

RADION PIR ZB Wireless Motion Detector

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Invented for life



- ▶ Passive Infrared Detection (PIR) with First Step Processing for superior catch performance and best-in-class false alarm immunity
- ▶ Pet Friendly – resists false alarms from animals up to 20 kg (45 lbs)
- ▶ Flexible mounting height, no adjustments – reduces installation time and false alarms, improves catch performance
- ▶ Self-locking enclosure with bi-axial bubble level for faster installation
- ▶ Up to 7 years battery life with 1 battery, or up to 10 years with optional second battery

The RADION PIR ZB Wireless Motion Detector uses two Fresnel lenses designed to produce sharply-focused images throughout the field of view providing superior detection of intruders. The main lens provides a high density (77 zone) 7-layer pattern, and the selectable lockdown lens provides an additional three lockdown zones. Easy installation and flexible mounting height provides state-of-the-art detection while minimizing installation time and complexity. Pet Friendly intelligence generates alarm signals for human intruders without generating false alarm signals from pets.

Functions

ZigBee technology

This motion detector utilizes ZigBee technology, a global wireless standard for communicating to both smart devices and security systems in a home automation environment.

This ZigBee Certified product works in global 2.4 GHz networks supporting ZigBee HA1.2.



ZigBee
Certified product

Home automation

ZigBee Home Automation wireless technology offers a standard approach for connecting a variety of compliant devices throughout a residential or commercial property. ZigBee technology uses a reliable mesh network that keeps devices connected and working together, while offering outstanding battery life. ZigBee wireless home automation systems seamlessly connect security with home operational and control devices offering the property owner both convenience and peace of mind.

First Step Processing

First Step Processing (FSP) almost instantly responds to human targets without producing false alarms from other sources. FSP adjusts the detector's sensitivity based on signal amplitude, polarity, slope, and timing. This eliminates the need for the installer to select the sensitivity level, thus improving ease of installation and reliability.

Pet-Friendly

The installer can turn pet immunity on or off based upon application requirements. When pet immunity is turned off, the detector increases sensitivity by approximately 20%, for applications that require higher levels of catch performance. When pet immunity is turned on, the detector can distinguish between signals caused by humans and signals caused by pets. It ignores signals caused by one or two pets up to 20 kg (45 lb) or numerous rodents.

Dynamic Temperature Compensation

This feature automatically monitors the ambient temperature and adjusts the signal processing to maintain proper catch performance in critical temperature ranges.

Active White Light Suppression

An internal light sensor measures the level of light intensity directed at the face of the detector. Advanced signal processing uses this information to eliminate false alarms from bright light sources.

Sealed Optics and Electronics

The optics and electronics are assembled into the front enclosure and sealed with a protective cover to prevent damage during installation. The sealed optical chamber also prevents drafts and insects from affecting the detector.

Wall-to-Wall Coverage

An improved lookdown zone and coverage range of 12 m x 12 m (40 ft x 40 ft) provide wall-to-wall coverage.

Self-locking Enclosure

The sliding self-locking enclosure enables faster, easier installation.

Removable mounting bubble level

Mounting the detector is easy to do when you use the integrated bi-axial bubble level to align the detector base to the contours of your wall. Use the bubble level when installing on flat surfaces. Remove the bubble level and insert into the specifically designed bubble level holder when installing onto an optional swivel mounting bracket to ensure proper vertical leveling of the detector.

Extended battery life

The motion detector utilizes a dual-battery compartment allowing for additional battery life by using an optional 2nd lithium battery. To preserve battery life, LED and alarm indications are visible and

transmitted only after 3 minutes have passed since the previous alarm restoral. Note that the LED is only visible when the LED switch is set to on.

Test Features

Externally visible alarm LED can be disabled after installation to maximize battery life. The LED also may be enabled for customer peace of mind to show LED activation in the event of motion detection. Note that leaving the LED on will reduce battery life by approximately 6 months.

Certifications and approvals

Region	Agency	Certificate
US and Canada	*cETLus	Control No.31707912 Conforms to ANSI/UL Std. 639 Conforms to ULC Std. S306-03
	*FCC	FCC Part 15 Class B
	*IC	RSS247, issue 1 Cert No: 1249A-PRZB
	ZigBee	ZigBee HA 1.2 Cert No. ZIG16055ZHA25779-24

