HT1R Series

Recessed Wall Humidity/Temperature

LCD 2% or 3% accuracy
0-5/10V/4-20mA RH/Temp (thermistors optional)
Digital field offset calibration
Durable and attractive low-profile design



Note: This image is a rendering

DESCRIPTION

The HT1R series is designed for use in energy management systems in buildings. They combine excellent stability with reliable operation and the provision to offset the RH reading ±5% for in-field calibration. Thermistor options accommodate any installation. Housing is offered in multiple color choices to match any decor.

APPLICATIONS

- HVAC room humidity and temperature measurement and control
- Energy management/building control

FEATURES

Attractive recessed design is attractive and durable

- Fits in most standard wall plates
- No exposed screws; unobtrusive tamper resistant design
- Ideal for schools

Field calibration with LCD or LED

- Field calibration scaled adjustment allows easy adjustment of calibrated RH value as needed to maintain certification.
- 0-5V/0-10V/4-20mA Universal output—dip-switch selectable

Choose from a range of accuracy and options

- 2%, 3%, and 2% NIST calibrated RH accuracy options
- Thermistor or transmitter outputs for temperature optional

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.

Slimline enclosure

- Tamper resistant design allows the sensor to mount flush with the wall for a clean, low-profile appearance

PROUDLY MADE IN USA

7 year limited warranty

ORDERING

HT1R - [ ] [ ] U [ ]

Accuracy

2 = 2%
3 = 3%
N = 2% NIST

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

Display (LCD)

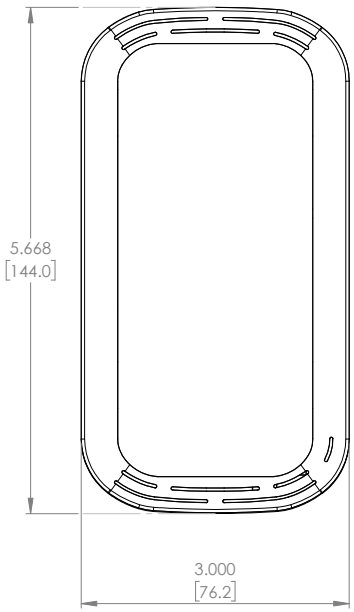
D = Display
X= None

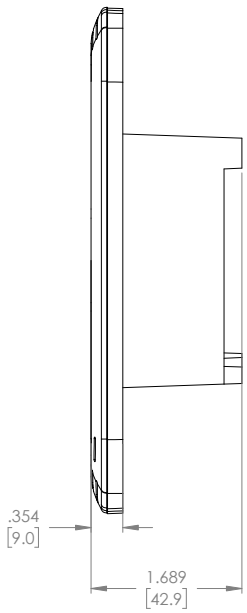
SPECIFICATIONS

Power Supply		12-30VDC/24VAC (1), 100mA max.
Outputs	RH% and Temperature	3-wire 0-5, 10V (4), or 4-20mA, 2-wire 4-20mA(selectable)
Output scaling	RH%	0-100% RH
	Temperature Transmitter	50-95° F (10-35°C) or 32-122ºF (0-50ºC) (selectable)
Thermistor Options		Yes, see ordering table on left
Media filter		PTFE membrane, IP54 protection
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 on-board temp sensor
	Response time (2)	8s
	Output update rate	0.5s
	Operating range	0 to 100%RH (non-condensing)
	Long term drift	<0.25%RH per year
	Element Normal Operating conditions (3)	41 to 140ºF (5°C to 60°C) @ 20% to 80% RH
Temp Transmitter	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	0.04°C
	Response time (2)	2s
	Output update rate	0.5s
	Element Operating range	-40 to 140°F (-40 to 60ºC)
Enclosure	Dimensions	5.7"h x 3.0"w x 1.7"d
	Unit Temp Rating	-40 to 158ºF (-40 to 70ºC)

(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.

DIMENSIONS







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