

# 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 TypeThermoset Polymer based Capactive
Range0 to 100% RH
Accuracy±2, 3, or 5% RH (5 to 95% RH)
Response15 Seconds typical
Temp Dependence ±0.05% RH/ °C
Hysteresis±1.5% RH maximum
Repeatability±0.5% RH typical
Linearity±0.5% RH typical
Operating Range40 to 85°C (-40 to 185°F)
Power Supply 18 to 30 Vdc, 15 to 26 Vac
Consumption22 mA maximum
Protection Circuitry Reverse voltage protected and output limited
Output Signal4-20 mA current loop, 0-5 or 0-10 Vdc
(jumper-selectable)
Output Drive @ 24 Vdc550 ohms max for current output
10K ohms min for voltage output
Internal Adjustments Clearly marked ZERO and SPAN pots
Optional TempRTD's or Thermistors - See ordering chart
RH200 Probe230 mm (9") probe length x 12.7 mm
(1/2") diameter stainless steel with porous filte
Enclosure Standard: (A) - ABS - UL94-5VB - IP61 (NEMA 2
Round (E) - ABS - UL94-5VB - IP65 (NEMA4X)
Round (E) - ABS - UL94-5VB - IP65 (NEMA4X) Metal (M) - Gal. Steel - IP50 (NEMA1)
Round (E) - ABS - UL94-5VB - IP65 (NEMA4X) Metal (M) - Gal. Steel - IP50 (NEMA1) Weatherproof (W) - Cast Alum. IP64 (NEMA3X)
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
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
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.
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
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.

## **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

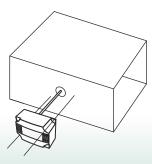
CODE	Enclosure
A	ABS Enclosure, Standard
E	Round ABS w/ gasketed cover
M	Metal utility box
W	Weatherproof Aluminum

CODE	Accuracy
02	2%
03	3%
05	5%

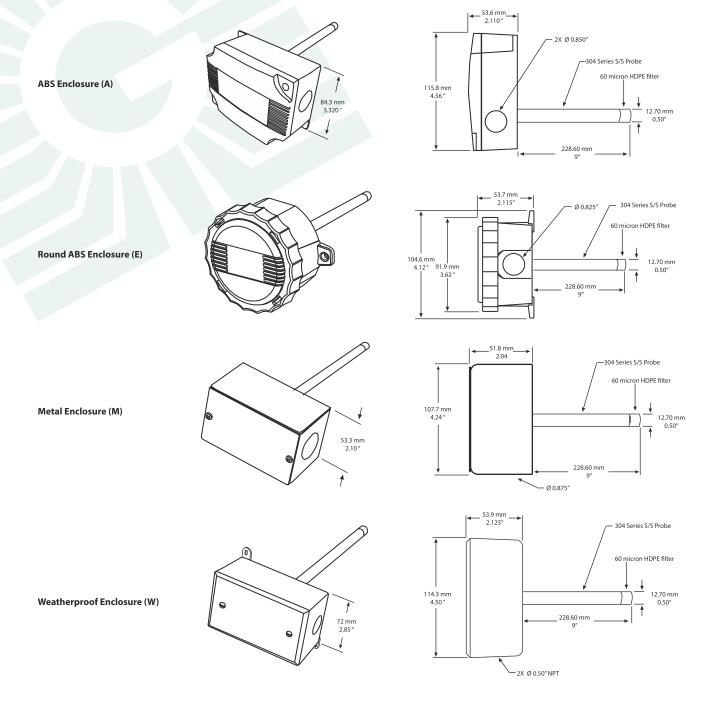
CODE	Optional Temperature Sensor
L	100 Ω Plat. IEC 751, 385 Alpha, thin film
C	1000 Ω Platinum, IEC 751, 385 Alpha, thin film
F	1801 Ω, NTC Thermistor, ±0.2 C
E	3000 Ω, NTC Thermistor, ±0.2 C
D	10,000 $\Omega$ , Type 3, NTC Thermistor, ±0.2 C
J	10,000 Ω, Type 2, NTC Thermistor, ±0.2 C
K	20,000 Ω, NTC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

CODE	Options
AC	LCD Display
+	

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



# **DIMENSIONS**



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