Digital Temperature Switch

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. For added versatility, the temperature units can be field selected 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.

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 1200°F (-200 to 650°C);
- PTC: -58 to 300°F (-50 to 150°C);
- NTC: -40 to 230°F (-40 to 110°C);
- N. RTD: -110 to 570°F (-80 to 300°C).

Output:
16A @ 250 VAC SPDT relay (max current allowed is 10A).

Control Type:
On/off.

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

Accuracy:
±1% 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.

Thermocouple/RTD Input Models

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

Universal Input Models

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

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-5, PVC PTC Thermistor Probe
TS-6, Polyamide Resin Coated Brass PTC Thermistor Probe
TS-7, Bead Type NPT Thermistor Probe

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:
32 to 999°F (0 to 700°C) for Type J thermocouple; 32 to 999°F (0 to 999°C) for Type K or S thermocouples.

Input:
Type J, K or S thermocouple.

Output:
SPDT relay rated 16A @ 240 VAC resistive.

Horsepower Rating (HP): 1 HP.

Control Type: ON/OFF.

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

Accuracy: ±1% FS.

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

Resolution: 1°.

Memory Backup: Non-volatile memory.

Ambient Limits: 32 to 158°F (0 to 70°C); Storage: -4 to 176°F (-20 to 80°C).

Weight: 2.3 oz (65 g).

Model Cutout 2-51/64˝ x 1-9/64˝ (71 x 29 mm)

<table>
<thead>
<tr>
<th>Model</th>
<th>Supply Power</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCS-4010</td>
<td>115 VAC</td>
<td>°F</td>
</tr>
<tr>
<td>TCS-4011</td>
<td>115 VAC</td>
<td>°C</td>
</tr>
<tr>
<td>TCS-4020</td>
<td>230 VAC</td>
<td>°F</td>
</tr>
<tr>
<td>TCS-4021</td>
<td>230 VAC</td>
<td>°C</td>
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<tr>
<td>TCS-4030</td>
<td>12 VAC/VDC</td>
<td>°F</td>
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<tr>
<td>TCS-4031</td>
<td>12 VAC/VDC</td>
<td>°C</td>
</tr>
<tr>
<td>TCS-4040</td>
<td>24 VAC/VDC</td>
<td>°F</td>
</tr>
</tbody>
</table>

ACCESSORIES

TCS-J, J Type Thermocouple, 4" probe, 48" extension
TCS-K, K Type Thermocouple, 4" probe, 48" extension
TS2-K, Configuration Key