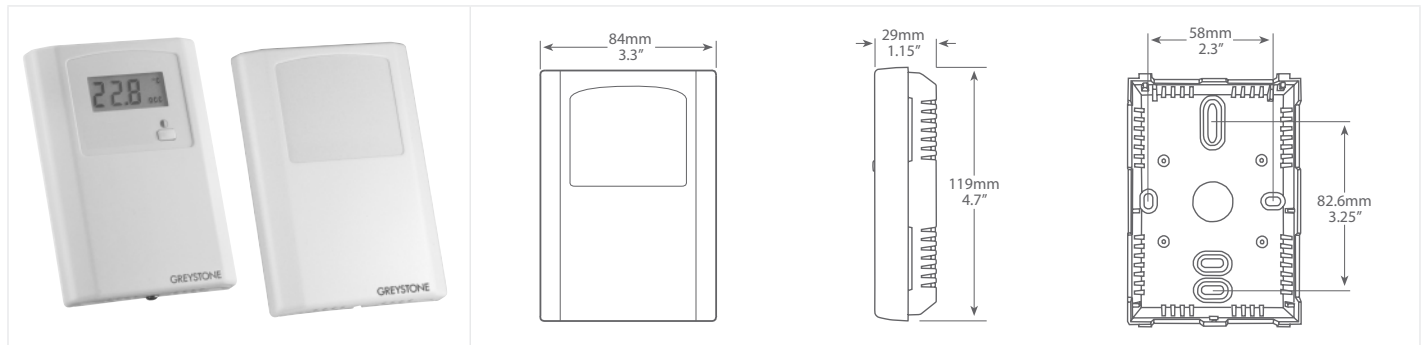




## ROOM HUMIDITY / TEMPERATURE TRANSMITTER



### HTRC SERIES

#### PRODUCT DESCRIPTION

The HTRC Humidity/Temperature transmitter incorporates two sensors in one attractive wall mount enclosure for the most efficient environmental monitoring and control system. It uses a field-proven RH sensor to monitor relative humidity and a curve-matched thermistor to measure temperature and provides two analog outputs of either 4-20 mA, or 0-5 Vdc / 0-10 Vdc.

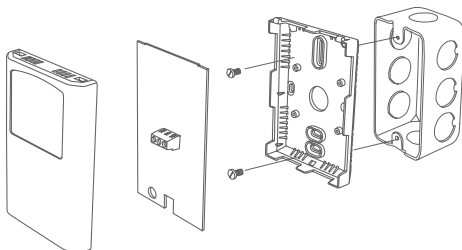
Additional options include an occupancy override button, a communication jack, a fan speed switch or LCD display.

#### TYPICAL INSTALLATION

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

The HTRC series can be mounted directly to a single gang electrical box or directly to a wall. Insulating foam is adhered to the back of the enclosure to provide a thermal barrier from wall temperatures.

