

Monnit Industrial

Wireless Vehicle Sensors

Technical Overview



General Description

The Monnit industrial vehicle sensors can be used in a host of applications where detecting or counting vehicles is needed. Two different vehicle sensors are available.

Features

- Detects presence of vehicles up to 8 feet away.
- Can detect and count stationary or moving vehicles.
- Free iMonnit basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

Features and Principles of Operation

Vehicle Detection - Detects the presence or absence of a parked or stationary vehicle.

Vehicle Counter - Detects and counts vehicles in motion as they pass by.

Solar Power Option

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

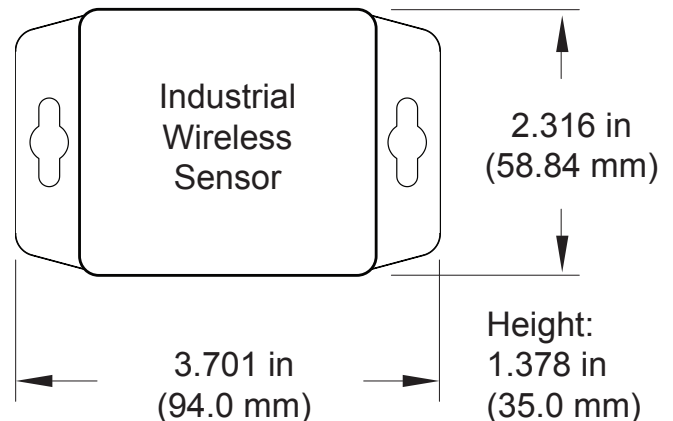
An optional solar powered version is also available. The solar powered sensor uses a Lithium Iron Phosphate rechargeable battery in conjunction with a solar power cell, extending the life of the battery.



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

- Parking Garages
- Vehicle Speed Detection
- Automotive Services
- Fleet Management
- And many more...

The Leader in Low Cost Wireless Sensors

Technical Specifications	
Vehicle Sensing Distance	Up to 8 feet
Field Range (Full scale (FS) - total applied field)	-8 to +8 gauss
Mag Dynamic Range (3-bit gain control)	±1 to ±8
Resolution (VDD=3.0V, GN=2)	5 milli-gauss typ.
Linearity (±2.0 gauss input range)	0.1 ±% FS max
Hysteresis (±2.0 gauss input range)	±25 ppm typ.
Cross-Axis Sensitivity (Cross field = 0.5 gauss)	±0.2% FS / gauss
Output Rate (Continuous Measurement Mode)	0.75 to 75 Hz
Output Rate (Single Measurement Mode)	160 Hz max
Measurement Period	6 msec typ.
Gain Tolerance	±5%
Gain Tolerance (Ambient, unbiased)	-40 to +125°C
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	 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).

* 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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