

Outside Air Humidity/Temperature

2 or 3% accuracy (NIST certification options)
0-5V/10VDC RH/Temp (thermistors optional)
LCD display with field calibration menu
Field replaceable element with solar shield



DESCRIPTION

The HO outside air series is designed for is designed to be mounted on the building exterior to provide outside air RH measurement. They combine excellent stability with reliable operation, and LCD display for in-field calibration. Set-point, override, and thermistor options accommodate any installation.

APPLICATIONS

- Outdoor humidity and temperature measurement for building control

FEATURES

Versatile

- 2 or 3% Rh versions with field replaceable sensor
- Switch selectable 5V/10V RH/T transmitter outputs
- Thermistor outputs for temperature optional

Easy to maintain

- Field calibration. LCD and push-button menu allows easy adjustment of calibrated RH value as needed to maintain certification.
- Replace a sensor without disturbing conduit

Superior RH sensing

- On-board temperature compensation for RH. Eliminates temperature coefficient errors and achieves an excellent measurement accuracy as well as high repeatability and offset stability.
- State of the art testing facilities. Certification options from 1-point, 2 -point, and 8 -point (NIST traceability—consult factory)

Quality

- Industry leading 7-year warranty/ 2-year replaceable element warranty



Field replaceable element

- Ideal for harsh environments
- Accurate dual RH/Temp IC sensing



LCD with menu

- Easier commissioning
- Re-scale to field metrics if required
- LCD cover provided



NIST traceable

- Multi-point calibration certification options. Consult factory.

ORDERING



Accuracy

2 = 2%
3 = 3%

Temperature

A = None
B = Transmitter
C = 100Pt (385)
D = 1000Pt (385)
E = 10k type 2
F = 10k type 3
G = 10k type 3 w/11k shunt
H = 3k
I = 2k2
J = 1k8
K = 20k
L = 100k



Replacement Sensor Elements

HSO-2 = 2% accuracy
HSO-3 = 3% accuracy

SPECIFICATIONS

Power Supply	0-5V or 0-10V operation (1)	12-30VDC/12VAC, 45mA max
	4-20 mA operation	12-30VDC, 30mA max.
Outputs	RH% and Temperature	3-wire 0-5/10V (jumper) or 2-wire 4-20mA, selectable
	RH%	0-100% RH
Output scaling	Temperature	32-122°F or -40-140°F (jumper)
Thermistor Options	Yes, see ordering table below	
Media filter	Sintered Stainless Steel	
Relative Humidity	Accuracy	2% models, +/-2% over 10 to 90%RH range 3% models, +/-3% over 20 to 80%RH range
	Resolution	0.05%RH
	Hysteresis	+/-1%RH
	Non-Linearity	factory linearized <1%RH
	Temperature coefficient	fully compensated by on-board temp sensor
	Response time (2)	30s
	Output update rate	2s
	Operating range	0 to 100%RH
	Long term drift	<0.5%RH per year
	Operating conditions (3)	-20° C to 60° C @ RH>90%
		-20° C to 80° C @ RH=50%
Temperature	Accuracy (-20° C to 70° C range)	2% models, <+/-1° C; 0.5° C typ @ 25° C 3% models, <+/-2° C; 0.5° C typ @ 25° C
	Resolution	0.01° C
	Repeatability	+/-0.1° C
	Response time (2)	30s
	Output update rate	2s
	Operating range	-40° C to 120° C

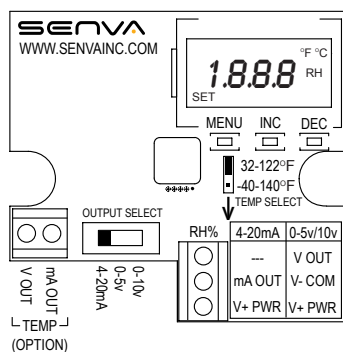
(1) One side of transformer,, secondary is connected to signal common. Dedicated transformer is recommended.

(2) Time for reaching 63% of reading at 25° C and 1 m/s airflow

(3) Long term exposures to conditions outside normal range at high humidity may temporarily offset the RH reading (+3%RH after 60 hours.)

TYPICAL WIRING

RH/T DUAL TRANSMITTER



4-20mA wiring:

mA OUT = 4-20mA output return
V+ PWR = Loop supply excitation voltage

0-5v/0-10v wiring:

V OUT = Voltage output, 0-5 or 10vdc
V- COM = Ground/Common
V+ PWR = Power supply excitation voltage

DIMENSIONS

