Monnit

Wireless Pulse Counter - 4 Input (AA)

Technical Overview

General Description

The multi input wireless 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 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.

Power Options

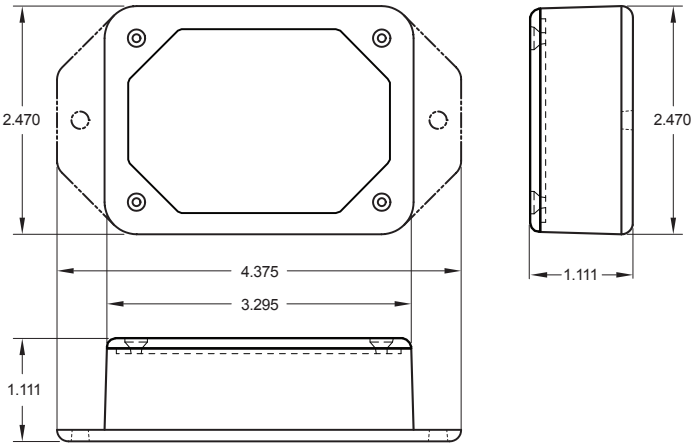
The standard version of this sensor is powered by two replaceable 1.5V AA sized batteries (included with purchase). This sensor is also available in a line power version with battery backup, allowing it to be powered by a standard 3.0 - 3.6V power supply and use the internal batteries if there is a power interruption.

Power options must be selected at time of purchase as the internal hardware of the sensor must be changed to support the selected power requirements.

Monnit Sensor Core Specifications

- Power: Two replaceable 1.5 V AA batteries (Option for line power with battery backup)
- Communication: RF 900, 920, 868 and 433 MHz
- Dimensions: 4.375” x 2.470” x 1.111”
- Antenna: 4” wire antenna
- Operating Temperature: -40° to 85°C (-40° to 185°F) Device Range: 250 - 300 ft. non-line-of-sight*
- Battery Life: At 1 hour heartbeat setting, standard AA batteries will last up to 4 years.**

* Actual range may vary depending on environment.
** Battery life is determined by sensor reporting frequency and other variables. Other power options are also available.



Example 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 (3.0 - 3.6 VDC Using Power Supply) *
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)
Electronics Operating Temperature **	Using Alkaline AA Batteries: -18°C to +55°C (0°F to +130°F) Using Lithium AA Batteries: -40°C to +85°C (-40°F to +185°F)
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	4
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.

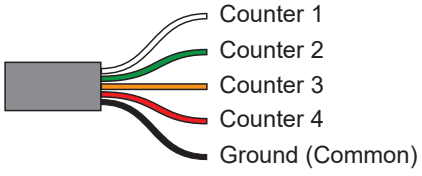
Caution/Notice:

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure). Do not use this sensor under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.; corrosive gas or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.), volatile or flammable gas, dusty conditions, under low or high pressure, wet or excessively humid locations, places with salt water, oils chemical liquids or organic solvents, where there are excessively strong vibrations, other places where similar hazardous conditions exist.

Use this product within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

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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