

## HIGH ACCURACY DUCT HUMIDITY /TEMPERATURE TRANSMITTER HAHTD Series

The HAHTD 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. The sensors are encapsulated in a 228.60 mm (9") long by 12.7 mm (0.5") diameter S/S probe. A 60 micron HDPE filter protects the sensor for contaminants.

## **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 1/3 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 nots
Wiring Connections	Screw terminal block (14 to 22 AWG)
Enclosure	(A) Grey ABS - UL94-V0 - IP61(NEMA 2) (C) PVC - IP65 (NEMA 42)
Probe	304 series stainless steel w/ 60 micron HDPE filter

#### PART NUMBER SELECTED

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#### **PRODUCT SELECTION INFORMATION:**

GREYSTONE

DEL	Product Description										
HTD	High Accuracy Duct Humidity/Temperature Transmitter										
	CODE A C	CODE A C	<b>Enclosure</b> ABS Enclo PVC Enclo	Enclosure ABS Enclosure PVC Enclosure							
			CODE 1 2	RH Accuracy   1%   2%							
				CODE 18 48 22	High Accuracy Temperature Sensor 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN						
					CODE A D E	Output Signals (RH and Temperature) 4-20 mA 0-5 Vdc 0-10 Vdc					
						CODE 1 2 *	<b>Scaled Temperature Range</b> 0° - 35°C (32° - 95°F) 0° - 50°C (32° - 122°F) Custom ranges available				
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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 duct type probes are installed through a hole in the side of the duct to monitor a single point humidity within the duct. Install the probe in a straight section of duct at a suitable distance downstream from any heating, cooling or humidification devices.

Mounting tabs on the outside of the enclosure for ease of installation .

A terminal block connection is provided. for connection to the Building Automation System.



2X Ø 0.850"

-304 Series S/S Probe

60 micron HDPE filter

12.70 mm 0.50"

### **DIMENSIONS:**





PVC Enclosure (C)





53.6 mm

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115.8 mm 4.56 "



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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 leadingedge 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. 07/17

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM