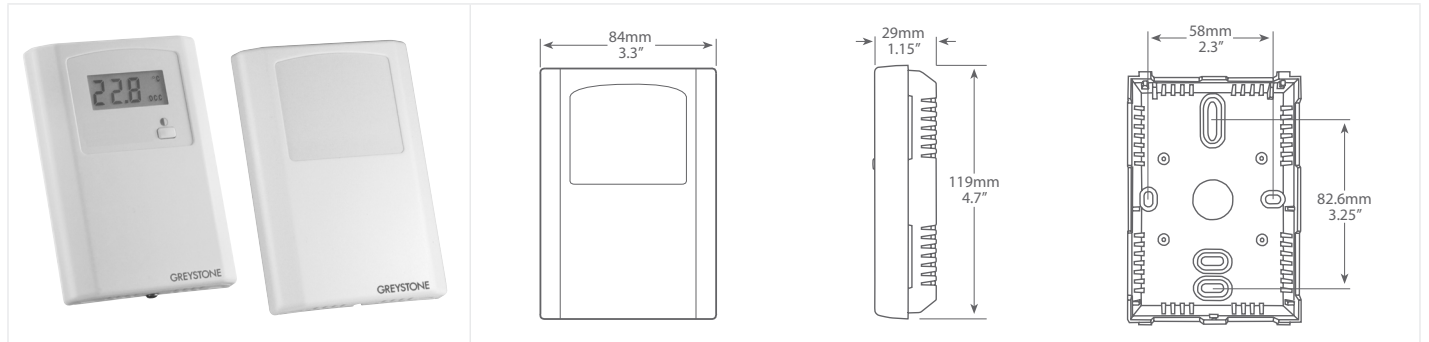




## HIGH ACCURACY ROOM HUMIDITY / TEMPERATURE TRANSMITTER



### HAHTRC SERIES

#### PRODUCT DESCRIPTION

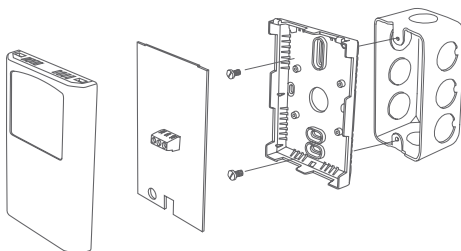
The HAHTRC series uses highly accurate and reliable thermoset polymer based capacitance humidity sensor and curve matched thermistor together with state-of-the-art digital linearization and temperature compensated circuitry in an attractive, low profile enclosure to monitor room humidity & temperature levels. Options include manual override, viewable LCD, and occupied input.

#### TYPICAL INSTALLATION

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

The HAHTRC 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.

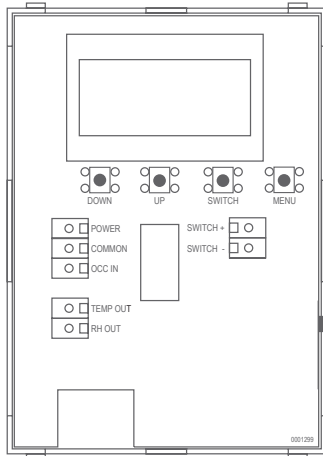
A terminal block connection is provided for connection to the Building Automation System.



#### SPECIFICATIONS

TEMPERATURE	<b>Sensor:</b> Curve-matched thermistor <b>Accuracy:</b> $\pm 0.1^{\circ}\text{C}$ ( $\pm 0.18^{\circ}\text{F}$ ) <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> $\pm 5.0^{\circ}\text{C}$ ( $\pm 9.0^{\circ}\text{F}$ ) programmable <b>Display Units:</b> $^{\circ}\text{C}$ or $^{\circ}\text{F}$ programmable <b>Display Resolution:</b> $0.5^{\circ} < 100^{\circ}$ , $1^{\circ} > 100^{\circ}$
HUMIDITY	<b>Sensor:</b> Thermoset polymer based capacitive <b>Accuracy:</b> Code 1: $\pm 1.0\%$ (20 to 70%RH) @ $25^{\circ}\text{C}$ Code 2: $\pm 2.0\%$ (5 to 95%RH) @ $25^{\circ}\text{C}$ <b>Range:</b> 0 to 100 %RH <b>Hysteresis:</b> $\pm 0.8\%$ @ $25^{\circ}\text{C}$ <b>Response Time:</b> 15 seconds typical <b>Offset:</b> $\pm 20\%$ RH, programmable <b>Stability:</b> $\pm 1.2\%$ RH typical @ 50% RH in 5 years
POWER SUPPLY	24 Vac/dc $\pm 10\%$ (non-isolated half-wave rectified)
CONSUMPTION	60 mA max @ 24 Vdc
INPUT VOLTAGE EFFECT	Negligible over specified operating range
PROTECTION CIRCUITRY	Reverse voltage protected and output limited
OUTPUT SIGNAL	4-20 mA active (sourcing), 0-5 Vdc or 0-10 Vdc (specify when ordering)
OUTPUT RESOLUTION	10 bit for all signals
OUTPUT DRIVE @ 24 VDC	<b>Current:</b> 550 $\Omega$ maximum <b>Voltage:</b> 10K $\Omega$ minimum
PROGRAMMING/SELECTION	Via internal push buttons and on-screen menu
OPERATING CONDITIONS	0 to $50^{\circ}\text{C}$ (32 to $122^{\circ}\text{F}$ ), 0 to 95 %RH non-condensing
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
ENCLOSURE	White ABS - IP30 (NEMA 1) 84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")
OPTIONAL LCD DISPLAY	<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
OPTIONAL OVERRIDE	<b>Type:</b> Front panel, momentary push button, 2 wire dry contact <b>Switch Ratings:</b> N.O., SPST, 50 mA @ 12 Vdc
OPTIONAL OCCUPIED INPUT (INCLUDED WITH OVERRIDE OPTION)	<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
COUNTRY OF ORIGIN	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

## ORDERING

PRODUCT	HAHTRC	High Accuracy Room Humidity/Temperature Transmitter
RH ACCURACY	1 2	1% 2%
LCD DISPLAY	N L	Concealed Viewable
OUTPUT	I V	4-20 mA 0-5 Vdc or 0-10 Vdc (menu selectable)
OPTIONS	S	Override switch (includes occupied input)

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

## PART NUMBER

HAHTRC