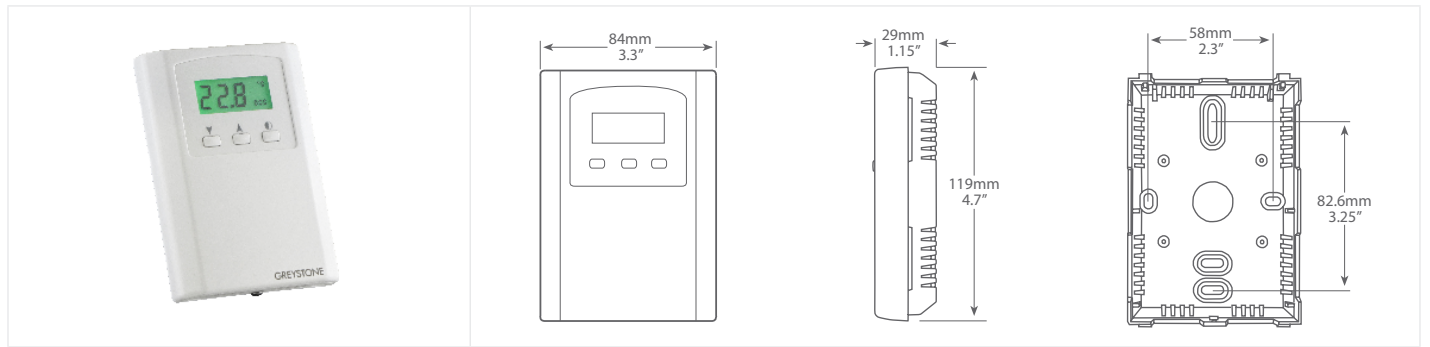




## HIGH ACCURACY ROOM HUMIDITY / TEMPERATURE TRANSMITTER



### HANTRC SERIES

### PRODUCT DESCRIPTION

The HANTRC series network temperature/RH sensor features embedded BACnet® and Modbus communication and is available in several configurations for the most efficient monitoring and control solution. The basic unit accurately measures room temperature. Optional features include RH measurement, up/down setpoint control, a local override function, a control relay output and a fan speed switch.

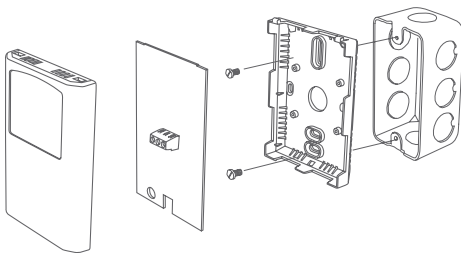
The device connects to an RS-485 MS/TP network to offer a single-point solution for control of indoor air quality and comfort. Features include a back-lit LCD and user menu for easy installation, field-proven sensors and user input controls to add local setpoint and override functions at the same network point.

### TYPICAL INSTALLATION

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

The HANTRC series can be mounted directly to a single gang electrical box or directly to a wall. The backplate includes many mounting hole configurations to allow for mounting on a variety of electrical boxes.

The HANTRC has a screw block terminal provided for connection to the Building Automation System.

