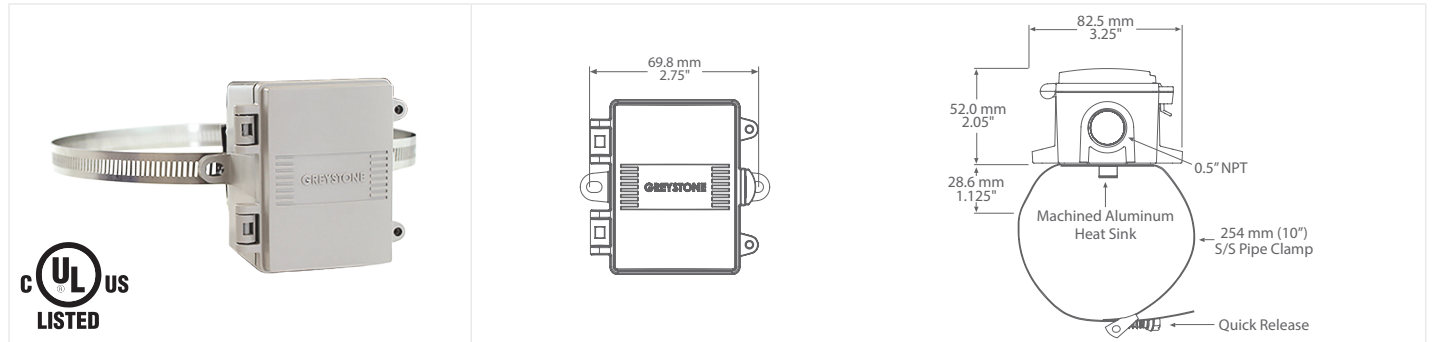




## HIGH ACCURACY STRAP-ON TEMPERATURE SENSOR



### HATSSO SERIES

## PRODUCT DESCRIPTION

The high accuracy single point strap-on temperature sensor has a precision sensor bonded to a 38 mm x 12.7 mm (1.5" x 0.5") machined aluminum heat sink. A 254 mm (10") S/S Pipe Clamp is provided to secure the assembly to various sizes of pipe. All probes are constructed to provide excellent heat transfer, fast response and are potted to resist moisture penetration.

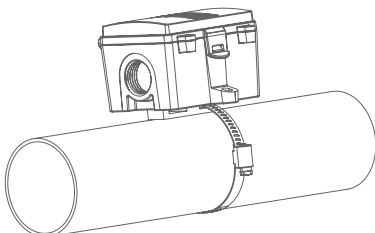
## TYPICAL INSTALLATION

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

The single point sensor series can be mounted directly to various sizes of pipes and secured using the 10" S/S pipe clamp.

If necessary, remove a section of insulation from the pipe. The 10" S/S pipe clamp is a "Quick Release" type and can be separated by moving the tightening screw so that it is perpendicular to the clamp and sliding the clamp apart. Position the aluminum plate on the pipe so it makes the best contact, wrap the clamp around the pipe and re-assemble and tighten. Any excess clamp may be cut off.

Wiring connections are made inside the enclosure using a 2 or 3 wire pigtail.



## SPECIFICATIONS

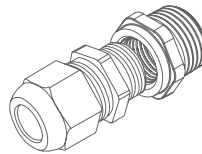
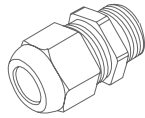
SENSOR TYPE	Various Thermistor or RTD
SENSOR ACCURACY	<b>RTD Class A:</b> $\pm 0.15^{\circ}\text{C}$ ( $\pm 0.27^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ ) <b>RTD 1/3 DIN:</b> $\pm 0.1^{\circ}\text{C}$ ( $\pm 0.18^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ ) <b>RTD 1/10 DIN:</b> $\pm 0.03^{\circ}\text{C}$ ( $\pm 0.054^{\circ}\text{F}$ ) @ $0^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ ) <b>NTC Thermistor Type 39:</b> $\pm 0.05^{\circ}\text{C}$ ( $\pm 0.09^{\circ}\text{F}$ ), 0 to $70^{\circ}\text{C}$ (32 to $158^{\circ}\text{F}$ ) <b>NTC Thermistor Type 55:</b> $\pm 0.03^{\circ}\text{C}$ ( $\pm 0.054^{\circ}\text{F}$ ), 0 to $70^{\circ}\text{C}$ (32 to $158^{\circ}\text{F}$ ) <b>NTC Thermistor Type 40/46:</b> $\pm 0.1^{\circ}\text{C}$ ( $\pm 0.18^{\circ}\text{F}$ ), 0 to $70^{\circ}\text{C}$ (32 to $158^{\circ}\text{F}$ )
PROBE SENSING RANGE	$-40$ to $100^{\circ}\text{C}$ ( $-40$ to $212^{\circ}\text{F}$ )
AMBIENT OPERATING RANGE	$-40$ to $60^{\circ}\text{C}$ ( $-40$ to $140^{\circ}\text{F}$ ), 5 to 95 %RH non-condensing
WIRE MATERIAL	<b>RTD:</b> FT-4, 22 AWG, 3 Wire <b>Thermistor:</b> PVC insulated, parallel bonded, 22 AWG, 2 Wire
PROBE MATERIAL	Machined aluminum heat sink
PROBE SIZE	38mm x 12.7 mm (1.5" x 0.5")
ENCLOSURE	<b>A:</b> ABS, UL94-V0, IP65 (NEMA 4X) <b>C:</b> same as A, with a terminal block <b>E:</b> Same as C, with thread adapter and cable gland fitting
TERMINATION	<b>A:</b> Pigtail, 2 or 3 wire <b>C &amp; E:</b> Terminal block, 2 or 3 wire
PROTECTION CLASS	III
POWER SOURCE UL	SELV, Limited Energy (<15W)
EU CONFORMITY	CE
CERTIFICATION	UL 60730 & CSA E60730
UL 2043 / CSA / ULC S142 COMPLIANT	Suitable for Use in Air Handling Spaces in Accordance with Section 300.22, (C) of the National Electrical Code
PURPOSE OF CONTROL	Temperature Sensor
TYPE OF ACTION	Type 1
IMPULSE VOLTAGE	330V
POLLUTION DEGREE	2
COUNTRY OF ORIGIN	Canada

**NOTE:** The sensor accuracies listed in the specifications section apply to the sensing element only prior to product assembly and may not be reflected in the complete assembly.

Due to the measurement uncertainty, it is possible, that the true resistance value of the single delivered sensor at  $0^{\circ}\text{C}$  can be out of the defined tolerance class. Profiling each assembly to take into consideration lead wire and the attachment method should be completed.



## ACCESSORIES - INCLUDED WITH E ENCLOSURE OPTION



CABLE GLAND FITTING

THREAD ADAPTER 1/2" NPT TO M16

## ORDERING

PRODUCT	HATSSO	High Accuracy Strap-On 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>18X</b> <b>48X</b> <b>22X</b> <b>39X</b> <b>55X</b> <b>40X</b> <b>46X</b>	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, Class A 1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/10 DIN 10,000 $\Omega$ Type 2, NTC Thermistor, $\pm 0.05^{\circ}\text{C}$ 10,000 $\Omega$ Type 2, NTC Thermistor, $\pm 0.03^{\circ}\text{C}$ 10,000 $\Omega$ Type 3, NTC Thermistor, $\pm 0.1^{\circ}\text{C}$ 20,000 $\Omega$ NTC Thermistor, $\pm 0.1^{\circ}\text{C}$

## PART NUMBER

HATSSO

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