



# GREYSTONE

ENERGY SYSTEMS INC

## HIGH ACCURACY STRAP-ON TEMPERATURE TRANSMITTER WITH LCD HATLSO Series

The HATLSO single point strap-on temperature sensor has a high accuracy platinum RTD bonded to a 38.1 mm x 38.1 mm (1.5" x 1.5") aluminum plate and adhered to a 1" compressible foam. A 10" S/S Pipe clamp is provided to secure the assembly to various sizes of pipe. All probes provide excellent heat transfer, fast response and resist moisture penetration. A transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response for measurement of pipe temperatures. A LCD is provided in either °C or °F.



### SPECIFICATION:

Sensor..... 1000 ohm Platinum RTD  
Accuracy ..... **RTD Class A:**  $\pm 0.15^{\circ}\text{C}$  @  $0^{\circ}\text{C}$   
**RTD 1/3 DIN:**  $\pm 0.1^{\circ}\text{C}$  @  $0^{\circ}\text{C}$   
**RTD 1/10 DIN:**  $\pm 0.03^{\circ}\text{C}$  @  $0^{\circ}\text{C}$   
Probe Sensing Range.....  $-20$  to  $105^{\circ}\text{C}$  ( $-4$  to  $221^{\circ}\text{F}$ )  
Wire Material ..... PVC insulated, parallel bonded  
Pipe Clamp..... 25.4 cm (10") Stainless steel  
Probe Material ..... Aluminum  
Probe Dimension ..... 38.1 x 38.1 mm (1.5" x 1.5")  
Output Signal..... 4-20mA current loop,  
0-5 vdc, or 0-10 Vdc  
(factory configured)  
Transmitter Accuracy .....  $\pm 0.25\%$  of span, including  
linearity  
Power Supply ..... **4-20 mA:** 15-35 Vdc or 22-32 Vac  
**0-5 vdc:** 10-35 Vdc or 10-32 Vac  
**0-10 Vdc:** 15-35 Vdc or 15-32 Vac  
Consumption ..... **Current:** 22.5 mA Max  
(On open Sensor)  
**Voltage:** 5 mA nominal  
Input Voltage Effect ..... Negligible over specified  
operating range  
RFI rejection..... Good RFI rejection of normal  
frequencies  
Protection Circuitry..... Reverse voltage protected  
and output limited  
Display Units .....  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$   
Display Range ..... 3 digit for -88.8 to 888 as  
necessary  
Display Size ..... 24 mm x 11 mm  
(0.95" x 0.45")  
Ambient Operating Range.....  $0$  -  $70^{\circ}\text{C}$  ( $32$  -  $158^{\circ}\text{F}$ ),  
Wiring Connections ..... Screw terminal block  
(14 to 22 AWG)

### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HATLSO	High Accuracy Strap-on Temperature Transmitter with LCD Display

CODE	LCD Display
C	LCD display $^{\circ}\text{C}$
F	LCD display $^{\circ}\text{F}$

CODE	Sensor
18	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film, Class A
22	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN
48	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN

CODE	Output
A	4-20mA
D	0-5 VDC
E	0-10 VDC

CODE	Scaled Range
1	$0$ - $35^{\circ}\text{C}$ ( $32$ - $95^{\circ}\text{F}$ )
2	$0$ - $50^{\circ}\text{C}$ ( $32$ - $122^{\circ}\text{F}$ )
3	$0$ - $100^{\circ}\text{C}$ ( $32$ - $212^{\circ}\text{F}$ )

