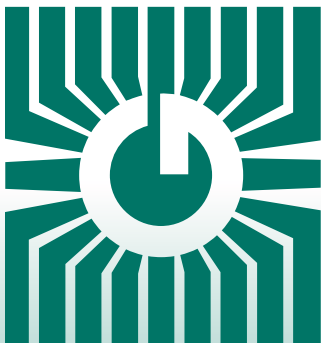


GREYSTONE ENERGY SYSTEMS INC



ROOM HUMIDITY/ TEMPERATURE TRANSMITTER HTRC Series



Precision humidity/temperature control/sensing

FEATURES:

- Highly stable RH sensor element
- Humidity range: 0-100%
- Accuracy available 2%, 3%, & 5%
- LCD display available
- Optional override, fan speed switch or comm. jack
- Custom logo available

*Peace of mind
through reliable
humidity/temperature
monitoring*

GREYSTONE HAS AN ISO 9001 REGISTERED QUALITY SYSTEM

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, 0-5Vdc or 0-10 Vdc .

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

SPECIFICATIONS:

TEMPERATURE

Temperature Sensor..... Curve-matched thermistor
Accuracy..... $\pm 0.2^{\circ}\text{C}$ ($\pm 0.4^{\circ}\text{F}$)
Range..... 0° to 35°C (32° to 95°F) or 0° to 50°C (32° to 122°F), programmable
Offset $\pm 9^{\circ}\text{F}$ programmable
Display Units $^{\circ}\text{C}$ or $^{\circ}\text{F}$ programmable
Display Resolution $0.1^{\circ} < 100^{\circ}$, $1^{\circ} > 100^{\circ}$

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 $\pm 3\%$ RH
Response Time..... 15 seconds typical
Stability $\pm 1.2\%$ RH typical @ 50% RH in 5 years
Offset $\pm 20\%$ RH, programmable

GENERAL

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 550 ohm max. for 4-20 mA, 10K ohms min. for voltage
Programming/Selection Via internal push buttons and on-screen menu
Operating Conditions 0° to 50°C (32° - 122°F), 0-95% RH non-condensing
Wiring Connections..... Screw terminal block (14 to 22 AWG)
Enclosure White ABS
84mmW x 119mmH x 29mmD (3.3" x 4.7" x 1.15")

OPTIONS:

LCD DISPLAY

Range..... 00.0 to 99.9, 3 digit
Symbols $^{\circ}\text{C}$, $^{\circ}\text{F}$, %RH, OCC
Display Size..... 38.1 x 16.5 mm (1.5" x 0.65")
Digit Height 11.43 mm (0.45")
Backlight..... Enable/disable via menu

OVERRIDE

Type..... Front panel, momentary push-button, 2 wire dry contact
Switch ratings N.O., SPST, 50 mA @12 Vdc

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

FAN SPEED SWITCH

Type..... Side panel mount, 5 position switch
Range..... Off, Auto, Low, Medium, High
Signal Resistance: 0, 2, 4, 6, 8 K Ω , two-wire output (Custom ranges available)

NETWORK COMMUNICATIONS

3.5mm phono jack Ring/Mid/Tip connections to a 3-pin terminal block

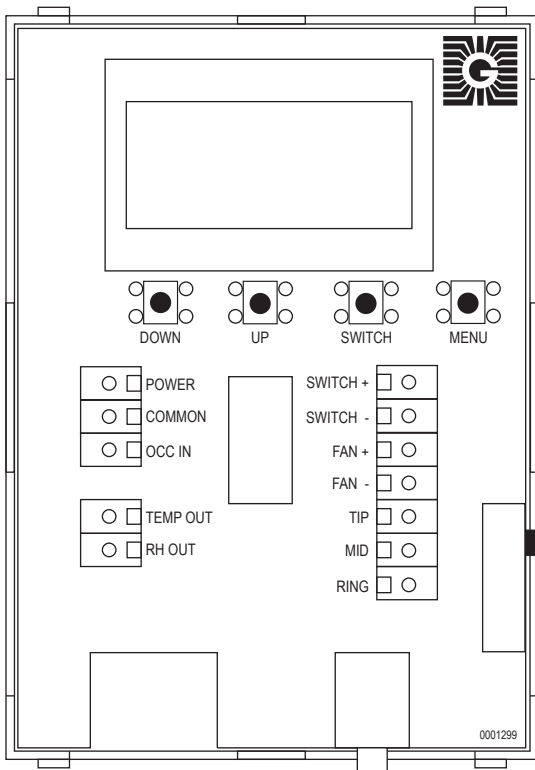
PRODUCT ORDERING INFORMATION:

MODEL	Product Description
HTRC	Room Humidity/Temperature Transmitter
CODE	RH Accuracy
2	2 %
3	3 %
5	5 %
CODE	LCD Display
N	Concealed
L	Viewable
CODE	Output
I	4-20 mA
V	0-5 Vdc or 0-10 Vdc (Jumper selectable)
CODE	Options (Multiple selections may be made)
S	Override switch (Includes occupied input)
J	Communication jack (3.5 mm phono)
F	Fan speed switch

HTRC	3	N	I	-	-	← Typical Model Number
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Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

PCB/WIRING INFORMATION



Terminal

Function

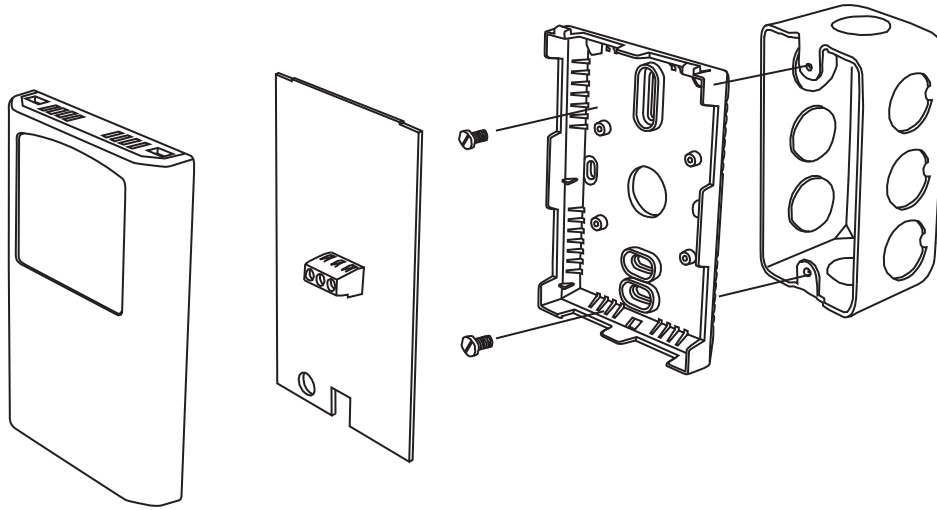
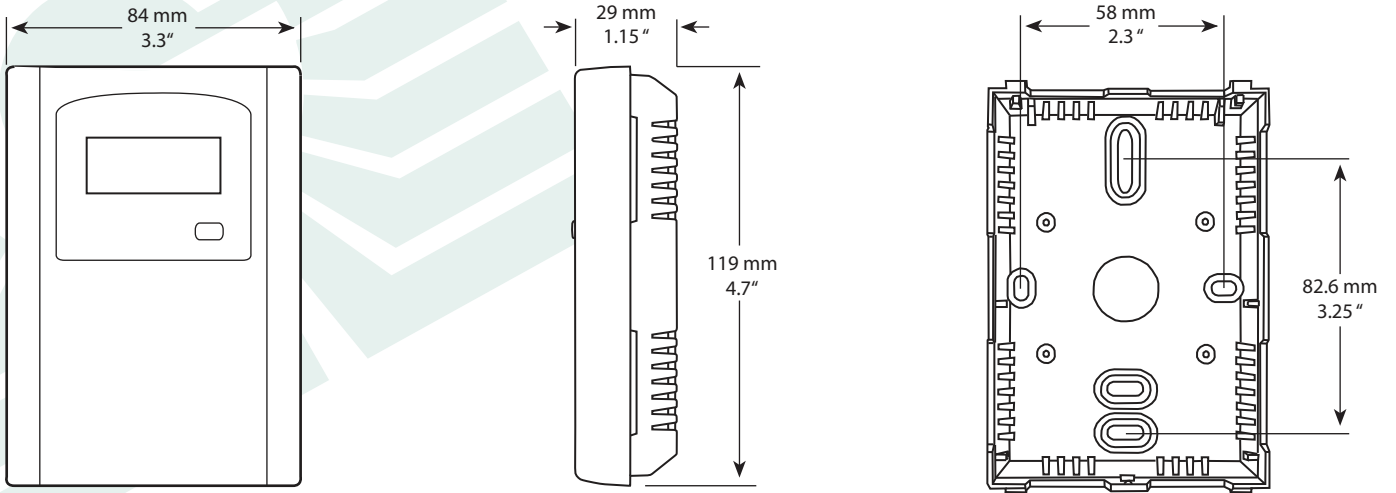
POWER	From +24 Vac/dc of controller or power supply
COMMON	To GND or COMMON of controller
OCC IN	To digital output of controller
TEMP Output	To analog input of controller
RH Output	To analog input of controller
SWITCH +	To digital input of controller
SWITCH -	To GND or COMMON of controller
FAN +	To analog input of controller
FAN -	Resistance input
TIP	To GND or COMMON of controller
MID	External Jack TIP (tip of plug) connection
RING	External Jack MID (middle of plug) connection
	External Jack RING (base of plug) connection

* Some models do not have all these features

**To save on number of connection wires, all GND or COMMON may be connected together.

***Illustration shows standard wiring configuration. Custom configurations are available. Please contact Greystone.

DIMENSIONS:



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GREYSTONE

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RoHS
COMPLIANT



Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC/R sensors and transmitters for Building Automation Management Systems.

We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.

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