



ROOM HUMIDITY TRANSMITTER RH100B Series



The RH100B series uses a highly accurate and reliable Thermoset Polymer based capacitance humidity sensor and state-of-the-art digital linearization and temperature compensated circuitry in an attractive, low profile enclosure to monitor room humidity levels.

An optional temperature sensor is available.

SPECIFICATION:

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
Sensor Response Time.....	15 seconds typical
Stability	±1 %RH typical at 50 %RH in 5 years
Operating Temperature.....	0 to 70°C (32 to 158°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, 0-5 or 0-10 Vdc (jumper-selectable)
Output Drive @ 24 Vdc	Current: 550Ω maximum Voltage: 10,000Ω minimum
Internal Adjustments	Clearly marked ZERO and SPAN pots
Wiring Connections.....	Screw terminal block (14 to 22 AWG)
Optional Temperature Sensor.....	Various RTD's and thermistors available as 2 wire resistance output
Enclosure.....	White ABS, IP20 (NEMA 1)
Dimensions.....	70mm W x 114mm H x 30mm D (2.75" x 4.5" x 1.2")
Country of Origin.....	Canada

PART NUMBER SELECTED

PRODUCT SELECTION INFORMATION:

MODEL	Product Description
RH100B	Room Humidity Transmitter

CODE	Accuracy
2	2%
3	3%
5	5%

CODE	Optional Temperature Sensor
L	100 Ω Platinum, IEC 751, 385 Alpha, thin film, 3 wire
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 Ω, 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
M	1000 Ω Nickel, Class B, DIN 43760
B	10,000 Ω, Type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor
G	2.252K Ω, NTC Thermistor, ±0.2°C
A	10,000 Ω @ 25°C, ±1%, B = 3435 ±1% (25/85)

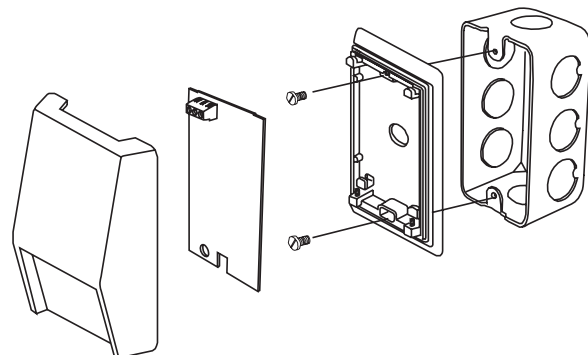
Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

TYPICAL INSTALLATION:

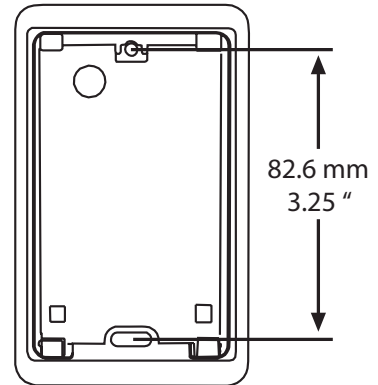
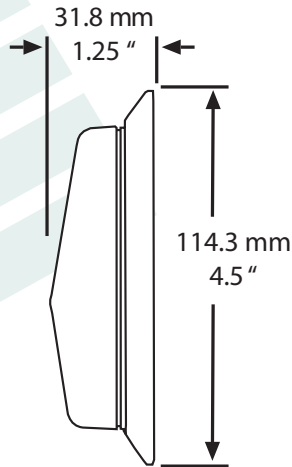
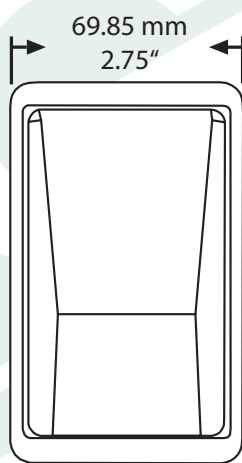
For complete installation and wiring details, please refer to the product installation instructions.

The RH100B sensor installs directly on a standard electrical box and should be mounted five feet from the floor of the area to be controlled. Do not mount the sensor near doors, opening windows, supply air diffusers or other known air disturbances. Avoid areas where the sensor is exposed to vibrations or rapid temperature changes.

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



DIMENSIONS:



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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