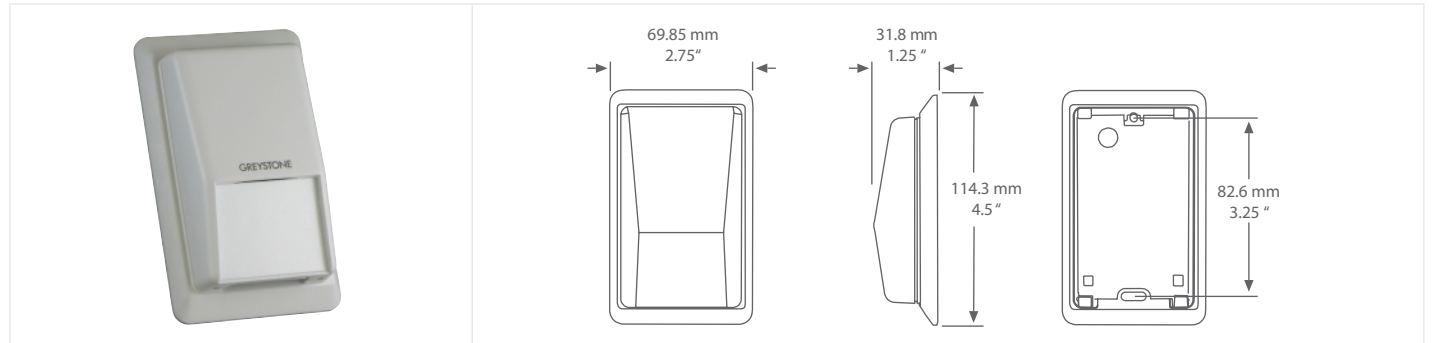




ROOM HUMIDITY TRANSMITTER



RH100B SERIES

PRODUCT DESCRIPTION

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.

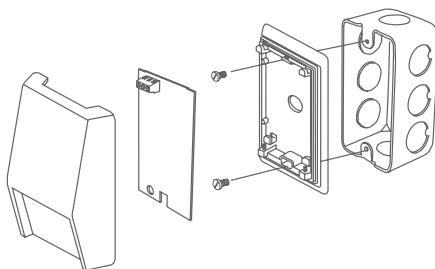
An optional temperature sensor is available.

TYPICAL INSTALLATION

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

The RH100 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.

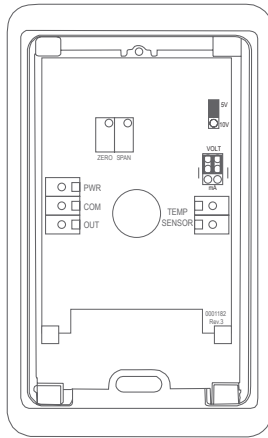


SPECIFICATIONS

SENSOR TYPE	Thermoset polymer based capacitive
OPTIONAL TEMPERATURE SENSOR	Various RTDs and thermistors available as 2 wire resistance output
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 Vdc, 0-10 Vdc, or 0-1 Vdc (jumper selectable)
OUTPUT DRIVE @ 24 VDC	Current: 550Ω max Voltage: 10,000Ω min
INTERNAL ADJUSTMENTS	Clearly marked ZERO and SPAN pots
ENCLOSURE	White ABS, IP20 (NEMA 1)
DIMENSIONS	70mm W x 114mm H x 30mm D (2.75" x 4.5" x 1.2")
TERMINATION	Screw terminal block (14 to 22 AWG)
COUNTRY OF ORIGIN	Canada



WIRING INFORMATION



TERMINAL	FUNCTION
PWR	24 Vac/dc from controller or power supply
COM	GND or COMMON of controller
OUT	Analog Output
TEMP SENSOR	Resistance Output
	Resistance Output

ORDERING

PRODUCT	RH100B	Room Humidity Transmitter
ACCURACY	02	2%
	03	3%
	05	5%
OPTIONAL TEMPERATURE SENSOR	L	100Ω Platinum, IEC 751, 385 Alpha, thin film
	C	1000Ω Platinum, IEC 751, 385 Alpha, thin film
	F	1801Ω NTC Thermistor, ±0.2°C
	E	3,000Ω NTC Thermistor, ±0.2°C
	D	10,000Ω Type 3, NTC Thermistor, ±0.2°C
	J	10,000Ω Type 2, NTC Thermistor, ±0.2°C
	K	20,000Ω NTC Thermistor, ±0.2°C
	M	1000Ω Nickel, Class B, DIN 43760
	B	10,000Ω Type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor
	G	2.252KΩ Thermistor, 0.2°C
	A	10,000Ω 25°C, ±1%, B = 3435 ±1% (25/85)

PART NUMBER

RH100B

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