



# GREYSTONE ENERGY SYSTEMS INC

## HIGH ACCURACY SLAB TEMPERATURE TRANSMITTER HATXSL Series



The HATXSL single point slab temperature transmitter utilizes a high accuracy sensor encapsulated in a thermal conductive coating and a transmitter that provides a high precision signal with excellent long term stability, low hysteresis and fast response is provided. The HATXSL is used to measure the temperature of a concrete slab. They are available with various wire types and lengths. All probes are constructed to provide excellent heat transfer, fast response and to resist moisture penetration.

### SPECIFICATION:

- Sensor.....100 ohm Platinum RTD or 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 Detection Range.....**ZW:** -20 to  $105^{\circ}\text{C}$  (-4 to  $221^{\circ}\text{F}$ )  
**FT:** -20 to  $60^{\circ}\text{C}$  (-4 to  $140^{\circ}\text{F}$ )  
**MP:** -20 to  $80^{\circ}\text{C}$  (-4 to  $176^{\circ}\text{F}$ )
- Wire Material .....**ZW:** PVC Zip wire, 22 AWG  
**FT:** Plenum rated FT-6, 22 AWG  
**MP:** EPC Moisture proof, 22AWG  
**MPS:** EPC Moisture proof, 20AWG
- Wire length .....Various - See Ordering Info
- Probe.....**MPS:** Double walled, 304 S/S  
12.7 mm D X 101.5 mm L (0.5" X 4")
- Output Signal.....4-20mA current loop, 0-5 Vdc, or 0-10 Vdc (factory configured)
- Transmitter Accuracy ..... $\pm 0.1\%$  of span, including linearity
- 4-20 mA loop power supply....15-35 Vdc or 22-32 Vac
- Minimum Current Loop .....2 mA nominal (occurs with shorted sensor)
- Maximum Current Loop.....22.5 mA nominal (occurs with open sensor)
- Maximum Loop Load .....>600 ohms
- 0-5 Vdc Power Supply .....10-35 vdc or 10-32 Vac
- 0-10 Vcc Power Supply .....15-35 Vdc or 15-32 Vac
- Maximum Current (Voltage)....5 mA nominal
- Maximum Output (Voltage)....limited at <5.5 Vdc for 0-5 Vdc, <10.5 for 0-10 vdc
- Input Voltage Effect .....Negligible over specified operating range
- RFI Rejection .....Good RFI rejection of normal frequencies
- Protection Circuitry.....Reverse voltage protected and output limited
- Operating Conditions .....0-70°C (32 - 158°F), 0-95% RH non-condensing
- Enclosure.....(A) ABS, UL94-5VB, IP61 (NEMA 2)  
(B)-ABS, UL94-5VB, IP65 (NEMA 4X)  
(C)- PVC, IP65 (NEMA 4X)
- Wire Connections .....Screw terminal block (14 to 22 AWG)

PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HATXSL	High Accuracy Slab Temperature Transmitter

CODE	Enclosure
A	ABS Enclosure
B	Round ABS, with gasket cover
C	PVC Weatherproof

CODE	Sensor
18	1000 $\Omega$ Platinum, 2 wire, IEC 751, 385 Alpha, thin film, Class A
48	1000 $\Omega$ Platinum, 2 wire, IEC 751, 385 Alpha, thin film, 1/3 DIN
22	1000 $\Omega$ Platinum, 2 wire IEC 751, 385 Alpha, thin film, 1/10 DIN
41	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, Class A
49	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/3 DIN
50	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/10 DIN
38	100 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, Class A
53	100 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/3 DIN
37	100 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/10 DIN

CODE	Wire Type
ZW	PVC Zip Wire - 22 AWG (Sensors 18, 22 & 48 Only)
FT	Plenum rated FT-6 - 22 AWG
MP	Moisture Proof Burial - 20 AWG
MPS	Moisture Proof Submersible - 20 AWG

CODE	Wire Length
5	5' (1.5 m)
10	10' (3 m)
25	25' (7.6 m)
50	50' (15.25 m)
100	100' (30.5 m)
**	Custom, Please contact Greystone

CODE	Output
A	4-20 mA
C	0-5 Vdc
E	0-10 Vdc

CODE	Scaled Range
1	0-35°C (32-95°F)
2	0-50°C (32-122°F)
*	Custom ranges available

