

TC544

BASIC PID TEMPERATURE CONTROLLER



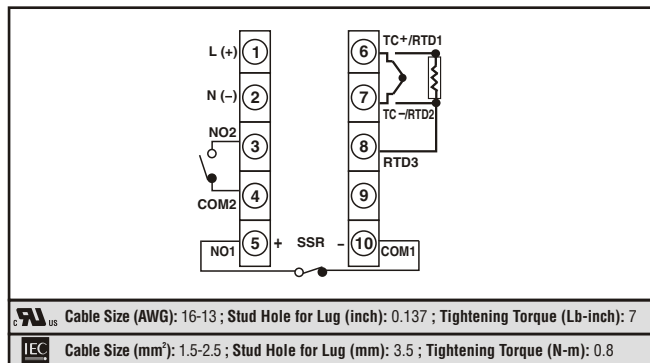
FEATURES

- High Performance
- Dual Display, 4 digit, 7 segment LED
- LED Status Indicator: Relay ON, Tune, Soak
- 3 Front Panel Control buttons
- TC / RTD Input
- PID, ON/OFF Control
- Two Setpoints
- °C / °F Selectable
- Control Output : Relay or SSR Drive
- Alarm Output : Relay or SSR Drive
- Easy to use

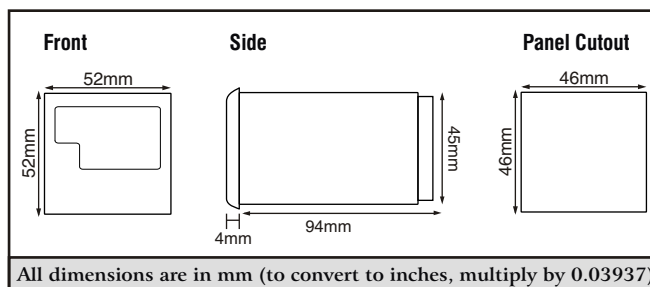
ORDERING INFORMATION

Part No.	Supply Voltage		Control Output		Alarm Output	
	85 - 270V AC/DC	24V AC/DC	Relay	SSR (12V DC)	Relay	SSR (12V DC)
TC544	▪		▪		▪	
TC544-1-0	▪			▪	▪	
TC544-0-1	▪		▪			▪
TC544-1-1	▪			▪		▪
TC544-24		▪	▪		▪	
TC544-1-0-24		▪		▪	▪	
TC544-0-1-24		▪	▪			▪
TC544-1-1-24		▪		▪		▪

TERMINAL CONNECTIONS



DIMENSIONS



TECHNICAL SPECIFICATIONS

INPUT SPECIFICATIONS

Inputs	Thermocouple (J,K,T,R,S) / RTD (Pt100)
Sampling time	250 ms
Input Filter (FTC)	0.2 to 10.0 sec
Resolution	0.1/1° for TC/RTD inputs (fixed 1° for R & S type TC input)
Temperature Unit	°C / °F selectable
Indication Accuracy	For J, K & T inputs: 0.25% of F.S. ±1° For R & S inputs: 0.5% of F.S. ±2° (20 min of warm up time for TC inputs) For RTD inputs: 0.1% of F.S. ±1° (F.S. = Full Scale)

FUNCTIONAL SPECIFICATIONS

Control Action	1) PID 2) ON-OFF
Proportional Band (P)	1.0 to 400.0°
Integral Time (I)	0 to 9999 sec
Derivative Time (D)	0 to 9999 sec
Cycle Time	0.1 to 99.9 sec
Hysteresis Width	0.1 to 99.9°
Manual Reset Value	-19.9 to 19.9°

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INPUT RANGES

Input (for RTD)		Ranges	
Resolution		1	0.1
Pt100	°C	-150 to 850	-150 to 850
	°F	-238 to 1562	-199 to 999

Input (for Thermocouple)		Ranges	
Resolution		1	0.1
J	°C	-199 to 750	-199 to 750
	°F	-328 to 1382	-199 to 999
K	°C	-199 to 1350	-199 to 999
	°F	-328 to 2462	-199 to 999
T	°C	-199 to 400	-199 to 400
	°F	-328 to 750	-199 to 750
R & S	°C	0 to 1750	N/A
	°F	32 to 3182	N/A

TECHNICAL SPECIFICATIONS

FUNCTIONAL SPECIFICATIONS

Dwell Timer	0 to 9999 min
Heat-cool	
Control Action	PID (with auto-tuning)
Proportional Band-Cool	0.0 to 400.0°
Cycle Time-Cool	0.1 to 99.9 sec
Dead Band	Programmable from setpoint low limit to setpoint high limit.
Settings for Alarm Output	
Modes	Deviation, Absolute
Hysteresis	0.1 to 99.9°

OUTPUT SPECIFICATIONS

Control	Max. 2
Contact Rating (SPST)	5A @ 250V AC / 30V DC, resistive
SSR Drive (Voltage Pulse)	12V DC, 50mA
Alarm	Max. 1
Contact Rating (SPST)	5A @ 230V AC / 30V DC, resistive
SSR Drive (Voltage Pulse)	12V DC, 50mA

GENERAL SPECIFICATIONS

Supply Voltage	85 to 270V AC/DC (50 / 60Hz) OPTIONAL - 24V AC/DC, ±10%
Power Consumption	5VA max @230V AC
Temperature	Operating: 0 to 50°C (32 to 122°F) Storage: -20 to 75°C (-4 to 167°F)
Humidity (non-condensing)	95% RH
Weight	142 g (0.313 lbs)
Protection Level	IP65 for faceplate



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