one of several common thermocouple types (e.g. J or K) or an RT (Pt100 type) resistance probe. Cold junction compensation and thermocouple break protection are fitted as standard.

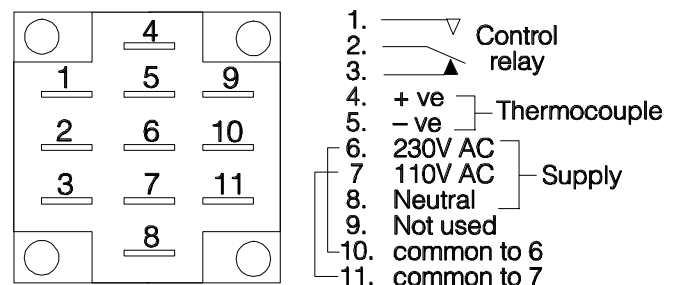
The TC400 is housed in a 48mm square by 130 mm deep casing, designed for front of panel mounting in a standard DIN sized cut-out (44 x 44 mm). Electrical connection is by ¼" blade terminals at the rear of each controller.



Product Specification

Power supply:	
operating voltages	dual supply, pin selectable: 230 V AC (200 – 250 V AC) and 110 V AC (100 – 125 V AC)
power consumption	< 4 VA
Control:	
standard sensor types	J (Fe/Con) or K (NiCr/NiAl) thermocouples or RT (Pt100) resistance probes
operating differential	< 50µV (typ. < 1°C)
Relay output:	
	(ratings for resistive load) SPCO contacts, rated 10 A @ 240 V AC, 2 x 10 ⁵ operations
Physical:	
operating temperature	-10 to +55°C
weight	approx. 250 g

Connection



When ordering, please specify:

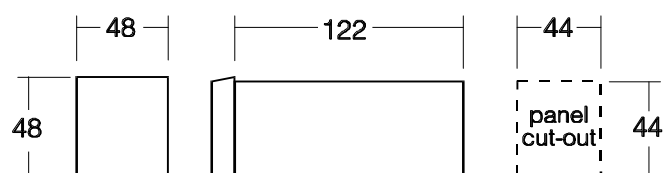
- Product type number (TC400)
- Temperature sensor type (J type, K type, or RT probe)
- Maximum temperature setting (switch limit, e.g. 399°C)

Accessories:

Thermocouples Please call for details of our custom thermocouple service, or refer to section 10 of our catalogue.

Varnish Coating Varnish coating of PCBs for improved protection in tropical, humid and freezing environments.

Dimensions (mm)



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