

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

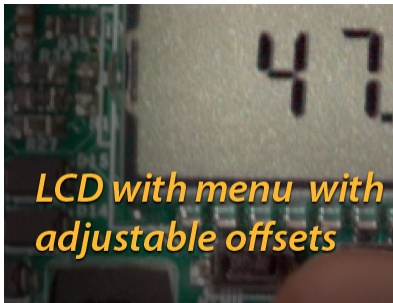
The HT10 Series is designed to be mounted on the building exterior to provide outside air RH measurement. The HT10 Series combines excellent stability with reliable operation in 2% or 3% RH accuracy options. Optional temperature transmitters, RTDs and thermistors add further flexibility when ordering. 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 as 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



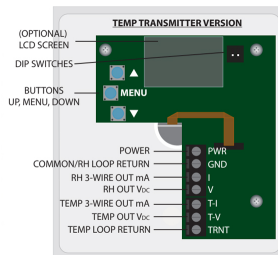
LCD with adjustable offsets menu



State of the art measurement and calibration



HT ribbon element for harsh environments



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

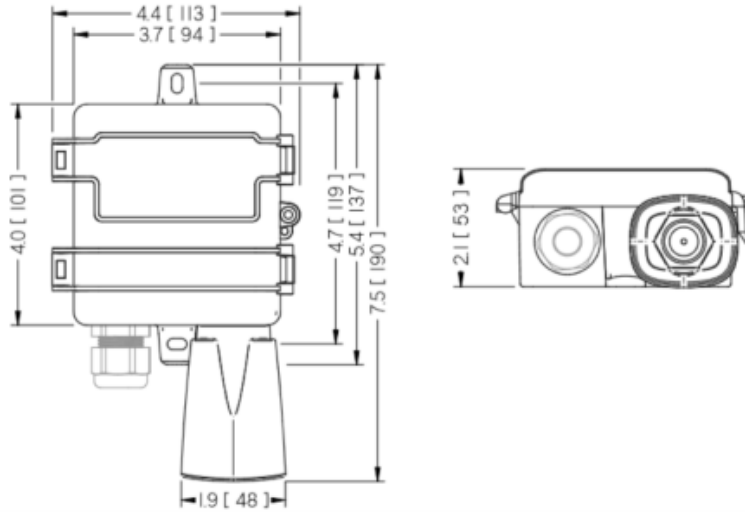
| | | | | |
|-------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| HT10- | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Accuracy | Temperature | Output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


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

Replacement Sensors:

| | | | | | | | |
|------------|---|--------------------------|----------------------------------|------------|---|--------------------------|---|
| HTO | - | <input type="checkbox"/> | 2%, Xmtr or No Temp, HT10 & AQ20 | HTO | - | <input type="checkbox"/> | 3%, No Temp or Transmitter, HT10 & AQ20 |
| HTO | - | <input type="checkbox"/> | 2%, 100Pt RTD, HT10 & AQ20 | HTO | - | <input type="checkbox"/> | 3%, 100Pt RTD, HT10 & AQ20 |
| HTO | - | <input type="checkbox"/> | 2%, 1000Pt RTD, HT10 & AQ20 | HTO | - | <input type="checkbox"/> | 3%, 1000Pt RTD, HT10 & AQ20 |
| HTO | - | <input type="checkbox"/> | 2%, 10K Type 2, HT10 & AQ20 | HTO | - | <input type="checkbox"/> | 3%, 10K Type 2, HT10 & AQ20 |
| HTO | - | <input type="checkbox"/> | 2%, 10K Type 3, HT10 & AQ20 | HTO | - | <input type="checkbox"/> | 3%, 10K Type 3, HT10 & AQ20 |
| HTO | - | <input type="checkbox"/> | 2%, 20K, HT10 & AQ20 | HTO | - | <input type="checkbox"/> | 3%, 20K, HT10 & AQ20 |
| HTO | - | <input type="checkbox"/> | 2% NIST, 10K Type 3, HT10 & AQ20 | | | | |

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 (0-50°C) or -40-140°F (-40-60°C) |
| Thermistor/RTD | Optional | See ordering table |
| Media filter | | Sintered stainless steel |
| Relative Humidity | Accuracy | 2% models, $\pm 2\%$ over 0 to 100% RH Range; $\pm 1.5\%$ typ |
| | | 3% models, $\pm 3\%$ over 0 to 100% RH Range; $\pm 2\%$ typ |
| | Resolution | 0.01%RH |
| | Hysteresis | $\pm 0.8\%$ 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, $< \pm 0.25^\circ\text{C}$; 0.1°C typ @ 25°C |
| | | 3% models, $< \pm 0.3^\circ\text{C}$; 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) |
| | Enclosure Rating | Nema 1; Add drain holes to enclosure bottom to achieve Nema 3R rating |
| | Dimensions | 4.0" h x 4.4" w x 2.1" d (+2.8" solar shield) |
| Agency | Compliance | CE, RoHS |

(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.

* 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.