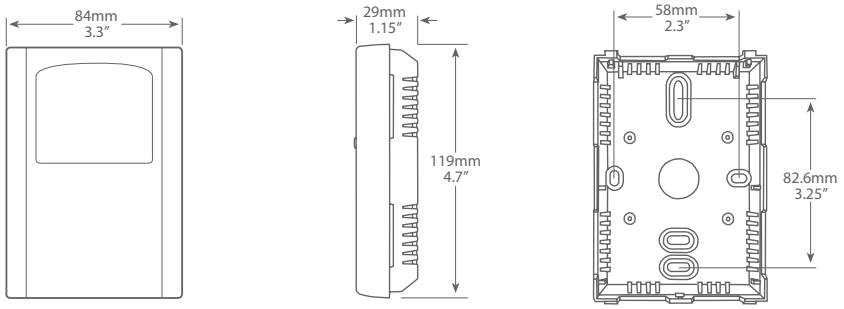
GREYSTONE
ENERGY SYSTEMS INC

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.

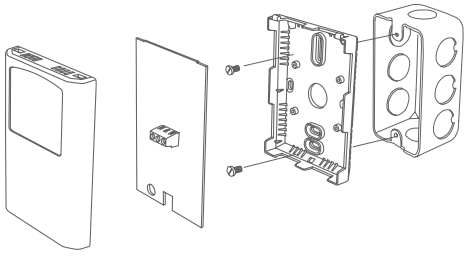
Additional options include an occupancy override button, a communication jack, a fan speed switch or LCD display.

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

TEMPERATURE	**Sensor:** Curve-matched thermistor **Accuracy:** ±0.2°C (±0.4°F) **Range:** 0 to 35°C (32 to 95°F) or 0 to 50°C (32 to 122°F), programmable **Offset:** ±5.0°C programmable **Display Units:** °C or °F programmable **Display Resolution:** 0.1° < 100°, 1° > 100°
HUMIDITY	**RH Sensor:** Thermoset polymer based capacitive **Accuracy:** ±2, 3, or 5 %RH from 5 to 95 %RH **Range:** 0 to 100 %RH non-condensing **Temperature Compensation:** 0 to 50°C (32 to 122°F) **Hysteresis:** ±3 %RH **Response Time:** 15 seconds typical **Stability:** ±1.2 %RH typical @ 50 %RH in 5 years **Offset:** ±20 %RH, programmable
POWER SUPPLY	24 Vac/dc ±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	**Current:** 550 Ω maximum **Voltage:** 10K Ω minimum
PROGRAMMING/SELECTION	Via internal push buttons and on-screen menu
OPERATING CONDITIONS	0 to 50°C (32 to 122°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	**Range:** 00.0 to 99.9, 3 digit **Symbols:** °C, °F %RH, OCC **Display Size:** 38.1mm x 16.5mm (1.5" x 0.65") **Digit Height:** 11.43mm (0.45") **Backlight:** Enable/disable via menu
OPTIONAL OVERRIDE	**Type:** Front panel, momentary push button, 2 wire dry contact **Switch Ratings:** N.O., SPST, 50 mA @ 12 Vdc
OPTIONAL OCCUPIED INPUT (INCLUDED WITH OVERRIDE OPTION)	**Type:** Digital input, 0-5 Vdc or dry contact to common **Logic:** Active low or active high, programmable **Action:** Causes "OCC" segment to light in display
OPTIONAL FAN SPEED SWITCH	**Type:** Side panel mount, 5 position switch **Range:** Off, Auto, Low, Medium, High **Signal:** Resistance: 0, 2, 4, 6, 8 KΩ, 2 wire output (custom ranges available)
OPTIONAL NETWORK COMMUNICATIONS	**3.5mm Phono Jack:** Ring/Mid/Tip connections to a 3 pin terminal block
COUNTRY OF ORIGIN	Canada

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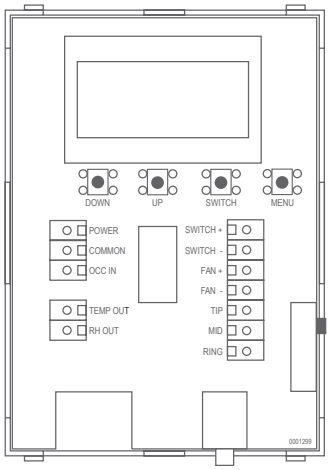
WIRING INFORMATION



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	**2**	2%
	3	3%
	5	5%
LCD DISPLAY	**N**	Concealed
	L	Viewable
OUTPUT	**I**	4-20 mA
	V	0-5 Vdc or 0-10 Vdc (jumper selectable)
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE)	**S**	Override switch (includes occupied input)
	J	Communication jack (3.5 mm phono)
	F	Fan speed switch

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

PART NUMBER

HTRC

RoHS COMPLIANT

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