

Temperature regulators TC48

- ◆ Low price
- ◆ 48x48 DIN sized front panel
- ◆ Thermocouple or Pt100 RTD input
- ◆ 3-digit display
- ◆ Independent set point observation
- ◆ Sensor break indication
- ◆ Panel or rail mounting

The TC48 temperature regulators are produced by COMECO Ltd. in cooperation with CHROMALOC ASIA. They have a DIN sized 48x48 mm and are best suited to applications where small size is important. TC48 controllers work with a wide range of a thermocouple and RTD temperature sensors. They can be used for control of various temperature processes driving electrical actuators by means of relay control output using ON-OFF algorithm. These controllers are applicable where low price is one of the major requirements and especially in food industry and household applications. The TC48R model is priced lower and has no temperature value indication. The TC48P model has three digit indication. Both models have sensor break indication and can be mounted either in a panel or on a rail. The set point of TC48R model is adjusted by means of potentiometer, while the TC48P model uses three digit push wheel (BCD-coder). The TC48 series temperature regulators are inexpensive, compact and easy to use.



TC

Specifications

Inputs (2 or 3 - wire)

Pt100 (w=1.385)	"R": 0 to +100(200, 400) °C ⁽¹⁾ "P": 0 to +199(399) °C ⁽¹⁾
Thermocouple "J"	"R": 0 to +800(100, 200, 400) °C ⁽¹⁾ "P": 0 to +799(199, 399) °C ⁽¹⁾
Thermocouple "K"	"R": 0 to +1200(400, 800, 1000) °C ⁽¹⁾ "P": 0 to +999(399, 799) °C ⁽¹⁾

Control output

Electromechanical relay	5A/250V - NO/NC or NO
SSR (optional)	SSR - 1A/250 VAC
Transistor (optional)	Open collector - 40mA/40V or TTL
Control algorithm	ON/OFF
Set point range	Same as input range

Accuracy

Measurement error	0.5 % of span
Temperature drift	0.007 % of span for each 1 °C
Cold junction compensation	hardware ± 1 °C

Power supply

Supply voltage	220 or 110 VAC ± 10% - selected by the socket
Consumption	Max. 2 VA

Indication and controls

LED	relay state
LED	sensor break
Digital display ⁽²⁾	3 LED 7 segment digits 10 mm
SET POINT adjustment	"R" - potentiometer "P" - push wheel (BCD-coder) trimmer potentiometer
Hysteresis ⁽²⁾	

Operating conditions

Operating temperature	-10 to 65 °C
Operating humidity	0 to 85 %RH
Storage conditions	Temperature: -10 to 65 °C Humidity: 0 to 95 %RH

Design and materials

Case material	Plastic
Mounting	In panel cut-out or on 35 mm rail
Wiring	OCTAL/UNDOCAL connector
Dimensions	48x48x110 ⁽³⁾ mm
Weight	Max. 250 g
Protection class, front/terminals	IP-40 / IP-20

⁽¹⁾ When placing an order, please specify the sensor type, the input range and the model.

⁽²⁾ Only for 'P' model

⁽³⁾ Front panel controls not included

Ordering code



TC48* - G5.G6'6"

Code	Feature or option	Applicable codes
*	Model	R - no indication, set point is adjusted by means of a potentiometer dial, P - 3 digit indication and 3 digit push wheel (BCD-coder) for set point adjustment
G5	Relay output type	X - none ⁽²⁾ , C - relay NO/NC, D - SSR, E - open collector NPN, G - TTL
G6'6"	Sensor input type ⁽¹⁾	BD - RTD Pt100, CJ - Thermocouple type "J", CK - Thermocouple type "K"

For detailed instructions of order coding – see "CODING" chapter!

COMECO reserves the right of changing specifications without prior notice!