Temperature Switches

**Series 40 Digital Temperature Switch**

Series 40T/ 40M

3-1/2 Digit Display, Programming Configuration Key

The Series 40 Digital Temperature Switch accepts a variety of inputs to allow temperature measurements and set points up to 1999°F (1300°C). Observing the current status of the control is made easier with the 3-1/2 digit, multi-color LED display that has alarm, defrost and output symbols. The thermocouple switch features password protection and selectable alarm sets, and an internal buzzer indicating alarm condition or error. The user can define set point, heating/cooling regulation, cycle time, alarm configuration, load status, and ambient probe adjustment. The thermocouple switch also offers for °F or °C. For cooling applications, manual defrost mode can be initiated by pushing a single button. A flashing alarm informs users when the current temperature exceeds preset limits. When programming multiple units, a programming key is available to reduce set up time.

**ACCESSORIES**

- 40X-K, Configuration key
- TCS-J, J type thermocouple, 4” probe, 48” extension
- TCS-K, K type thermocouple, 4” probe, 48” extension
- TS-1, Brass PTC Thermistor Probe
- TS-2, Stainless Steel PTC Thermistor Probe
- TS-3, PVC PTC Thermistor Probe
- TS-4, Polyamide Resin Coated Brass PTC Thermistor Probe
- TS-5, Bead Type NPT Thermistor Probe

**SPECIFICATIONS**

- **Thermocouple/RTD Input Models**
- **Universal Input Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Supply Power</th>
<th>Model</th>
<th>Supply Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>40T-10</td>
<td>115 VAC</td>
<td>40M-10</td>
<td>115 VAC</td>
</tr>
<tr>
<td>40T-20</td>
<td>230 VAC</td>
<td>40M-20</td>
<td>230 VAC</td>
</tr>
<tr>
<td>40T-40</td>
<td>12-24 VAC/VDC</td>
<td>40M-40</td>
<td>12-24 VAC/VDC</td>
</tr>
</tbody>
</table>

- **Universal Input Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Supply Power</th>
<th>Model</th>
<th>Supply Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>40M-10</td>
<td>115 VAC</td>
<td>40M-20</td>
<td>230 VAC</td>
</tr>
<tr>
<td>40M-40</td>
<td>12-24 VAC/VDC</td>
<td>40M-40</td>
<td>12-24 VAC/VDC</td>
</tr>
</tbody>
</table>

**Control Type:** ON/OFF

**Power Requirements:** 12 to 24 VAC/VDC, 115 VAC or 230 VAC depending on model.

**Accuracy:** ±5% FS.

**Display:** 3-1/2 digit red display.

**Resolution:** 0.1°C.

**Memory Backup:** Non-volatile memory.

**Ambient Temperature:** 32 to 131°F (0 to 55°C).

**Weight:** 2.3 oz (65 g).

**Front Panel Rating:** IP 65.

**Agency Approvals:** CE, cUL, UL.

**Series TCS**

Thermocouple Temperature Switch

Heating and Cooling Control, 16 Amp Rating, Two Alarms

Monitor and control temperature in heating and cooling applications with the Series TCS Thermocouple Switch. The Series TCS offers a wide temperature range, two selectable alarm sets, and an internal buzzer indicating alarm condition or error. The user can define set point, heating/cooling regulation, cycle time, alarm configuration, load status, and ambient probe adjustment. The thermocouple switch features password protection and error/alarm messaging. Temperature and output status is indicated on the bright red LED display. Use the configuration key (sold separately) to quickly program multiple units. The Series TCS includes a fitting clip for panel mounting, gasket, rear terminal cover and instruction manual.

**SPECIFICATIONS**

- **Probe Range:**
  - K T/C: -140 to 1999°F (-100 to 1300°C)
  - J T/C: -140 to 1450°F (-100 to 800°C)
  - RTD: -320 to 2000°F (-200 to 1100°C)
  - PTC: 98 to 300°F (-50 to 150°C)
  - NTC: -45 to 230°F (-45 to 110°C)
- **Output:** 16A @ 250 VAC SPDT relay (max current allowed is 10A).

- **Temperature Limits:**
  - Heating: 999°F; Cooling: -40 to 230°F
  - Ambient: 32 to 70°F
- **Memory Backup:** Nonvolatile memory.

- **Horsepower Rating (HP):** 1 HP
- **Power Requirements:** 110 VAC, 230 VAC, 12 VAC/VDC or 24 VAC/VDC (depending on model).

**ACCESSORIES**

- TCS-J, J type thermocouple, 4” probe, 48” extension
- TCS-K, K type thermocouple, 4” probe, 48” extension
- TS-2-K, Configuration Key

**Universal Input Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>Supply Power</th>
<th>Model</th>
<th>Supply Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>40M-10</td>
<td>115 VAC</td>
<td>40M-20</td>
<td>230 VAC</td>
</tr>
<tr>
<td>40M-40</td>
<td>12-24 VAC/VDC</td>
<td>40M-40</td>
<td>12-24 VAC/VDC</td>
</tr>
</tbody>
</table>

**Power Requirements:** 12 to 24 VAC/VDC, 115 VAC or 230 VAC depending on model.

**Accuracy:** ±1% FS.

**Display:** 3-digit, red, 1/2” (12.7 mm) digits, plus sign.

**Resolution:** 0.1°C.

**Memory Backup:** Non-volatile memory.

**Ambient Temperature:** 32 to 131°F (0 to 55°C).

**Weight:** 2.3 oz (65 g).

**Front Panel Rating:** IP 65.

**Agency Approvals:** CE, cUL, UL.