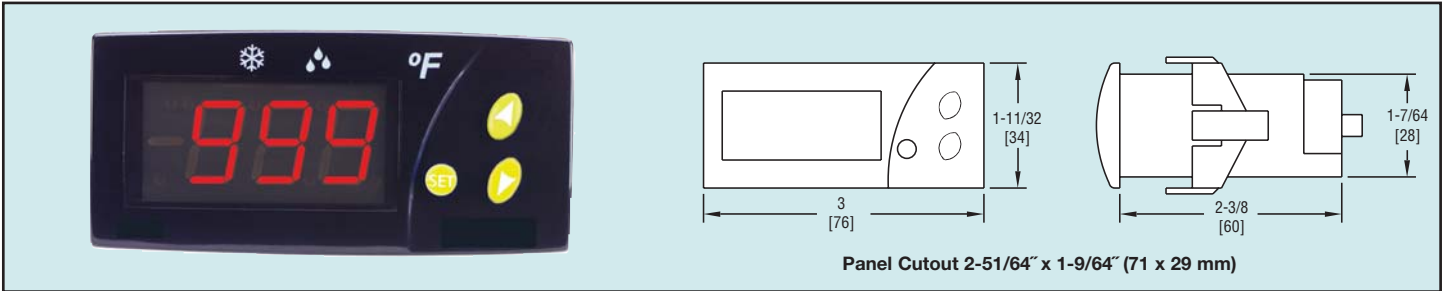




Series  
TCS

# Thermocouple Temperature Switch

Heating and Cooling Control, 15 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:** 0 to 700°C (32 to 999°F) for thermocouple J. 0 to 999°C (32 to 999°F) for thermocouples K, S.
- Input:** Type J, K, or S thermocouple depending on model.
- Output:** 15 A SPDT relay @ 250 VAC resistive.
- Horsepower Rating (HP):** 3/4 HP.
- Control Type:** ON/OFF.
- Power Requirements:** 110 VAC, 230 VAC or 12 VAC/VDC (depending on model).
- Accuracy:** ±1% FS.
- Display:** 3-digit, red, 1/2" (12.7 mm) digits, plus sign.
- Resolution:** 1°.
- Memory Backup:** Nonvolatile memory.
- Ambient Operating Temperature:** 14 to 131°F (-10 to 55°C).
- Storage Temperature:** -4 to 176°F (-20 to 80°C).
- Weight:** 2.3 oz (65 g).
- Front Panel Rating:** NEMA 4X (IP65).
- Agency Approvals:** CE, UR pending.

## APPLICATIONS

TS Digital Temperature Switches are suitable for industrial chillers, environmental chambers, walk-ins and freezers, heat sealers, sterilizers, beer and wine chillers, mug frosters, coolers, display cases and cabinets, warmers, meat and produce storage, floral preservation, refrigerated transportation, laboratories, food service equipment, ovens and dryers, tobacco preservation, hot melt glue stitchers for case erectors, cool rooms, burn-in rooms and chambers, and cold water citrus packing.

## Accessory

### TS2-K Configuration Key

## MODELS

Model Number	Description
TCS-4010	Type J input, 110V, °F
TCS-4011	Type J input, 110V, °C
TCS-4020	Type J input, 230V, °F
TCS-4021	Type J input, 230V, °C
TCS-4030	Type J input, 12 VAC/VDC, °F
TCS-4031	Type J input, 12 VAC/VDC, °C
TCS-5010	Type K input, 110V, °F
TCS-5011	Type K input, 110V, °C
TCS-5020	Type K input, 230V, °F
TCS-5021	Type K input, 230V, °C
TCS-5030	Type K input, 12 VAC/VDC, °F
TCS-5031	Type K input, 12 VAC/VDC, °C

## PARAMETERS

	Description	Units	Range
SP	Set point	Degrees	r1 to r2
r0	Differential or hysteresis	Degrees	1 to 99°
r1	Lower Value Set Point	Degrees	0 to 999°
r2	Higher Value Set Point	Degrees	0 to 999°
d0	Heating or Cooling Control	Option	Ht/Co
c0	Min. stop time for Load	Minutes	0 to 59 min.
c2	Load Status During Probe Error	0/1	Off/On
P1	Ambient Probe Adjustment	Degrees	-10 to 10
P5	Ambient Probe Type	Option	J, K, or S
H5	Parameter Access code	Numeric	0 to 255 (Set at 0 from factory)
A0	Alarm 1 Hysteresis	Degrees	1 to 999°
A1	Alarm 1 Threshold	Degrees	0 to 999°
A2	Alarm 1 Exclusion Time	Seconds	0 to 999°
A3	Alarm 1 Configuration	Option	Off, 1, or 2
A4	Alarm 2 Hysteresis	Degrees	1 to 999°
A5	Alarm 2 Threshold	Degrees	0 to 999°
A6	Alarm 2 Exclusion	Seconds	0 to 999
A7	Alarm 2 Configuration	Option	Off, 1, or 2