\*CUSTOM SCALED TEMPERATURE RANGE

## TYPICAL INSTALLATION:

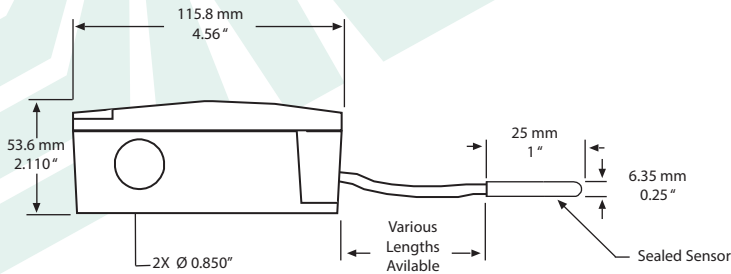
For complete installation and wiring details, please refer to the product installation instructions.

Typically a predetermined area is defined where the temperature reading is required. During concrete installation a sufficient length of conduit or copper tubing is imbedded from this point to an area that will be accessible once complete.

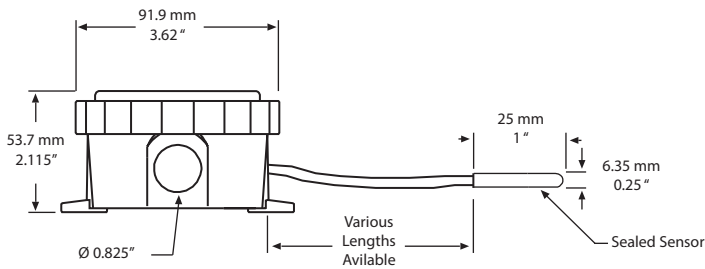
At the entrance to the sensor chamber, unravel the HATXSL and carefully insert sensor and feed into chamber until the chamber end is reached.

## DIMENSIONS:

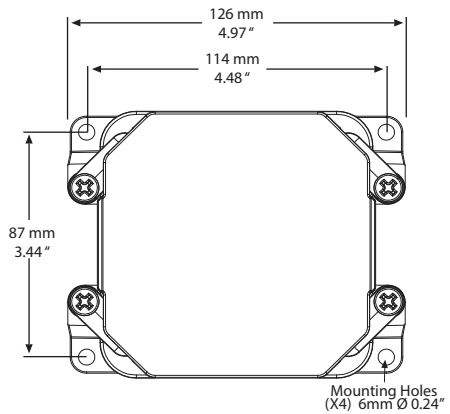
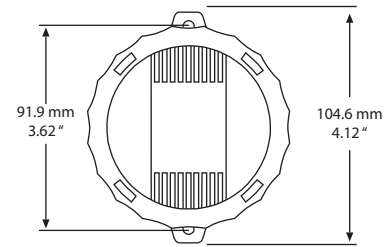
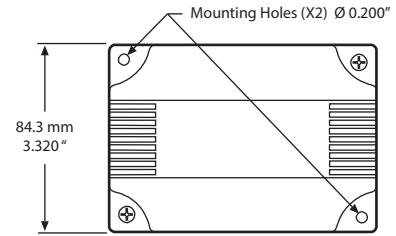
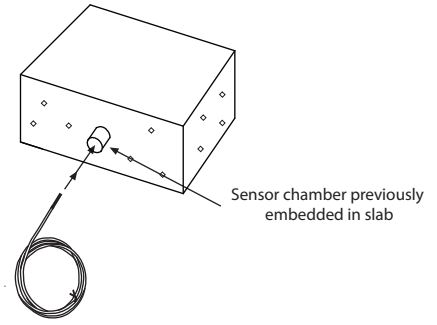
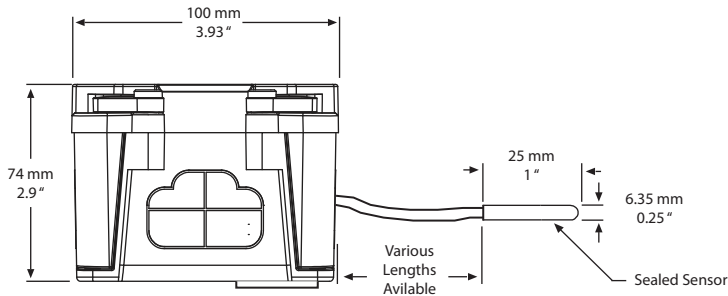
### ABS Enclosure (A)



### Round ABS Enclosure (B)



### PVC Enclosure (C)



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



# GREYSTONE

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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