Monnit Industrial

Wireless Pulse Counter - 4 Input

Technical Overview

General Description

Monnit's industrial wireless multi input pulse counter can be integrated with a water or power meter that provides a pulse output to count the number of actuations occurring within a given time frame.This sensor supports up to four (4) simultaneous inputs.

Features

- Counts the number of pulses in given time frame. (User can set to aggregate pulses, or report each pulse as an individual event.)
- 3 ft. leaded wires.
- Support up to four separate inputs.
- Can integrate with switch and closure mechanisms.
- 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 industrial multi input wireless pulse counter is an electronic counter that counts how many times a pulse is detected on the input wires when there is contact between the wired end points. The pulse counter is by default, set-up to operate with signals that are less than 10Hz. Through software it can be changed to a maximum of 20Hz. It can easily be integrated into existing mechanical switches or contact plates. The sensor can be set to send an alert through the iMonnit Online Sensor Monitoring and Notification System when a given number of pulses has been reached within a set time frame. Alerts from the iMonnit system are sent as they happen (in real time) via SMS text or email.

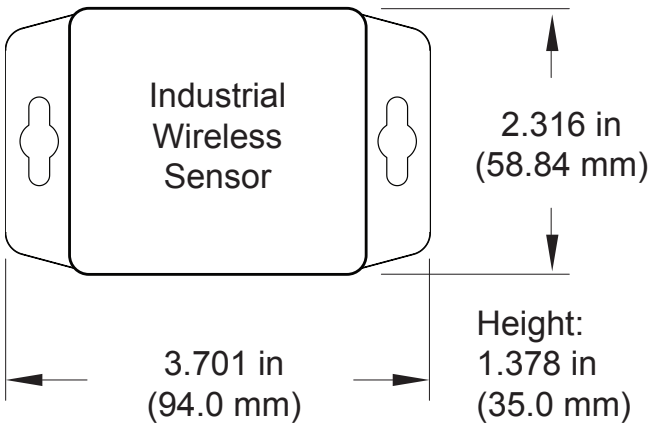
Solar Power Option

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

- Water, gas and air flow meters.
- Door access counter.
- Turn style counting.
- Forklift seat switches.
- Button or switch integration.
- Production line tracking.

The Leader in Low Cost Wireless Sensors

Technical Specifications	
Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 µA (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)
Enclosure Rating	NEMA 1, 2, 4, 4x, 12 and 13 rated, sealed and weather proof
Certifications	Industry Canada 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).

Pulse Counter Specifications	
Number of Inputs / Counters	1
Counter Bit Depth	16 bit
Detection Wires	High Impedance (5-Wire)
Counter Operation	Positive and / or Negative Edge Pulses
Transition Counting	Does Not Count Transitions
Compatibility	Open Collector NPN Switches Mechanical Switches
Transactions per Counter Input	65,000 Max / Heartbeat (Transmission)
Max Input Pulse Rate	20 Hz (20 / second) (4 or less / second recommended) ***
Lead Wire Length	3 ft. (36 in.)

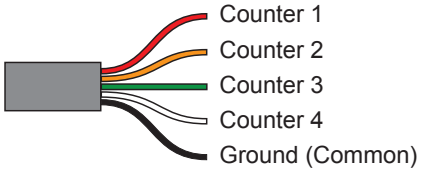
* Hardware cannot withstand negative voltage. Please take care when connecting a power device.
** At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.
*** High pulse count rates can severely impact battery life.

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, ice, splashing water, and hose directed water).

Wire Connections:

When connecting the wires of the pulse counter to your devices, black needs to be connected to the device ground. (ex. red & black, orange & black etc.)



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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