

Monnit Industrial

Wireless 0-1 mA Current Meter

Technical Overview

General Description

Monnit's industrial wireless 0-1 mA DC Current Meter is designed to work with the Flex-Core MCT5 current transducer that converts 5 Amps AC into a DC signal up to 1 mA. (Additionally a current transformer (CT) can be used to interface the MCT5 to higher amperage systems.)

Features

- Measures current up to 1 mA.
- 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 connecting the leads on the Monnit industrial wireless 0-1 mA current meter to the output of the Flex-Core MCT5 current transducer, the sensor will wirelessly transmit the data through a Monnit Gateway to the iMonnit Online Sensor Monitoring and Notification System. The sensors data is transformed back to the original current reading 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.

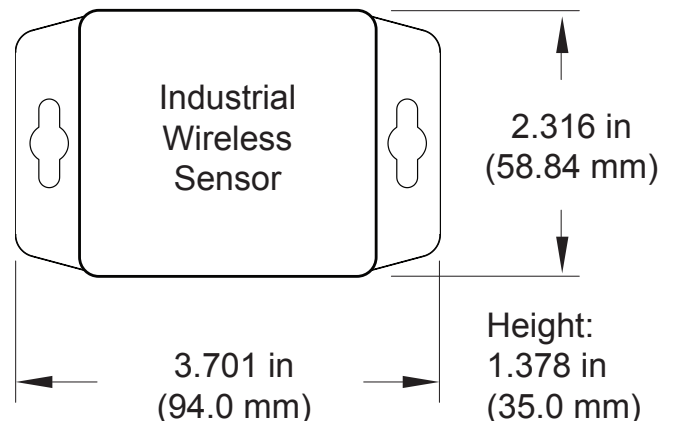


Monnit Industrial Sensor Electronics Specifications

- 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.



Example Interfacing

- Current transducers.
- pH sensors.
- Dissolved oxygen sensors
- Pressure sensors.
- Magnetic flow sensors.
- 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 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)
Sensor Resolution	11-bit single ended 0-1 mA Input ~ 0.5 μ A 0-5 Amp Input ~ 2.5 mA 200 Amp CT Input ~ 10 mA
Conversion Time	228 μ s
Full Scale Current	0 - 1 mA ***
Input Resistance	1.2 kohms
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 cannot 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.

*** If application exceeds 1mA the sensor will return a maximum reading of 1mA.

If current applied to measurement port exceeds 2mA, circuit protection and conditioning is required.

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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