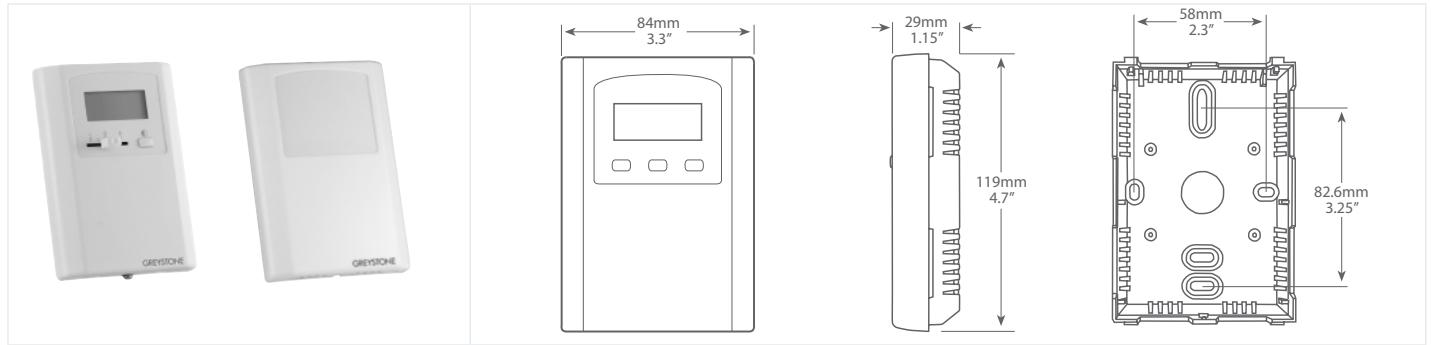




ROOM HUMIDITY TRANSMITTER



HRC SERIES

PRODUCT DESCRIPTION

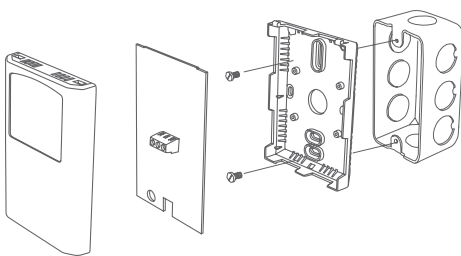
The HRC series room humidity transmitter uses a highly accurate and field-proven RH sensor in an attractive low profile enclosure to monitor room relative humidity levels. Additional options include an occupancy override button, a communication jack, a fan speed switch, a slide-pot setpoint control,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

TYPICAL INSTALLATION

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

The HRC series 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.

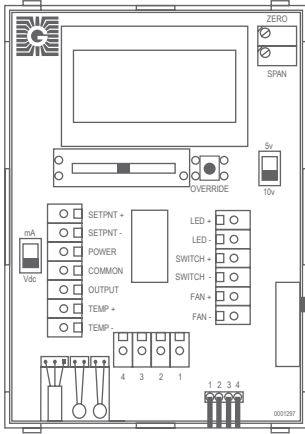


SPECIFICATIONS

SENSOR	Thermoset polymer based capacitive
ACCURACY	±2, 3 or 5 %RH from 5 to 95 %RH
RANGE	0 to 100 %RH non-condensing
HYSTERESIS	±3 %RH
RESPONSE TIME	15 seconds typical
STABILITY	±1.2 %RH typical @ 50 %RH in 5 years
POWER SUPPLY	24 Vac/dc ±10% (non-isolated half-wave rectified)
CONSUMPTION @ 24 VDC	20 mA
INPUT VOLTAGE EFFECT	Negligible over specified operating range
OUTPUT SIGNAL	4-20 mA current loop, 0-5 Vdc or 0-10 Vdc, jumper selectable
OUTPUT DRIVE @ 24 VDC	Current: 550 Ω maximum Voltage: 10 KΩ minimum
OUTPUT RESOLUTION	10 bit PWM
INTERNAL ADJUSTMENTS	ZERO and SPAN pots
PROTECTION CIRCUITRY	Reverse voltage protected and output limited
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 0 to 95 %RH non-condensing
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
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
MANUAL OVERRIDE	Type: Front panel, momentary pushbutton Ratings: 50 mA @ 12 Vdc, N.O., SPST
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
STATUS LED INPUT (N/A WHEN LCD SELECTED)	Signal Type: 5V current limited, 2 wire standard LED Colors: Yellow (Y), Red (R), or Green (G) Power Supply: 5 Vdc standard, 10 or 24 Vdc optional
COMMUNICATION JACKS	Molex: 4 pin header to 4 pin terminal block, requires HHTA - Hand Held Adapter
FAN SPEED SWITCH	Type: Side mounted, 5 position slide switch Designators: Off, Auto, Low, Medium, High Signal: 2 wire, resistance output - 0, 2, 4, 6, 8 KΩ, custom ranges available, contact Greystone
COUNTRY OF ORIGIN	Canada



WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+24 Vdc/ac Input
COM	Common
OUT	0-5 or 10 Vdc Output
TEMP +	Analog Output
TEMP -	Analog Output
SETPNT +	Resistance Output
SETPNT -	Resistance Output
SWITCH +	Digital Output
SWITCH -	Digital Output

ORDERING

PART NUMBER

PRODUCT	HRC	Room Humidity Transmitter
RH ACCURACY	2	2%
	3	3%
	5	5%
OUTPUTS	N	No LCD
	L	LCD
SENSOR	T2	100 Ω Platinum, IEC 751, 385 Alpha, thin film
	T5	1801 Ω NTC Thermistor, ±0.2°C
	T6	3000 Ω NTC Thermistor, ±0.2°C
	T7	10,000 Ω Type 3, NTC Thermistor, ±0.2°C
	T8	2.252K Ω NTC Thermistor, ±0.2°C
	T12	1000 Ω Platinum, IEC 751, 385 Alpha, thin film
	T13	1000 Ω Nickel, Class B, DIN 43760
	T14	10,000 Ω Type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor
	T20	20,000 Ω NTC Thermistor, ±0.2°C
	T24	10,000 Ω Type 2, NTC Thermistor, ±0.2°C
	T59	10,000 Ω @ 25°C, ±1%, B = 3435 ±1% (25/85)
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE)	P	0-10K linear slide pot for set point control (other ranges available, contact Greystone)
	S	Front panel push button momentary switch (N.O.)
	Y	Yellow LED (n/a when LCD is selected)
	R	Red LED (n/a when LCD is selected)
	G	Green LED (n/a when LCD is selected)
	E	External jack for remote system access (4 pin header)
	F	Fan speed switch, 5 position, (Off, Auto, Low, Mid, High)

HRC

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



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