HT1O Series
Outdoor Humidity/Temperature

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

APPLICATIONS

- Outdoor humidity and temperature measurement for building control

FEATURES

Versatile

- 2% or 3% Rh versions with field replaceable sensor
- Switch selectable 5V/10V and 4-20mA RH/T transmitter outputs
- Thermistor/RTD output 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. 8-point calibration certificate available (NIST traceability—consult factory)

Quality

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

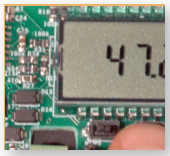
PROUDLY MADE IN USA

7 year limited 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



NIST traceable

- 8-point calibration certification options. Consult factory.

ORDERING

HT1O - [ ] [ ] **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

Output Type
U = Universal (2-wire and 3-wire 4-20mA, 0-5V, 0-10V)

Display (LCD)
D = Display
X= None

SPECIFICATIONS

Power Supply	3-wire voltage mode (0-5/10V)	12-30VDC/24VAC(1), 15mA max
	2-wire current mode (4-20mA)	12-30VDC, 30mA max.
Outputs	RH and Temperature (option)	3-wire 0-5/10V(4) or 3-wire or 2-wire 4-20mA
Output scaling	RH	0-100% RH
	Temperature	32-122°F (0-50°C) or -40-140°F (-40-60°C)
Thermistor/RTD	Optional	See ordering table
Media filter		Sintered stainless steel
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 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
	Normal Operating conditions (3)	41 to 140°F (5°C to 60°C) @ 20% to 80% RH
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 update rate	0.5s
	Operating range	-40 to 140°F (-40° to 60° C)
Enclosure	Materials	ABS/Polycarbonate
	Unit Temp Rating	-40 to 158°F (-40 to 70°F)
	Dimensions	4.0"h x 4.4"w x 2.1"d (+2.8" solar shield)

(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 ouput.

DIMENSIONS

