



## Wireless High Accuracy (HA) Humidity Sensor

### Technical Overview

#### General Description

The OEM RF Wireless High Accuracy (HA) Humidity (RH) Sensor allows you to accurately monitor the relative humidity of the air within a room or enclosure.

#### Features

- Measures relative humidity with high accuracy.

#### Principle of Operation

The OEM Wireless HA Humidity (RH) Sensor measures the relative humidity at the device. The sensor returns RH and temperature values to the sensor monitoring software. The system calculates dewpoint from the data and stores all three data points in the software where the data can be reviewed and exported as a data sheet or graph. Notifications can be set up to alert the user when defined thresholds have been met or exceeded.

#### OEM Sensor Core Specifications


- Power: 3.0 V coin cell battery
- Communication: RF 900, 868 and 433 MHz
- Antenna: 4" wire antenna
- Operating Temperature: -40° to 85°C (-40° to 185°F)
- Device Range: 250 - 300 ft. non-line-of-sight\*
- Only 1 inch by 1 inch

\* Actual range may vary depending on environment.

#### Applications

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

### Specifications

Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 $\mu$ 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 Range	-40°C to +85°C ( -40°F to +185°F ) **
Available Operating Frequencies	900 MHz (25 Channels), 868 MHz (5 Channels) and 433 MHz (15 Channels)
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 to lose programmed memory.

For more product information, to get a quote, or to place an order, please contact our sales department at 801-561-5555.

Visit us on the web at [www.oemsensors.com](http://www.oemsensors.com).

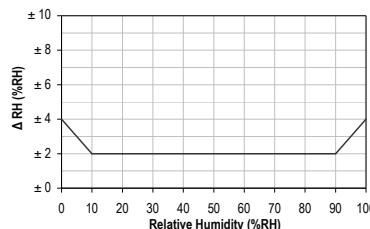


Figure 1: Maximal RH-tolerance at 25°C per sensor type.

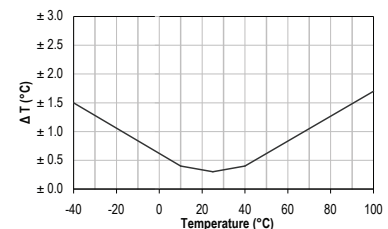


Figure 2: Maximal T-tolerance per sensor type.