GREYSTONE
ENERGY SYSTEMS INC

# HIGH ACCURACY FLEXIBLE COPPER DUCT AVERAGE TEMPERATURE TRANSMITTER

## HATXDC Series

The high accuracy multi point duct average temperature transmitter incorporates numerous precision platinum RTD's at equal distances (DC is continuous) and encapsulated in a 7.94 mm (0.3125") OD, soft copper 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 Type | 1000 ohm Platinum RTD |
| Sensor Accuracy | **RTD Class A:** ±0.15°C @ 0°C<br>**RTD 1/3 DIN:** ±0.1°C @ 0°C<br>**RTD 1/10 DIN:** ±0.03°C @ 0°C |
| Probe Sensing Range | -20 to 60°C (-4 to 140°F) |
| Wire Material | FT-6 rated plenum cable, 22 AWG |
| Probe Material | Soft copper |
| Probe Diameter | 7.94 mm (0.3125") |
| Standard Lengths | 1800, 3600, 6100, 7300 mm<br>(6', 12', 20', 24') |
| Output Signal | 4-20 mA current loop, 0-5 Vdc, or<br>0-10 Vdc (factory configured) |
| Transmitter Accuracy | ±0.1% of span, including linearity |
| 4-20 mA loop power supply | 15-35 Vdc or 22-32 Vac |
| Minimum Loop Current | 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 |
| Protection Circuitry | Reverse voltage protected and output limited |
| Ambient Operating Range | 0 to 50°C (32 to 122°F), 0 to 95 %RH non-condensing |
| Enclosures | ABS - UL94-V0, IP65 (NEMA4X)<br>E - includes thread adapter (1/2" NPT to M16), and cable gland fitting |
| Wiring Connections | Screw terminal block (14 to 22 AWG) |
| Country of Origin | Canada |

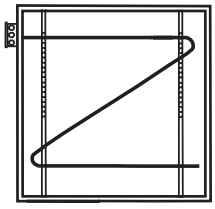
*This product is factory calibrated and any field adjustment will void the warranty.

## TYPICAL INSTALLATION:

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

The duct average probes are installed through a hole in the side of the duct to monitor an average temperature within the duct. Select a probe length that allows for criss-crossing the duct multiple times. Install the probes in a straight section of duct at a suitable distance downstream from any heating, cooling or humidification devices.

The enclosure provides mounting tabs for ease of installation.



**PART NUMBER SELECTED**

## PRODUCT SELECTION INFORMATION:

| MODEL | Product Description |
|---|---|
| HATXDC | Flexible Copper Duct Average Temperature Transmitter |

| CODE | Enclosure |
|---|---|
| A | ABS, with hinged & gasketed cover |
| E | Same as A, with thread adapter & cable gland fitting |

| CODE | Sensor |
|---|---|
| 18 | 1000 Ω, Platinum, 2 wire, IEC 751, 385 Alpha, thin film Class A |
| 48 | 1000 Ω, Platinum, 2 wire, IEC 751, 385 Alpha, thin film 1/3 DIN |
| 22 | 1000 Ω, Platinum, 2 wire IEC 751, 385 Alpha, thin film, 1/10 DIN |

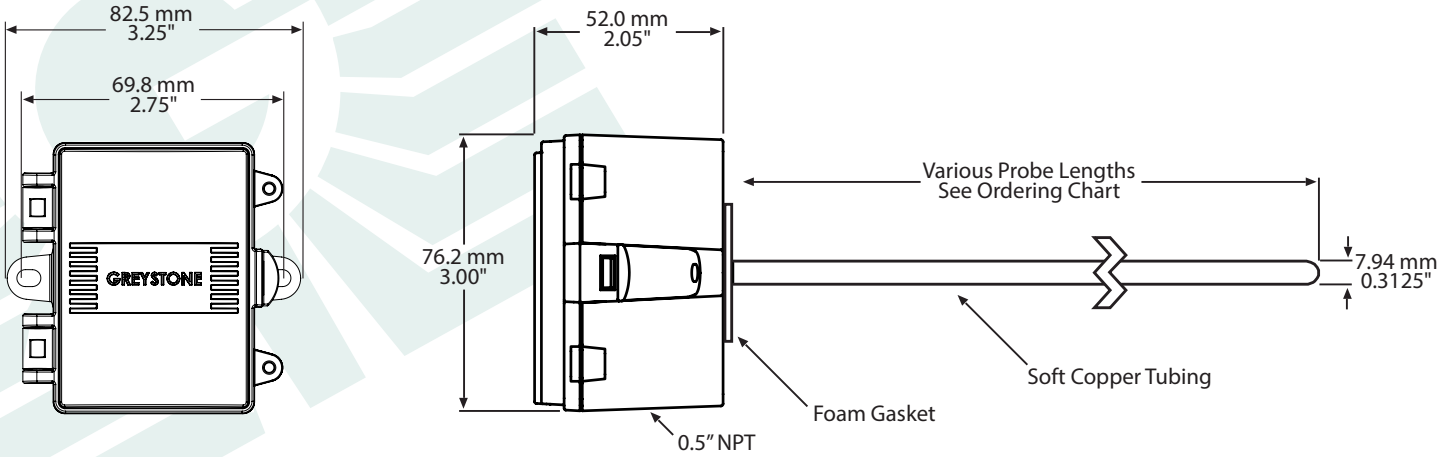
| CODE | Probe Length | No. of Sensors |
|---|---|---|
| I | 1800 mm (6') | (4 Sensors) |
| J | 3600 mm (12') | (4 Sensors) |
| K | 6100 mm (20') | (4 Sensors) |
| L | 7300 mm (24') | (9 Sensors) |

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

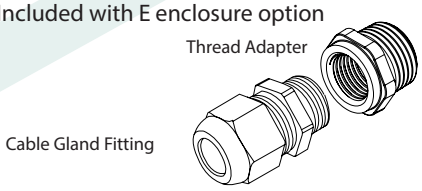
| CODE | Scaled Range |
|---|---|
| 001 | 0 to 35˚C (32 to 95˚F) |
| 002 | 0 to 50˚C (32 to 122˚F) |
| 003 | 0 to 100˚C (32 to 212˚F) |
| 006 | -50 to 50˚C (-58 to 122˚F) |
| * | Additional Ranges Available |

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

## DIMENSIONS:




Included with E enclosure option

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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