

RADION PIR and PIR C

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BOSCH

Invented for life



- ▶ Two models available. PIR with 12 m x 12 m (40 ft x 40 ft) coverage, PIR C with 12 m x 1.5 m (40 ft x 5 ft) coverage pattern
- ▶ Flexible Mounting Height
- ▶ Pet Immunity up to 13kg (30 lbs)
- ▶ Operational up to 5 years with one user replaceable CR123A battery
- ▶ Supervised for low-battery, cover-tamper, and removal from mounting surface tamper conditions.

RADION wireless from Bosch provides the range, scalability and exceptional battery life required to ensure reliable performance and superior quality. Advanced diagnostics and multiple device enrollment options make installation and maintenance simple and cost effective. With a complete line of peripherals, RADION provides the flexibility for virtually any application requirement.

System overview

RADION PIR and RADION PIR C are high performance, Passive infrared (PIR) based motion sensors that use advanced signal processing to provide superior catch performance and unsurpassed false alarm immunity.

Functions

PIR Signal Processing

Motion Analyzer II uses multiple thresholds and timing windows to analyze timing, amplitude, duration, and polarity of signals to make an alarm decision. The detectors tolerate extreme levels of heat and light from heaters and air conditioners, hot and cold drafts, sunlight, lightning, and moving headlights. There are three sensitivity settings.

Test Features

Externally visible, LED indicates alarm each technology independently.

Pet Immunity

The detector is able to distinguish between signals caused by humans and signals caused by pets such as a dog up to 13 kg (30 lb) or two dogs at 27 kg (60 lb) or up to ten cats. This provides immunity to false alarms while maintaining proper catch performance of human targets.

Draft and Insect Immunity

The sealed optical chamber provides immunity to drafts and insects.

Temperature Compensation

The sensor adjusts its sensitivity to maintain consistent catch performance at critical temperatures.

Battery Life Extension feature (PIR and TriTech)

In the normal operating mode, an alarm can be transmitted only after three (3) minutes have passed since the previous alarm restoral. This 3 minute lockout time reduces unnecessary RF transmissions in high traffic areas, thereby extending battery life.

Certifications and approvals

Region	Certificate	
US	UL 639 – Intrusion Detection Systems FCC Part 15	
Region	Certification	
Australia	RCM	[RFPR-C12]
Europe	CE	2004/108EC EMC Directive (EMC), 2006/95/EC Low-Voltage Directive (LVD), 1999/5/EC Radio equipment and Telecommunications Terminal Equipment (R&TTE), 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment [PIR and PIR C]
	EN5013 1	EN-ST-000161 RADION PIR/ RFPR-12/C12
USA	UL	20121217-BP1448 Certificate of Compliance
	FCC	Part 15 Security/Remote Control Transmitter 433.42 MHz [433.42 MHz]
Canada	IC	1249A-RWSSFT [-A model numbers]
Brazil	ANATEL	2618-13-1855

Installation/configuration notes

Mounting Considerations

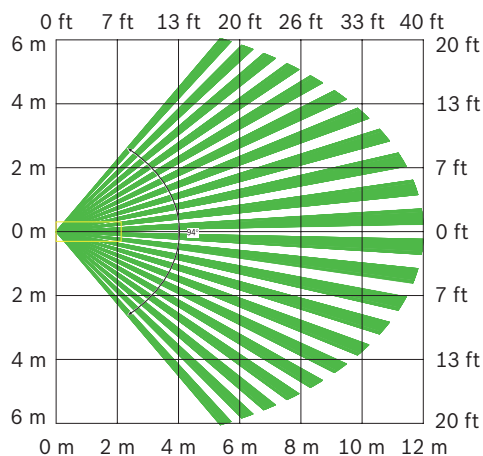
Surface or corner mount the PIR at a height between 2.1 m (7.0 ft) and 2.7 m (9.0 ft) high when installing the PIR, and 2.1 m (7.0 ft) and 2.6 m (8.5 ft) high when installing the PIR-C. When installing the PIR, the plastics are specifically designed to allow wall tamper protection in a corner mount installation. The detector can be mounted:

- On a flat wall (surface, semi-flush), with the optional B335 Swivel-mount Bracket, or with the optional B328 Gimbal-mount Bracket.
- In a corner (the junction of two perpendicular walls).
- On the ceiling with the optional B338 Ceiling-mount Bracket.