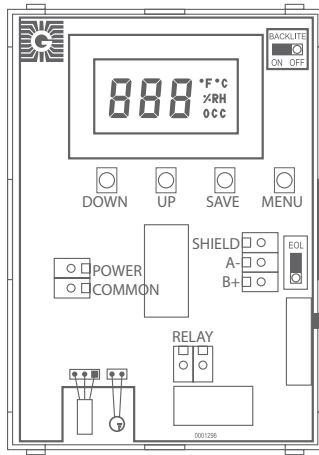


### SPECIFICATIONS

|                           |   |
|---------------------------|---|
| POWER SUPPLY              | 20-28 Vac/dc (non-isolated, half-wave rectified)  |
| CONSUMPTION               | 35 mA max @ 24Vdc   |
| PROTECTION CIRCUITRY      | Reverse voltage protected and output limited  |
| OPERATING CONDITIONS      | 0 to 50°C (32 to 122°F), 0 to 95 %RH non-condensing   |
| SENSOR COVERAGE AREA      | 100 m <sup>2</sup> (1000 ft <sup>2</sup> ) typical  |
| WIRING CONNECTIONS        | Screw terminal block (14 to 22 AWG)   |
| ENCLOSURE                 | White ABS - IP30 (NEMA 1)<br>84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")  |
| COMMUNICATION INTERFACE   | <b>Hardware:</b> 2-wire RS-485<br><b>Software:</b> Native BACnet® or Modbus MS/TP protocol, menu selectable<br><b>Baud Rate:</b> Locally set from 300 to 76800<br><b>MAC Address Range:</b> BACnet® - Locally set to 0-127<br>Modbus - 1-255 (Factory default is 3),<br>(63 devices max on one daisy chain)   |
| LCD DISPLAY               | <b>Resolution:</b> 0.5° or 1°C/F selectable, 1% RH<br><b>Size:</b> 38.1 mm x 16.5 mm (1.5" w x 0.65" h), 3 digit<br><b>Backlight:</b> Auto-dimming, Enable/disable via jumper<br><b>Viewed Values:</b> Temperature Only, RH Only or alternating Temperature/RH (RH requires optional RH signal)   |
| TEMPERATURE SIGNAL        | <b>Sensing Element:</b> 10K thermistor, ±0.1°C (±0.18°F)<br><b>Range:</b> 0° to 50°C (32° to 122°F)   |
| OPTIONAL RH SIGNAL        | <b>Sensing Element:</b> Thermoset polymer based capacitive<br><b>Accuracy:</b> ± 1% (20 to 80% RH)<br><b>Range:</b> 0 - 100% RH, non-condensing<br><b>Resolution:</b> 1% RH<br><b>Hysteresis:</b> ± 3% RH<br><b>Response Time:</b> 15 seconds typical<br><b>Stability:</b> ± 1.2% RH typical @ 50% RH in 5 years  |
| OPTIONAL SETPOINT CONTROL | <b>User Interface:</b> Front panel Up/Down Buttons available via BACnet® or Modbus<br><b>Setpoint Mode:</b> Temperature (°C/°F) or RH, menu selectable. (Factory default is Temperature & °C)<br><b>Adjustable Setpoint Range:</b> 10° to 30°C, 50° to 86°F or 10 to 85% RH, menu selectable (Factory default is 18° to 24°C)<br><b>Minimum Span:</b> 4° C/F or 10% RH<br><b>Temp. Setpoint Resolution:</b> 0.5° or 1°, menu selectable (Factory default is 1°) |
| OPTIONAL OVERRIDE         | <b>User Interface:</b> Front panel button available via BACnet® or Modbus<br><b>Override Status:</b> Via BACnet® or Modbus "OCC" segment lights on LCD  |
| OPTIONAL FAN SPEED SWITCH | <b>User Interface:</b> Side panel, 5 position available via BACnet® or Modbus<br><b>Indication:</b> Off, Auto, Low, Mid, high switch position indicators  |
| OPTIONAL RELAY OUTPUT     | <b>Contact Ratings:</b> Form A contact (N.O.), 2 Amps @ 140 Vac, 2 Amps @ 30 Vdc<br><b>Relay Activation:</b> Via BACnet® or Modbus  |
| COUNTRY OF ORIGIN         | Canada  |



## WIRING INFORMATION



### TERMINAL

### FUNCTION

|        |  |
|--------|--|
| POWER  | From +20-28 Vac/dc of controller or power supply |
| COMMON | To GND or COMMON of controller                   |
| B +    | To + of communications bus                       |
| A -    | To - of communications bus                       |
| SHIELD | To communications bus shield                     |
| RELAY  | To digital input of controller                   |

\*Some models do not have all these features

## ORDERING

| PRODUCT   | HANTRC                                       | High Accuracy Room Network with BACnet® or Modbus Communications   |
|---|--|--|
| LCD DISPLAY   | <b>N</b><br><b>L</b>                         | Concealed<br>Viewable  |
| COMMUNICATIONS  | <b>T</b><br><b>RH</b>                        | Temperature Only<br>Temperature and Humidity   |
| OPTIONS (MULTIPLE SELECTIONS CAN BE MADE)<br>(LEAVE BLANK IF NO OPTIONS REQUIRED) | <b>P</b><br><b>S</b><br><b>F</b><br><b>R</b> | Setpoint Adjustment, 2 button up/down<br>Momentary Override Switch - N.O.<br>Fanspeed Switch, 5 Position<br>Relay Output |

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

## PART NUMBER

|               |
|---------------|
| <b>HANTRC</b> |
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|               |
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