



# GREYSTONE

ENERGY SYSTEMS INC

## HIGH ACCURACY DUCT TEMPERATURE TRANSMITTER HATXBM Series

The HATXBM single point duct temperature transmitter 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. 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 provided.

### SPECIFICATION:

Sensor.....	1000 ohm Platinum RTD
Accuracy .....	<b>RTD Class A:</b> $\pm 0.15^{\circ}\text{C}$ @ $0^{\circ}\text{C}$ <b>RTD 1/3 DIN:</b> $\pm 0.1^{\circ}\text{C}$ @ $0^{\circ}\text{C}$ <b>RTD 1/10 DIN:</b> $\pm 0.03^{\circ}\text{C}$ @ $0^{\circ}\text{C}$
Probe Sensing Range.....	-20 to $105^{\circ}\text{C}$ (-4 to $221^{\circ}\text{F}$ )
Wire Material .....	2 Wire - PVC insulated, parallel bonded 3 Wire - FT4
Probe Material .....	304 Series Stainless Steel
Probe Dimension.....	6.35 mm (0.25") Diameter
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 .....	15-35 Vdc or 22-32 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 .....	10-35 Vdc or 10-32 Vac
0-10 Vdc Power Supply.....	15-35 Vdc or 15-32 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.....	-40 - $85^{\circ}\text{C}$ (-40 - $185^{\circ}\text{F}$ ), 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
HATXBM	High Accuracy Duct Temperature Transmitter

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")
E	300 mm (12")
F	450 mm (18")

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

CODE	Output
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 $^{\circ}\text{F}$ )
6	-50-50 $^{\circ}\text{C}$ (-58-122 $^{\circ}\text{F}$ )
*	Custom Ranges Available

\*CUSTOM SCALED TEMPERATURE RANGE



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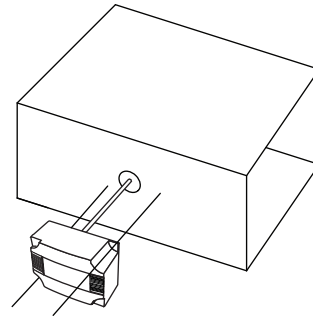


## TYPICAL INSTALLATION:

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

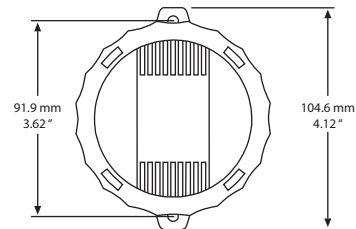
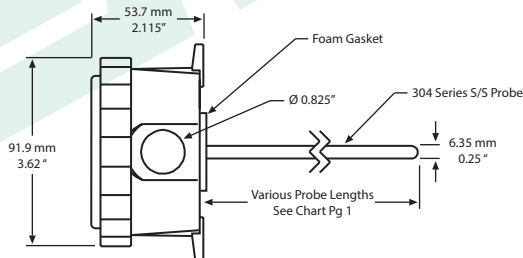
The duct type probes are installed through a hole in the side of the duct to monitor a single point temperature within the duct. Since the probes are tip sensitive, select a probe length that places the sensor well into the duct. Install the probe in a straight section of duct at a suitable distance downstream from any heating, cooling or humidification devices.

Each enclosure style provides mounting tabs or holes for ease of installation.

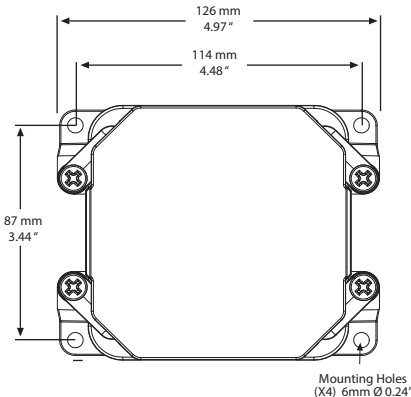
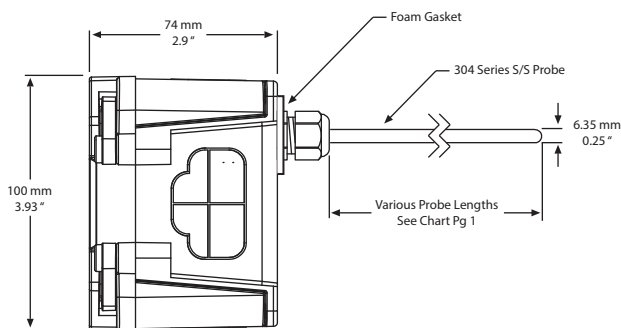


## DIMENSIONS:

### 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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*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