Monnit WIT™
Wireless Open / Closed Sensor

General Description

The Wireless Open / Closed Sensor can be used to detect when a door or window is opened and closed using a magnetic switch.

Features

- Detects when a door or window is accessed.
- Magnet is included.
- Free iMonnit online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email.

Principle of Operation

The Wireless Open / Closed Sensor uses a reed switch to detect the presence or removal of a magnetic source. When the sensor detects that the magnet is removed or returned it sends the information 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. Notifications can be set up through the online system to alert the user when a magnetic source is present or not with the ability to only notify within time of day parameters.
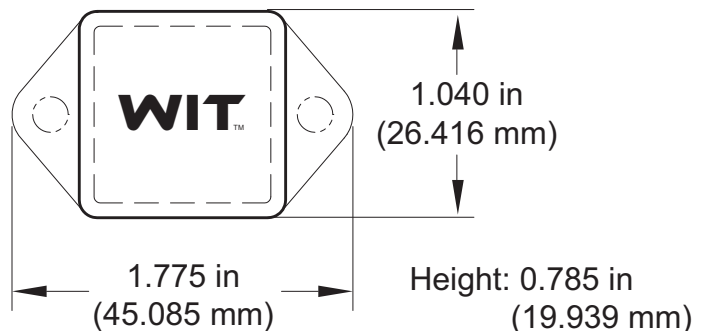
Power Options

Sensors are powered by a replaceable 3.0 V lithium coin cell battery. Optional AA battery powered sensors are available. The AA version of these sensors are larger in size (3" [L] x 2.1" [W] x 1.2" [H]) and include two AA long-life lithium ion batteries.

It is recommended that unless you are using the AA battery solution, you set heartbeat to no faster than one hour to preserve battery life.

Monnit WIT Sensors Core Specifications

- Power: Replaceable 3.0 V lithium coin cell battery
- Communication: RF 900 MHz
- Dimensions: 1.775" x 1.040" x 0.785"
- 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, coin cell battery will last ~ 1-2 years.**

 * Actual range may vary depending on environment.
** Battery life is determined by sensor reporting frequency and other variables.

1.040 in
(26.416 mm)

1.775 in
(45.085 mm)

Height: 0.785 in
(19.939 mm)

Maximum Ratings	
Temperature Range	- 40°C to +85°C (- 40°F to +185°F)
Storage Humidity Range	<75% RH

Example Applications
- Doors and windows.
- Cabinets and lockers.
- IT server closets.
- Freezer and cooler doors.

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	-40°C to +85°C (-40°F to +185°F) **
Optimal Battery Temperature Range (Coin Cell)	+10°C to +60°C (+50°F to +140°F)
Operation Time	0.5 ms (max)
Release Time	0.1 ms (max)
Shock	11ms ½ sine wave / 100 g (max)
Vibration	50 - 2000 Hertz / 30 g (max)
Resonant Frequency	8500 Hz (typ)
Pull-In Range	10 - 25 Ampere Turns
Rating Sensitivity	15 Ampere Turns

  * Hardware can not withstand negative voltage. Please take care when connecting a power device.
 ** At temperatures above 100°C, it is possible to lose programmed memory.

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 their 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.

MONNIT™

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