

## NETWORK OUTSIDE HUMIDITY/TEMPERATURE SENSOR 82.5 mm 3.25° 69.8 mm 2.75° 132 mm 5.19° HNOB SERIES

## PRODUCT DESCRIPTION

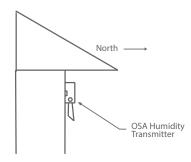
The outside air network humidity/temperature sensor uses a highly accurate and reliable Thermoset Polymer based capacitance humidity sensor and temperature sensor, that is field replaceable, to monitor humidity and temperature levels and transmit values via BACnet® or Modbus communication to a building automation system. A hinged, gasketed weatherproof Polycarbonate enclosure with sun and wind shield provides ease of installation and protection from the elements.

## TYPICAL INSTALLATION

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

The outside sensor should be mounted on an outside North facing wall, under the eaves which will provide protection from direct sunlight and wind.

The outside sensor can be mounted directly to buildings wall face using the provided mounting holes. There is a 0.86" hole for conduit connection of the back of the enclosure.

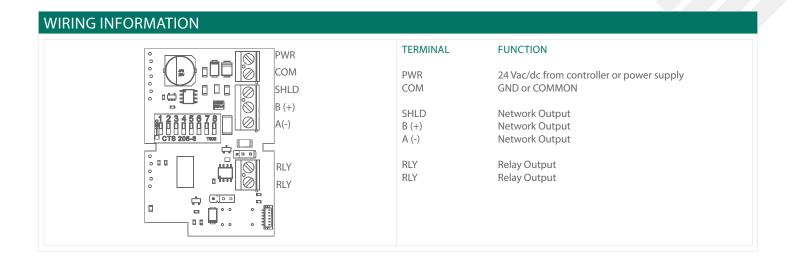


| SPECIFICATIONS        |   |
|-----------------------|---|
| RELATIVE HUMIDITY     | Accuracy: ±2, 3, or 5 %RH (5 to 95 %RH) Range: 0 to 100 %RH Resolution: 0.01 %RH Hysteresis: ±0.8 %RH @ 25°C (77°F) Response Time: 8 seconds typical Stability: <0.25 %RH/year  |
| TEMPERATURE SENSOR    | Sensor Accuracy: $\pm 0.2^{\circ}\text{C}$ ( $\pm 0.4^{\circ}\text{F}$ ) @ 0 to $70^{\circ}\text{C}$ (32 to $158^{\circ}\text{F}$ ) Probe Sensing Range: $-40$ to $50^{\circ}\text{C}$ ( $-40$ to $122^{\circ}\text{F}$ ), 5 to 95 %RH non-condensing Resolution: $0.01^{\circ}\text{C}/\text{F}$ Response Time: $2$ seconds Stability: $<0.03^{\circ}\text{C}/\text{year}$ |
| NETWORK COMMUNICATION | Hardware: MS/TP, 2-wire RS-485<br>Software: BACnet® or Modbus<br>Baud Rate: 9600, 19200, 38400, 57600, 76800, or 115200<br>Address Range: BACnet® - 0 to 127<br>Modbus - 1 to 255   |
| OPTIONAL RELAY        | Contacts: 0.5 A @ 125 Vac / 1 A @ 24 Vdc Setpoint: Relative Humidity - 1 to 90 %RH or Temperature - 5 to 40°C (40 to 100°F)   |
| POWER SUPPLY          | 24 Vac/dc ±10% typical, 28 Vac/dc maximum   |
| CONSUMPTION           | 22 mA @ 24 Vdc, 70 mA @ 24 Vac  |
| OPERATING ENVIRONMENT | -40 to 60°C (-40 to 140°F)  |
| PROBE MATERIAL        | 304 S/S with porous filter and Sun/Wind Shield  |
| WIRING CONNECTION     | Screw terminal block (14 to 22 AWG)   |
| ENCLOSURE             | A: Polycarbonate, UL94-V0, IP65 (NEMA 4X) E: Same as A, with cable gland fitting  |
| DIMENSIONS            | 82.5mm W x 76.2mm H x 52.0mm D (3.25" x 3.0" x 2.05")   |
| APPROVALS             | CE  |
| COUNTRY OF ORIGIN     | Canada  |



CABLE GLAND FITTING





| ORDERING    |             |   |
|-------------|-------------|---|
| PRODUCT     | HNOB        | Network Outside Humidity/Temperature Sensor   |
| ENCLOSURE   | A<br>E      | Polycarbonate with hinged and gasketed cover<br>Same as A, with cable gland fitting |
| RH ACCURACY | 2<br>3<br>5 | 2%<br>3%<br>5%  |
| OUTPUT      | B<br>M      | BACnet®<br>Modbus   |
| RELAY       | X<br>R      | No Relay<br>Relay   |

| PART | NUMBER |
|------|--------|
| HNOB |        |
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 $NOTE: Greystone\ Energy\ Systems, Inc.\ reserves\ the\ right\ to\ make\ design\ modifications\ without\ prior\ notice.$ 

| REPLACEMENT SENSOR MODULE | HRMPB200<br>HRMPB300<br>HRMPB500 | Relative Humidity/Temperature Probe Replacement, 2% Accuracy<br>Relative Humidity/Temperature Probe Replacement, 3% Accuracy<br>Relative Humidity/Temperature Probe Replacement, 5% Accuracy |  |  |  |
|---------------------------|----------------------------------|--|--|--|--|
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