

# DIGITAL TEMPERATURE SWITCH

## Heating and Cooling Control, 16 Amp Rating



The Series TST Digital Temperature Switch is designed with many heating and cooling applications in mind. This low cost switch is simple to set up with one probe input and SPDT switch output. Programming performed using either the front keypad or through a TS2-K programming key.

**BENEFITS/FEATURES**

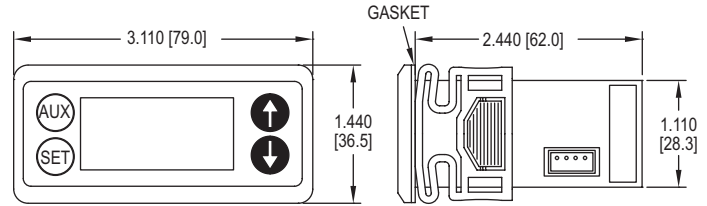
- Buzzer indicates probe/memory error or high/low temperature alarm conditions
- Capacitive buttons offer clean panel face design

**APPLICATIONS**

- Refrigeration
- Holding ovens
- Boilers
- Brewing systems

MODEL CHART	
Model	Supply Power
TST-011	115 VAC
TST-021	230 VAC
TST-031	12 VAC/VDC
TST-041	24 VAC/VDC

**ACCESSORIES**  
See page reference 1 below.



Panel cutout 2-51/64" x 1-9/64" (71 x 29 mm)

**SPECIFICATIONS**

**Probe Range:** PTC: -58 to 302°F (-50 to 150°C); NTC: -58 to 230°F (-50 to 110°C).  
**Input:** PTC (1000 Ω @ 25°C) or NTC (10 KΩ @ 25°C) thermistor.  
**Output:** SPDT relay rated 16 A @ 240 VAC resistive, 10 FLA, 60 LRA.  
**Horsepower Rating (HP):** 1 HP.  
**Control Type:** On/Off.  
**Power Requirements:** 115 VAC, 230 VAC, 24 VAC/VDC, or 12 VAC/VDC.  
**Power Consumption:** 4 VA @ 115/230 VAC; 1.5 VA @ 12/24 VAC/VDC.  
**Accuracy:** ±1% FS.  
**Display:** 3-digit, plus sign.  
**Resolution:** 0.1°.  
**Memory Backup:** Nonvolatile memory.  
**Ambient Temperature:** 32 to 131°F (0 to 55°C).  
**Storage Temperature:** -4 to 176°F (-20 to 80°C).  
**Weight:** 115 and 230 V models: 7.2 oz (204 g); 12 and 24 V models: 4.8 oz (136 g).  
**Front Panel Rating:** IP65.  
**Agency Approvals:** CE, cURus.

1 Digital Temperature Switch Probes and Accessories: See page 129 (Series TS-Probes)

SERIES TSXT

# DIGITAL TEMPERATURE SWITCH

## Refrigeration Control, Up To 3 Probe Inputs and 3 Relay Outputs



The Series TSXT Digital Temperature Switch is designed for refrigeration control. It accepts PTC or NTC temperature probe types and can control the compressor, defrost, fan, alarm, and light in a refrigeration system. Master/slave configurations allow synchronization of defrost cycles between different units. Programming is performed through the front keypad, or by using the TS2-K programming key.

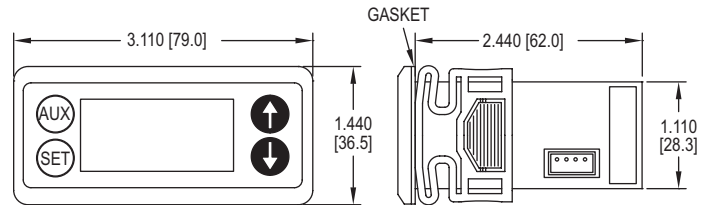
**BENEFITS/FEATURES**

- Models available with 1, 2, or 3 relay outputs
- 3 temperature inputs and one digital input for complete refrigeration control
- Configuration key available for programming multiple units
- Capacitive buttons offer clean panel face design

**APPLICATIONS**

- Refrigerated cabinets
- Walk in coolers
- Applications requiring defrost cycles

MODEL CHART					
Model	Supply Power	Outputs	Model	Supply Power	Outputs
TSXT-211	115 VAC	1	TSXT-232	12 VAC/VDC	2
TSXT-221	230 VAC	1	TSXT-242	24 VAC/VDC	2
TSXT-231	12 VAC/VDC	1	TSXT-213	115 VAC	3
TSXT-241	24 VAC/VDC	1	TSXT-223	230 VAC	3
TSXT-212	115 VAC	2	TSXT-233	12 VAC/VDC	3
TSXT-222	230 VAC	2	TSXT-243	24 VAC/VDC	3



Panel cutout 2-51/64" x 1-9/64" (71 x 29 mm)

**SPECIFICATIONS**

**Probe Range:** PTC: -58 to 302°F (-50 to 150°C); NTC: -58 to 230°F (-50 to 110°C).  
**Input:** PTC (1000 Ω @ 25°C) or NTC (10 KΩ @ 25°C) thermistor.  
**Output:** Relay 1: SPST relay rated 16 A @ 240 VAC resistive, 10 FLA, 60 LRA; Relay 2: SPST relay rated 5 A @ 240 VAC resistive; Relay 3: SPST relay rated 8 A @ 240 VAC resistive.  
**Horsepower Rating (HP):** 1 HP (Relay 1).  
**Control Type:** On/off with defrost options.  
**Power Requirements:** 115 VAC, 230 VAC, 24 VAC/VDC, or 12 VAC/VDC.  
**Power Consumption:** 3.6 VA @ 115/230 VAC; 1.5 VA @ 12/24 VAC/VDC.  
**Accuracy:** ±1% FS.  
**Display:** 3-digit, plus sign.  
**Resolution:** 0.1°.  
**Memory Backup:** Nonvolatile memory.  
**Ambient Operating Temperature:** 32 to 131°F (0 to 55°C).  
**Storage Temperature:** -4 to 176°F (-20 to 80°C).  
**Weight:** 115 and 230 V models: 7.2 oz (204 g); 12 and 24 V models: 4.8 oz (136 g).  
**Front Panel Rating:** IP65.  
**Agency Approvals:** CE, cURus.

**ACCESSORIES**  
See page reference 1 below.

1 Digital Temperature Switch Probes and Accessories: See page 129 (Series TS-Probes)