

## Wireless Outside Air Humidity Transmitter

2%, 3% accuracies | 0-10VDC  
ZigBee™ 2.4GHz wireless  
300ft line of sight



**Totally wireless and self-powered. No more troublesome wire runs!**



### Easy to install and maintain

- 2.4 GHz ZigBee™ wireless for super fast installation--save hours!
- Solar-powered for long, reliable transmission; works even in cloudy areas (hey, we tested it here in Portland, Oregon).
- Field calibratable. LCD and pushbutton menu allows easy adjustment of calibrated RH value as needed to maintain certification.
- Replaceable sensor element without removing conduit or housing. Remove the lid and pull the tab for fast and easy service.



### High reliability reduces service calls

- Molded-in cover gasket and conduit seals for improved weather resistance. Small package size and low profile screened vent plug.
- Long life thanks to fusion of sensor and evaluation circuitry on one CMOS chip
- Industry leading 7-year warranty/ 2-year replaceable element warranty



### High accuracy for system performance

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



### Solar powered with integral battery!



*Imagine an outside air sensor without the need to bring power to it or return wires to your control.*

*Thanks to integral long-life battery with solar charger, you get trouble free long-term operation--without changing batteries or pulling wires!*

## SPECIFICATIONS

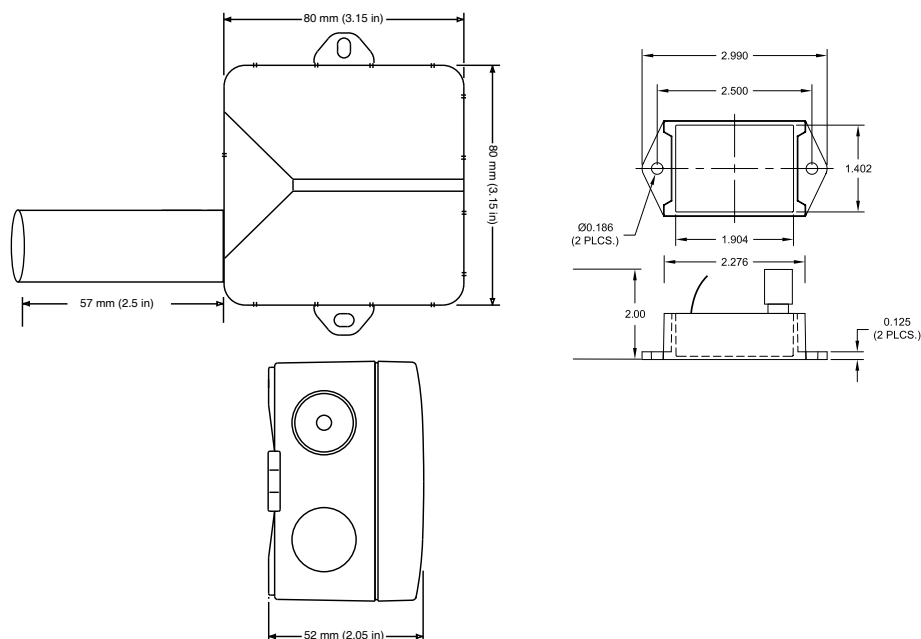
Power Supply	Transmitter	Long life battery with integral solar charger
	Receiver	12-30vdc/12VAC, 45mA max
Radio	Frequency/Power	2.4GHz unlicensed ISM band, ZigBee™, 60mW
	Range	300' line-of-sight
	FCC id	OUR24XBEE
	Broadcast interval	Daylight, 5-min; Dark, 30-min
Outputs	RH% and Temperature	3-wire 0-10VDC
Output scaling	RH%	0-100% RH
	Temperature	-40 to 140° F
Thermistor Options	Yes, see ordering table	
Media filter	Sintered Stainless Steel Screen	
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	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.)

## DIMENSIONS



## ORDERING

WO -

### Accuracy

2 = 2%

3 = 3%

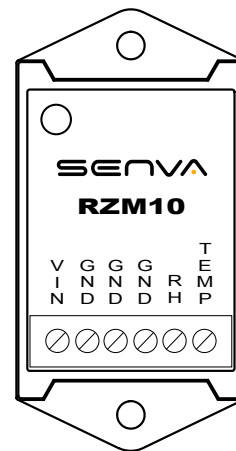
### Replacement Sensor Elements

H50-2 2% accuracy

H50-3 3% accuracy

Consult factory for certification and point calibration options

## WIRING



VIN = Power supply excitation voltage

GND = Ground/Common

RH = RH Voltage output, 0-10vdc

TEMP = Temperature output, 0-10vdc

