Monnit Industrial
Wireless 5V Pressure Meter

General Description

Monnit's industrial wireless 5V pressure meter measures pressure from a 5 volt pressure transducer and transmits the pressure measurement to iMonnit. This solution combines a standard pressure transducer interfaced to a Monnit wireless radio.

Features

- Measure pressure with 50 or 300 PSIG transducers (others available upon request).
- Measure non-caustic liquid or vapor pressures.
- Pressure transducer is NEMA 4X (IP66), CE rated.
- 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 Monnit wireless pressure meter to a pressurized gas, liquid or vapor supply line, it can measure the pressure within the line and send data to the iMonnit Online Sensor Monitoring and Notification System. The data is stored in the online system and can be reviewed and exported as a data sheet or graph. User customization allows you to set notifications and alerts from the system so you can know immediately if pressure is above or below an optimal range.

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.

Industrial Wireless Sensor

2.316 in (58.84 mm)

3.701 in (94.0 mm)

Height: 1.378 in (35.0 mm)
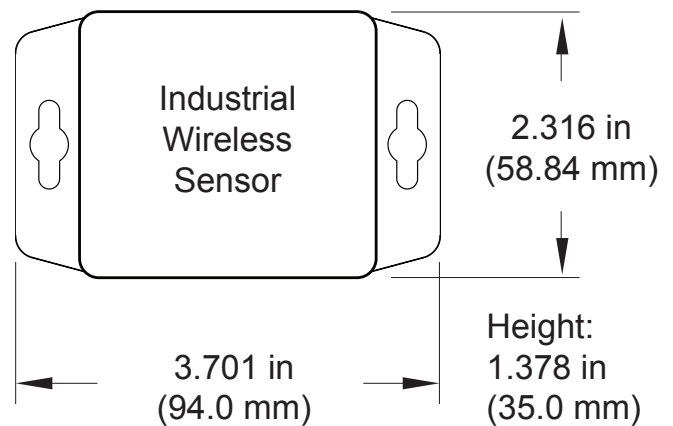
Example Interfacing

- Compressors/Compressed Air Lines
- Water Supply Lines
- Pumping Systems
- Irrigations System Pressure
- Industrial Process Monitoring
- Trash Compaction Equipment
- And many more...

The Leader in Low Cost Wireless Sensors

Monnit 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)	-20°C to +60°C (-4°F to +140°F) **
Certifications	FC CE 🍁 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).

Pressure Transducer Technical Specifications

Operating Temperature	0 to 175°F (-18 to 79°C).
Thermal Effect on Reading	±0.02% FS/°F. (includes zero and span).
Media	Gas, Liquid or Vapor
Response Time	50 msec.
Stability	1.0% FS/year (Typ.).
Wire Length	1 Meter shielded cable (between gauge and wireless unit)
Accuracy	0.25% FS; 0.20% RSS; Absolute Ranges: 0.5% FS; 0.35% RSS. (Includes linearity, hysteresis, and repeatability).
Max Voltage Input	5.5 V
Voltage Measurement Range	0 - 5.2 V ***
Voltage Measurement Resolution	~3 mV
Voltage Measurement Accuracy	± 3% FS
Pressure Measurement Accuracy	± 3% FS
User Calibrated Pressure Accuracy	+/- 1% FS ****
Process Connection	¼" NPT-Male Standard
Pressure Transducer(s)	50 or 300 PSIG (Others available upon request)

* 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.

*** The sensor is capable of measuring above 5 volts but may not meet the specified accuracy above this value.

**** For best results first zero the sensor then calibrate at greater than 20% maximum pressure of the transducer.

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.

• 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.

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

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.

MONNIT®

Monnit Corporation
4403 South 500 West
Murray, UT 84123
801-561-5555
www.monnit.com