# ION GATEWAY

## Wireless Infrared Motion Sensor




### General Description

The wireless motion sensor uses an infrared sensor to accurately detect movements made by people/ animals within 16.4 ft (5 m) range.

### Features

- Detects motion.
- Ion Gateway basic online wireless sensor monitoring and notification system to configure sensors, view data, and set alerts via SMS text & email.

### Principle of Operation

The Wireless Infrared Motion Sensor detects motion and movement using infrared technology. When the sensor detects movement it communicates with the Ion Gateway Online Sensor Monitoring and Notification System. Ion Gateway 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.

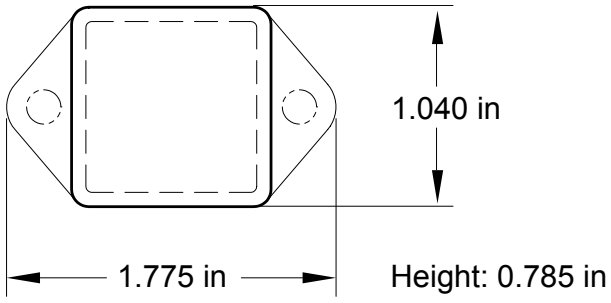
It is recommended that you set the heartbeat to no faster than one hour to preserve battery life.

### Ion Gateway Sensor Core Specifications

- Power: Replaceable 3.0 V coin cell battery
- Dimensions 1.775” x 1.040” x 0.785”
- Antenna: 4” wire
- Operating Temperature: -20° to 60°C (-4° 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 | 20°F to 140°F |

### Applications

- Monitor area access
- Detect when people enter a room.

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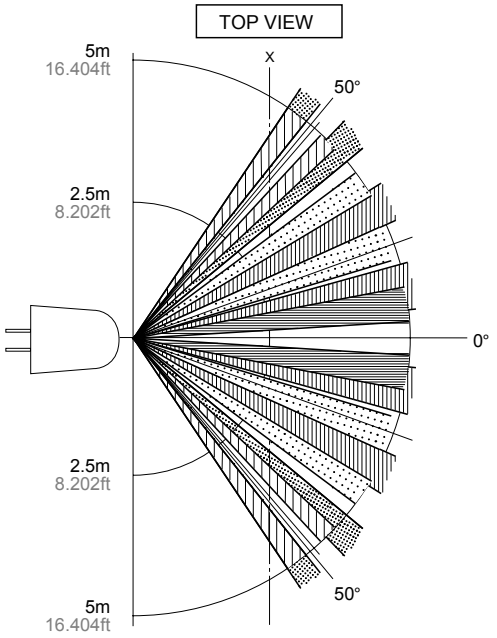
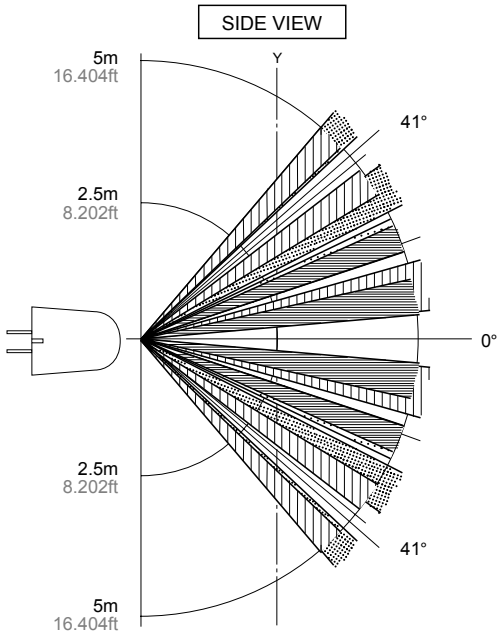
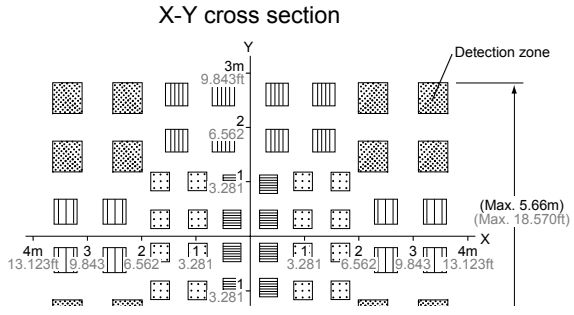
| Technical Specifications | |
|---|---|
| Supply Voltage | 2.0 - 3.6 VDC * |
| Current Consumption | 0.7 µA (sleep mode)<br>2 mA (radio idle/off mode)<br>2 mA (measurement mode)<br>25 mA (radio RX mode)<br>35 mA (radio TX mode) |
| Operating Temperature Range (Board Circuitry and Coin Cell) | 20°F to 140°F ** |
| Optimal Battery Temperature Range (Coin Cell) | 50°F to 122°F |
| Sensor Detection Range | 16.4 ft |
| Reted Consumption Current (Standby) | Typ: 170 µA<br>Max: 300 µA |
| Sensor Warmup Time | 30 Seconds |

* Hardware can not withstand negative voltage. Please take care when connecting a power device.
** At temperatures above 212°F, it is possible for the board circuitry to lose programmed memory.




### Remarks:

1. The X-Y cross-sectional diagram shows the detection area.

2. The differences in the detection zone patterns are indicative of the projections of the 16 lenses with single focal point and with five optical axes. An object whose temperature differs from the background temperature and which crosses inside the detection zone will be detected.