



- BLE 4.2 Wireless Humidity Sensor
- Wireless range of 75-100+ feet
- Smallest Wireless Humidity Temperature Sensor
- Connect up to 10 Sensors (Hum,Press,Temp)simultaneously
- Improved power management for longer battery life (12-18 months)
- +-2% Humidity Accuracy, +-1.5°C Temperature Accuracy
- IP65 package
- FCC
- Operating Temperature -25-55°C



DESCRIPTION

The WEHS02 is a wireless humidity sensor manufactured for simple measurements on a variety of applications. This system can use Phoenix Sensors various humidity sensors to supply the appropriate solution for industrial, consumer, and commercial applications.

Simply setup the Phoenix Sensors with the Mobile application from our website (or Apple Store) and connect to the device. The sensor can measure the relative humidity and temperature in the given area. The battery version will last 10 to 18 months depending on the environmental conditions. Please contact us for Custom design availability.

The Mobile Software enables the user to store data to the Android or iOS for evaluate later. The output of this information will be in a data sheet or graph. You can also export your readings onto your device.

APPLICATIONS

- Greenhouse Temp/Humidity Monitoring
- Agricultural Environmental Monitoring
- Art Gallery/Museum Environmental Monitoring
- Humidor Monitoring
- General Weather and Environmental Monitoring
- And many more...

Maximum Environmental Ratings

Operating Temperature -25°C to 55 °C (Lithium) Optimal Battery Temperature..... +10 °C to +45 °C

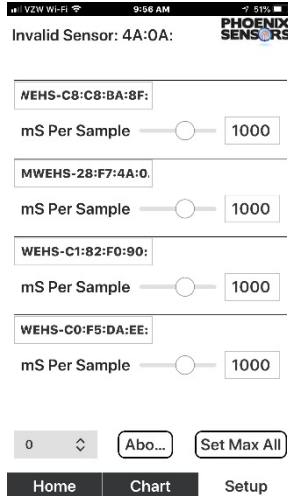
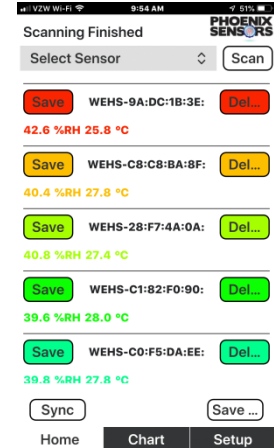
WEHS02 Applications



Competitor Size vs. Phoenix Sensors Size

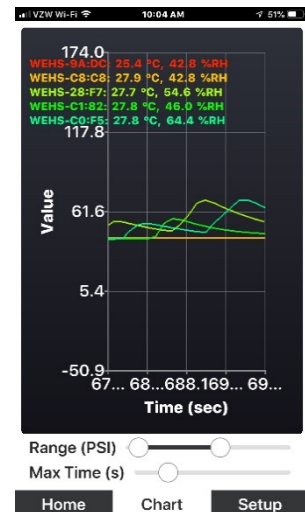
The WEHS02 is the smallest industrial wireless humidity temperature sensor in production today. It is 1.34” in diameter, and .92” thick. (ENSURE THAT THE PHOENIX SENSOR LOGO IS FACING UP AND THE HOLE IS NOT BLOCKED. THIS COULD CAUSE THE SENSOR TO NOT BE ABLE TO MEASURE HUMIDITY PROPERLY).

Simply download the Phoenix Sensors app to easily connect your WEHS02. Once you scan for the sensors, find the MAC ID, setup, and connect them, you should be good to go (instructions available).



This is the “Setup” screen on the Phoenix Sensors app. This allows you to change the mS per sample, and set it to what you want. This allows for easy customizability between sensors.

The “Chart” screen displays important information, such as temperature, and the humidity level. You can also view the graph to see the changes over time.



Greenhouses – Temp/Humidity Monitoring

The WEHS02 is a wireless humidity sensor used in a variety of applications, such as Greenhouses, giving a reading of the humidity or temperature of the enclosed area. It is crucial in this application; without the right temperature, nothing will grow.



Museums – Temperature Monitoring



The WEHS02 is a wireless humidity sensor that can get measurements up to 1000 feet away. It is accurate and robust enough for Art Galleries/Museum applications; if you need to monitor the temperature or humidity inside a large enclosed area, this sensor will meet your wants and needs.

Humidor Monitoring

The WEHS02 can measure the temperature and humidity of not only large areas, but small ones too, so it is ideal for this application. For troubleshooting, the WEHS02 offers accurate remote humidity and temperature measurement of the small enclosed area. The battery powered solution can last up to 10 years.



Agricultural Environments – Humidity Monitoring



The WEHS02 is very efficient in agricultural environments as well. It would be perfect to monitor the humidity in a large area such as a field. Distance shouldn't be a problem, and the response time for this sensor is 8 seconds on average.

