

## OUTSIDE TEMPERATURE SENSOR TSOS Series

The single point outside air temperature sensor utilizes a precision sensor. All probes are constructed to provide excellent heat transfer, fast response and are potted to resist moisture penetration. A sun and wind shield is integrated into a weatherproof compact ABS enclosure with a hinged and gasketed cover for ease of installation.



### SPECIFICATION:

Sensor Type ..... Various Thermistors or RTD  
 Sensor Accuracy..... **Thermistors:**  $\pm 0.2^{\circ}\text{C}$  ( $\pm 0.36^{\circ}\text{F}$ ) @  $25^{\circ}\text{C}$  ( $77^{\circ}\text{F}$ )  
                                   **Platinum RTD's:**  $\pm 0.3^{\circ}\text{C}$  ( $\pm 0.54^{\circ}\text{F}$ ) @  $0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ )  
                                   **Nickel RTD's:**  $\pm 0.4^{\circ}\text{C}$  ( $\pm 0.72^{\circ}\text{F}$ ) @  $0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ )  
 Probe Sensing Range.....  $-20$  to  $60^{\circ}\text{C}$  ( $-4$  to  $140^{\circ}\text{F}$ )  
 Ambient Operating Range...  $-40$  to  $50^{\circ}\text{C}$  ( $-40$  to  $122^{\circ}\text{F}$ )  
 Wire Material..... PVC insulated, parallel bonded, 22 AWG  
 Enclosure..... **A:** ABS - UL94-V0, IP65 (NEMA4X)  
                                   **C:** Same as A, includes terminal block  
                                   **E:** Same as C, with cable gland fitting  
 Termination ..... **A:** pigtail, 2 or 3 wire  
                                   **C:** terminal block, 2 or 3 wire  
 Country of Origin..... Canada

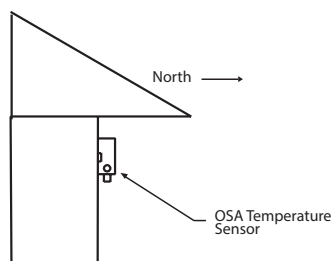
### TYPICAL INSTALLATION:

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

The outside sensor should be mounted on an outside north facing wall, under the eaves which will provide protection from direct sunlight.

The outside sensor is mounted by extending a threaded end of the 1/2" conduit used for wiring through the building wall so that it extrudes at least 1 to 2" from the wall face. A 0.895" hole is provided for EMT connection. Open access cover, feed wires through and connect.

The outside sensor can be mounted directly to building's wall face using the provided mounting holes. A 0.85" hole for conduit connection is provided.



Included with E style enclosure



### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
TSOS	Outside Temperature Sensor

CODE	Enclosure
A	ABS, with hinged & gasketed cover
C	Same as A, with terminal block
E	Same as C, with cable gland fitting

CODE	Sensor
02X	100 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film, 3 wire
05X	1801 $\Omega$ NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
06X	3000 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
07X	10,000 $\Omega$ , Type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
08X	2.252K $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
12X	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film
13X	1000 $\Omega$ Nickel, Class B, DIN 43760
14X	10,000 $\Omega$ , Type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$ c/w 11K shunt resistor
20X	20,000 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
24X	10,000 $\Omega$ , Type 2, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
59X	10,000 $\Omega$ , @ $25^{\circ}\text{C}$ , $\pm 1\%$ , B = 3435 $\pm 1\%$ (25/85)

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

### DIMENSIONS:

