



# GREYSTONE

ENERGY SYSTEMS INC

## DUCT HUMIDITY TRANSMITTER RH200 Series

The RH200 series 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 228.60 mm (9") long by 12.7 mm (0.5") diameter 304 S/S probe. An 60 micron HDPE filter protects the sensor for contaminants. A variety of enclosures are available. Additional options such as integrated temperature sensor and LCD display are available.

### SPECIFICATION:

Sensor Type ..... Thermoset Polymer based Capacitive  
Range ..... 0 to 100% RH  
Accuracy .....  $\pm 2, 3$ , or 5% RH (5 to 95% RH)  
Response ..... 15 Seconds typical  
Temp Dependence .....  $\pm 0.05\%$  RH/  $^{\circ}\text{C}$   
Hysteresis .....  $\pm 1.5\%$  RH maximum  
Repeatability .....  $\pm 0.5\%$  RH typical  
Linearity .....  $\pm 0.5\%$  RH typical  
Operating Range .....  $-40$  to  $85^{\circ}\text{C}$  ( $-40$  to  $185^{\circ}\text{F}$ )  
Power Supply ..... 18 to 30 Vdc, 15 to 26 Vac  
Consumption ..... 22 mA maximum  
Protection Circuitry ..... Reverse voltage protected and output limited  
Output Signal ..... 4-20 mA current loop, 0-5 or 0-10 Vdc  
(jumper-selectable)  
Output Drive @ 24 Vdc ..... 550 ohms max for current output  
10K ohms min for voltage output  
Internal Adjustments ..... Clearly marked ZERO and SPAN pots  
Optional Temp ..... RTD's or Thermistors - See ordering chart  
RH200 Probe ..... 230 mm (9") probe length x 12.7 mm  
(1/2") diameter stainless steel with porous filter  
Enclosure ..... Standard: (A) - ABS - UL94-5VB - IP61 (NEMA 2)  
Round (E) - ABS - UL94-5VB - IP65 (NEMA4X)  
Metal (M) - Gal. Steel - IP50 (NEMA1)  
Weatherproof (W) - Cast Alum. IP64 (NEMA3X)  
\*In order to maintain the published NEMA/IP ratings, properly rated conduit or cable gland adapters must be used.  
Termination ..... Screw terminal block (14 20 22 AWG)  
Optional LCD ..... 3 digit for 00.0 to 99.9% RH, 24 x 11 mm  
(0.95" w x 0.45" h) (A Enclosure only)

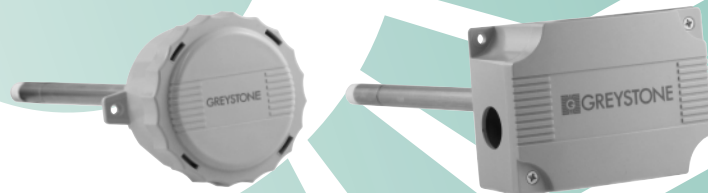
### TYPICAL INSTALLATION:

**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.

Each enclosure style provides mounting tabs on the outside of the enclosure for ease of installation.

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



### PART NUMBER SELECTED

### PRODUCT SELECTION INFORMATION:

MODEL	Product Description
RH200	Duct Humidity Transmitter

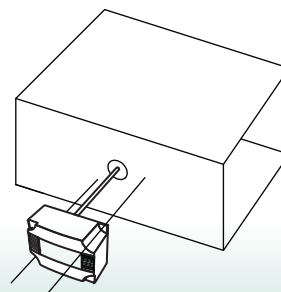
CODE	Enclosure
A	ABS Enclosure, Standard
E	Round ABS w/ gasketed cover
M	Metal utility box
W	Weatherproof Aluminum

CODE	Accuracy
02	2%
03	3%
05	5%

CODE	Optional Temperature Sensor
L	100 $\Omega$ Plat. IEC 751, 385 Alpha, thin film
C	1000 $\Omega$ Platinum, IEC 751, 385 Alpha, thin film
F	1801 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
E	3000 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
D	10,000 $\Omega$ , Type 3, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
J	10,000 $\Omega$ , Type 2, NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
K	20,000 $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$
M	1000 $\Omega$ Nickel, Class B, DIN 43760
B	10K $\Omega$ , Type 3, NTC Therm, $\pm 0.2^{\circ}\text{C}$ c/w 11K shunt resistor
G	2,252K $\Omega$ , NTC Thermistor, $\pm 0.2^{\circ}\text{C}$

