Model TEC-704 3/16 DIN Temperature Controller

Design Features
- 3/16 DIN size – 72 mm x 72 mm
- Laser trimmed ASIC components
- Short panel depth – only 2-9/16" (65 mm) required
- On-off or time proportional selection
- Digital display, 0.4" (10 mm) red LEDs
- Wide selection of output options
- High precision wire wound dial/potentiometer setpoint
- Sensor break protection
- Good performance at a very low price
- Agency Approval:

Simple Setpoint and Display!

Hardware Code: TEC-704-

Power Input BOX 1
1 = 90-264 VAC 50/60 Hz

Signal Input BOX 2
1 = Thermocouple: Type J
2 = Thermocouple: Type K
3 = RTD: 100 ohm PT, DIN 0.00385
4 = RTD: 100 ohm PT, JIS 0.00392
9 = Other

Output 1 BOX 5
1 = Relay: 5A / 240 VAC
2 = Pulse DC for SSR drive: 20 VDC (20 mA max)
3 = 4-20 mA, linear (max load 500 ohms)
4 = 0-20 mA, linear (max load 500 ohms)
5 = 0-10 VDC, linear (min. impedance 500K ohms)
9 = Other

Output 2 BOX 6
0 = Not Available

Alarm BOX 7
0 = None
1 = Relay: 2A / 240 VAC Deviation alarm

Communication BOX 8
0 = Not Available

Standard Range Code BOX 3
4 = 0 to 300°C
6 = 0 to 600°C
8 = 0 to 100°C

Below available for large volume orders. Consult Tempco for more information.

2 = 0 to 100°C
3 = 0 to 200°C
5 = 0 to 400°C
7 = 0 to 800°C
8 = 0 to 1200°C
9 = Other

Control Mode BOX 4
1 = On - Off
2 = Proportional

A Part Number based on the hardware code and any software pre-programming will be issued at time of order.

Standard lead time is stock to 2 weeks.
Power Input
Standard: 90 - 264 VAC, 50/60 Hz, 5VA

Signal Input
Accuracy: ±1.0% of full scale at 77°F/25°C
Thermocouple: Type J or K
RTD: 3-wire Pt100 DIN or JIS
Sampling Rate: 3 samples per second
Cold Junction Compensation: ±0.1°C / 1°C
Common Mode Rejection Ratio (CMRR): 120 dB
Normal Mode Rejection Ratio (NMRR): 60 dB
Sensor Break Protection: Upscale

Output
Relay Rating: 240 VAC, 5 Amp
SSR drive: Pulsed DC, 20 V at 20 mA maximum
Current: 4 - 20 mA, 0 - 20 mA, maximum load: 500Ω
Voltage: 0 - 10 VDC, minimum load: 500KΩ

Control
Proportional Band: 2.2% of span
ON-OFF Hysteresis: 1% of span
Cycle Time: 20 seconds for relay output, 1 second for pulsed voltage output, 0.02 second for linear current or voltage output
Control Action: Reverse Action

Approval Standards
Safety Standards: EN61326
Protective Class: Front panel: IP 30
Housing and Terminals: IP 20

Adjustment
Setpoint: Single turn wirewound potentiometer
Manual Reset: Adjustable up to 2.6% of span
Setpoint Resolution: 0.2% of span
Accuracy of Setpoint: ±2% of span
Repeatability of Setpoint: ± 0.1% of span

Alarm
Type: Deviation ± 10% of span Relay: 2A / 240 VAC

Display
Process Indicator: 3-1/2 digit, 0.4" / 10 mm red LED display
Output Status Indicator: Red LED lamp
Alarm Status Indicator: Red LED lamp

Environmental and Physical
Operating Temperature: 32 to 122°F (0 to 50°C)
Humidity: 0 to 90% RH, non-condensing
Dielectric Strength: 2000 VAC, 50/60 Hz for 1 minute
Vibration: 10 - 55 Hz, amplitude 1mm
Shock: 200 m/s² (20g)
Dimensions: 2-27/32 × 2-27/32 × 3" (72 × 72 × 78 mm) HxWxD
Depth behind panel: 2-9/16" (65 mm)
Panel Cutout: 2-11/16" × 2-11/16" (68 × 68 mm) HxW
Weight: 0.53 lb. (240 grams)

Stock and Common Part Numbers
(Power Input: 90-264 VAC, Proportional mode)

<table>
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<th>Part Number</th>
<th>Signal Input</th>
<th>Range</th>
<th>Output</th>
<th>Alarm</th>
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