



# GREYSTONE

ENERGY SYSTEMS INC

## HIGH ACCURACY REMOTE IMMERSION TEMPERATURE TRANSMITTER HATXR Series

The HATXR is single point immersion temperature transmitter with remote probe for chilled water applications. It incorporates a high accuracy platinum RTD encapsulated in a 6.35 mm (0.25") OD, 304 stainless steel probe and is available in various lengths (see ordering chart). 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 is available with various ranges.



### 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  $60^{\circ}\text{C}$  ( $-4$  to  $140^{\circ}\text{F}$ )  
Wire Material ..... FT-6 Rated Plenum Cable 22 AWG  
Wire Length ..... 1.524 m (5')  
Probe Material ..... 304 Series Stainless Steel  
Probe Dimension..... 6.35 mm (0.25") Diameter  
Fitting Size ..... 1/2" NPT  
Fitting Material ..... Nylon  
Output Signal..... 4-20mA current loop, 0-5 Vdc, or  
0-10 Vdc (factory configured)  
Transmitter Accuracy.....  $\pm 0.125\%$  of span, including  
linearity  
4-20 mA loop power Supply. 15-30 Vdc or 22-28 Vac  
Minimum Current Loop ..... 2 mA nominal (occurs with  
shorted sensor)  
Maximum loop Current..... 22.5 mA nominal (occurs with  
open sensor)  
Maximum Loop Load ..... >600 ohms  
0-5 Vdc Power Supply ..... 10-30 Vdc or 10-28 Vac  
0-10 Vdc Power Supply..... 15-30 Vdc or 15-28 Vac  
Maximum Current (Voltage).. 5 mA nominal  
Maximum Output (Voltage) .. limited to <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  
Ambient Operating Range.....  $-20$  -  $60^{\circ}\text{C}$  ( $-4$  -  $140^{\circ}\text{F}$ ), 0-95% RH  
non-condensing  
Enclosure ..... (E)-ABS, UL94-5VB, IP65 (NEMA 4X)  
(P)- PVC, IP65 (NEMA 4X)  
Wiring Connections..... Screw terminal block  
(14 to 22 AWG)

### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HATXRN	High Accuracy Remote Probe Immersion Temperature Transmitter with Nylon Fitting

CODE	Enclosure
E	Round ABS, with gasket cover
P	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
50	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/3 DIN
49	1000 $\Omega$ Platinum, 3 wire, IEC 751, 385 Alpha, thin film, 1/10 DIN

CODE	Probe Length
A	50 mm (2")
B	100 mm (4")
C	150 mm (6")
D	200 mm (8")

CODE	Output
1A	4-20 mA
1D	0-5 Vdc
1E	0-10 Vdc

CODE	Scaled Range
1	$0^{\circ}$ - $35^{\circ}\text{C}$ ( $32^{\circ}$ - $95^{\circ}\text{F}$ )
2	$0^{\circ}$ - $50^{\circ}\text{C}$ ( $32^{\circ}$ - $122^{\circ}\text{F}$ )
3	$0^{\circ}$ - $100^{\circ}\text{C}$ ( $32^{\circ}$ - $212^{\circ}\text{F}$ )
*	Custom range, please contact Greystone

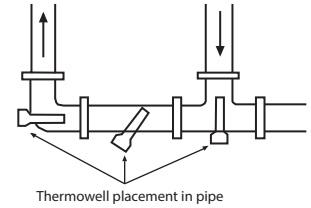
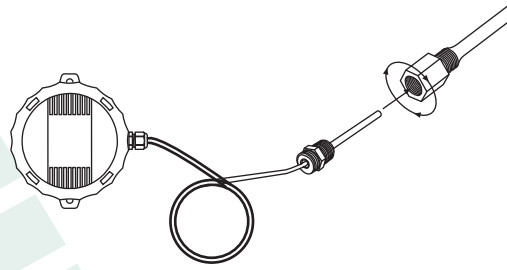
### \*CUSTOM SCALED TEMPERATURE RANGE

## TYPICAL INSTALLATION:

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

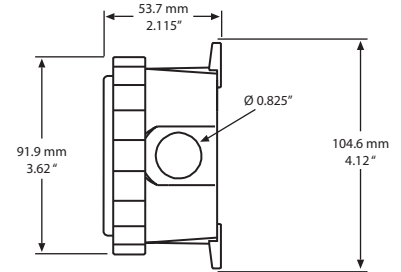
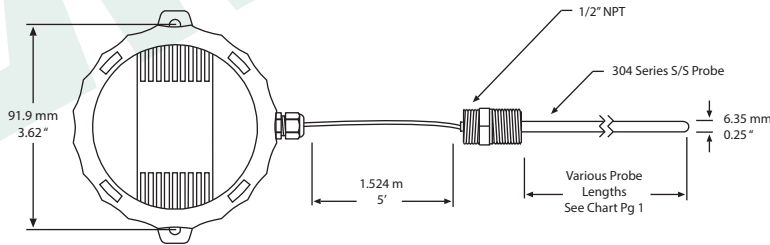
**NOTE: All immersion sensors require a thermowell (sold separately)**

The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.

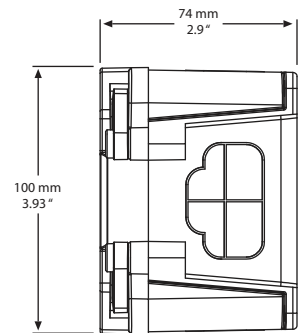
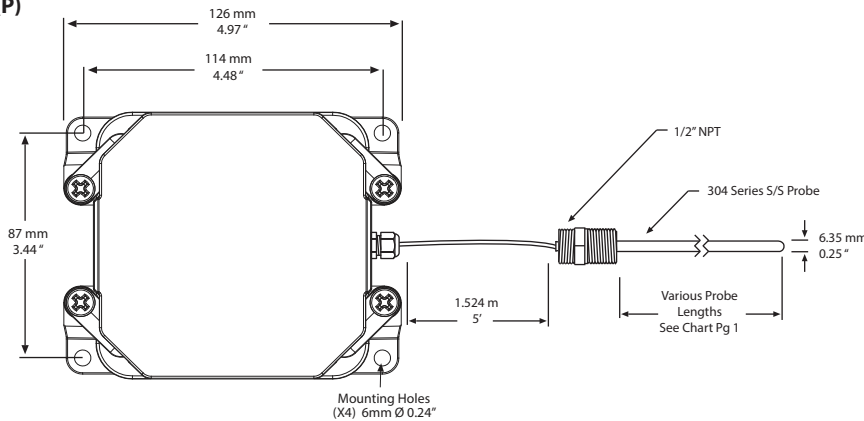


## DIMENSIONS:

### Round ABS Enclosure (E)



### PVC Enclosure (P)



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**