

Monnit Industrial

Wireless Activity Timer Sensor

Technical Overview

General Description

Monnit's wireless industrial wireless activity timer sensor can be used in a host of applications that require tracking the amount of time a machine or vehicle runs.

Features

- Detects machine or vehicle vibration.
- Times how long a machine or vehicle is running.
- 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 industrial activity timer sensor detects operating vibration of a machine or vehicle and starts a timer. When the machine or vehicle is no longer running, the timer stops and reports the amount of time the machine ran, back to the monitoring system. When no vibrations are present, the sensor reports in on its basic heartbeat with a value of 0.

Solar Power Option

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

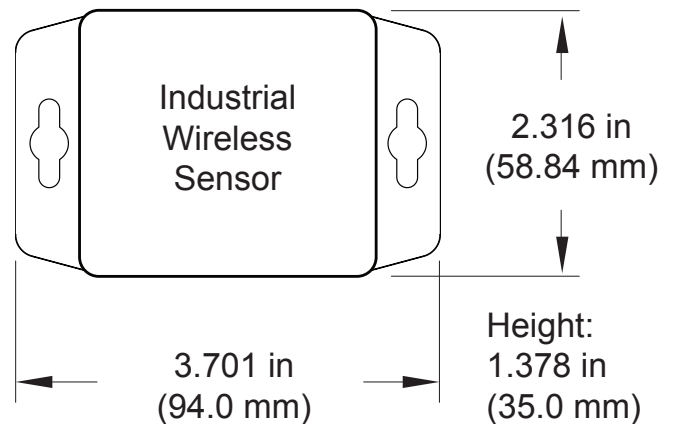
An optional solar powered version is also available. The solar powered sensor uses a Lithium Iron Phosphate rechargeable battery in conjunction with a solar power cell, extending the life of the battery.



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

- Machinery Operation Monitoring.
- Pump Operation Monitoring.
- Forklift and Heavy Machinery Operation Timer.
- Vehicle Operation Timer.

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) |
| Sensitivity | 0.05 g |
| Timer Resolution | Minutes |
| 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.

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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