

RADION PIR and PIR C



- ▶ Two models are available, PIR and PIR C for hallways and corridors
- ▶ Flexible Mounting Height
- ▶ Pet immunity
- ▶ 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.

Regulatory information

Region	Regulatory compliance/quality marks	
Europe	CE	EMC, LVD, R&TTE, RoHS [RFPR-12 and RFPR-C12]
Brazil	ANATEL	2618-13-1855 [RFPR-12, RFPR-C12]
France	AFNOR	2620200019A0 RFPR-C12

Region	Regulatory compliance/quality marks	
	AFNOR	2620200018A0 RFPR-12
China	CCC	2021031901000023 [RFPR-12-CHI, RFPR-C12-CHI]
	CCC	2013031901000079 RFPR-12-CHI, RFPR-C12-CHI
Europe	EN50131	EN-ST-000161 [RFPR-12, RFPR-C12]
USA	FCC	Part 15 Security/Remote Control Transmitter 433.42 MHZ
Canada	IC	1249A-RWSSFT
Belgium	INCERT	B-509-0070 [RADION RFPR-12, RFPR-C12]
Australia	RCM	[RFPR-12, RFPR-C12]
USA	UL	20121217-BP1448 [RPDL-11, RFPR-12, RFPR-C12]
	UL	UL 639 - Standard for Intrusion Detection Units
Germany	VdS	H116003 [AMAX 2100/3000, RFRC-OPT, RFUN, RFDW-RM, RFDW-SM, RFPR-12, RFDL-11, RFKF-TB, RFKB-FB]

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 detector, 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

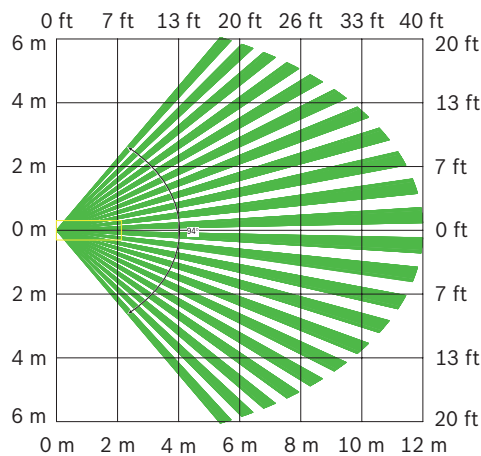


Fig. 1: Top View Broad: 12 m x 12 m (40 ft x 40 ft)

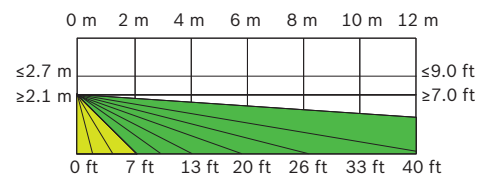


Fig. 2: Side View Broad: 12 m x 12 m (40 ft x 40 ft)

Coverage pattern for RADION PIR C (curtain)

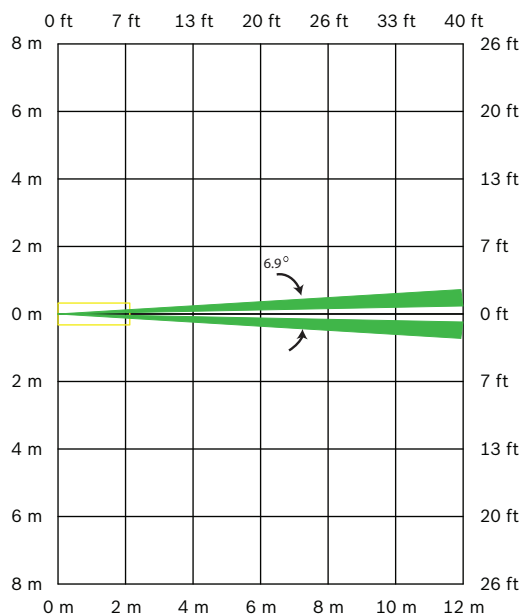


Fig. 3: Top View Broad: 12 m x 1.5 m (40 ft x 5 ft)

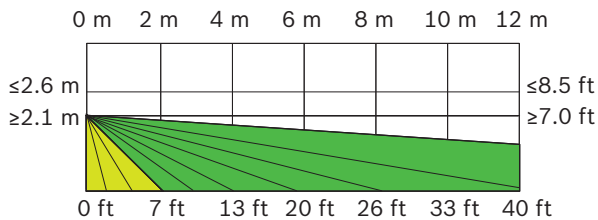


Fig. 4: side View Broad: 12 m x 1.5 m (40 ft x 5 ft)

Technical specifications

Properties

Dimensions:	111 mm x 60 mm x 43 mm (4.4 in x 2.4 in x 1.7 in)
Weight:	0.15 kg (0.33 lb)

Power

Power/Voltage:	One CR123A Lithium battery, 3 VDC
Battery life:	Up to 5 years Upon power-up, warm up mode lasts for approximately 10 sec.
Voltage threshold	2.4 V

Environmental Considerations

Temperature:	Functional range: -10° C to +55° (+14° F to +131° F) UL only: 0° C to +49° C (+32° F to +120° F) EN 50130-5 Class II only: -10° C to 55° C (+14° F to +131° F) IP30/IK04
Environment	Complies with EN50130-5 Class II
Relative Humidity:	Up to 93% non-condensing
Cover and Wall Tamper Switch ¹ :	Transmits a tamper signal when the detector is removed from its base, or pulled away from the wall.
Frequency:	433.42 MHz
Use:	Intended for indoor use.

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
www.boschsecurity.com/xc/en/contact/
www.boschsecurity.com

Germany:
Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Tel.: +49 (0)89 6290 0
Fax: +49 (0)89 6290 1020
de.securitysystems@bosch.com
www.boschsecurity.com

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

Asia-Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
www.boschsecurity.com/xc/en/contact/
www.boschsecurity.com

¹When the tamper switch is pressed and held, walk test mode is active for a minimum of 90 sec. The detector will exit walk test mode if motion is not detected within 90 sec.

Ordering information

RFPR-12 Wireless motion detector, 40ft (12m)

RADION PIR motion detector.

Order number **RFPR-12 | F.01U.253.615 F.01U.389.907**

RFPR-12-CHI Wireless motion detector, 40ft (12m)

For use in China only.

Order number **RFPR-12-CHI | F.01U.253.632**

F.01U.383.364

RFPR-C12 Wireless curtain detector, 40ft (12m)

RADION PIR Curtain motion detector.

Order number **RFPR-C12 | F.01U.256.387**

F.01U.389.909

RFPR-C12-CHI Wireless curtain detector, 40ft (12m)

For use in China only.

Order number **RFPR-C12-CHI | F.01U.256.386**

F.01U.383.369

Accessories

B328 Mounting bracket, gimbal

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

Order number **B328 | 4.998.800.277**

B338 Mounting bracket, ceiling, universal

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

Order number **B338 | 4.998.800.282**

B335-3 Mounting bracket, swivel, low profile

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 | 4.998.800.014**