

# RADION TriTech

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**BOSCH**

Invented for life



- ▶ 11 m x 11 m (35 ft x 35 ft) coverage
- ▶ Pet Immunity up to 45 kg (100 lb)
- ▶ Includes battery life extension feature
- ▶ Draft and Insect immune
- ▶ 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 TriTech uses artificial intelligence to detect motion and provide immunity to false alarms caused by pets or animals. An integral RF transmitter reports low battery and tamper status, and sends a supervisory signal to the control panel.

## Functions

### Signal Processing

RADION TriTech motion detector with Pet Immunity uses both passive infrared and microwave Doppler radar technologies to provide outstanding catch performance and false alarm immunity. Alarm signals must trigger both technologies and meet the signal processing algorithm's strict requirements to generate an alarm.

### 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.

### Microwave signal processing

Adaptive processing adjusts to background disturbances. This helps to reduce false alarms while maintaining catch performance

### Test Features

Externally visible, tri-color alarm LED indicates 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 45 kg (100 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
Europe	EN50131-1

Region	Certification
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
	EN50131 EN-ST-000163 RADION TriTech/ RFDL-11
Belgium	INCERT B-509-0069 RADION RFDL-11
USA	UL 20121217-BP1448 [RPDL-11-A, RFPR-12-A, RFPR-C12-A]
	FCC Part 15 Security/Remote Control Transmitter 433.42 MHZ [433.42 MHZ]
Canada	IC 1249A-RWSDFT
China	CCC 2013031901000128

**Installation/configuration notes**

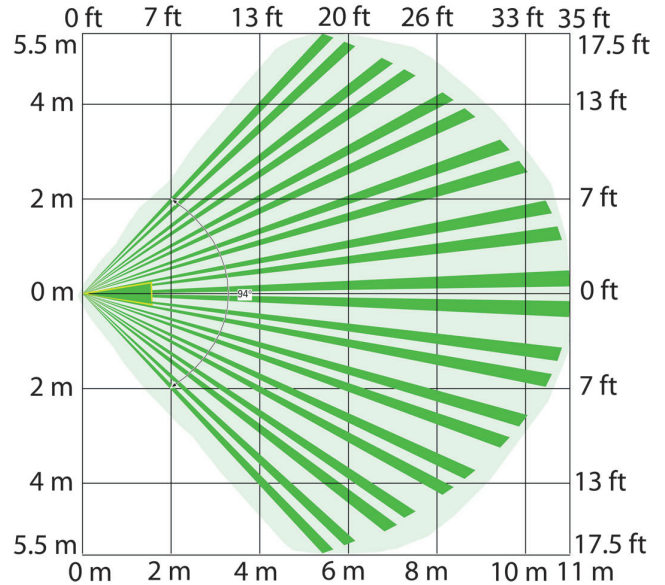
**Mounting Considerations**

Mounting height for the detector is between 2 m (6.5 ft) and 2.4 m (8.0 ft). When installing the detector, keep in mind that the plastics are specifically designed to allow wall tamper protection in a corner mount installation. Additional considerations include:

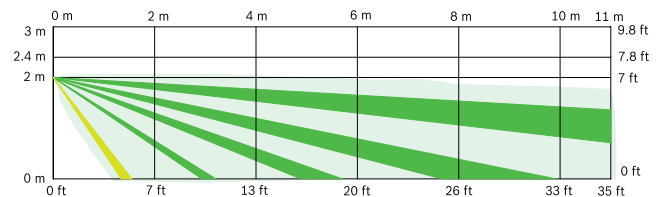
- Temporarily mount the detector using double-sided tape, and test it for both detector coverage and RF range from the desired location before mounting it permanently.
- Mount the detector where an intruder will most likely cross through the coverage pattern.
- Do not mount in areas with large metallic 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 because the upper areas are not immune to pets.

**Coverage**



Top View Broad 11 m x 11 m (35 ft x 35 ft)



Side view Broad 11 m x 11 m (35 ft x 35 ft)

**Parts included**

Quantity	Component
1	Detector
4	Alkaline battery (AA)
1	Hardware pack
1	Installation guide

**Technical specifications**

**Properties**

Dimensions:	138 mm x 72 mm x 64 mm (5.5 in x 2.8 in x 2.5 in)
Internal Coverage Pointability:	Vertical: -4° to -10°

Alarm Indicator	<ul style="list-style-type: none"> <li>• Blue LED for TriTech alarms</li> <li>• Green LED for microwave detection</li> <li>• Red LED for PIR detection</li> </ul>
Sensitivity Selection:	Field selectable for standard or intermediate sensitivity.

### Power

Power/Voltage:	Four AA Alkaline batteries, 1.5 VDC (1.5 VDC x 4 batteries = 6 VDC total)
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 unit is removed from its base, or the mounting surface.
Frequency:	433.42 MHz
Use:	Intended for indoor use.

### Compatibility

Receivers:	B810 wireless receiver (compatible with RFDL-11-A only) RFRC-OPT wireless receiver (compatible with RFDL-11 only) RFRC-OPT-CHI wireless receiver (compatible with RFDL-11-CHI only)
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### Ordering information

#### RFDL-11-A (433.42 MHz)

For use in North and South America  
Order number **RFDL-11-A**

#### RFDL-11 (433.42 MHz)

For use in Europe, Africa, and Australia.  
Order number **RFDL-11**

#### RFDL-11-CHI (433.42 MHz)

For use in China only.  
Order number **RFDL-11-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 universal bracket 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, universal bracket for wall mounting. The vertical swivel range is +10° to -20°, while the horizontal swivel range is ±25°.

Order number **B335-3**

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