

# HT10 Series Humidity/Temp Outside Air

2% or 3% accuracy (NIST certification options)
0-5V/10V and 4-20mA RH/Temp (thermistors optional)
LCD display with field calibration menu
Field replaceable element













#### **DESCRIPTION**

The HT1O Series is designed to be mounted on the building exterior to provide outside air RH measurement. The HT1O Series combines excellent stability with reliable operation in 2% or 3% RH accuracy options. Optional temperature transmitters, RTDs and thermistors add further flexibility when ordering. The standard LCD, gasketed lid and field replaceable elements make the initial installation and future service a breeze.

#### **APPLICATIONS**

- Replaceable element is ideal for difficult environments such coastal areas or process control such as poultry farms
- Facilitating compliance with ASHRAE 62.1 standard for air quality
- Indoor air comfort and control in HVAC systems
- Maintain healthy air quality, minimize mold and other contaminants
- · Design is ideal for greenhouse applications



Rugged Enclosure



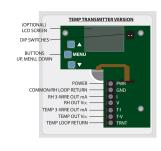
LCD with adjustable offsets menu



State of the art measurement and calibration



HT ribbon element for harsh enviornments



Options with temp transmitter version



Buy American Act Certified



## **FEATURES**

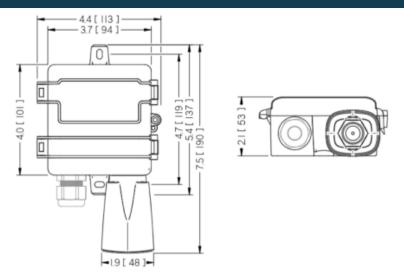
- 2% or 3% RH versions with field replaceable sensor
- Switch selectable 5V/10V and 4-20mA RH/T transmitter outputs
- Thermistor outputs for temperature optional
- Field calibration. LCD and push-button menu allows easy adjustment of calibrated RH value as needed to maintain certification.
- Replace a sensor without disturbing conduit
- 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. Multi-point calibration certification options. Consult factory.
- Industry leading 7-year warranty/ 2-year replaceable element warranty

## **ORDERING**

HT10-		U	
Accuracy	Temperature	Output	Display (LCD)
2= 2% 3= 3% N= 2%/ with NIST Cert.	A= None B=Transmitter C= 100PtRTD D= 1000PtRTD E= 10K Type 2 F= 10K Type 3	U= Universal (4-20mA, 0-5V,0-10V) 2 or 3-Wire Connection	X= None D=Display
	G= 10K W/ 11K H= 3K I = 2K2 J = 1K8 K = 20K		



## DIMENSIONS





**Warning:** The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may occur to products without prior notice.



SPECIFICATIONS			
Power Supply	3-wire voltage mode (0-5/10V)	12-30VDC/24VAC <sup>(1)</sup> , 15mA max	
	2-wire current mode (4-20mA)	12-30VDC, 30mA max	
Outputs	RH and Temperature	3-wire 0-5/10V <sup>(4)</sup> or 2-wire 4-20mA	
Output scaling	RH	0-100% RH	
	Temperature	32-122°F (0-50°C) or -40-140°F (-50-60°C)	
Thermistor/RTD	Optional	See ordering table	
Media filter	Sintered Stainless Steel		
Relative Humidity	Accuracy	2% models: $\pm 2\%$ max 0 to 100%RH; $\pm 1.5\%$ Typ 0 to 80% RH @25°C	
		3% models: $\pm$ 3% max 0 to 100%RH; $\pm$ 2% Typ 0 to 100% RH @25°C	
	Resolution	0.01%RH	
	Hysteresis	±0.8%RH	
	Non-Linearity	factory linearized <1%RH	
	Temperature coefficient	fully compensated by on-board temp sensor	
	Response time <sup>(2)</sup>	8s	
	Output update rate	0.5s	
	Operating range	0 to 100%RH (non-condensing)	
	Long term drift	<0.25%RH per year	
	Operating conditions <sup>(3)</sup>	41 to 140°F (5 to 60°C) @ 20 to 80% RH	
Temperature	Accuracy	2% RH models, <±0.25°C; 0.1° C typ @ 25° C	
		3% RH models, <±0.3°C; 0.25° C typ @ 25° C	
	Resolution	0.01°C	
	Repeatability	0.4°C	
	Response time (2)	2s	
	Output update rate	0.5s	
	Operating range	-40 to 140°F (-40 to 60°C)	
Enclosure	Materials	ABS/Polycarbonate	
	Dimensions	4.0"h x 4.4"w x 2.1"d (+2.8" solar shield)	
	Environmental Rating	IP54	

- 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)
- 4. 15-30VDC/24VAC power supply voltage required for 10 volt output.

<sup>\*</sup> Product improvement is a continual process at Senva and product features and specification may change without prior notice. Refer to instructions that accompany the product for installation and wiring.