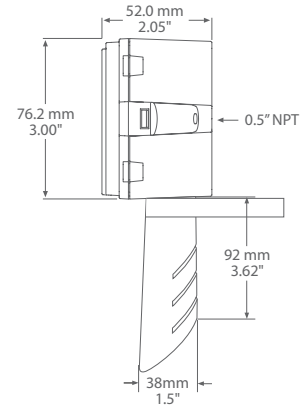
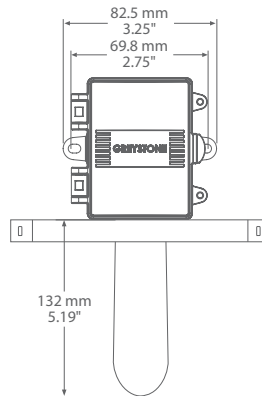




HIGH ACCURACY OUTSIDE HUMIDITY TRANSMITTER



HAHSOB SERIES

PRODUCT DESCRIPTION

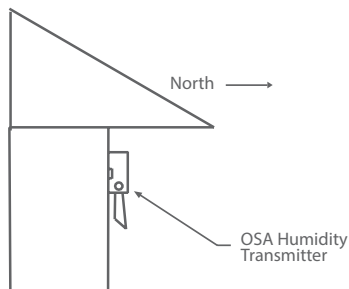
The high accuracy outside humidity transmitter uses a highly accurate and reliable Thermoset Polymer based capacitance humidity sensor and state-of-the-art digital linearization and temperature compensated circuitry to monitor humidity levels. The sensor is encapsulated in a 12.7 mm (0.5") diameter 304 S/S probe and is field replaceable. A 60 micron HDPE filter protects the sensor for contaminants and a sun and windshield for protection from the elements. A weatherproof enclosure that provides ease of installation is provided. An optional integrated temperature sensor is available.

TYPICAL INSTALLATION

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

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

The outside transmitter 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.



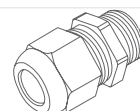
SPECIFICATIONS

SENSOR TYPE	Thermoset polymer based capacitive
SENSOR ACCURACY	±1.5% (0 to 80 %RH) or ±2% (0 to 100 %RH)
MEASUREMENT RANGE	0 to 100 %RH
RESOLUTION	±0.01 %RH
HYSTERESIS	±0.8 %RH @ 25°C (77°F)
RESPONSE TIME	8 seconds
STABILITY	<0.25% RH/year
AMBIENT OPERATING RANGE	-40 to 60°C (-40 to 140°F)
POWER SUPPLY	24 Vac/dc ~ ±10% typical
CONSUMPTION	22 mA maximum @24Vdc, 70mA @24Vac
OUTPUT SIGNAL	4-20 mA current loop, 0-5 Vdc, 0-10 Vdc, or 0-1 Vdc (field selectable)
OUTPUT DRIVE @ 24 VDC	Current: 550Ω max Voltage: 10,000Ω min
OPTIONAL TEMPERATURE SENSOR (ACCURACIES LISTED ARE APPLICABLE TO SENSING ELEMENT ONLY)	Sensor Type: Platinum RTD 1000Ω, 385 Alpha @ 0°C NTC Thermistor, 10,000Ω Type 2/3 or 20,000Ω @ 25°C Accuracy: RTD Class A - ±0.15°C (±0.27°F) @ 0°C (32°F) RTD 1/3 DIN - ±0.1°C (±0.18°F) @ 0°C (32°F) RTD 1/10 DIN - ±0.03°C (±0.054°F) @ 0°C (32°F) Thermistor (39) - ±0.05°C (±0.09°F), 0 to 70°C (32 to 158°F) Thermistor (40/46) - ±0.1°C (±0.18°F), 0 to 70°C (32 to 158°F) Thermistor (55) - ±0.03°C (±0.054°F), 0 to 70°C (32 to 158°F)
PROBE MATERIAL	304 series stainless steel with porous filter
PROBE DIAMETER	12.7 mm (0.5")
SUN AND WINDSHIELD	White polycarbonate, vented
ENCLOSURE	A: ABS, UL94-V0, IP65 (NEMA 4X) E: Same as A, with thread adapter (1/2" NPT to M16) and cable gland fitting
TERMINATION	Screw terminal block (14 to 22 AWG)
COUNTRY OF ORIGIN	Canada

NOTE: The temperature sensor accuracies listed in the specifications section apply to the sensing element only prior to product assembly and may not be reflected in the complete assembly.

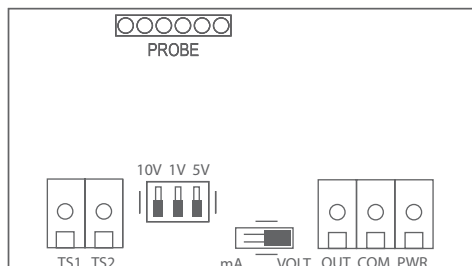
Due to the measurement uncertainty, it is possible, that the true resistance value of the single delivered sensor at 0°C can be out of the defined tolerance class. Profiling each assembly to take into consideration lead wire and the attachment method should be completed.

OPTIONAL ACCESSORIES - INCLUDED WITH E ENCLOSURE OPTION



CABLE GLAND FITTING

WIRING INFORMATION



TERMINAL

FUNCTION

PWR	24 Vac/dc of controller or power supply
COM	GND or COMMON
OUT	Analog Output
TS1	Resistance Output
TS2	Resistance Output

ORDERING

PRODUCT	HAHSOB	Outside High Accuracy Humidity Transmitter with Sun and Wind Shield
ENCLOSURE	A E	Polycarbonate with hinged and gasketed cover Same as A, with cable gland fitting
RH ACCURACY	1 2	1% 2%
OPTIONAL TEMPERATURE SENSOR	00 18 48 22 39 55 40 46	No Temperature Sensor Option 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN 10,000 Ω Type 2, NTC Thermistor, $\pm 0.05^{\circ}\text{C}$ 10,000 Ω Type 2, NTC Thermistor, $\pm 0.03^{\circ}\text{C}$ 10,000 Ω Type 3, NTC Thermistor, $\pm 0.1^{\circ}\text{C}$ 20,000 Ω NTC Thermistor, $\pm 0.1^{\circ}\text{C}$

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

PART NUMBER

HSOB

ORDERING - REPLACEMENT SENSOR MODULE

PRODUCT	HAHRMPB	Replacement Humidity Sensor Module - Probe
RH ACCURACY	1 2	1% 2%
OPTIONAL TEMPERATURE SENSOR	00 18 48 22 39 55 40 46	No Temperature Sensor Option 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, Class A 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000 Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN 10,000 Ω Type 2, NTC Thermistor, $\pm 0.05^{\circ}\text{C}$ 10,000 Ω Type 2, NTC Thermistor, $\pm 0.03^{\circ}\text{C}$ 10,000 Ω Type 3, NTC Thermistor, $\pm 0.1^{\circ}\text{C}$ 20,000 Ω NTC Thermistor, $\pm 0.1^{\circ}\text{C}$

PART NUMBER

HAHRMPB