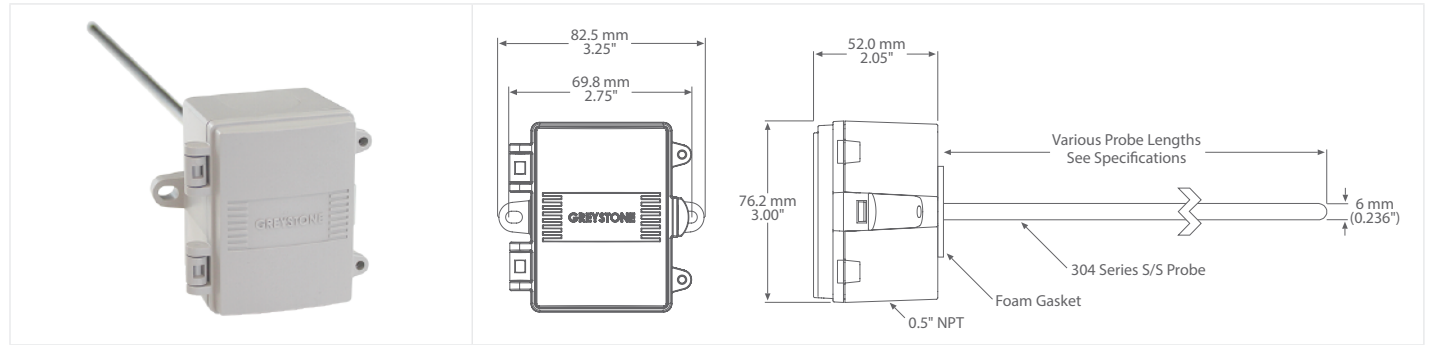




## ALL PURPOSE DUCT/IMMERSION TEMPERATURE SENSOR



### TSAP SERIES

### PRODUCT DESCRIPTION

The all purpose single point temperature sensor utilizes a precision sensor encapsulated in a 6 mm (0.236"), 304 series stainless steel probe and is available in various lengths. All probes provide excellent heat transfer, fast response and resistance to moisture penetration.

### TYPICAL INSTALLATION

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

In duct applications the probes are installed in the side of the duct to monitor a single point temperature within the duct. Select a probe length that allows the probe to span the duct width. Install the probe in a straight section of duct at a suitable distance downstream from any heating, cooling, or humidification devices.

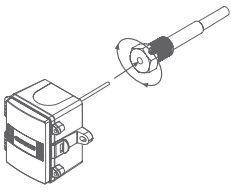
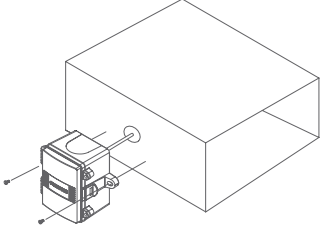
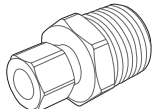
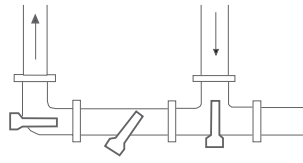
For immersion applications ensure the probe is installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.

For immersion applications, a T2 Series thermowell is required. When using a T1 series thermowell an adapter will be required.

### SPECIFICATIONS

<b>SENSOR TYPE</b>	Thermistor or RTD (see ordering chart)
<b>SENSOR ACCURACY</b>	<b>Thermistors:</b> $\pm 0.2^{\circ}\text{C}$ ( $\pm 0.36^{\circ}\text{F}$ ) @ $25^{\circ}\text{C}$ ( $77^{\circ}\text{F}$ ) <b>Platinum RTD's:</b> $\pm 0.3^{\circ}\text{C}$ ( $\pm 0.54^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ ) <b>Nickel RTD's:</b> $\pm 0.4^{\circ}\text{C}$ ( $\pm 0.72^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ )
<b>PROBE SENSING RANGE</b>	-40 to $100^{\circ}\text{C}$ (-40 to $212^{\circ}\text{F}$ )
<b>AMBIENT OPERATING RANGE</b>	-40 to $50^{\circ}\text{C}$ (-40 to $122^{\circ}\text{F}$ ), 5 to 95 %RH non-condensing
<b>WIRE MATERIAL</b>	PVC insulated, parallel bonded, 22 AWG
<b>PROBE MATERIAL</b>	304 series stainless steel
<b>PROBE DIAMETER</b>	6 mm (0.236")
<b>STANDARD LENGTHS</b>	50, 100, 150, 200, 300, and 450 mm (2', 4', 6', 8', 12', and 18")
<b>ENCLOSURE</b>	ABS, UL94-V0, IP65 (NEMA 4X) <b>C:</b> includes terminal block <b>E:</b> same as C, with thread adapter (1/2" NPT to M16), and cable gland fitting
<b>TERMINATION</b>	<b>A:</b> pigtail, 2 or 3 wire <b>C &amp; E:</b> terminal block, 2 or 3 wire
<b>COUNTRY OF ORIGIN</b>	Canada

### MOUNTING STYLES

		(#0201001092) 	
THERMOWELL MOUNTING	DUCT MOUNTING	T1-AP THERMOWELL ADAPTER	THERMOWELL PLACEMENT



## ACCESSORIES - INCLUDED WITH E ENCLOSURE OPTION

		
CABLE GLAND FITTING	THREAD ADAPTER 1/2" NPT TO M16	

## ORDERING

PRODUCT	TSAP	All Purpose Duct/Immersion Temperature Sensor
ENCLOSURE	<b>A</b> <b>C</b> <b>E</b>	ABS, with hinged and gasketed cover Same as A, with terminal block Same as C, with thread adapter and cable gland fitting
SENSOR	<b>02</b> <b>05</b> <b>06</b> <b>07</b> <b>08</b> <b>12</b> <b>13</b> <b>14</b> <b>20</b> <b>24</b> <b>59</b>	100 Ω Platinum, IEC 751, 385 Alpha, thin film 1801 Ω NTC Thermistor, ±0.2°C 3000 Ω NTC Thermistor, ±0.2°C 10,000 Ω Type 3, NTC Thermistor, ±0.2°C 2.252K Ω NTC Thermistor, ±0.2°C 1000 Ω Platinum, IEC 751, 385 Alpha, thin film 1000 Ω Nickel, Class B, DIN 43760 10,000 Ω Type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor 20,000 Ω NTC Thermistor, ±0.2°C 10,000 Ω Type 2, NTC Thermistor, ±0.2°C 10,000 Ω, 25°C, ±1%, B = 3435 ±1% (25/85)
PROBE LENGTH	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b> <b>F</b>	50mm (2") 100mm (4") 150mm (6") 200mm (8") 300mm (12") 450mm (18")

## PART NUMBER

TSAP

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