

Monnit

Wireless Humidity (RH) Sensor With External Probe

Technical Overview



General Description

The wireless humidity (RH) sensor with external probe allows you to accurately monitor the relative humidity of the air within a room or enclosure using either a 6 inch or 36 inch wire leads.

Features

- Measures relative humidity with high accuracy.
- Available in 6 in. or 36 in. probe lengths.
- Free iMonnit basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

Principle of Operation

The wireless humidity sensor with external probe measures the relative humidity at the point of the sensor probe. A 6 inch or 36 inch length wired lead allows for accurate placement of the RH sensor. The sensor returns relative humidity and temperature values to the iMonnit Online Sensor Monitoring and Notification System. The system calculates dew point from the data and stores all three data points in the online system where the data can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when defined thresholds have been met or exceeded.

Example Applications

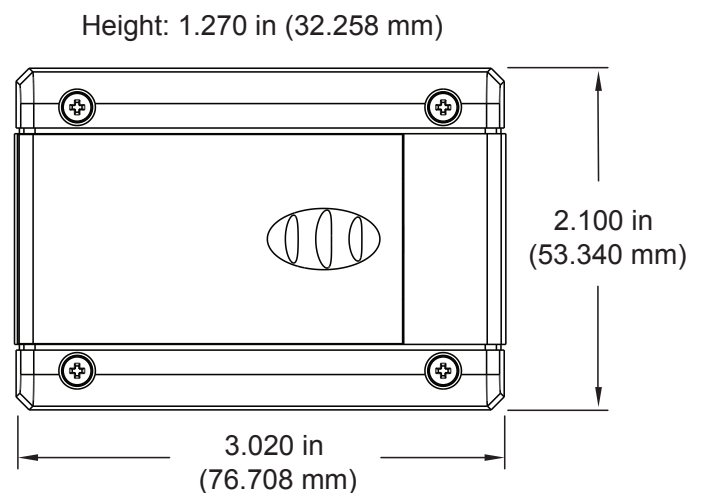
- Greenhouse humidity monitoring.
- Agriculture environmental monitoring.
- Art gallery and museum environmental monitoring.
- Humidor monitoring.
- General weather and environmental monitoring.

Monnit Sensors Core Specifications


- Power: Replaceable AA batteries
- Communication: RF 900, 868 and 433 MHz
- Dimensions: 1.775" x 1.040" x 0.785"
- Wire Lead: 6 inch or 36 inch
- Antenna: 4" wire antenna
- Device Range: 250 - 300 ft. non-line-of-sight*
- Battery Life: At 1 hour heartbeat setting, AA batteries will last more than 4 years.**

* Actual range may vary depending on environment.

** Battery life is determined by sensor reporting frequency and other variables.



The Leader in Low Cost Wireless Sensors

Technical Specifications	
Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 μ A (sleep mode) 2 mA (radio idle/off mode) 2 mA (measurement mode) 25 mA (radio RX mode) 35 mA (radio TX mode)
Electronics Operating Temperature **	Using Alkaline AA Batteries: -18°C to +55°C (0°F to +130°F) Using Lithium AA Batteries: -40°C to +85°C (-40°F to +185°F)
Humidity Sensor Probe Max Temperature Range	-40°C to +125°C (-40°F to +257°F)
Accuracy	\pm 2% under normal conditions (10% - 90% RH)
RH Operating Range	0 – 100% RH
RH Response Time	8 sec (tau 63%)
Certifications	 900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 868 and 433 MHz product tested and found to comply with: CISPR 22:2008-09 / EN 55022:2010 - Class B and ETSI EN 300 220-2 V2.4.1 (2012-05).

* Hardware can not withstand negative voltage. Please take care when connecting a power device.

** At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.

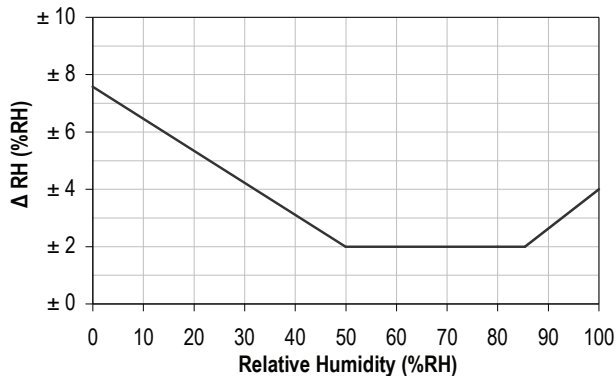


Figure 1: Maximal RH-tolerance at 25°C per sensor type.

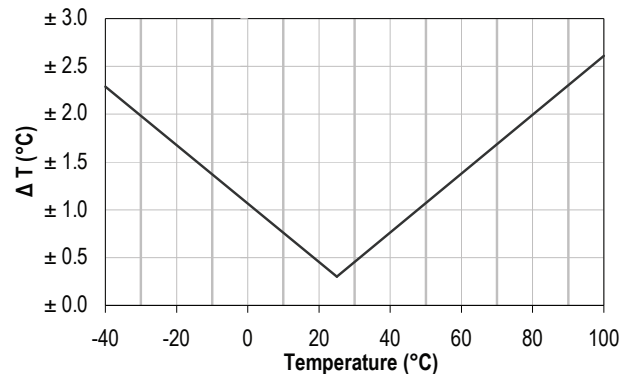


Figure 2: Maximal T-tolerance per sensor type.

Caution/Notice:

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure). Do not use this sensor under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.; corrosive gas or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.), volatile or flammable gas, dusty conditions, under low or high pressure, wet or excessively humid locations, places with salt water, oils chemical liquids or organic solvents, where there are excessively strong vibrations, other places where similar hazardous conditions exist.

Use this product within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

For more information about our products or to place an order, please contact our sales department at 801-561-5555.

Visit us on the web at www.monnit.com.

MONNIT™

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