# Temperature Controllers

**Model TEC-805 1/8 DIN**

## 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**

### Hardware Code: TEC-805-

<table>
<thead>
<tr>
<th>Box</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Input</td>
</tr>
<tr>
<td>2</td>
<td>Signal Input</td>
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<tr>
<td>3</td>
<td>Range code</td>
</tr>
<tr>
<td>4</td>
<td>Control Mode</td>
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<td>5</td>
<td>Output 1</td>
</tr>
<tr>
<td>6</td>
<td>Alarm</td>
</tr>
<tr>
<td>7</td>
<td>Communication</td>
</tr>
<tr>
<td>8</td>
<td>0 = Not Available</td>
</tr>
</tbody>
</table>

**Standard lead time is stock to 2 weeks.**

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**View Product Inventory @ www.tempco.com**
Temperature Controllers

Model TEC-805 Specifications (1/8 DIN)

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)

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Signal</th>
<th>Range</th>
<th>Output</th>
<th>Alarm</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC35521</td>
<td>J tc</td>
<td>0.999°F</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35522</td>
<td>J tc</td>
<td>0.499°F</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35523</td>
<td>K tc</td>
<td>0.199°F</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35524</td>
<td>K tc</td>
<td>0.999°F</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35525</td>
<td>J tc</td>
<td>0.499°C</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35526</td>
<td>J tc</td>
<td>0.299°C</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35527</td>
<td>K tc</td>
<td>0.999°C</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35528</td>
<td>K tc</td>
<td>0.499°C</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35529</td>
<td>RTD</td>
<td>0.999°F</td>
<td>relay</td>
<td>none</td>
</tr>
<tr>
<td>TEC35530</td>
<td>RTD</td>
<td>0.499°C</td>
<td>relay</td>
<td>none</td>
</tr>
</tbody>
</table>