Model TEC-805 1/8 DIN Temperature Controller

Design Features
- 1/8 DIN size – 48 mm × 96 mm
- Short panel depth – only 2-9/16" (65 mm) required
- Laser trimmed ASIC components
- On-off or time proportional selection
- Digital input by pushwheel switch
- Digital display on 0.4" (10 mm)
- Wide selection of output options
- Universal power input, 90-264 VAC
- Sensor break protection
- Good performance at a very low price

Simple Setpoint and Display!

Hardware Code: TEC-805-

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 BOX 1
4 = 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

Range code BOX 3
X = 0 to 499°F  C = 0 to 299°C
V = 0 to 999°F  E = 0 to 499°C
W = 0 to 1999°F  H = 0 to 999°C
Other ranges are available for large volume orders. Consult Tempco for more information.

Control Mode BOX 4
1 = On - Off (used for valves & solenoids)
2 = Proportional (common for electric heaters)

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
Deviations alarm

Communication BOX 8
0 = Not Available

View Product Inventory @ www.tempco.com
**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 Standard: UL3121-1
- Protective Class: Front panel: IP 30
  Housing and Terminals: IP 20
- EMC: EN61326

**Adjustment**
- Setpoint: 3-digit or 4-digit pushwheel switch
- Manual Reset: Adjustable up to 2.6% of span
- Setpoint Resolution: ±1 Least Significant Digit
- Accuracy of Setpoint: ±1% of span
- Repeatability of Setpoint: ±1 Least Significant Digit

**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 1 mm
- Shock: 200 m/s² (20g)
- Dimensions: 3-3/4 × 1-7/8 × 3-1/8” (96 × 48 × 80 mm) H×W×D
  Depth behind panel: 2-9/16” (65 mm)
- Panel Cutout: 3-5/8” × 1-25/32” (92 × 45 mm) H×W
- Weight: 0.42 lb. (190 grams)

**Rear Terminal Connections**

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

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