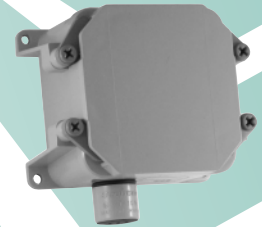




# GREYSTONE ENERGY SYSTEMS INC

## HIGH ACCURACY OUTSIDE HUMIDITY /TEMPERATURE TRANSMITTER HAHTO Series

The HAHTO series uses highly accurate and reliable Thermoset Polymer based capacitance humidity sensor and Platinum RTD temperature sensor together with state-of-the-art digital linearization and temperature compensated circuitry to monitor humidity levels. Either a hinged, gasketed ABS or PVC weatherproof enclosures provide easy of installation and protection from the elements.



### SPECIFICATION:

Humidity Sensor Type.....Thermoset polymer based capacitive  
 Accuracy .....±1% (20 to 80% RH) or ±2% (5 to 95% RH)  
 Measurement Range.....0 to 100% RH  
 Temperature Dependence.....±0.05% RH/ °C  
 Hysteresis .....±1.5% RH maximum  
 Repeatability .....±0.5% RH typical  
 Linearity .....±0.5% RH typical  
 Stability .....±1% RH typical at 50% RH in 5 yrs.  
 Sensor Response Time.....15 seconds typical  
 Sensitivity.....0.1% RH  
 Sensor Type.....Platinum RTD 1000 Ω, 385 Alpha @ 0°C  
 Sensor 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  
 Accuracy .....±0.25% of span  
 Operating Temperature .....-40° to 85°C (-40° to 185°F)  
 Operating Humidity .....0 to 95% RH non-condensing  
 Power Supply.....18 to 35 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, 0-1, 0-5 or 0-10 Vdc  
 Output Drive at 24 Vdc.....550 ohms max for current output  
 10K ohms min for voltage output  
 Internal Adjustments .....Clearly marked ZERO and SPAN pots  
 Wiring Connections.....Screw terminal block (14 to 22 AWG)  
 Enclosure .....(A) Grey ABS - UL94-V0 - IP61(NEMA 2)  
 (C) PVC - IP65 (NEMA 4X)

### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

| MODEL | Product Description                                    |
|-------|--|
| HAHTO | High Accuracy Outside Humidity/Temperature Transmitter |

| CODE | Enclosure            |
|------|----------------------|
| A    | ABS Hinged Enclosure |
| C    | PVC Enclosure        |

| CODE | RH Accuracy |
|------|-------------|
| 01   | 1%          |
| 02   | 2%          |

| CODE | High Accuracy Temperature 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 |

| CODE | Output Signals (RH and Temperature) |
|------|-------------------------------------|
| A    | 4-20 mA                             |
| D    | 0-5 Vdc                             |
| E    | 0-10 Vdc                            |

| CODE | Scaled Temperature Range |
|------|--------------------------|
| 1    | 0° - 35°C (32° - 95°F)   |
| 2    | 0° - 50°C (32° - 122°F)  |
| *    | Custom ranges available  |

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

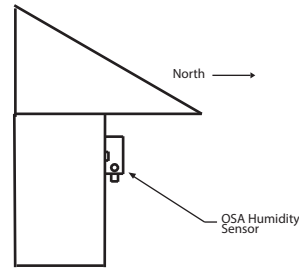
### Custom Scaled Temperature Range:

## TYPICAL INSTALLATION:

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

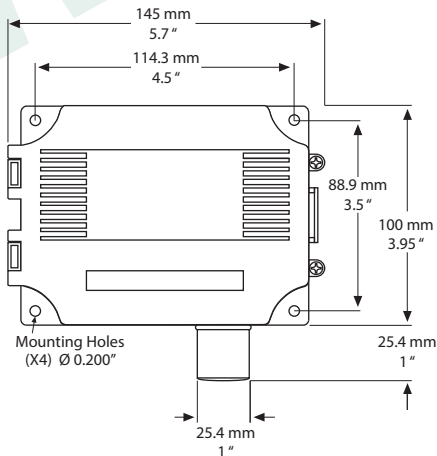
The HAHTO should be mounted on an outside North facing wall, under the eaves which will provide protection from direct sunlight and wind.

The HAHTO can be mounted directly to buildings wall face using the four provided mounting holes. There are 0.85" holes for conduit connection.

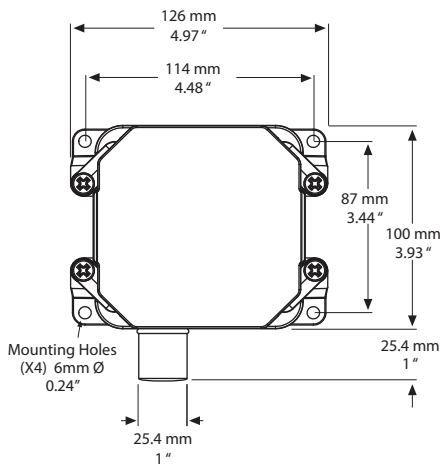


## DIMENSIONS:

ABS Enclosure (D)



PVC Enclosure (C)



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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