



GREYSTONE

ENERGY SYSTEMS INC

ROOM TEMPERATURE SENSOR TSPC Series

The TSPC room temperature sensor with resistive setpoint control is available in an attractive wall mount enclosure and can be configured with various options. It is available with various curve-matched thermistors or RTD sensors to measure temperature.

A back-lit LCD displays room temperature, setpoint on demand and occupancy. Several operating parameters can be programmed using a keypad and on-board jumpers configure the °C/F display or disable the backlight.

Available options include a dry-contact override switch, a five position fan speed switch and a jack for a network connection.

SPECIFICATION:

Power Supply24 Vac/dc $\pm 10\%$
(non-isolated half-wave rectified)
Consumption20 mA max.
Operating Conditions0 - 50°C (32 - 122°F),
0-95% RH non-condensing
EnclosureWhite ABS - IP30 (NEMA 1)
84 w x 119 h x 29 d mm
(3.3" x 4.7" x 1.15")
Wiring ConnectionsScrew terminal block (14 to 22 AWG)

Temperature Signal

SensorSeveral thermistors or RTD's available
See ordering information
Sensor AccuracyThermistors: $\pm 0.2^\circ\text{C}$, 0 to 70°C
($\pm 0.36^\circ\text{F}$, 32 to 158°F)
Platinum RTD's: $\pm 0.3^\circ\text{C}$ @ 0°C
($\pm 0.54^\circ\text{F}$ @ 32°F)
Nickel RTD's: $\pm 0.4^\circ\text{C}$ @ 0°C
($\pm 0.72^\circ\text{F}$ @ 32°F)

Setpoint Adjustment

RangeUp/Down pushbuttons for
 ± 10 resistive steps
SignalSeveral resistive ranges available
See ordering information
MidpointProgrammable, 20-23 °C or 68-73 °F
LCD IncrementSetpoint step size is 0.5 °C or 1.0 °F
ActionProgrammable, direct or
reverse acting

LCD Display

Display Range0.0 - 35.0 °C or 32.0 - 95.0 °F
selectable via jumper
Display Resolution0.5 °C/F
Display Size38.1 w x 16.5 h mm H (1.5" x 0.65")
Digit Height11.43 mm (0.45")
Symbols°C, °F, OCC
BacklightEnable or disable via jumper

Optional Override Switch (S)

Momentary pushbuttonN.O., SPST, 50 mA @12 Vdc

Occupied Input

Signal typeDigital input, 0/5 Vdc standard,
active low
ActionCauses "OCC" segment to light on LCD

Optional Communication Jack (E)

4 pin4 Pin header. Requires HHTA -
Hand Held Adapter

Optional Fan Speed Switch (F)

Range5 Position-Off, Auto, Low, Medium, High
SignalResistive - 0, 2, 4, 6, 8 K Ω



PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
TSPC	Room Temperature Sensor w/ Setpoint Adjustment & LCD

CODE	Sensor
2	100 Ω Plat. IEC 751, 385 Alpha, thin film
5	1801 Ω , NTC Thermistor, $\pm 0.2^\circ\text{C}$
6	3000 Ω , NTC Thermistor, $\pm 0.2^\circ\text{C}$
7	10,000 Ω , type 3, NTC Thermistor, $\pm 0.2^\circ\text{C}$
8	2.252K Ω , NTC Thermistor, $\pm 0.2^\circ\text{C}$
12	1000 Ω Platinum, IEC 751, 385 Alpha, thin film
13	1000 Ω Nickel, Class B, DIN 43760
14	10,000 Ω , type 3, NTC Thermistor, $\pm 0.2^\circ\text{C}$ w 11K shunt resistor
20	20,000 Ω , NTC Thermistor, $\pm 0.2^\circ\text{C}$
24	10,000 Ω , type 2, NTC Thermistor, $\pm 0.2^\circ\text{C}$

CODE	Resistance Output (Range 16-26°C in 0.5°C Increments or 60-80°F in 1°F Increments)
P	0 - 10,000 ohms
P1	20,000 - 30,000 ohms
P2	2000 - 3000 ohms
P3	0 - 20,000 ohms
P4	4000 - 2000 ohms
P5	0 - 2000 ohms
P6	8000.7 - 3107.3 ohms

CODE	Options (Multiple selections can be made)
E	4 Pin molex external jack for communications
S	Exposed override switch with LCD indication option (OCC)
F	5 position fan switch Off/Auto/Low/Med/High

Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

Due to the many possible configurations, special part numbers may be required. Please contact Greystone for more information

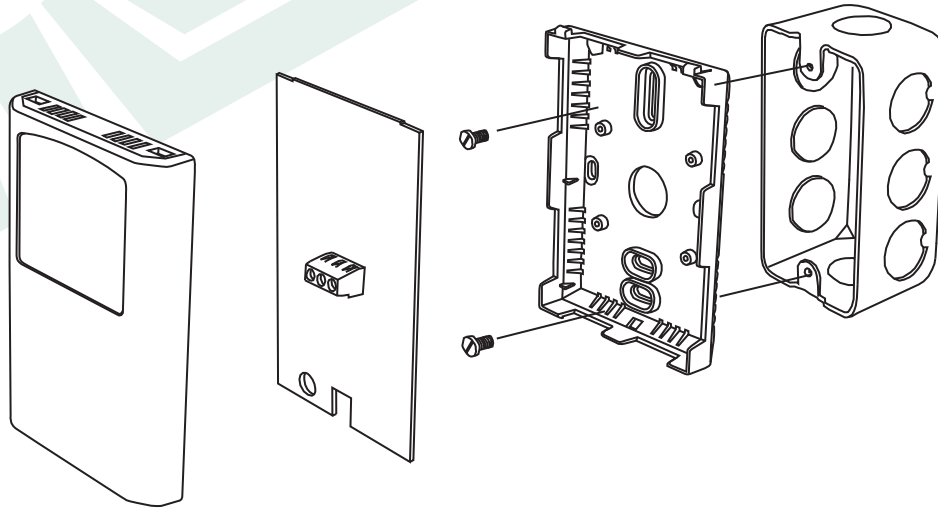
TSPC*GS*** Description:

TYPICAL INSTALLATION:

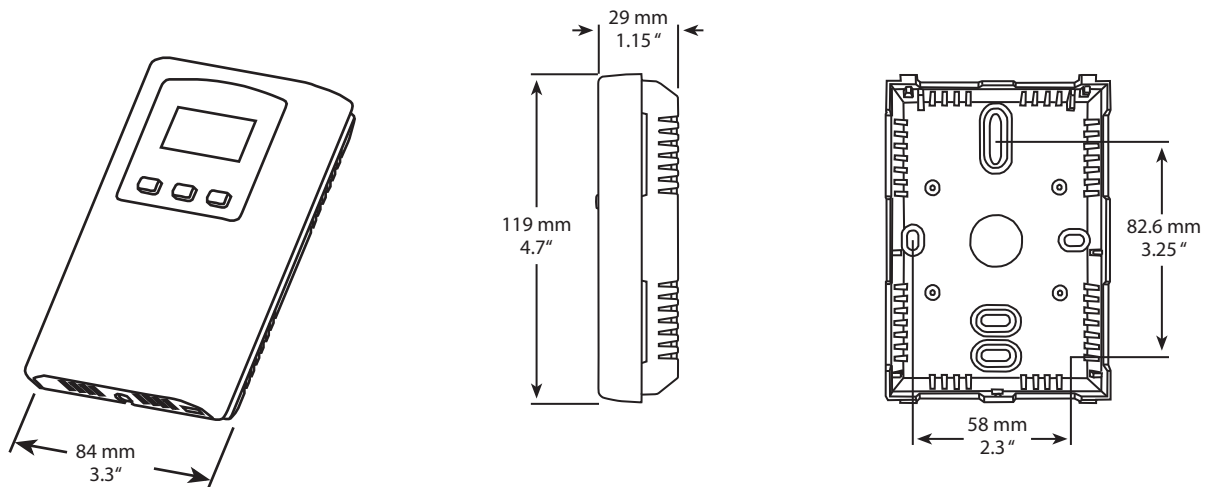
For complete installation and wiring details, please refer to the product installation instructions.

The TSPC series can be mounted directly to a single gang electrical box or directly to a wall. Insulating foam is adhered to the back of the enclosure to provide a thermal barrier from internal wall temperatures.

A terminal block connection is provided for connection to the Building Automation System. There are several wiring configurations depending on the options selected.



DIMENSIONS:



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RoHS
COMPLIANT



Greystone Energy Systems Inc. is one of North America's largest manufacturers of HVAC sensors and transmitters for Building Automation Management Systems. We have conscientiously established a worldwiderputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System, assuring our customers of consistent product reliability.