

# Monnit WIT™

## Wireless Liquid Level Sensor



### Technical Overview

#### General Description

The wireless liquid level sensor uses a solid state, continuous (multi-level) fluid level sensor for measuring levels in water, non-corrosive water based liquids and dry fluids (powders).

#### Features

- Detects level of water or liquid in a container.
- 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 wireless liquid level sensor uses a solid-state, resistance sensitive ribbon sensor to measure the level of a liquid in a container. User customization allows you to set the frequency of sensor readings. The readings are sent to the iMonnit Online Sensor Monitoring and Notification System. iMonnit stores all data in the online system where the data 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 motion has been detected.

#### Power Options

Sensors are powered by a replaceable 3.0 V 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 long-life AA batteries.

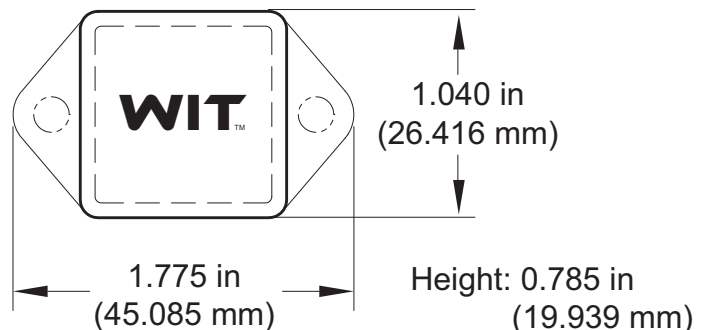
It is recommended that unless you are using the AA battery solution, you set heartbeat to no faster than one hour to preserve battery life.

#### Monnit WIT Sensors Core Specifications

- Power: Replaceable 3.0 V coin cell battery
- Communication: RF 900, 868 and 433 MHz
- Dimensions: 1.775" x 1.040" x 0.785"
- Antenna: 4" wire antenna
- Operating Temperature: -9° to 60°C (15° to 140°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	- 9°C to +60°C ( 15°F to +140°F )
-------------------	--------------------------------------

#### Example Applications

- Monitor container levels.
- Track non-corrosive fluid levels.

*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 (Board Circuitry and Battery)	-9°C to +60°C ( 15°F to +140°F ) **
Optimal Battery Temperature Range (Coin Cell)	+10°C to +50°C ( +50°F to +122°F )
Ribbon Sensor Length	8 in. = 8.1" (205.74mm) 24 in. = 24.1" (612.14mm)
Ribbon Sensor Width	1.0" (25.4mm)
Ribbon Sensor Thickness	0.015" (0.381mm)
Active Sensor Length	8 in. = 8.6" (218.4mm) 24 in. = 22.6" (218.4mm)
Sensor Resolution	1/32 inch (0.794mm)
Actuation Depth	Nominal 1 inch (25.4mm)
Sensor Material	Polyethylene Terephthalate (PET)

\*\* At temperatures above 100°C, it is possible for the board circuitry 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.



Monnit Corporation  
7304 South Cottonwood  
Suite #204  
Midvale, Utah 84047  
801-561-5555  
www.monnit.com

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](http://www.monnit.com).