

App Notes

Micro Door/Window Sensor

Quality Improvement Section

Micro Door/Window Sensors (MDWS) include a number of improvements designed to provide better product performance:

- Optimized electronic circuit design for reduced power consumption.
- Updated antenna design for more consistent RF performance.
- Improved wall/cover tamper.
- Addition of a battery pull tab.
- Improvements to the enclosure design improvements, including:
 - A more rigid design
 - Snap-in mid cover to protect components
 - Easier installation
- UL Approval

Description and Cross Reference

The Micro Door/Window Sensor (MDWS) is a next generation product designed to replace the micro DWS 60-688-95. The new, smaller MDWS features a redesigned transmitter circuit that increases reliability while conserving power. A cover/wall tamper feature has been added and the battery pull tab makes it easier to enroll.

The MDWS can be used anywhere that the micro DWS 60-688-95 has been used.

Model no.

TX-1012-01-1 (white – quantity of one)

TX-1012-01-1-25PKG (white – quantity of 25)

TX-1012-01-3 (brown – quantity of one)

Accessories include:

600-745-1 Micro Door/Window Sensor Case, White 10-Pack

600-745-3 Micro Door/Window Sensor Case, Brown 10-Pack

600-729-1 Micro Accessory Pack w/Magnet, White 10-pk

600-729-3 Micro Accessory Pack w/Magnet, Brown 10-pk

60-699 3V 190 mAh Coin Lithium Battery, 10-Pack

Note: The two UL approved replacement batteries are Varta CR2032 and Panasonic CR2032.

Panel & Receiver Compatibility

Micro Door/Window Sensors are compatible with the following Security System controls/Receivers:

Control Panels / Receivers	Part Number
Simon XT	600-1054-95R
Simon 3	60-875-11-3
Concord IV	600-1021-95R 600-1022-95R (Express) 600-1040 (Commercial)
Concord III	60-792-01-95R
Concord Ultra	60-960-95
Concord Express	60-806-95R
Allegro	60-874-95R
NetworX Receivers	NX-548E (600-1025-03-95R) NX-408E/416E/448E (60-904-95R-xxZ) NX-148E-RF
SuperBus RF Receiver	60-764-01-95R-XX
SB2000 Transceiver	600-1025-01-95R 80-936 (TCVR with 600-1029 Enclosure)
OEM Transceiver	600-1046-95
Commercial Transceiver	60-821-95
Quik Bridge Receivers	60-660-01-95R (8 channel) 60-760-95R (2 channel) (NX-702) 60-760-01-95R (1 channel) (NX-701)
Repeater	60-615-10-319.5 (NX-705) 80-922-1

Installation

Sensors can be installed on virtually any door, window, cabinet or other apparatus that opens and closes.

This product is designed for easy surface-mount installation using double-sided tape or self-tapping screws.

For optimum performance, mount the sensor on a non-metallic surface away from other metals.

Test the sensor when you have completed installation.

Battery MFG Information

Currently, two batteries are UL-approved for use with this product: Varta CR2032 and Panasonic CR2032. Use of a non-approved battery:

- Voids the sensor's UL approval
- May damage the sensor
- May void the warranty
- May impact sensor battery life
- May impact sensor performance

Purchase batteries only from a reliable source. Purchasing batteries from a source unknown to you, especially online, increases the risk of getting counterfeit batteries.

Battery Removal Information



CAUTION: Use static electricity precautions when handling electronic components.

Use the following steps to replace the battery:

1. Remove the sensor from the base using a flat-head screwdriver. Insert the screwdriver into the slot shown in the picture below.



2. Insert the end of the screwdriver between the edge of the inner cover and the outer cover and carefully pry the inner cover off the sensor. **Note:** Insert the screwdriver into the side with the narrow ledge as shown in the picture below.

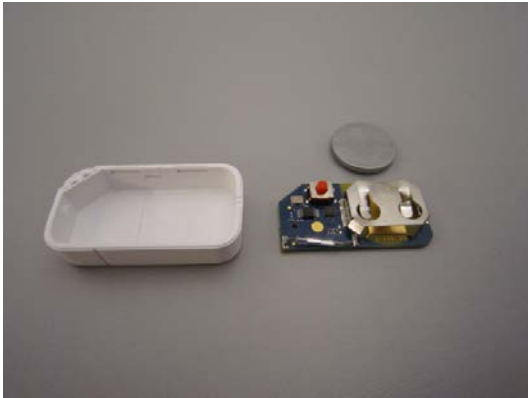


CAUTION: To prevent damage to the sensor, do not insert any object into the holes on the inner cover.



