

## Wi-Fi Analog Voltage Sensor



### Technical Overview

#### General Description

The OEM Wi-Fi Analog Voltage Sensor can interface with other devices to measure voltage up to 1.2 VDC. An integrated 802.11 b/g radio allows the sensor to work with any existing Wi-Fi network. OEM Wi-Fi sensors can be easily programmed with your Wi-Fi network's WEP or WPA(2) security via the free Wi-Fi Setup Utility (PC application) and a USB programming cable (available in the [Monnit web store](#)). User defined transmission intervals (heartbeats) and sensor threshold settings ensure that sensor data is received when needed, based on the application.

#### Features

- Wireless interface for measuring voltage.
- Measures voltage up to 1.2 VDC.
- User calibration, allows for higher accuracy.
- Logs data if Wi-Fi network is disrupted.
- Free iMonnit basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

(iMonnit online software is available as an OEM private / white label platform.)

#### Principle of Operation

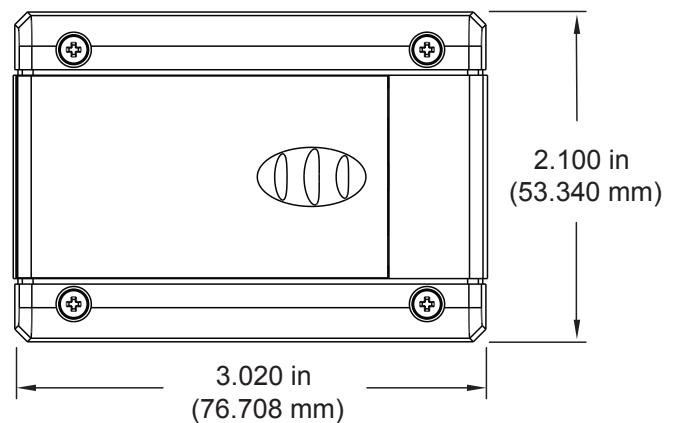
The OEM Wi-Fi Analog Voltage Sensor to the positive and ground terminals of another device, battery or sensor, it can measure the voltage and send data to the iMonnit Online Sensor Monitoring and Notification System. The data is stored in the online system and can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when certain thresholds have been met or exceeded.

#### OEM Wi-Fi Sensor Electronics Specifications

- Power: 2 replaceable 1.5V "AA" batteries (included)
- Communication: 802.11 b/g  
(2.412 - 2.484 GHz)
- Wi-Fi Security: Open, WEP, WPA, WPA2
- Dimensions: 3.02" x 2.1" x 1.27"
- Transmission Range: Up to 250 ft. \*
- Battery Life: Up to 5 years.\*\*

\* Actual range may vary depending on environment.  
\*\* Battery life is affected by sensor type, Wi-Fi security type, distance from Wi-Fi router, reporting frequency and other variables.




Height: 1.270 in (32.258 mm)



#### Applications

- Strain gauges
- Pressure transducers
- Thermocouples
- Piezoelectric sensors
- Photo resistors
- And many more...

## Technical Specifications

Networking Standards	IEEE 802.11 b/g
Frequency Band	2.412 - 2.484 GHz
Wi-Fi Security Standards	Open, WEP, WPA, WPA2
Wi-Fi Security Programming	Via PC software using USB cable. (Can be changed through iMonnit online software.)
Network Settings	Auto DHCP/DNS or Static
Data Logging	Standard - On Wi-Fi disruption, unit will log the first 50 readings and transmit when Wi-Fi connection is re-established. Premiere - Unit can record up to 50,000 readings and transmit when Wi-Fi is available.
Power consumption	4uA sleep, 35mA active RX, 180mA TX (at +12dBm)
Battery Life	Up to 5 years depending on sensor type, Wi-Fi security, distance from Wi-Fi router, reporting frequency and other variables. (Testing surpassed 90,000 transmissions until battery depletion.)
Wi-Fi Data Rate	Auto configures to best rate for maximum range.
Wireless Range	Up to 250 ft. device range (typical to standard Wi-Fi devices).
Electronics Operating Temperature *	Using Alkaline Batteries: -18°C to +55°C (0°F to +130°F) Using Lithium Batteries: -40°C to +85°C (-40°F to +185°F)
LED Light	Status / activity
Sensor Resolution	~ 0.6 mV (11-bit single ended)
Sensor Accuracy	+/- 1.5% FS (calibratable)
Conversion Time	228 µs
Full Scale Voltage	0 - 1.21 VDC **
Lead Wire Length	1 ft. ( 12 in.)
Certifications	   FCC ID: T9J-RN171. IC: RSS-210 low-power communication device. CE ID: 0681.

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

\*\* If application exceeds 1.21 VDC the sensor will return a maximum reading of 1.2 VDC.

If voltage applied to measurement port exceeds 2.0 VDC, circuit protection and conditioning is required.

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).

OEMSensors.com | 7304 South Cottonwood, Suite #204 | Midvale, Utah 84047 | 801-561-5555 | [www.oemsensors.com](http://www.oemsensors.com)