WEHS02 Operational Characteristics

PARAMETER	UNIT	INFORMATION	NOTE
Supply Voltage	v	2.7 - 3.3 VDC	Cannot withstand negative voltage
Current Consumption	uA	20uA (Not Connected) 135uA (Connected)	
Security		12-bit key exchange	
Wireless Range	Feet	75-125	
Integrated Memory		Up to 50 sensor measurements	
RH Response Time	Seconds	8 sec (tau 63%)	
RH Operating Range		0 – 100% RH	
Accuracy		± 2% under normal conditions (10% - 90% RH)	
Operating Temperature Range (Circuitry/ Batteries)	Celsius	-18°C to 50°C (0°F to 122°F) using alkaline Sensor -40°C to 85°C	Temps above 90°C can cause board to lose memory
Optimal Temperature Range CR2050 Battery	Celsius	+10°C to +45°C (+50°F to +113°F)	Temps above 90°C can cause board to lose memory

Application Information

Temperature

It is important you don't use this sensor outside of the normal temperature range. Doing so could cause the sensor to eventually fail. It is ideal to keep the temperature of the batteries anywhere from 10°C to 45 °C. The sensor itself works the most stable from -40 °C to 85 °C. This is a large temperature range and will make sure it fits your needs.

Accuracy

The readings from this sensor are accurate ±2% under normal readings. This makes sure your data is accurate and will stay accurate in most conditions. Correct data is crucial.

Range

This humidity sensor can reach a connection of 100+ feet. The connection can also go through approximately 4-5 walls. This ensures that this sensor will be a solid solution to most applications.

Media

While it is not water-proof, this should not be an issue due to the fact that most applications are measuring the humidity or temperature indoors. Making this sensor perfect for greenhouse monitoring, humidior monitoring, the list could go on.

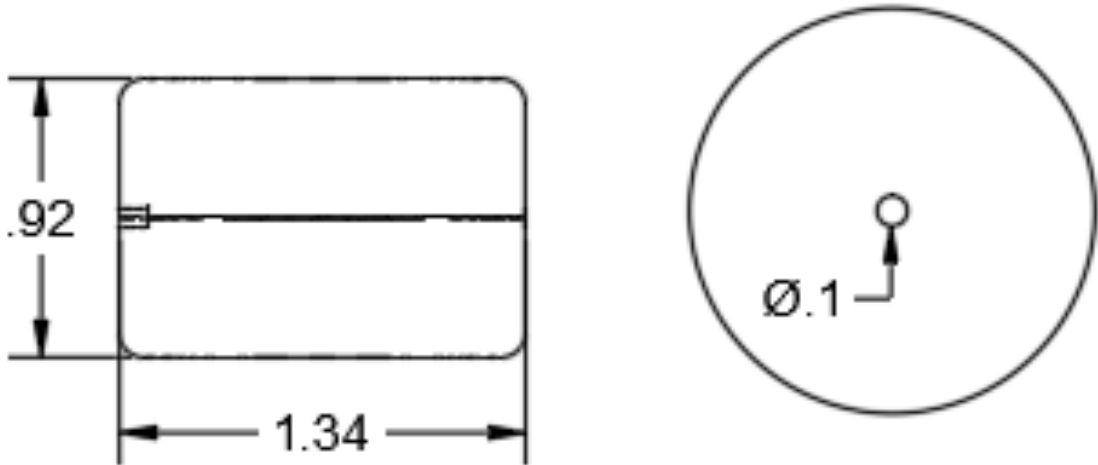
Response Time

The response time on this sensor is approximately 8 seconds on average. A lot of factors play into how quick this is, such as distance, the amount of objects between you and the sensor, etc. This guarantees a speedy connection providing quick information if needed.

Important to Know

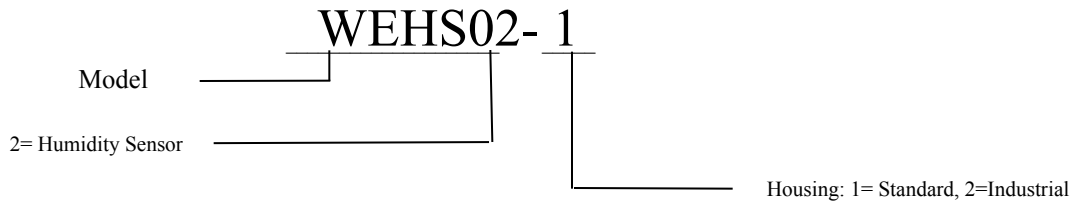
Using this sensor under extreme conditions will accelerate aging. Do not use this sensor for the following applications, as they can cause this sensor to fail: corrosive gas or deoxidizing gas, volatile or flammable gas, dusty conditions, under low or high pressure, wet or excessively humid locations, places with salt water, oils chemical liquids or organic solvents.

Pic. 1 – IP55 and IP65 Versions



IMPORTANT: ENSURE THAT THE PHOENIX SENSOR LOGO IS FACING UP AND THE HOLE IS NOT BLOCKED. THIS COULD CAUSE THE SENSOR TO NOT BE ABLE TO MEASURE HUMIDITY PROPERLY

Part Number Configuration



Ph: (480) 462 1810 sales@PhoenixSensors.com

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