



GREYSTONE ENERGY SYSTEMS INC

DUCT HUMIDITY /TEMPERATURE TRANSMITTER RH210 Series

The RH210 series uses a 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.....±2, 3, or 5% RH, (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
- Temperature Sensor Type.....**C** - 1000 Ω Platinum. IEC751, 385 Alpha, thin film, ±0.3°C @ 0°C
L 100 Ω Platinum. IEC751, 385 Alpha, thin film, ±0.3°C @ 0°C
- Accuracy.....±0.1% 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.....Standard - ABS - UL94-5VB - IP61 (NEMA 2)
*In order to maintain the published NEMA/IP ratings, properly rated conduit or cable gland adapters must be used.
- Probe.....304 series stainless steel w/ 60 micron HDPE filter

PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
RH210A	Duct Humidity/Temperature Transmitter

CODE	RH Accuracy
02	2%
03	3%
05	5%

CODE	Temperature Sensor
C	1000 Ω Platinum, Class B, ±0.3°C @ 0°C
L	100 Ω Platinum, Class B, ±0.3°C @ 0°C

CODE	Output Signals (RH and Temperature)
2A	4-20 mA
2D	0-5 Vdc
2E	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:

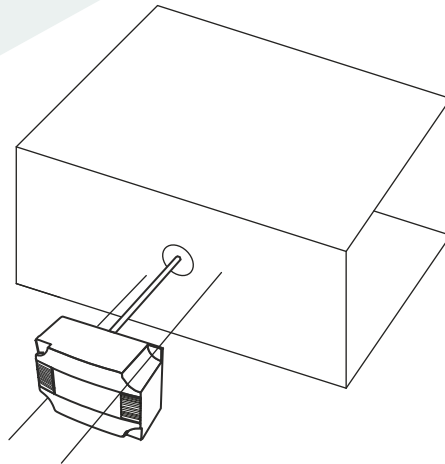
TYPICAL INSTALLATION:

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

The 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.



DIMENSIONS:

