



## Wireless Voltage Measurement Sensor

### Technical Overview

#### General Description

The OEM RF Wireless 500 VAC/VDC Voltage Measurement Sensor is an analog measuring device that reports the measured voltage on user specified intervals. The sensor has three operating modes, in which you can obtain the voltage measurement in VACrms (root mean squared), the peak voltage, or the DC voltage. The modes can be set by the user; the default mode measures VACrms.

#### Features

- Measures voltage up to 500 VAC/VDC.

#### Principle of Operation

The OEM Wireless 500 VAC/VDC Voltage Measurement Sensor to the positive and ground terminals of another device, battery or sensor, it can measure the voltage and send data to the sensor monitoring software. The data is stored in the software and can be reviewed and exported as a data sheet or graph. Notifications can be set up to alert the user when certain 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

- Power Lines
- Machinery
- Electrical Motors
- Generators
- And many more...

### 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)
Sensor Resolution	11 bit (single ended)
Conversion Time	228 $\mu$ s
Supported Operation Modes ***	VACrms (root mean squared) / Peak Voltage / DC Voltage
Full Scale Voltage	0 - 500 VAC/VDC (600 VAC/VDC Max Input) ****
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.

\*\*\* Operation mode must be specified at time of purchase.

\*\*\*\* If application exceeds 500 VAC/VDC the sensor will return a maximum reading of 500 V.

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).

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