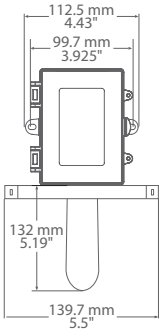
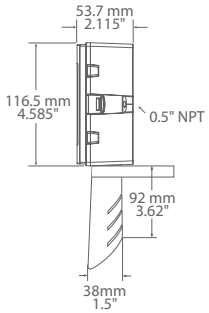
GREYSTONE
ENERGY SYSTEMS INC

HIGH ACCURACY OUTSIDE HUMIDITY/TEMPERATURE TRANSMITTER





HAHTOB SERIES

PRODUCT DESCRIPTION

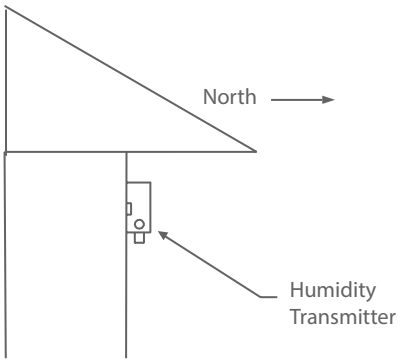
The HAHTOB series uses a highly accurate and reliable Thermoset Polymer based capacitance humidity sensor and Platinum RTD temperature sensor together with state-of-the-art digital linearization and temperature compensated circuitry to monitor humidity levels. A sun and windshield is integrated into a hinged, gasketed weatherproof Polycarbonate enclosure that provides easy of installation and protection from the elements.

TYPICAL INSTALLATION

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

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

The HAHTOB can be mounted directly to the building's wall face using the two provided mounting tabs. There is a 0.85" hole for conduit connection on the rear of the enclosure.



SPECIFICATIONS

HUMIDITY SENSOR TYPE	Thermoset Polymer-based Capacitiance Sensor Chip
ACCURACY	±1% (20 to 70%RH) or ±2% (5 to 95%RH) @ 25°C
MEASUREMENT RANGE	0 to 100 %RH
HYSTERESIS	±0.8% RH maximum
REPEATABILITY	±0.5 % RH typical
SENSOR RESPONSE TIME	8 seconds typical
TEMP SENSOR TYPE	1000Ω Platinum, IEC 751, 385 Alpha, thin film **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)
TEMPERATURE ACCURACY	±0.1% of span
OPERATING TEMPERATURE	-40˚ to 60˚C (-40˚ to 140˚F)
OPERATING HUMIDITY	0 to 95 % RH non-condensing
POWER SUPPLY	24Vac/Vdc, ±10%
CONSUMPTION	22 mA maximum
INPUT VOLTAGE EFFECT	Negligible over specified operating range
PROTECTION CIRCUITRY	Reverse voltage protected and output limited
OUTPUT SIGNALS	4-20 mA, 0-5 or 0-10 Vdc (factory configured)
OUTPUT DRIVE AT 24 VDC	**Current:** 550Ω **Voltage:** 10,000Ω
INTERNAL ADJUSTMENTS	Temperature: ZERO and SPAN pots Humidity: Offset Pot -10% to +10%
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
ENCLOSURE	Grey polycarbonate with gasket, UL94-V0 IP65 (NEMA 4X). 102 W x 117 H x 53 D mm (4.0" x 4.6" x 2.1")
PROBE	230 mm (9") probe length x 12.7 mm (1/2") diameter stainless steel with porous filter
WEIGHT	220g (7.8 oz) including Probe
COUNTRY OF ORIGIN	Canada

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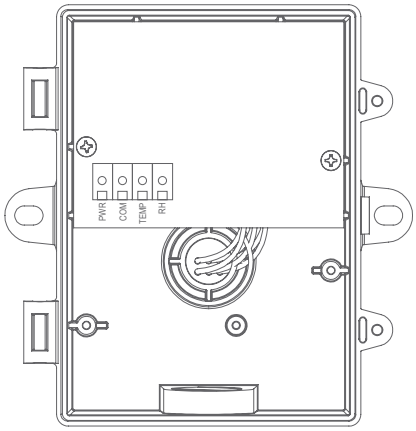
WIRING INFORMATION



TERMINAL	FUNCTION
PWR	24 Vac/dc of controller or power supply
COM	To GND or COMMON of controller
TEMP	Analog Output
RH	Analog Output

ORDERING

PRODUCT	**HAHTOB**	High Accuracy Outside Humidity/Temperature Transmitter
ENCLOSURE	**B**	Polycarbonate with hinged and gasketed cover
RH ACCURACY	**1** **2**	1% 2%
TEMPERATURE SENSOR	**18** **48** **22**	1000Ω Platinum, IEC 751, 385 Alpha, thin film, Class A 1000Ω Platinum, IEC 751, 385 Alpha, thin film, 1/3 DIN 1000Ω Platinum, IEC 751, 385 Alpha, thin film, 1/10 DIN
OUTPUT SIGNALS (RH AND TEMPERATURE)	**A** **D** **E**	4-20 mA 0-5 Vdc 0-10 Vdc
TEMPERATURE SPAN	**001** **002** **006**	0 to 35°C (32 to 95°F) 0 to 50°C (32 to 122°F) -50 to 50°C (-58 to 122°F)

PART NUMBER

HAHTOB

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

RoHS COMPLIANT

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