

Monnit Industrial Wireless CT Voltage Meter

Technical Overview

General Description

Monnit's industrial wireless CT voltage meter is designed to measure the AC current through a wire. It is to be enclosed around a wire (single wire of an AC current system) and then must be calibrated depending on the application. This unit does not work on DC current. Current Transducer is not to be applied to non-insulated wires.

Features

- Two different CT sizes with three ranges each:
 - Low CT: 0-5, 0-10, 0-20
 - High CT: 0-30, 0-60, 0-120
- Accurate to $\pm 1\%$ FS with user calibration
- 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

By enclosing the current transducer around a single wire of a 2 or 3 wire grouping, the sensor can measure AC current through that wire. The sensor will wirelessly transmit the data through a Monnit Gateway to the iMonnit Online Sensor Monitoring and Notification System. The sensors data is presented as the current in amps and stored in the online system where it 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.

Solar Power Option

Monnit Industrial Sensors are powered by a replaceable 3.6 V battery (included).

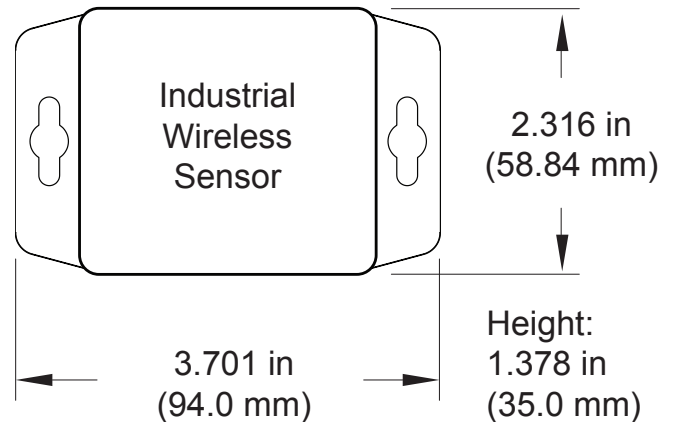
An optional solar powered version is also available. The solar powered sensor uses a Lithium Iron Phosphate rechargeable battery in conjunction with a solar power cell, extending the life of the battery.



Monnit Industrial Sensor Electronics Specifications

- Power: replaceable 3.6V battery (included)
- Communication: RF 900, 920, 868 and 433 MHz
- Dimensions: 3.7" x 2.23" x 1.38"
- Antenna: 3dBi RP SMA antenna
- Operating Temperature: -40° to 85°C (-40° to 185°F)
- Transmission Range: 300 - 350 ft. non-line-of-sight*
- Battery Life: at 1 hour heartbeat setting, battery will last ~ 4-5 years.**


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



Applications

- Current Monitoring
- Measure Current
- Power Usage
- Watt Hour Meter

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 Battery)	-40°C to +85°C (-40°F to +185°F) **
Optimal Battery Temperature Range (Battery)	+10°C to +60°C (+50°F to +140°F)
Current Transducer Dimensions	2.5 in x 2.25 in x 0.73 in
Sensor Accuracy	\pm 1% FS after calibration
Current Range (CT dependent)	0 – 20A; 0-120A
Max Wire Voltage Through Transducer	600VAC
Current Transducer Temperature Rating	-15 to 60°C (+5°F to + 140°F)
Current Transducer Frequency Range	50/60 Hz
Enclosure Rating	NEMA 1, 2, 4, 4x, 12 and 13 rated, sealed and weather proof
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.

Type 1, 2, 4, 4X, 12 and 13 NEMA Rated Enclosure:

Monnit's Industrial sensors are enclosed in reliable, weatherproof NEMA rated enclosures. Our NEMA rated enclosures are constructed for both indoor or outdoor use and protect the sensor circuitry against the ingress of solid foreign objects like dust as well as the damaging effects of water (rain, sleet, snow, splashing water, and hose directed water).

- Safe from falling dirt.
- Protects against wind blown dust.
- Protects against rain, sleet, snow, splashing water, and hose directed water
- Increased level of corrosion resistance
- Will remain undamaged by ice formation on the enclosure



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.

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