



## 120 Volt Wireless Voltage Detection Sensor

### Technical Overview

#### General Description

The OEM RF Wireless 120 VAC Analog Voltage Detection Sensor can interface with other devices to detect voltage of 120 VAC. The sensor notifies of the presence or absence of electricity. It is intended for use on power sources or power supplies of 120 VAC. Not intended for voltages higher than 150 VAC and also not intended for use with DC sources.

#### Features

- Detects voltage up to 150 VAC.

#### Principle of Operation

The OEM Wireless 120 VAC Analog Voltage Detection Sensor can be connected to the positive and ground terminals of another device, battery or power supply line, triggering on the state change from voltage presence to absence and vice versa. The information is sent to the sensor monitoring software where the data is displayed as either “No Voltage” or “Voltage Detected”. The data is stored in the software and can be reviewed and exported as a spread sheet or graph. Notifications can also be set up to alert the user when certain criteria have been met.

#### 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

- Electrical Sources
- Power Couplings
- Line Power
- Power Supplies
- Sump Pumps
- 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)
Operating Temperature Range	-40°C to +85°C ( -40°F to +185°F ) **
Optimal Battery Temperature Range (Coin Cell)	+10°C to +60°C ( +50°F to +140°F )
Sensor Resolution	11 bit (single ended)
Conversion Time	228 $\mu$ s
Full Scale Voltage	0 - 120 VAC ***

\* 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.

\*\*\* If application exceeds 120 VAC the sensor will return a maximum reading of 120 VAC.

If current applied to measurement port exceeds 150 VAC, 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).

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