

B100 & E100

Heat Trace/Freeze Protection Thermostats

- B100 Direct Mount for Freeze Protection (Ambient)
- E100 Remote Mount for Heat Trace (Bulb & Capillary)
- 22 Amp Resistive Switch
- Single and Dual Output Models
- ± 1% Setpoint Repeatability
- Fast Response for Protection of Valves and Piping
- NEMA 4X, 7 and 9 Enclosures

Applications

- E100 NEMA 4X Line or Pipe Sensing
- B100 NEMA 4X Ambient Air Sensing
- E121/122/122P NEMA 7 Line or Pipe Sensing
- B121 NEMA 7 Ambient Air Sensing

WARNING: Hazard of Fire. These devices function as temperature controls only. Because they do not fail-safe, an approved temperature and/or pressure safety control must be used for safe operation.

B100 / E100
NEMA 4X



(Models E121/122, B121 only)

B121 / E121
NEMA 7



Description

Maintaining proper viscosity and flow is critical in heat trace or freeze protection applications. The E100 remote mount thermostats utilize a stainless steel bulb and capillary design to accurately sense temperature at key points along a pipe. The B100 direct mount thermostats feature liquid-filled

thermal assemblies and sense air temperatures from 15 to 140°F. Both models are epoxy coated to seal from moisture and contaminants in compliance with NEMA 4X requirements. NEMA 7 stats E121/122/122P and B121 are designed for Class I, Division I and 2, Groups B, C, D, and Class 2, Division I and 2, Group E, F, G.

Specifications

Ambient Temperature Limits	-40° to +160°F (B100); -58°F to +160°F (B121, B122, E122, E121) (-40 to +71°C); set point typically shifts
Switch Output	One SPDT (types B100, E100, B121, E121); two SPDT (types E122, E122P)
Electrical Rating	22 Amps 125/250/480 Vac resistive
Weight	Types B100, E100: 1 lb., 8 oz (0,68 kg) Types B121, E121, E122, E122P: 3 lbs., 10 oz (1,6 kg.)
Electrical Connection	Types E121, E122, E122P, B121: terminal block; Types B100, E100: direct to switch
Temperature Assembly	Types E100, E121, E122, E122P: 10 feet stainless steel bulb and capillary Types B100, B121: immersion stem
Fill	Non-toxic oil filled
Temperature Deadband	Typically 2% of range
Bulb Dimensions (E100, E121, E122)	Length 11-5/8", OD 1/8"
(B100, B121)	Length 2-11/16", OD 9/16"

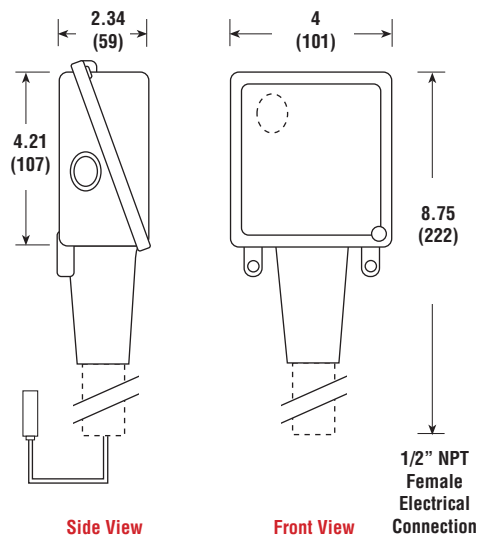
B100 & E100

Heat Trace/Freeze

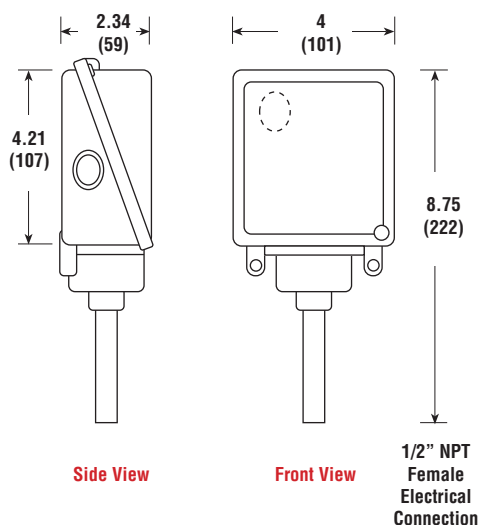
Protection Thermostats (*cont'd.*)

Dimensions

**E100 Heat Trace, NEMA 4X
Line and Pipe Sensing**

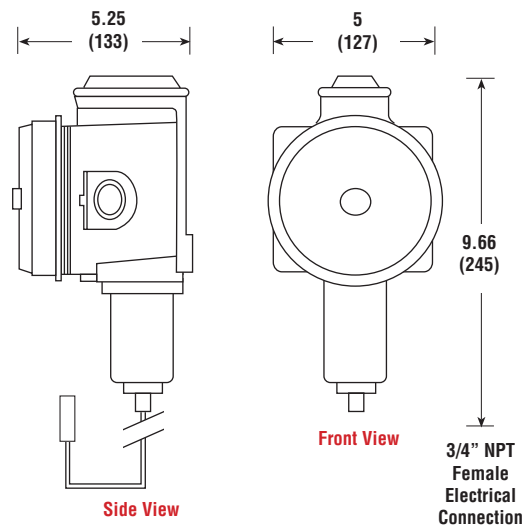


**B100 Freeze Protection, NEMA 4X
Ambient Sensing**

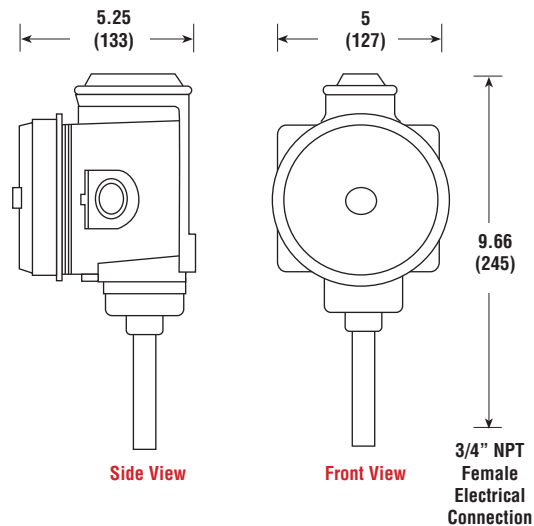


All Dimensions in Inches (mm)

**E121/122 Heat Trace, NEMA 7 and 9
Line and Pipe Sensing**



**B121 Freeze Protection, NEMA 7 and 9
Ambient Sensing**



Ordering Information

Thermostat Type	Model	Switch Output	Enclosure NEMA	Stock	PCN
Heat Trace, Remote Bulb and Capillary 25 - 325°F (-5 to +163°C)	E100	Single Output	4X	S	305322
	E121	Single Output	4X,7,9	S	384112
	E122	Dual Output, Dual Setpoint	4X,7,9	NS	305349
	E122P	Dual Output, Common Setpoint	4X,7,9	NS	305357
Freeze Protection Direct Mount 15 - 140°F (-10 to +60°C)	B100	Single Output	4X	S	305365
	B121	Single Output	4X,7,9	S	384104