



# GREYSTONE ENERGY SYSTEMS INC

## HIGH ACCURACY RIGID DUCT AVERAGE TEMPERATURE SENSOR HATSDR Series

The high accuracy multi-point rigid duct average temperature sensor utilizes several precision sensors spaced at equal distances and encapsulated in 6 mm (0.236") OD, 304 series stainless steel probe and is available in various lengths (see ordering chart). All probes provide excellent heat transfer, fast response and resistance to moisture penetration.



### SPECIFICATION:

- Sensor Type ..... Various Thermistors or RTD
- Sensor 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:**  $\pm 0.03^{\circ}\text{C}$  @  $0^{\circ}\text{C}$   
**NTC Thermistor Type 39:**  $\pm 0.05^{\circ}\text{C}$ , 0 to  $70^{\circ}\text{C}$   
**NTC Thermistor Type 55:**  $\pm 0.03^{\circ}\text{C}$ , 0 to  $70^{\circ}\text{C}$   
**NTC Thermistor Type 40/46:**  $\pm 0.1^{\circ}\text{C}$ , 0 to  $70^{\circ}\text{C}$
- Probe Sensing Range.....  $-20$  to  $60^{\circ}\text{C}$  ( $-4$  to  $140^{\circ}\text{F}$ )
- Ambient Operating Range...  $-40$  to  $50^{\circ}\text{C}$  ( $-40$  to  $122^{\circ}\text{F}$ )
- Wire Material..... PVC Insulated, parallel bonded, 22 AWG
- Probe Material..... 304 Series Stainless Steel
- Probe Diameter..... 6 mm (0.236")
- Standard Lengths..... 450, 600, 900 mm  
(18", 24", 36")
- Enclosure..... ABS - UL94-V0, IP65 (NEMA4X)  
C - includes terminal block  
E - includes tread adapter (1/2" NPT to M16), cable gland fitting, and terminal block
- Termination..... A - pigtail, 2 or 3 wire  
C & E - terminal block, 2 or 3 wire
- Country of Origin..... Canada

### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HATSDR	High Accuracy Rigid Duct Average Temperature Sensor

CODE	Enclosure
A	ABS, with hinged & gasketed cover
C	Same as A, with terminal block
E	Same as C, with thread adapter & cable gland fitting

CODE	Sensor
18	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film, Class A
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
39	10,000 $\Omega$ Type 2, NTC Thermistor, $\pm 0.05^{\circ}\text{C}$
55	10,000 $\Omega$ , Type 2, NTC Thermistor, $\pm 0.03^{\circ}\text{C}$
40	10,000 $\Omega$ , Type 3, NTC Thermistor, $\pm 0.1^{\circ}\text{C}$
46	20,000 $\Omega$ , NTC Thermistor, $\pm 0.1^{\circ}\text{C}$

CODE	Probe Length
F	450 mm (18")
G	600 mm (24")
H	900 mm (36")

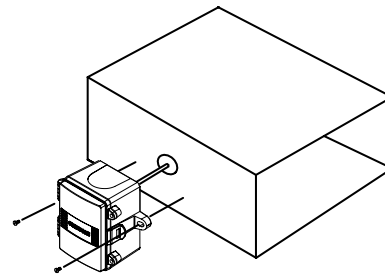
Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

### TYPICAL INSTALLATION:

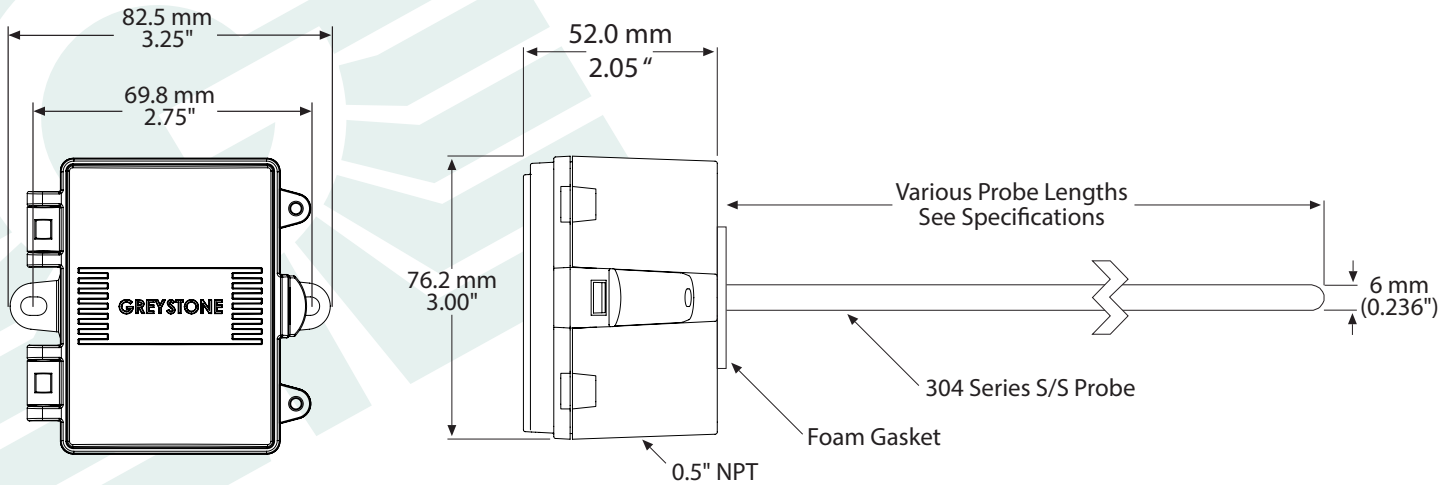
**For complete installation and wiring details, please refer to the product installation instructions.**

The rigid duct average type probes are installed in the side of the duct to monitor an average temperature within the duct. Select a probe length that allows the probe to span the duct width. Install the probe in a straight section of duct at a suitable distance downstream from any heating, cooling or humidification devices.

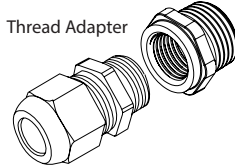
Each enclosure style provides mounting tabs on the outside of the enclosure for ease of installation.



## DIMENSIONS:



Included with E style enclosure



# 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