

# TEMPERATURE CONTROLLERS

## TC100 series

### TEMPERATURE CONTROLLERS, 11 PIN PLUG-IN

#### Key features:-

- compact, economical design
- 11 pin plug-in casing for easy fitting and maintenance
- available in a wide variety of terminal configurations
- compatible with most common thermocouple types and RT (Pt100) probes

The TC100 range is based around a compact 11 pin plug-in casing and is available in a range of pin configurations, relay ratings and operating specifications. The controllers are suitable for any application requiring the simple control of process temperature.

On standard units, process temperature is set via a rotary dial on the top of the casing; adjustment ranges 0 - 200°C, 400°C, 800°C and 1200°C are available as standard. On the TC100Z, control temperature is set remotely by the use of either a rotary potentiometer (supplied with each unit) or a 'Digimin' resistance switch (available as a separate option). The process heater circuits are controlled by a relay output in the form of either a switched mains supply or volt-free contacts. A red LED on the top of the unit indicates when the relay is energised (i.e. when the process is calling for heat).

Each controller is supplied pre-calibrated to operate with one thermocouple type (e.g. J or K) or a Pt100 resistance probe. Thermocouple break protection (where power is removed from the heaters in the event of an open circuit thermocouple) and cold junction compensation circuitry are fitted as standard.

Standard units are:

- TC100** Standard controller, with 5 Amp switched mains output and volt free SPCO contacts.
- TC100Z** As TC100 but for use with remote 100Ω potentiometer (supplied with each unit).
- TC100X** As TC100 but with volt free DPCO relay contacts.
- TC101** As TC100 series but with 10 Amp, switched mains output.
- TC101RT** For use with RT (Pt100) probes, 10 Amp SPCO relay, -20 to +180°C

Variations on the above are also available, including special supply voltages, pin configurations and sensor types. Please contact Modex for full details.

#### When ordering, please specify:

- Product type number (e.g. TC100)
- Supply voltage (e.g. 230V AC)
- Thermocouple or sensor type (e.g. J type)
- Temperature adjustment range (e.g. 0 - 400°C)

#### Accessories:

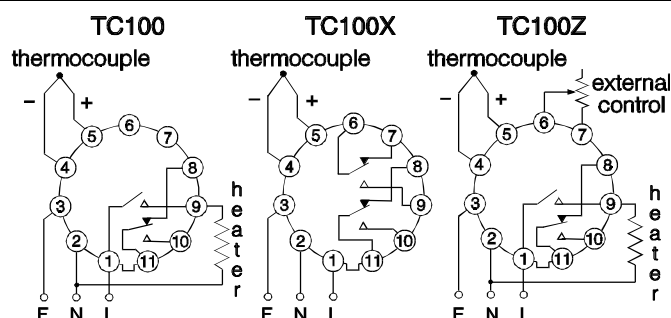
- SB11** 11 pin, DIN rail/surface mount base for above.
- RCR/L** Elastic retaining strap for use with controller and base.
- Thermocouples** Please contact Modex for details of our custom thermocouple service.
- DIGIMIN** 3 digit switch for remote setting of (Digimin type) TC100Z.



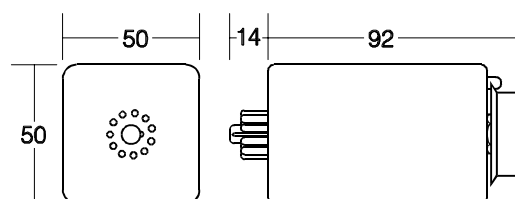
### Specification

<b>Power supply:</b>	
standard operating voltages	230V AC (200 - 250V AC) or 110V AC (100 - 125V AC)
power consumption	< 4 VA
<b>Control:</b>	
standard thermocouple types	J (Fe/Con) or K (NiCr/NiAl)
standard temperature scales	0 - 200°C, 0 - 400°C, 0 - 800°C, 0 - 1200°C
operating differential	< 40μV (typ. <1°C)
<b>Relay outputs:</b> <i>(all ratings @ 240V, resistive load)</i>	
TC100(Z) series	5A SPNO switched supply + 5A SPCO volt free
TC100X series	5A DPCO volt free
TC101(Z) series	10A SPNO switched supply
TC101X series	10A SPCO volt free
<b>Physical:</b>	
operating temperature	-10 to +55°C
weight	approx. 210 g

### Connection



### Dimensions (mm)



doc. ref. 080101 issue1 4/10/95