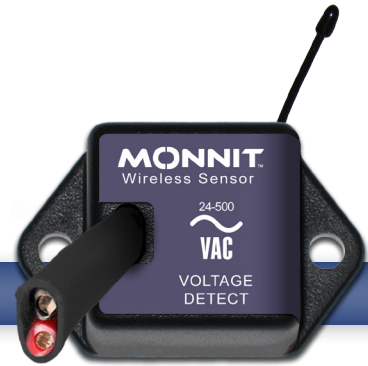


Monnit

Wireless AC Voltage Detection Sensor



Technical Overview

General Description

The wireless AC voltage detection sensor can interface with other devices to detect voltage from 24 VAC to 500 VAC. The sensor notifies of the presence or absence of voltage. It is intended for use on power sources or power supplies up to 500 VAC. Not intended for voltages higher than 600 VAC and also not intended for use with DC sources without permission. Perfect for monitoring electrical appliances.

Features

- Wireless interface for detecting voltage.
- Detects voltage from 24 to 500 VAC.
- Free iMonnit basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

Principle of Operation:

The Monnit wireless AC voltage detection sensor can be connected to the positive and ground terminals of an electrical device or power supply line, triggering on the state change from voltage presence to absence and vice versa. The information is sent to the iMonnit Online Sensor Monitoring and Notification System where the data is displayed as either "No Voltage" or "Voltage Detected". The data is stored in the online system and can be reviewed and exported as a spread sheet or graph. Notifications can also be set up through the online system to alert the user when certain criteria have been met.

Power Options

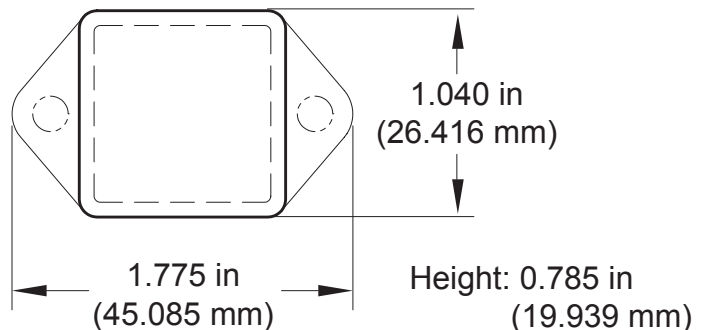
Sensors are powered by a replaceable 3.0 V coin cell battery. Optional AA battery powered sensors are available. The AA version of these sensors are larger in size (3" [L] x 2.1" [W] x 1.2" [H]) and include two long-life AA batteries.

It is recommended that unless you are using the AA battery solution, you set heartbeat to no faster than one hour to preserve battery life.

Monnit Sensor Core Specifications

- Power: Replaceable 3.0 V coin cell battery
- Communication: RF 900, 920, 868 and 433 MHz
- Dimensions: 1.775" x 1.040" x 0.785"
- Antenna: 4" wire antenna
- Operating Temperature: -7° to 60°C (20° to 140°F)
Device Range: 250 - 300 ft. non-line-of-sight*
- Battery Life: At 1 hour heartbeat setting, coin cell battery will last ~ 1-2 years.**


* Actual range may vary depending on environment.
** Battery life is determined by sensor reporting frequency and other variables.



Example Interfacing

- Sprinkler Systems
- HVAC Systems
- Appliances
- Electrical Sources
- Power Couplings
- Line Power
- Power Supplies
- Sump Pumps
- And many more...

The Leader in Low Cost Wireless Sensors

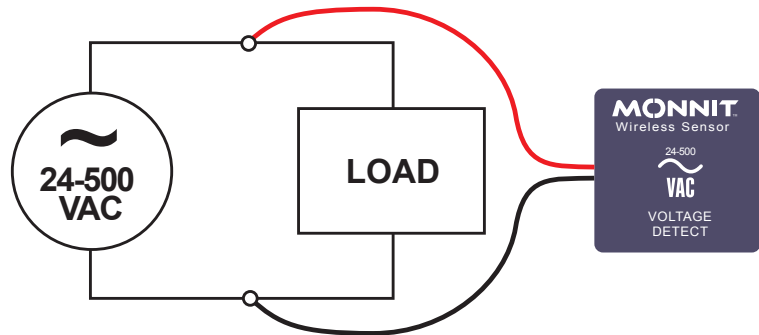
Technical Specifications	
Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 μ A (sleep mode) 2 mA (radio idle/off mode) 2 mA (measurement mode) 25 mA (radio RX mode) 35 mA (radio TX mode)
Operating Temperature Range (Board Circuitry and Coin Cell)	-7°C to +60°C (20°F to +140°F)**
Optimal Battery Temperature Range (Coin Cell)	+10°C to +50°C (+50°F to +122°F)
Sensor Resolution	11 bit (single ended)
Conversion Time	228 μ s
Full Scale Voltage	24 - 500 VAC
Maximum Input Voltage	600 VAC
Certifications	 900 MHz product; FCC ID: ZTL- RFSC1 and IC: 9794A-RFSC1. 920 MHz product; ARIB STD-T108 R210-103733. 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 for the board circuitry to lose programmed memory.

Proper Installation:

If the sensor is not connected to the power source properly, it will appear that the sensor is broken. Please follow this wiring diagram to ensure proper performance and detection.



Caution/Notice:

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure). Do not use this sensor under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.; corrosive gas or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.), 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, where there are excessively strong vibrations, other places where similar hazardous conditions exist.

Use this product within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

For more information about our products or to place an order, please contact our sales department at 801-561-5555.

Visit us on the web at www.monnit.com.

MONNIT[®]

Monnit Corporation
4403 South 500 West
Murray, UT 84123
801-561-5555
www.monnit.com