



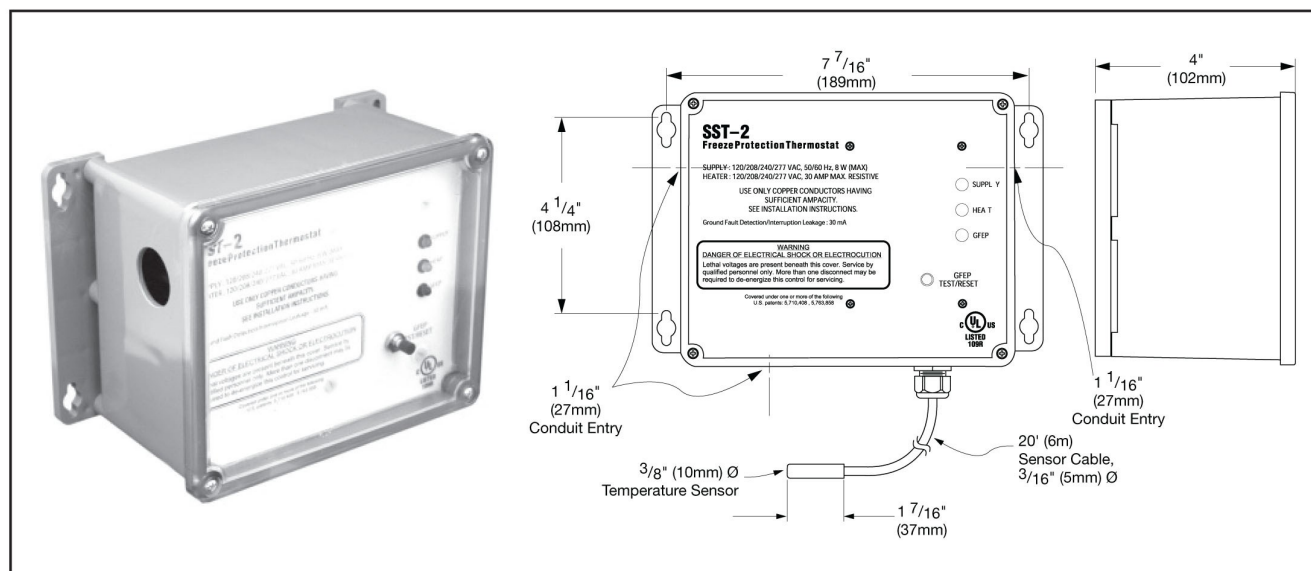
Electronic Thermostat with Ground Fault Equipment Protection

MODEL SST-2 FREEZE PROTECTION THERMOSTAT

DATA SHEET

FEATURES & BENEFITS

- Automatic freeze protection
- 40°F (4.4°C) set point
- Automatic supply voltage selection
- Two-pole contactor switches up to 30 AMP heater loads
- Alarm relay with isolated contact
- Integral 30 mA GFEP
- C-UL-US listed
- Simple to install and operate
- Minimum energy costs



DESCRIPTION

The C-UL-US listed SST-2 Freeze Protection Thermostat replace electromechanical thermostats in cost-sensitive applications requiring ground fault equipment protection (GFEP). The SST-2 is listed by Underwriters Laboratories to Standard UL 873 for Temperature-Indicating and -Regulating Equipment.

The SST-2 operates heaters at temperatures below 40°F (4.4°C) and turn them off above 42°F (5.5°C). The external temperature sensor (supplied) is a NEC Class 2 device rated for wet locations.

The SST-2 features a built-in 30 mA GFEP that is digitally filtered to minimize false tripping. A ground fault

must be manually reset with the TEST/RESET switch before heater operation can be resumed. The GFEP function is automatically tested along with the heaters whenever power is applied and once every 24 hours thereafter for additional safety.

The SST-2 includes an alarm relay with an isolated SPDT 1 AMP contact. The alarm relay is reverse acting and is normally closed unless there is a ground fault condition, GFEP circuitry fails a test, or when there is a bad temperature sensor.

The SST-2 Freeze Protection Thermostat operates from automatically selected operating voltages of 120, 208, 240 or 277 volts, single-phase. They

control heater loads of up to 30 amps while consuming less than 2 watts when idling. The temperature sensor is an NEC Class 2 device that can be located up to 2,000' (610 m) away from the SST. They operate in non-hazardous environments in a temperature range extending from -40° to 131°F (-40° to 55°C). The rugged non-metallic enclosure is appropriate for installation in indoor or outdoor locations suitable for NEMA 4x applications.

SPECIFICATIONS

General

Area of use Nonhazardous locations

Approvals



Enclosure

Protection NEMA 4x

Cover attachment Polycarbonate cover, machine screws

Entries 1 × 3/4" entry (bottom right) for NEC Class 2 connections
3 × 1-1/16" entries (bottom left and left) for supply and load power

Material Polycarbonate

Mounting Wall mounted

Front Panel Interface

Status indicator
SUPPLY (green) power applied
SUPPLY (green, flashing) bad thermistor
HEAT (yellow) call for heat
GFEP (red) ground fault condition
GFEP (red, flashing) failed GFEP test
GFEP (red, flashing, rapid) GFEP test in progress

Remote Interface

Alarm relay Isolated SPDT 1 AMP Class 2 contact

Summary alarms
No Power
Ground Fault Condition
GFEP function test failure
Bad or missing Thermistor

Control

Supply voltage 120, 208, 240 or 277 volts, single phase (automatically selected)

Contact type Two Form A DPST

Maximum ratings
Voltage: 277 VAC
Current: 30 amps

Temperature Sensor

Set point 40°F (4.4°C)

Dead band 2°F (1°C)

Sensor type Thermistor network

Circuit type NEC Class 2

Lead length
Up to 2,000' (610m) using 12 AWG 2-wire jacketed cable
Up to 500' (152m) using 18 AWG 2-wire jacketed cable

Ground Fault Equipment Protection (GFEP)

Set point 30 mA

Automatic self test
Mode A: Verifies GFEP function before contactors operate
Mode B: Verifies GFEP function every 24 hours

Manual test/reset TEST/RESET switch of front panel

Environmental

Operating temperature -40°F to 130°F (-40°C to 55°C)

Storage temperature -67°F to 167°F (-55°C to 75°C)

INSTALLATION

