GREYSTONE
ENERGY SYSTEMS INC

The duct humidity transmitter uses a highly accurate and reliable Thermoset Polymer based capacitance humidity sensor and state-of-the-art digital linearization and temperature compensated circuitry to monitor humidity levels. The sensor is encapsulated in a 230 mm (9") long by 12.7 mm (0.5") diameter 304 S/S probe. An 60 micron HDPE filter protects the sensor for contaminants. Optional integrated temperature sensor is available.

SPECIFICATION:

Sensor Type............................Thermoset Polymer based Capacitive
Sensor Accuracy...................±1% (20 to 80 %RH) or ±2% (5 to 95 %RH)
Probe Material......................Stainless steel with porous filter
Probe ....230 mm (9") probe length x 12.7 mm (1/2") diameter
Wire Material ....PVC insulated, parallel bonded
Measurment Range............0 to 100% RH
Sensor Response Time.......15 seconds typical
Temp Dependence ....±0.05% RH/°C
Hysteresis...............................±1.5% RH maximum
Repeatablility ....±0.5% RH typical
Linearity..................................±0.5% RH typical
Operating Range ....-40 to 85°C (-40 to 185°F)
Operating Humidity ....0 to 95% RH non-condensing
Power Supply ....18 to 30 Vdc, 15 to 26 Vac
Consumption ....22 mA maximum
Input Voltage Effect............Negligible over specified operating range
Protection Circuitry.............Reverse voltage protected and output limited
Output Signal........................4-20 mA current loop, 0-5 Vdc, 0-10 Vdc, or 0-1 Vdc (jumper-selectable)
Output Drive @ 24 Vdc ......550 ohms max for current output 10k ohms min for current output
Internal Adjustments ....Clearly marked ZERO and SPAN pots
Option Temp Sensor...........Various RTD's and Thermistors available as two-wire resistance output
Enclosures...............................ABS - UL94-V0 - IP65 (NEMA4X) E includes thread adapter, (1/2" NPT to M16) and cable gland fitting
Termination............................Screw terminal block (14, 20, 22 AWG)
Country of Origin.................Canada

OPTIONAL TEMPERATURE

Sensor Type............................Platinum RTD 1000 Ω, 385 Alpha @ 0°C NTC Thermistor, 10,000 Ω Type 2/3 or 20,000 Ω @ 25°C
Accuracy..................................**RTD Class A:** ±0.15°C @ 0°C
RTD 1/3 DIN: ±0.1°C @ 0°C
RTD 1/10 DIN: ±0.03°C @ 0°C
Thermistor (39): ±0.05°C, 0 to 70°C
Thermistor (40/46): ±0.1°C, 0 to 70°C
Thermistor (55): ±0.03°C, 0 to 70°C

PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
HAHSDT	Duct Humidity Transmitter

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

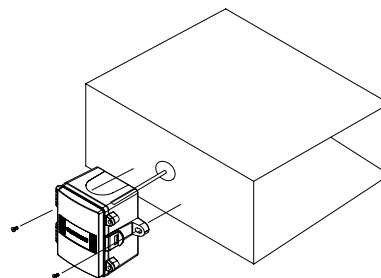| CODE	RH Accuracy
1	1%
2	2%

CODE	Sensor
18	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A
48	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN
22	1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN
39	10,000 Ω Type 2, NTC Thermistor, ±0.05°C
55	10,000 Ω Type 2, NTC Thermistor, ±0.03°C
40	10,000 Ω Type 3, NTC Thermistor, ±0.1°C
46	20,000 Ω NTC Thermistor, ±0.1°C

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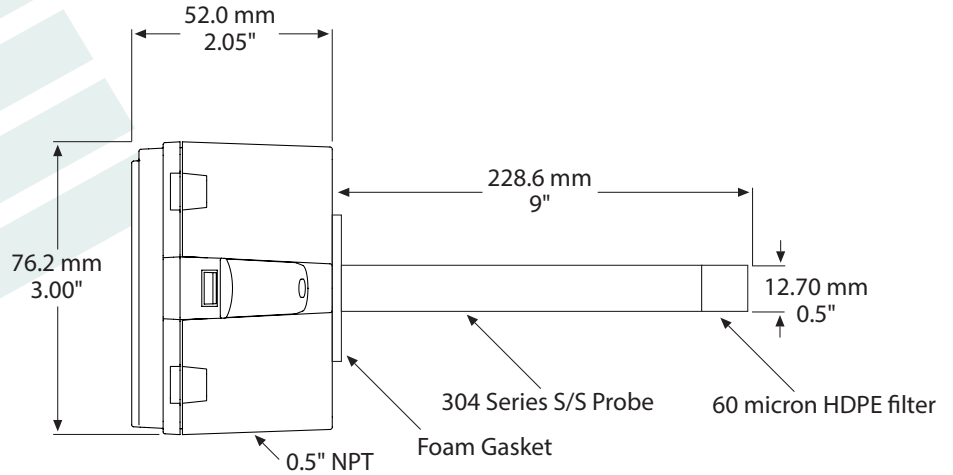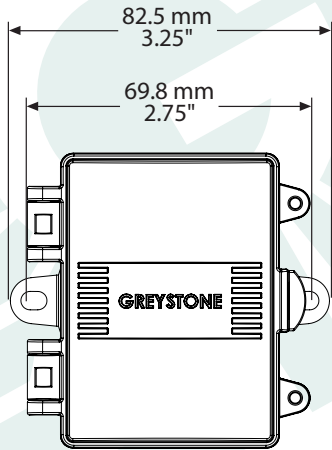
TYPICAL INSTALLATION:

For complete installation and wiring details, please refer to the product installation instructions.
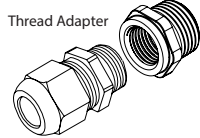
The immersion type probes are installed in the appropriate length thermowell for the pipe size. Thermal conductive compound should be added inside the thermowell to provide optimum thermal transfer.

GREYSTONE ENERGY SYSTEMS, INC.

RoHS COMPLIANT

RoHS COMPLIANT · 5 Warranty · MADE IN CANADA · ISO9001 Certified System · CE

DIMENSIONS:

82.5 mm
3.25"

69.8 mm
2.75"

52.0 mm
2.05"

76.2 mm
3.00"

228.6 mm
9"

12.70 mm
0.5"

GREYSTONE

304 Series S/S Probe

60 micron HDPE filter

Foam Gasket

0.5" NPT

Included with E enclosure

Thread Adapter

Cable Gland Fitting

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

MADE IN CANADA

ISO9001

CE

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