GREYSTONE
ENERGY SYSTEMS INC

Precision humidity control/sensing

FEATURES:

- Highly Stable RH sensor element
- Humidity range: 0-100%
- Accuracy available 2%, 3%, & 5%
- Optional precision temperature sensors
- Field selectable outputs
- Compact ABS Enclosure

Peace of mind through reliable humidity monitoring

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM

DESCRIPTION:

The high accuracy series of humidity transmitters are designed for use in environmental monitoring and control systems where high performance and stability are demanded. It's state-of-the-art design combines digital linearization and temperature compensation with a world class capacitive sensor for reliability and accuracy in even the most critical applications. Various models cover many aspects of RH mearurement and several optional features are available to meet virtually all HVAC applications.

SPECIFICATION:

Sensor Type .... Thermoset Polymer based Capacitive
Sensor Accuracy............................ ±1% (20 to 80 %RH) or ±2% (5 to 95 %RH)
Wire Material .... PVC insulated, parallel bonded, 22 AWG
Measurement Range................... 0 to 100% RH
Sensor Response Time.............. 15 seconds typical
Temperature Dependence .... ±0.05% RH/°C
Hysteresis .... ±1.5% RH maximum
Repeatablility............................... ±0.5% RH typical
Linearity .... ±0.5% RH typical
Stability .... ±1% RH typical at 50% RH in 5 yrs.
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
Optional Temperature Sensor..... Various RTDs and thermistors available as two-wire resistance output (See Ordering Chart)
Enclosure .... Hinged cover - ABS - UL94-V0 - IP65 (NEMA4X)
                                                               Hinged cover - ABS with thread adaptor and cable gland fitting
HSDT Probe...................................... 230 mm (9") probe length x 12.7 mm (1/2") diameter stainless steel with porous filter
Termination .... Screw terminal block (14 to 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

PRODUCT ORDERING INFORMATION:

MODEL	Product Description
HAHS	High Accuracy Humidity Transmitter

CODE	Mounting Style
DT	Duct Humidity Transmitter
OS	Outside Humidity Transmitter

CODE	Enclosure
A	ABS with hinged and gasketed cover
E	Same as A, with thread adapter and cable gland fitting (not available with OS)

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.
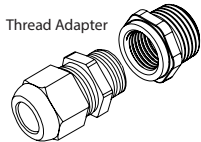
GREYSTONE ENERGY SYSTEMS, INC.

RoHS COMPLIANT   MADE IN CANADA   ISO9001   CE

DIMENSIONS:

HSOS

82.5 mm
3.25"

69.8 mm
2.75"

52.0 mm
2.05"

76.2 mm
3.00"

0.5" NPT

25.4 mm
1.00"

HSDT

82.5 mm
3.25"

69.8 mm
2.75"

52.0 mm
2.05"

228.60 mm
9"

76.2 mm
3.00"

12.70 mm
0.5"

304 Series S/S Probe   60 micron HDPE filter

Foam Gasket
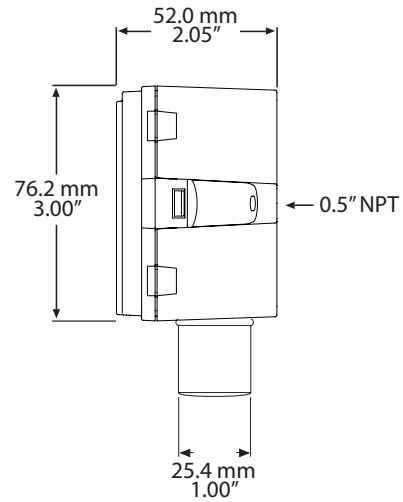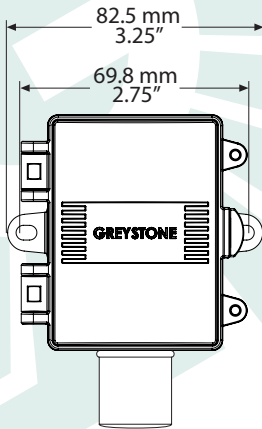
0.5" NPT
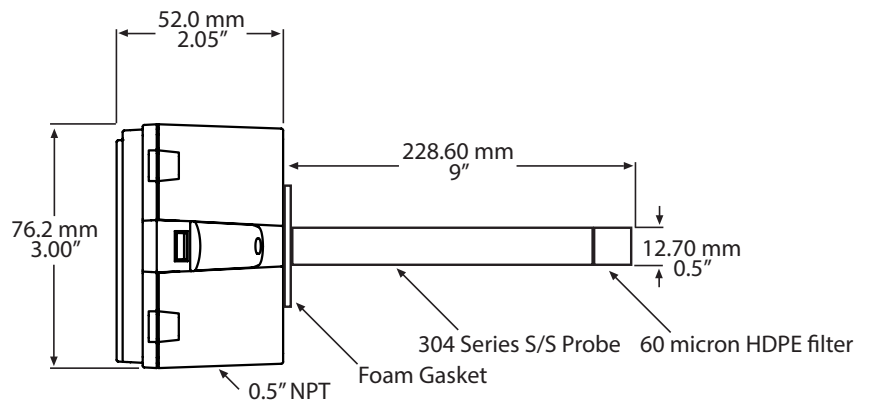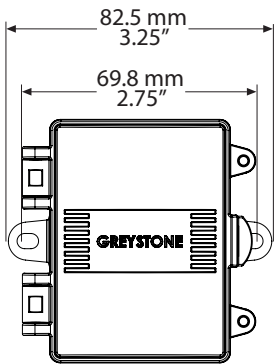
ACCESSORIES:

Thread adapter and cable gland fitting are included with the E style enclosure option.

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

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