CODE	Options
AC	LCD Display

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



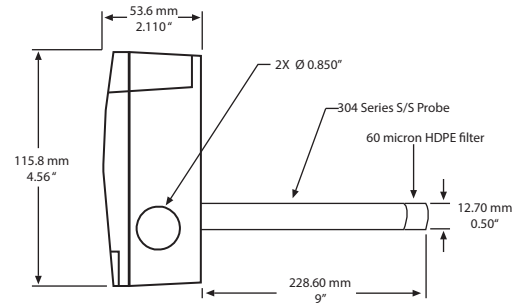
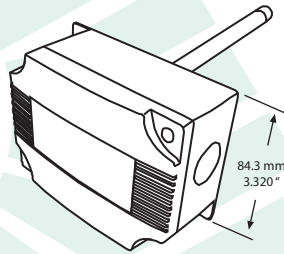
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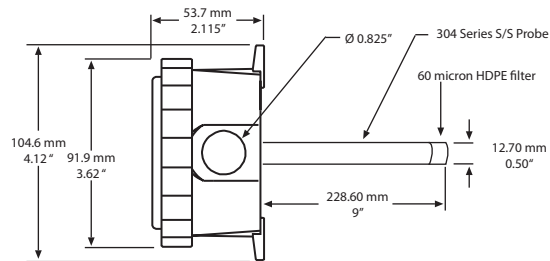
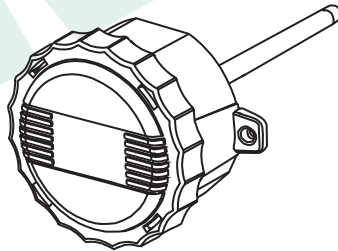


## DIMENSIONS

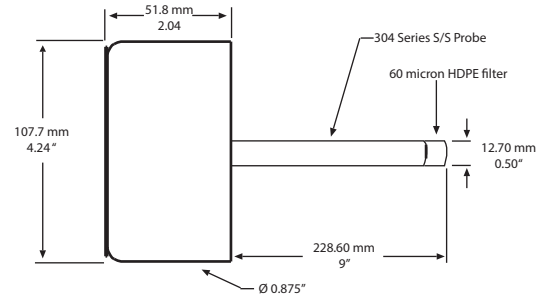
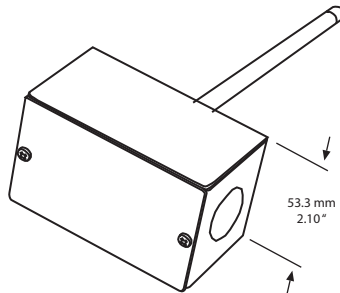
ABS Enclosure (A)



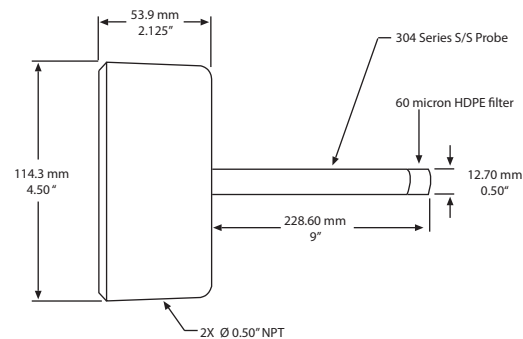
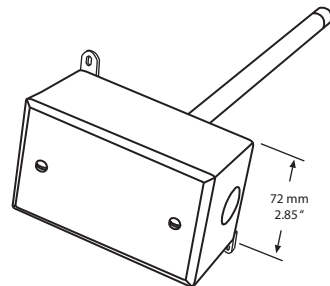
Round ABS Enclosure (E)



Metal Enclosure (M)



Weatherproof Enclosure (W)



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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 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