

Tarts Wireless 0-500 VAC Voltage Meter

General Description

Tarts wireless 500 VAC voltage meter can be attached to the positive and ground terminals of another device, battery or sensor to measure the voltage.


Features

- Wireless interface for measuring voltage.
- Measures voltage up to 500 VAC.

Principle of Operation

The Tarts wireless 500 VAC voltage meter is an analog measuring device that can be connected to the positive and ground terminals of a battery or power source to report the measured voltage at user specified intervals. The sensor provides the voltage measurement in VACrms (root mean squared). Voltage data is transmitted wirelessly to the gateway (Arduino shield, Raspberry Pi plate or BeagleBone Black cape).

Technical Specifications

Datum Definition	Type: 32 Name: VOLTAGE RawValue: 2452 FormattedValue: 245.2 VAC
Supply Voltage	2.0 - 3.6 VDC * (ships with CR2032 - 3.0 V coin cell battery and battery clip)
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)
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 μ s
Supported Operation Modes ***	VACrms (root mean squared)
Full Scale Voltage	0 - 500 VAC ****
Antenna	4" wire antenna
Device Range	250 - 300 ft. non-line-of-sight (actual range may vary depending on environment.)
Dimensions	1 inch (W) x 1 inch (L)
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 cannot 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 the sensor will return a maximum reading of 500 V.

For more product information or to place an order visit us on the web at www.tartssensors.com.

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