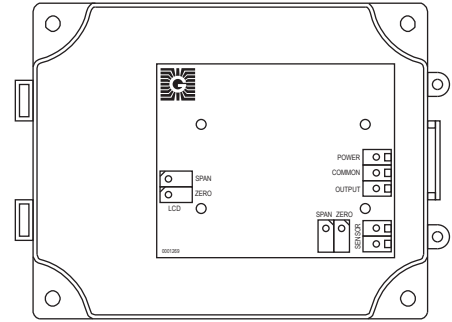
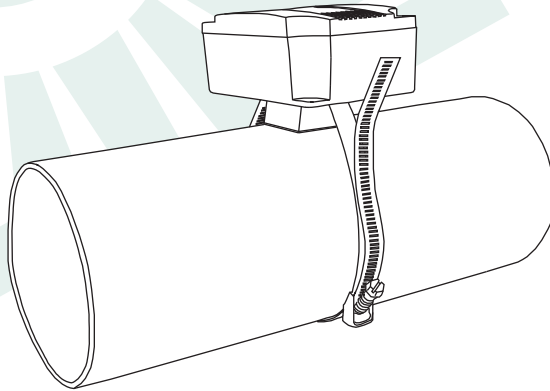
## TYPICAL INSTALLATION:

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

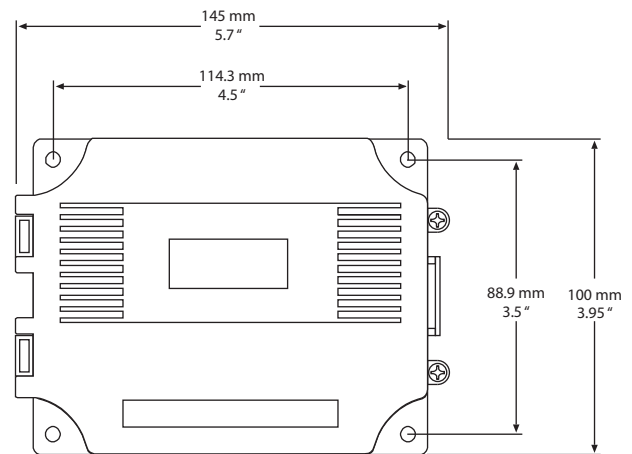
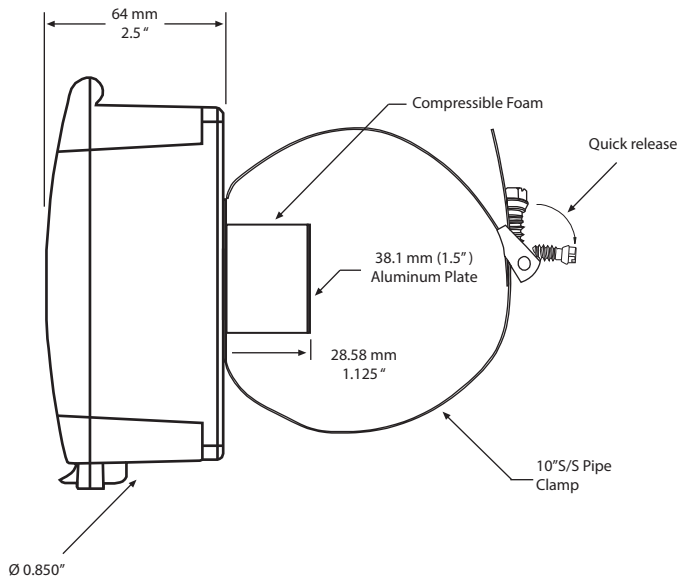
For best results, thermal conductive compound should be applied to pipe prior to mounting the probe.

The HATLSO series can be mounted directly to various sizes of pipes and secured using a 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 slide the clamp apart. Position the aluminum plate on the pipe so it makes as much contact with the pipe as possible, wrap the clamp around the pipe, re-assemble and tighten. Any excess clamp may be cut off.



## DIMENSIONS:



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



**GREYSTONE**  
ENERGY SYSTEMS INC

Greystone Energy Systems, Inc.  
150 English Drive, Moncton,  
New Brunswick, Canada E1E 4G7  
(506) 853-3057 Fax: (506) 853-6014  
North America: 1-800-561-5611  
e-mail: mail@greystoneenergy.com  
www.greystoneenergy.com

**RoHS**  
COMPLIANT



*Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC/R sensors and transmitters for Building Automation Management Systems.*

*We have conscientiously established a worldwide reputation 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 which is ISO 9001 certified, assuring our customers of consistent product reliability.*

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM