HT1D Series

Humidity Temp Duct

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

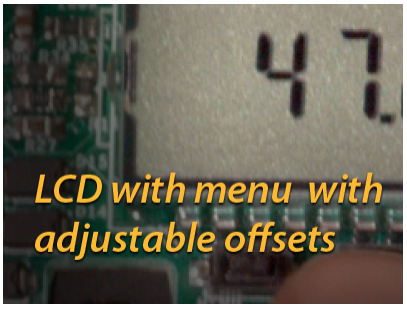
The HT1D Series is designed with both the engineer and field technician in mind. The HT1D Series combines excellent stability with reliable operation in 2% or 3% RH accuracy options. Optional temperature transmitters, RTDs and thermistors add further flexibility when ordering. The standard LCD and field replaceable elements make the initial installation and future service a breeze.

APPLICATIONS

- HVAC room humidity and temperature measurement and control
- Replaceable element is ideal for difficult environments such as swimming pools
- 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
- Museums, hospitals & other critical environments
- Offices, conference rooms, & indoor public areas
- Industrial process control environments



Rugged Enclosure



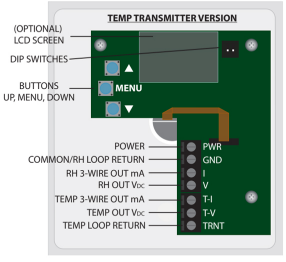
LCD with adjustable offsets menu



State of the art measurement and calibration



HT ribbon element for harsh enviornments



Options with temp transmitter version



Made in USA; 7 year warranty on electronics

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.
- Field replaceable sensor—without disturbing conduit
- On-board temperature compensation for RH. Eliminates temperature coefficient errors and achieves excellent measurement accuracy, high repeatability, and offset stability.
- State-of-the-art testing facilities. Certification options: 8-point (NIST traceability—consult factory)
- Industry-leading 7-year warranty/ 2-year replaceable element warranty

ORDERING

HT1D- [ ] [ ] [U] [ ]

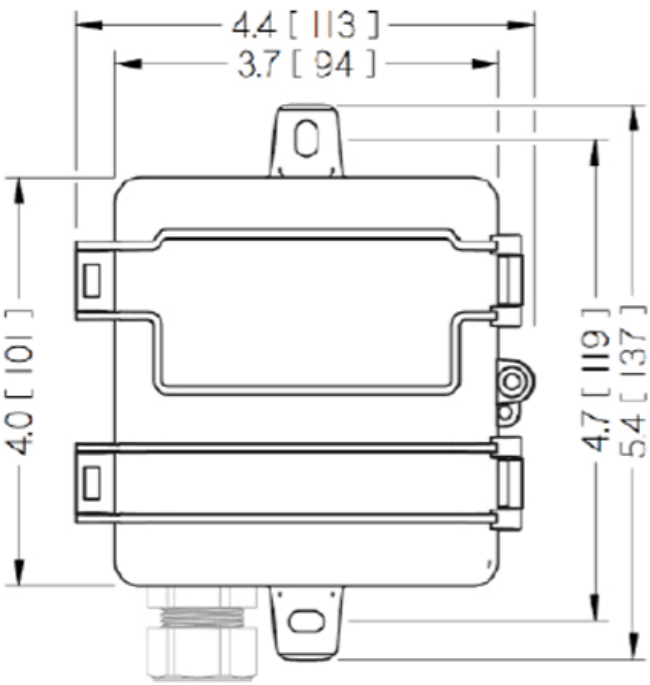
Accuracy	Temperature	Output	Display (LCD)
2= 2%	A = None	U= Universal (4-20mA, 0-5V,0-10V) 2 or 3-Wire Connection	X= None
3= 3%	B = Transmitter*		D=Display
N= 2%/ with NIST Cert.	C = 100PtRTD		
	D = 1000PtRTD		
	E = 10K Type 2		
	F = 10K Type 3		
	G = 10K W/ 11K		
	H = 3K		
	I = 2K2		
	J = 1K8		
	K =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

