

# Monnit WIT™

## Wireless Active ID Sensor



### Technical Overview

#### General Description

The Wireless Active ID Sensor is an RFID tag for asset identification and tracking.

#### Features

- Manage and identify assets.
- Assign contents to an object for tracking.
- 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 Monnit Wireless Active ID Sensor outputs an RF signal at set intervals to be received by the gateway and monitoring system. The sensor can be used as an identification tagging system for tracking purposes and can also trigger notifications via SMS text or email from the system if the sensor is within or outside of range from the wireless gateway.

#### Power Options

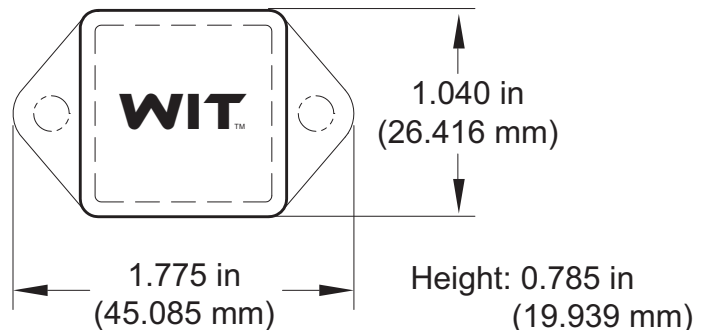
Sensors are powered by a replaceable 3.0 V lithium coin cell battery. Optional AA battery powered sensors are available. The AA version of these sensors are larger in size (3" [L] x 2.1" [W] x 1.2" [H] ) and include two AA long-life lithium ion batteries.

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 Sensor 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.



#### Maximum Ratings

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

#### Example Applications

- Asset tracking and monitoring.
- Location tracking of school buses.
- Fleet vehicle management and tracking.
- Rental tool management.
- Construction asset monitoring.

***The Leader in Low Cost Wireless Sensors***

Technical Specifications	
Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 $\mu$ A (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 )

\* 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 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.



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