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

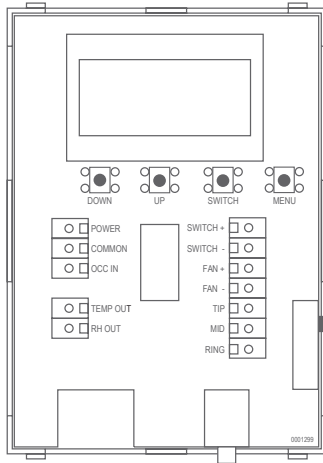


#### SPECIFICATIONS

<b>TEMPERATURE</b>	<b>Sensor:</b> Curve-matched thermistor <b>Accuracy:</b> $\pm 0.2^{\circ}\text{C}$ ( $\pm 0.4^{\circ}\text{F}$ ) <b>Range:</b> 0 to $35^{\circ}\text{C}$ (32 to $95^{\circ}\text{F}$ ) or 0 to $50^{\circ}\text{C}$ (32 to $122^{\circ}\text{F}$ ), programmable <b>Offset:</b> $\pm 5.0^{\circ}\text{C}$ programmable <b>Display Units:</b> $^{\circ}\text{C}$ or $^{\circ}\text{F}$ programmable <b>Display Resolution:</b> $0.1^{\circ} < 100^{\circ}$ , $1^{\circ} > 100^{\circ}$
<b>HUMIDITY</b>	<b>RH Sensor:</b> Thermoset polymer based capacitive <b>Accuracy:</b> $\pm 2, 3,$ or $5\% \text{RH}$ from 5 to 95 %RH <b>Range:</b> 0 to 100 %RH non-condensing <b>Temperature Compensation:</b> 0 to $50^{\circ}\text{C}$ (32 to $122^{\circ}\text{F}$ ) <b>Hysteresis:</b> $\pm 3\% \text{RH}$ <b>Response Time:</b> 15 seconds typical <b>Stability:</b> $\pm 1.2\% \text{RH}$ typical @ 50 %RH in 5 years <b>Offset:</b> $\pm 20\% \text{RH}$ , programmable
<b>POWER SUPPLY</b>	24 Vac/dc $\pm 10\%$ (non-isolated half-wave rectified)
<b>CONSUMPTION</b>	60 mA max @ 24 Vdc
<b>INPUT VOLTAGE EFFECT</b>	Negligible over specified operating range
<b>PROTECTION CIRCUITRY</b>	Reverse voltage protected and output limited
<b>OUTPUT SIGNAL</b>	4-20 mA active (sourcing), 0-5 Vdc or 0-10 Vdc (specify when ordering)
<b>OUTPUT RESOLUTION</b>	10 bit for all signals
<b>OUTPUT DRIVE @ 24 VDC</b>	<b>Current:</b> 550 $\Omega$ maximum <b>Voltage:</b> 10K $\Omega$ minimum
<b>PROGRAMMING/SELECTION</b>	Via internal push buttons and on-screen menu
<b>OPERATING CONDITIONS</b>	0 to $50^{\circ}\text{C}$ (32 to $122^{\circ}\text{F}$ ), 0 to 95 %RH non-condensing
<b>WIRING CONNECTIONS</b>	Screw terminal block (14 to 22 AWG)
<b>ENCLOSURE</b>	White ABS - IP30 (NEMA 1) 84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")
<b>OPTIONAL LCD DISPLAY</b>	<b>Range:</b> 00.0 to 99.9, 3 digit <b>Symbols:</b> $^{\circ}\text{C}$ , $^{\circ}\text{F}$ RH, OCC <b>Display Size:</b> 38.1mm x 16.5mm (1.5" x 0.65") <b>Digit Height:</b> 11.43mm (0.45") <b>Backlight:</b> Enable/disable via menu
<b>OPTIONAL OVERRIDE</b>	<b>Type:</b> Front panel, momentary push button, 2 wire dry contact <b>Switch Ratings:</b> N.O., SPST, 50 mA @ 12 Vdc
<b>OPTIONAL OCCUPIED INPUT (INCLUDED WITH OVERRIDE OPTION)</b>	<b>Type:</b> Digital input, 0-5 Vdc or dry contact to common <b>Logic:</b> Active low or active high, programmable <b>Action:</b> Causes "OCC" segment to light in display
<b>OPTIONAL FAN SPEED SWITCH</b>	<b>Type:</b> Side panel mount, 5 position switch <b>Range:</b> Off, Auto, Low, Medium, High <b>Signal:</b> Resistance: 0, 2, 4, 6, 8 K $\Omega$ , 2 wire output (custom ranges available)
<b>OPTIONAL NETWORK COMMUNICATIONS</b>	<b>3.5mm Phono Jack:</b> Ring/Mid/Tip connections to a 3 pin terminal block
<b>COUNTRY OF ORIGIN</b>	Canada



## WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+24 Vdc/ac
COM	Common
OCC IN	Digital Input
TEMP OUT	Analog Output
RH OUT	Analog Output
SWITCH +	Digital Output
SWITCH -	Digital Output
TIP	Digital Input
MID	Digital Input
RING	Digital Input

## ORDERING

PRODUCT	HTRC	Room Humidity/Temperature Transmitter
RH ACCURACY	<b>2</b>	2%
	<b>3</b>	3%
	<b>5</b>	5%
LCD DISPLAY	<b>N</b>	Concealed
	<b>L</b>	Viewable
OUTPUT	<b>I</b>	4-20 mA
	<b>V</b>	0-5 Vdc or 0-10 Vdc (menu selectable)
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE)	<b>S</b>	Override switch (includes occupied input)
	<b>J</b>	Communication jack (3.5 mm phono)
	<b>F</b>	Fan speed switch

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

## PART NUMBER

HTRC