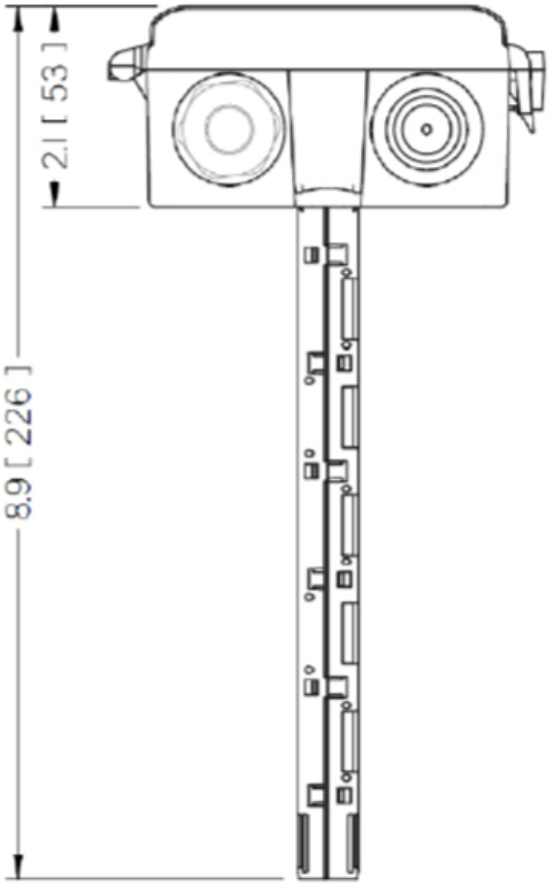
* Order B=transmitter to display temperature reading; thermistor and RTD options will not display temperature on LCD

Replacement Sensors Part # Examples:

HTD -	2A	2%, Xmtr or No Temp, HT1D & AQ2D	HTD -	3A	3%, No Temp or Transmiter, HT1D & AQ2D
HTD -	2C	2%, 100Pt RTD, HT1D & AQ2D	HTD -	3C	3%, 100Pt RTD, HT1D & AQ2D
HTD -	2D	2%, 1000Pt RTD, HT1D & AQ2D	HTD -	3D	3%, 1000Pt RTD, HT1D & AQ2D
HTD -	2E	2%, 10K Type 2, HT1D & AQ2D	HTD -	3E	2%, 10K Type 2, HT1D & AQ2D
HTD -	2F	2%, 10K Type 3, HT1D & AQ2D	HTD -	3F	3%, 10K Type 3, HT1D & AQ2D
HTD -	2K	2%, 20K, HT1D & AQ2D	HTD -	3K	3%, 20K, HT1D & AQ2D
HTD -	NA	2% NIST, Xmtr or No Temp, HT1D & AQ2D			
HTD -	ND	2% NIST, 1000Pt RTD, HT1D & AQ2D			

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	AC Supply/DC Supply	24VAC, 100mA max./12-30VDC, 50mA max
Outputs	RH and Temperature)	3-wire 0-5/10V(4) or 2-wire 4-20mA
Output scaling	RH	0-100%RH
	Temperature	32-122°F (0-50oC) or-40-140°F (-40-60oC)
Thermistor/RTD	Optional	See ordering table
Relative Humidity	Accuracy	2% models, ± 2% over 0 to 100% RH Range; ± 1.5% typ
		3% models, ± 3% over 0 to 100% RH Range; ±2% typ
	Resolution	0.01% RH
	Hysteresis	± 0.8% RH
	Non-Linearity	Factory linearized < 1% RH
	Temperature coefficient	Fully compensated by the onboard sensor
	Response time (2)	8s
	Output update rate	0.5s
	Operating range	0 to 100% RH (non-condensing)
	Longterm drift	< 0.25% RH per year
	Normal Operating	41 to 140ºF (5° C to 60°C) @ 20% to 80% RH
	Conditions (3)	
Temperature	Accuracy	2% models, <±0.25°C; 0.1°C typ @ 25°C
		3% models, <±0.3°C; 0.25°C typ @ 25°C
	Resolution	0.01°C
	Repeatability	0.08°C
	Response time (2)	2s
	Output date rate	0.5s
	Operating range	-40 to 140o F (-40° to 60°C)
Enclosure	Materials	ABS/Polycarbonate
	Unit Temp Rating	-40 to 158o F (-40 to 70o F)
	Enclosure Rating	Nema 1; Add drain holes to enclosure bottom to achieve Nema 3R rating
Agency	Compiance	CE, RoHS

(1) One side of the transformer, secondary, is connected to the signal common. A dedicated transformer is recommended.
(2) Time for reaching 63% of reading at 25° Cand1m/sairflow.
(3) Long-term exposures to conditions outside the 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.

*Product improvement is a continual process at Senva, and product features and specifications may change without prior notice. Refer to the instructions that accompany the product for installation and wiring.

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