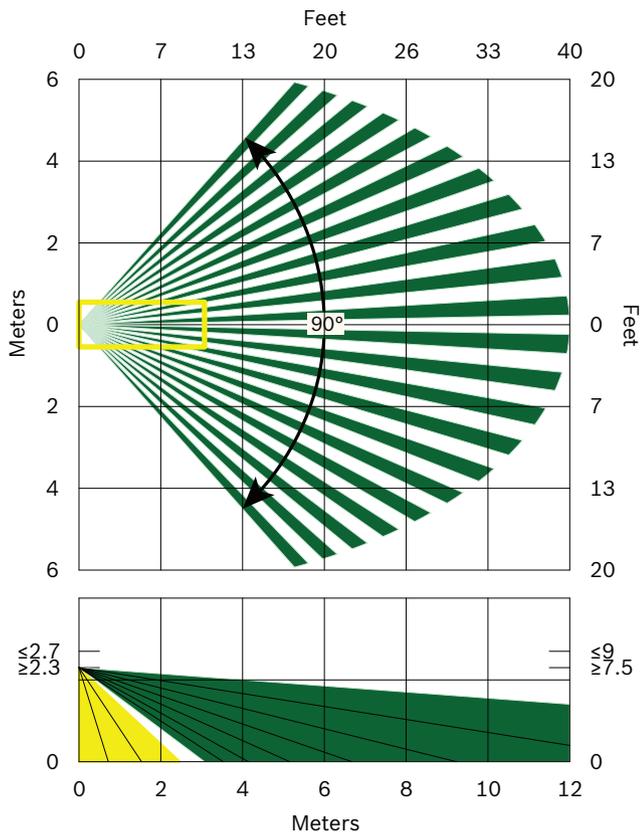
*ONLY for models RRPR-ZB and RFPR-ZB-MS

Region	Certification	
USA	Zigbee	[RFPR-ZB, RFPR-ZB-MS]
Europe	CE	RTTE, EMC, LVD, RoHS [RFPR-ZB-SH-EU]

Installation/configuration notes**Compatibility information**

Compatible with ZigBee Home Automation 1.2 compliant systems.

Coverage patterns



RADION PIR ZB coverage pattern

Coverage pattern key

- PIR detection zones
- PIR detection look-down zones

Mounting considerations

- Radio communication range depends on building construction and other factors.

i Notice

Installation on metal surfaces can negatively affect the RF propagation pattern of the radio transceiver.

- For residential applications and applications that have small animals or pets, enable pet immunity mode.
- For commercial applications, disable pet mode for higher sensitivity.
- Install in high traffic areas to optimize catch performance.
- Mount the motion detector so it is aimed where an intruder will most likely cross through the coverage pattern.
- Mount the motion detector level both horizontally and vertically to avoid false alarms and reduced catch performance.
- Mount the motion detector on interior walls where it is protected from weather elements such as rain, snow, or direct sun light.

- Mount the motion detector between 2.3 m and 2.7 m (7.5 ft and 9 ft).
 - On a flat wall (surface mount).
 - In the junction of two perpendicular walls (corner mount).
 - On a flat wall with the optional B335-3 Swivel-mount Bracket.
 - On the ceiling with the optional B338 Ceiling-mount Bracket.
 - Lower mounting heights generally increase catch performance. Higher mounting heights increase false alarm immunity.

i Notice

The use of optional mounting brackets can reduce the detector's range and increase the dead zone areas. Mount the motion detector level vertically to ensure optimal performance.

Technical specifications

Mechanical

Dimensions	2.4 in x 4.3 in x 1.7 in (60 mm x 108 mm x 42 mm)
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Environmental considerations

Relative humidity	0% to 93% at +40°C (+104°F) UL: 0% to 85% at +30°C (+86°F)
Temperature (operating)	-10°C to +55°C (+14°F to +131°F) UL: 0°C to +49°C (+32°F to +120°F)
Mounting considerations	Mount in dry indoor locations.
Mounting height	7.5 ft to 9 ft (2.3 m to 2.7 m)
Frequency	ZigBee: 2.4 GHz
Pet immunity	Enable or disable

Power requirements

Batteries	Panasonic CR123A Lithium 3 VDC Duracell DL123A Lithium 3 VDC Sanyo CR123A Lithium 3 VDC
Battery life	Up to 7 years using one battery. Up to 10 years using two batteries
Battery capacity	1400 mAh (minimum)

i Notice

Do not mix between old batteries and new batteries.

Ordering information

RFPR-ZB RADION PIR ZB Motion Detector

ZigBee certified motion detector with pet-friendly technology. Provides PIR, 12 m x 12 m (40 ft x 40 ft) coverage. For use with compatible ZigBee systems in North America, South America, Australia, and Asia Pacific region.

Order number **RFPR-ZB**

RFPR-ZB-MS RADION PIR ZB Motion Detector (compatible with iControl ecosystems)

ZigBee certified motion detector with pet-friendly technology. Provides PIR, 12 m x 12 m (40 ft x 40 ft) coverage. For use with iControl systems in North America, South America, Australia, and Asia-Pacific region.

Order number **RFPR-ZB-MS**

Accessories

B335-3 Swiveling low-profile mount

Swiveling, low-profile, universal bracket for wall mounting. The vertical swivel range is +10° to -20°, while the horizontal swivel range is ±25°.

Order number **B335-3**

B338 Universal Ceiling-mount Bracket

Swiveling universal bracket for ceiling mounting. The vertical swivel range is +7° to -16°, while the horizontal swivel range is ±45°.

Order number **B338**

Represented by:

Europe, Middle East, Africa:

Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
emea.securitysystems@bosch.com
emea.boschsecurity.com

Germany:

Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany
www.boschsecurity.com

North America:

Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
onlinehelp@us.bosch.com
www.boschsecurity.us

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia