TEMPERATURE CONTROLLER

GENERAL:

The Series 810 Temperature Controller is packaged in a panel mounted 1/8 DIN case. The complete electronics plugs into the panel mounted case for ease of adjustment and servicing.

The controller utilizes an RTD sensor and provides time proportioning control of a resistance heater load. The controller features automatic reset for operation at set point with varying load demands. A push-to-set mechanism provides visual display of setpoint or process and provides a means of setpoint adjustment. The output device is a 10A solid state zero crossover triac.

SPECIFICATIONS:

A.C. Supply Voltage: 115/230 volts, 50/60 Hz., ± 10%.

Power Consumption: Less than 6 V.A. at 115 volts, 60 Hz., exclusive of load power.

Control Mode: Heating control with time proportioning and automatic reset.

Cycle Time: Time proportioning approximately one second at 50% duty cycle.

Reset Time: Fixed, approximately 0.1 repeats per minute.

Proportional Band: Internally adjustable over the range of 50°F to 40°F. Factory set physically at mid-band.

Output Rating: 10 amperes at 115/230 volts. Output turns on and off at zero crossing of A.C. line for minimum noise and stress on heater. Full 10 amperes rating applies up to 50°C.

Indication: Digital .5" red L.E.D., 7-segment, 3 digit indication. of °F or °C. Internally switch selectable °F or °C.

Sensor: Resistance temperature detector (RTD) platinum sensing element.

Sensor Protection: An open sensor will turn off power to the heater.

Operating Ambient Temperature: 50° to 130°F.

Set Point Adjust: Display shows operating temperature. When knob is pushed, the set point is displayed and can be adjusted.
TEMPERATURE CONTROLLER

ORDERING INFORMATION

810 - 0 - 0000

OUTPUT
A-10 AMP TRIAC N/C

SENSOR TYPE/RANGE CODE NUMBER

RTD SENSOR

<table>
<thead>
<tr>
<th>Code</th>
<th>Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0 to 600°F/ -20 to 310°C</td>
</tr>
<tr>
<td>101</td>
<td>0.0 to 99.9°F/ -2.0 to 31.0°C</td>
</tr>
</tbody>
</table>

ELEMENT NO.

<table>
<thead>
<tr>
<th>Code</th>
<th>Element No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td>801-014</td>
</tr>
<tr>
<td>801</td>
<td>801-005</td>
</tr>
</tbody>
</table>
810 Series Control Wiring Diagram

Terminal Designation

1. 115 VAC Line, L1
2. 230 VAC Line, L1
3. AC Line Common, L2
4. T1
5. T2
6. Gate
7. Not used
8. Not used
9. S2
10. S1

RTD Sensor

L1 - 230VAC
L2 - Common
L1 (Hot Side)
L2 (Neutral)

Select 115 or 230 volts AC (Independent of line)