

## PRODUCT DESCRIPTION

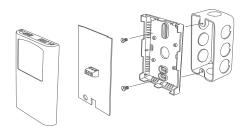
The TSRC series is an attractive, low profile enclosure that incorporates a precision temperature sensor used to monitor room temperatures. Additional options are available that include setpoint adjustment, manual override, fan speed and LCD.

## TYPICAL INSTALLATION

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

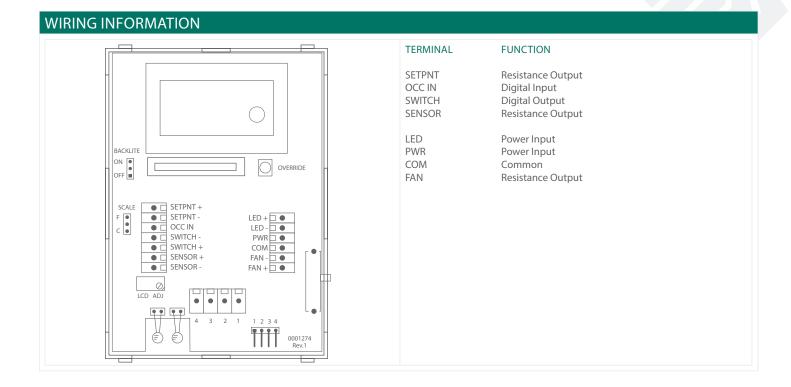
The TSRC series can be mounted directly to a single gang electrical box or directly to a wall. Insulating foam is adhered to the back of the enclosure to provide a thermal barrier from internal wall temperatures.

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



| SPECIFICATIONS               |   |  |  |
|------------------------------|---|--|--|
| SENSING ELEMENT              | Thermistor or RTD (see ordering chart)  |  |  |
| SENSOR ACCURACY              | Thermistors: $\pm 0.2^{\circ}\text{C} \ (\pm 0.36^{\circ}\text{F}) \ @ 25^{\circ}\text{C} \ (77^{\circ}\text{F})$<br>Platinum RTD's: $\pm 0.3^{\circ}\text{C} \ (\pm 0.54^{\circ}\text{F}) \ @ 0^{\circ}\text{C} \ (32^{\circ}\text{F})$<br>Nickel RTD's: $\pm 0.4^{\circ}\text{C} \ (\pm 0.72^{\circ}\text{F}) \ @ 0^{\circ}\text{C} \ (32^{\circ}\text{F})$                       |  |  |
| AMBIENT OPERATING RANGE      | 0 to 50°C (32 to 122°F), 5 to 95 %RH non-condensing   |  |  |
| ENCLOSURE                    | White ABS, IP30 (NEMA 1)<br>84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")   |  |  |
| WIRING CONNECTIONS           | Sensor Only: Pigtail, 2 or 3 wire<br>With Options: Terminal block (14 to 22 AWG)  |  |  |
| OPTIONAL OVERRIDE SWITCH     | Front panel, momentary pushbutton, N.O., SPST, 50 mA @ 12 Vdc   |  |  |
| OPTIONAL SETPOINT SLIDE POT  | <b>Range:</b> Front panel pot as resistive output, 0-10,000 $\Omega$ standard <b>Custom Spans Available:</b> 1K, 2K, 5K, 10K, 20 K $\Omega$   |  |  |
| OPTIONAL FAN SPEED SWITCH    | Range: Off, Auto, Low, Medium, High Signal: Resistive - 0, 2, 4, 6, 8 & 10 KΩ (custom ranges available) Type: Side mounted, 5 position slide switch Designators: Off, Auto, Low, Medium, High   |  |  |
| OPTIONAL LED INPUT           | Signal Type: Active high, low or 2 wire, 5V current limit standard Colors: Red (R), Green (G), or Yellow (Y) Power Supply: 5 Vdc standard, 10 Vdc or 24 Vdc optional  |  |  |
| OPTIONAL COMMUNICATION JACKS | 4 pin header to 4 pin terminal block  |  |  |
| OPTIONAL LCD DISPLAY         | Power Supply: 12-24 Vdc / 24 Vac ±10% Protection Circuitry: Reverse voltage protected Consumption @ 24 Vdc: 13 mA max (no backlight) 23 mA max (with backlight) Range: 0.0 - 35.0°C or 32.0 - 95.0°F selectable via jumper Resolution: 0.1°C/°F Size: 38.1mm W x 16.5mm H (1.5" x 0.65") Digit Height: 11.43mm (0.45") Symbols: °C, °F, OCC Backlight: Enable or disable via jumper |  |  |
| OPTIONAL OCCUPIED INPUT      | <b>Signal Input:</b> Digital input, 0-5 Vdc standard, active low <b>Action:</b> Causes "OCC" segment to light on LCD  |  |  |
| COUNTRY OF ORIGIN            | Canada  |  |  |





| ORDERING                                  |   |   | PART NUMBER |
|---|---|---|-------------|
| PRODUCT                                   | TSRC  | Room Temperature Sensor   | TSRC        |
| SENSOR                                    | 2<br>5<br>6<br>7<br>8<br>12<br>13<br>14<br>20<br>24<br>59 | 100 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film 1801 $\Omega$ NTC Thermistor, ±0.2°C 3000 $\Omega$ NTC Thermistor, ±0.2°C 10,000 $\Omega$ Type 3, NTC Thermistor, ±0.2°C 2.252 K $\Omega$ NTC Thermistor, ±0.2°C 1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film 1000 $\Omega$ Nickel, Class B, DIN 43760 10,000 $\Omega$ Type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor 20,000 $\Omega$ NTC Thermistor, ±0.2°C c/w 10,000 $\Omega$ Type 2, NTC Thermistor, ±0.2°C 10,000 $\Omega$ Type 2, NTC Thermistor, ±0.2°C 10,000 $\Omega$ Type 2, NTC Thermistor, ±0.2°C 10,000 $\Omega$ 3 Type 2, NTC Thermistor, ±0.2°C 10,000 $\Omega$ 9 25°C, ±1%, B = 3435 ±1% (25/85) |             |
| OPTIONS (MULTIPLE SELECTIONS CAN BE MADE) | P<br>S<br>C<br>F<br>Y<br>R<br>G                           | 0-10,000 $\Omega$ linear slide pot for set point control Exposed push button momentary switch - N.O. 3 digit LCD temperature indicator °C / °F selectable Fan speed switch (Auto, Off, Low, Mid, High) Yellow LED (n/a if C option is selected) Red LED (n/a if C option selected) Green LED (n/a if C option selected) External jack for remote system access (4 pin header)   |             |

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

