



Wireless Water Detection Puck Sensors

General Description

The ALTA Wireless Water Detection Puck Sensor detects the presence or non-presence of water. Convenient water tight puck design allows the sensor to be placed anywhere needed whether dry or wet. Note that water levels must be ~ 3mm deep to trigger detection.

Water Detection

- Water proof/fully submersible.
- Immediately detects water presence.

Principle of Operation

The ALTA Wireless Water Detection Puck Sensor detects when water is present by completing the circuit between the two probe points on the bottom of the puck sensor. When water is present the sensor will immediately turn on the radio and transmit the data to the wireless gateway and iMonnit Online Sensor Monitoring and Notification System, allowing the user to immediately receive an SMS text or email alert. The sensor can be configured to detect both the presence and non-presence of water.

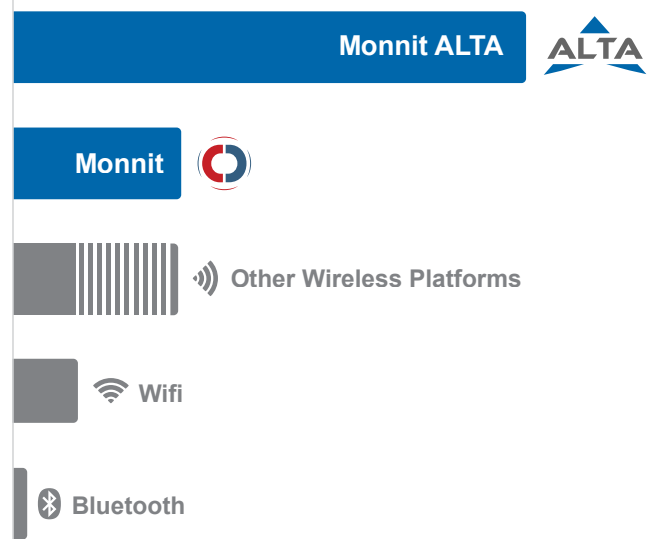
Applications

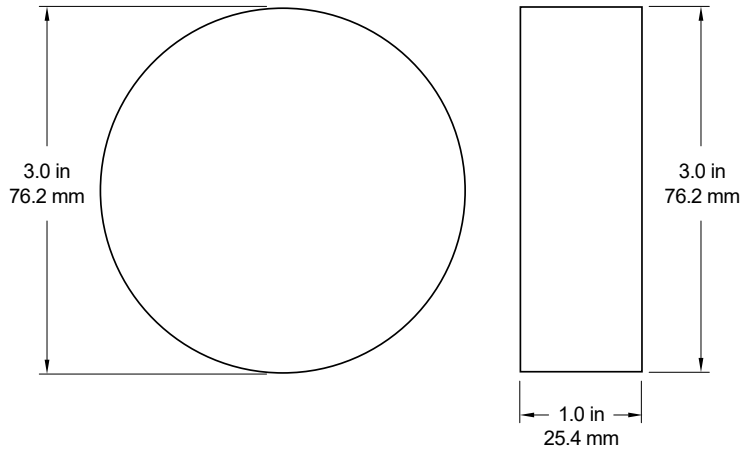
- Water heater tank leak monitoring
- Plumbing leak detection.
- Data center subfloor water detection.
- Water intrusion/flood detection.
- Crawl space water intrusion monitoring
- Reservoir/tank level monitoring

Features of Monnit ALTA Sensors




- Wireless range of 1,200+ feet through 12+ walls *
 - Frequency-Hopping Spread Spectrum (FHSS)
 - Improved interference immunity
 - Improved power management for longer battery life ** (12+ years on AA batteries)
 - Encrypt-RF® Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
 - Onboard data memory stores up to 512 readings per sensor:
 - 10-minute heartbeats = 3.5 days
 - 2-hour heartbeats = 42 days
 - Over-the-air updates (future proof)
 - Free iMonnit basic online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email
 - Response time to iMonnit: ~ 3 seconds.
- * Actual range may vary depending on environment.
 ** Battery life is determined by sensor reporting frequency and other variables. Other power options are also available.

Wireless Range Comparison





ALTA Commercial Wireless Water Detection Puck Sensor | Technical Specifications

Electronics supply voltage	2.0–3.8 VDC
Current consumption	0.2 μ A (sleep mode), 0.7 μ A (RTC sleep), 570 μ A (MCU idle), 2.5 mA (MCU active), 5.5 mA (radio RX mode), 22.6 mA (radio TX mode)
Max operating temperature range	-18°C to 55°C (0°F to 130°F) *
Optimal temperature range	+10°C to +50°C (+50°F to +122°F)
Dimensions	75mm x 25mm x 30mm
Water Protection	Completely sealed, water proof, fully submersible
Battery	3.6V 1200 mAh Lithium (non-replaceable)
Typical battery life	12+ years **
Integrated memory	Up to 512 sensor messages
Wireless range	1,200+ ft non-line-of-sight
Security	Encrypt-RF® (256-bit key exchange and AES-128 CTR)
Weight	7.6 ounces
Certifications	<div style="display: flex; align-items: center; gap: 10px;">    Industry Canada </div> 900 MHz product; FCC ID: ZTL-G2SC1 and IC: 9794A-G2SC1. 868 and 433 MHz product tested and found to comply with: EN 300 220-2 V3.1.1 (2017-02), EN 300 220-2 V3.1.1 (2017-02) and EN 60950

* At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.

** Battery life is determined by sensor reporting frequency and other variables.

Power Options

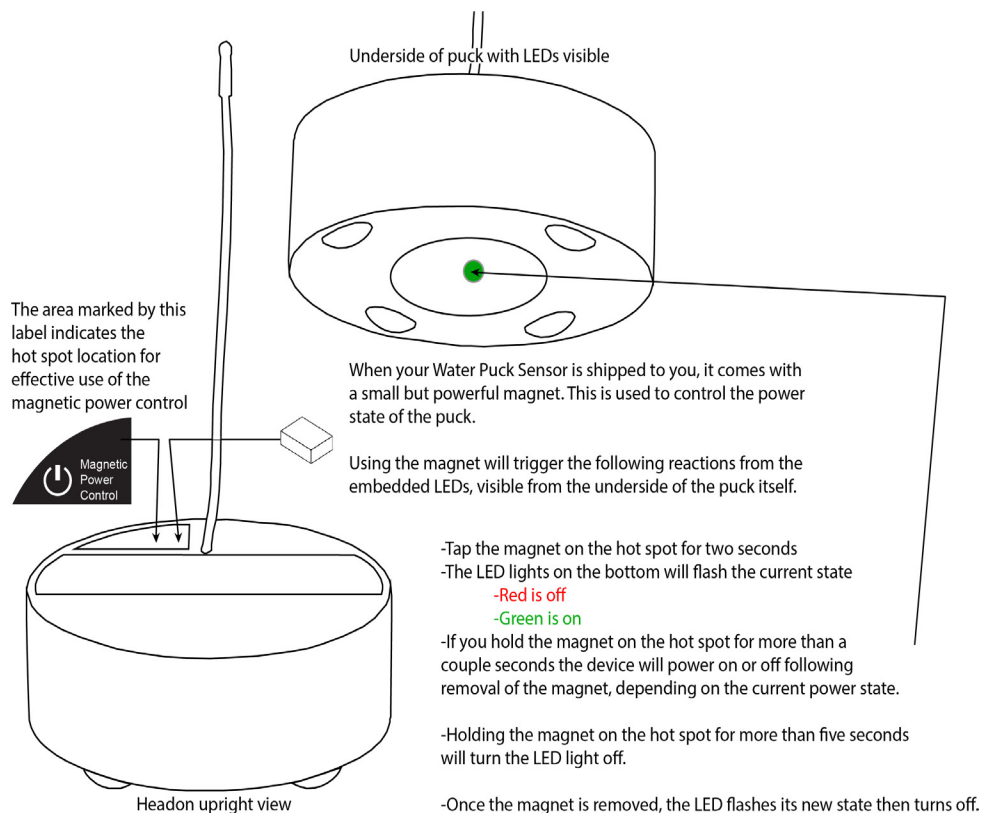
The standard version of this sensor is powered by two replaceable 1.5 V AA sized batteries (included with purchase).

This sensor is also available with a line power option. The line powered version of this sensor has a barrel power connector allowing it to be powered by a standard 3.0–3.6 V power supply. The line powered version also uses two standard 1.5 V AA batteries as backup for uninterrupted operation in the event of line power outage.

Power options must be selected at time of purchase, as the internal hardware of the sensor must be changed to support the selected power requirements.

Magnetic Reed Switch

The Water Detection Puck is alerted when water build-up of at least ~3mm occurs. A magnetic reed switch has been installed in the sensor to detect the presence of a magnetic field. Its purpose is to allow you to put the sensor in a low power state.



Commercial Grade Sensors

Monnit commercial grade sensors are designed for applications in ordinary environments (normal room temperature, humidity and atmospheric pressure). Do not use these sensors under the following conditions as these factors can deteriorate the product characteristics and cause failures and burnout.

- 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
- Low-pressure or high-pressure environments
- 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 these products within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality.

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