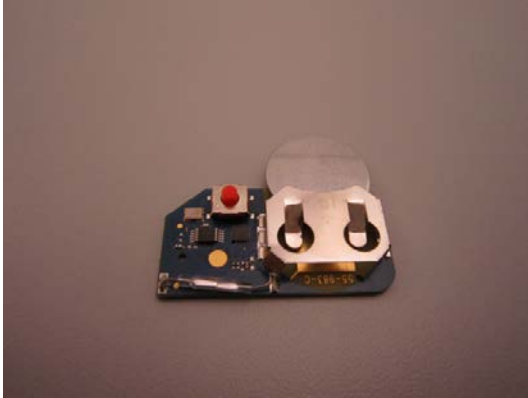
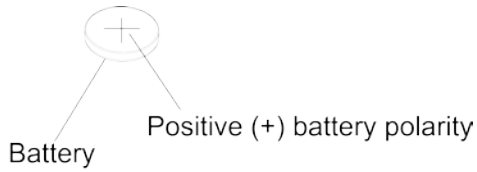
3. Carefully lift the circuit board out of the sensor.

4. Remove the old battery from the circuit board.



5. Install the new battery with the positive (+) side of the battery facing up, away from the circuit board.

Note: Use a UL-approved battery (Varta CR2032 or Panasonic CR2032) for optimum performance and to maintain UL approval.



6. Place the circuit board into the sensor.



7. Reinstall the inner cover.



8. Attach the sensor to the base.



Magnet Information

Install the supplied magnet so that it is within 3/8 inch of the sensor when the door or window is closed. Test the sensor when installation is complete to verify proper performance.

Product Specifications

Frequency: 319.5 MHz (crystal)

Supervisory Interval: 64 Minutes

Operating Temperature: 10F to 120F

Storage Temperature: -30F to 140F

Humidity: 0 to 90% non-condensing

Range: Refer to the control panel / receiver installation manual

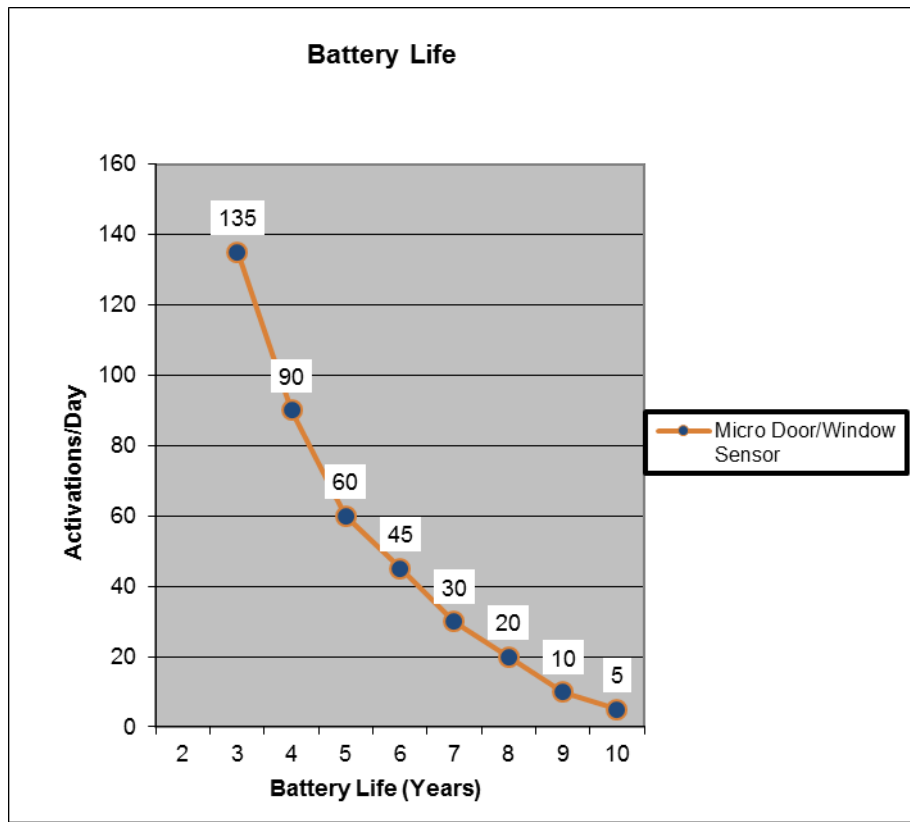
Battery Life: See table

Dimensions: 1.9 x 1.0 x 1.5 in. (4.7 x 2.5 x 1.3 cm)

Weight: 22 g

Listings: UL 1023, UL 634 FCC Part 15 (FCC ID: B4Z-983-UDWS), IC (IC ID: 1175C-983UDWS)

Battery Life



Battery life will vary, depending on the number of sensor activations. A sensor placed in a high-use area (for example, an entrance door with lots of traffic) will have a shorter battery life than a sensor placed in an area used less often (for example, a rarely opened window).

The chart above shows typical battery life based on the number of sensor activations per day. Each activation includes eight packets for the door opening (magnet/cover removal) and eight packets for the door closing (magnet/cover replaced).

Battery life also depends on:

- Manufacturer's useful battery life specification
- The ambient operating temperature

When the battery is low ($V < 2.0V$), the sensor transmits a low-battery indication to the panel. The sensor continues to operate. If the panel is configured for CS reporting, it sends this information to the central monitoring station.