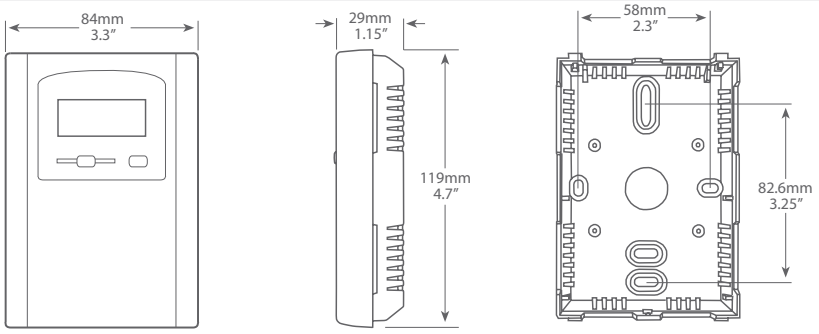
GREYSTONE
ENERGY SYSTEMS INC

HIGH ACCURACY ROOM HUMIDITY TRANSMITTER



HAHRC SERIES

PRODUCT DESCRIPTION

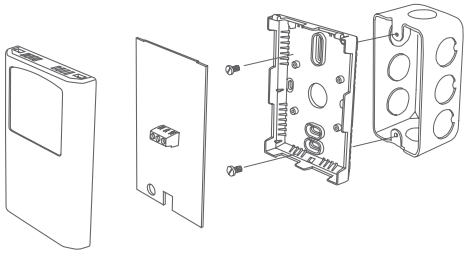
The high accuracy room humidity transmitter uses a highly accurate and field-proven RH sensor in an attractive, low profile enclosure to monitor room relative humidity levels. Additional options include an occupancy override button, a slide-pot setpoint control, a high accuracy temperature sensor and an LCD display. The RH output can be field selected as a linear 4-20 mA, 0-5 or 0-10 Vdc signal.

TYPICAL INSTALLATION

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

The high accuracy room humidity transmitter can be mounted directly to a single gang electrical box or directly to a wall. Multiple mounting holes are provided for connection to a variety of electrical boxes.

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



SPECIFICATIONS

SENSOR	Thermoset polymer based capacitive
ACCURACY	±1.5% or 2% (5 to 95 %RH)
RANGE	0 to 100 %RH
RESOLUTION	0.01 %RH
HYSTERESIS	±0.8 %RH @ 25°C (77°F)
RESPONSE TIME	8 seconds typical
STABILITY	<0.25 %RH/year
POWER SUPPLY	24 Vac/dc ±10% typical, 28 Vac/dc maximum
CONSUMPTION	20 mA @ 24 Vdc
OUTPUT DRIVE @ 24 VDC	**Current:** 550 Ω maximum **Voltage:** 10,000 Ω minimum
OPERATING CONDITIONS	0 to 50°C (32 to 122°F)
ENCLOSURE	White ABS - IP30 (NEMA 1) 84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
OPTIONAL TEMPERATURE SENSOR	Various Thermistors and RTDs available as 2 wire resistive output
OPTIONAL SETPOINT ADJUSTMENT	**Type:** Front panel slidepot, 2 wire resistance output **Range:** 0K to 10K Ω standard **Custom Spans Available:** 1K, 2K, 5K, 10K, or 20K Ω
OPTIONAL MANUAL OVERRIDE	**Type:** Front panel, momentary pushbutton **Ratings:** 50 mA @ 12 Vdc, N.O., SPST
OPTIONAL LCD DISPLAY	**Range:** 00.0 to 99.9 %RH, 3 digit **Size:** 38.1mm W x 16.5mm H (1.5" x 0.65") **Digit Height:** 11.43mm (0.45") **Symbols:** %RH
COUNTRY OF ORIGIN	Canada

NOTE: The temperature sensor accuracies listed in the specifications section apply to the sensing element only prior to product assembly and may not be reflected in the complete assembly.

Due to the measurement uncertainty, it is possible, that the true resistance value of the single delivered sensor at 0°C can be out of the defined tolerance class. Profiling each assembly to take into consideration lead wire and the attachment method should be completed.

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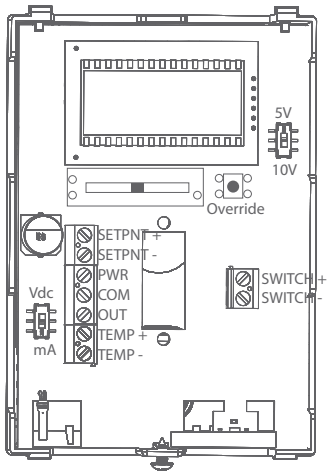
WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+24 Vdc/ac Input
COM	Common
OUT	Analog Output
TEMP +	Resistance Output
TEMP -	Resistance Output
SETPNT +	Resistance Output
SETPNT -	Resistance Output
SWITCH +	Digital Output
SWITCH -	Digital Output

ORDERING

PRODUCT	**HAHRC**	High Accuracy Room Humidity Transmitter
RH ACCURACY	**1** **2**	1.5% 2%
OUTPUTS	**N** **L**	No LCD LCD
OPTIONAL TEMPERATURE SENSOR	**-** **18** **48** **22** **39** **55** **40** **46**	Leave blank if no option selected 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN 10,000 Ω Type 2, NTC Thermistor, ±0.05°C 10,000 Ω Type 2, NTC Thermistor, ±0.03°C 10,000 Ω Type 3, NTC Thermistor, ±0.1°C 20,000 Ω NTC Thermistor, ±0.1°C
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE)	**-** **P** **S**	Leave blank if no option selected 0-10K linear slide pot for set point control (other ranges available, contact Greystone) Front panel push button momentary switch (N.O.)

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

PART NUMBER

HAHRC

RoHS COMPLIANT

Greystone Energy Systems, Inc.
150 English Drive, Moncton,
New Brunswick, Canada E1E 4G7

Ph: +1 (506) 853-3057 Fax: +1 (506) 853-6014
North America: 1-800-561-5611
E-mail: mail@greystoneenergy.com

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