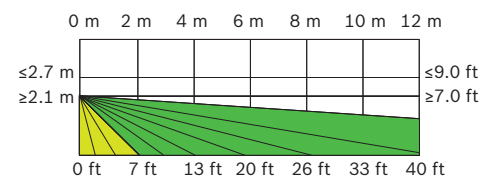
Additional considerations include:

- Temporarily mount the detector using double-sided tape, and test it for both detector coverage and RF range from the desired location before mounting it permanently.
- Mount the detector where an intruder will most likely cross through the coverage pattern.
- Do not mount in areas with large metallic surfaces such as heating ducts or electrical wiring which may inhibit the sensor's RF signals from reaching the control panel receiver.
- Do not mount the detector outdoors or where direct sunlight can reach it.
- In pet immune applications, do not mount where pets can climb into the field of view of the upper zones, which are not immune to pets.

Coverage pattern for RADION PIR

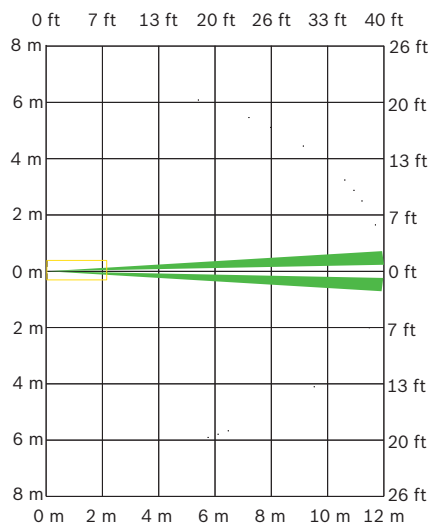


Top View Broad: 12 m x 12 m (40 ft x 40 ft)

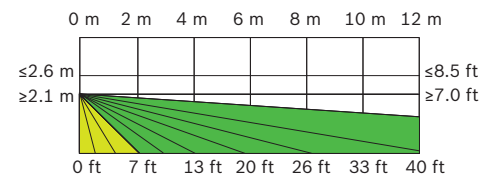


Side View Broad: 12 m x 12 m (40 ft x 40 ft)

Coverage pattern for RADION PIR C (curtain)



Top View Broad: 12 m x 1.5 m (40 ft x 5 ft)



Side View Broad: 12 m x 1.5 m (40 ft x 5 ft)

Parts included

Quantity	Component
1	Detector
1	Lithium battery (CR123A)
1	Hardware pack
1	Installation guide

Technical specifications

Properties

Dimensions:	111 mm x 60 mm x 43 mm (4.4 in x 2.4 in x 1.7 in)
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Power

Power/Voltage:	One CR123A Lithium battery, 3 VDC
Battery life:	Up to 5 years

Environmental Considerations

Temperature:	Functional range: -10°C to +49° (+14°F to +120°F) UL only: 0°C to +49°C (+32°F to +120°F) EN 50130-5 Class II only: -10°C to 40°C (+14°F to +104°F)
Environment	Complies with EN50130-5 Class II
Relative Humidity:	Up to 93% non-condensing
Cover and Wall Tamper Switch:	Transmits a tamper switch signal when the detector is removed from its base, or pulled away from the wall.
Frequency:	433.42 MHz
Use:	Intended for indoor use.

Compatibility

Receivers:	B810 wireless receiver (compatible with RFPR-12-A and RFPR-C12-A only) RFRC-OPT wireless receiver (compatible with RFPR-12, and RFPR-C12 only) RFRC-OPT-CHI wireless receiver (compatible with RFPR-12-CHI, and RFPR-C12-CHI only)
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Ordering information

RFPR-12-A (433.42 MHz)

For use in North and South America.

Order number **RFPR-12-A**

RFPR-12 (433.42 MHz)

For use in Europe, Africa, and Australia.

Order number **RFPR-12**

RFPR-12-CHI (433.42 MHz)

For use in China only.

Order number **RFPR-12-CHI**

RFPR-C12-A (433.42 MHz)

For use in North and South America.

Order number **RFPR-C12-A**

RFPR-C12 (433.42 MHz)

For use in Europe, Africa, and Australia.

Order number **RFPR-C12**

RFPR-C12-CHI (433.42 MHz)

For use in China only.

Order number **RFPR-C12-CHI**

Accessories

B328 Gimbal-mount Bracket

Mounts on a single-gang box and allows rotation of a detector. Wires are hidden inside.

Order number **B328**

B338 Universal Ceiling-mount Bracket

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

Order number **B338**

B335-3 Swiveling low-profile mount

Swiveling, low-profile, plastic mount for wall mounting. The vertical swivel range is +10° to -20°, while the horizontal swivel range is ±25°. Available in triple packs.

Order number **B335-3**

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