

# 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 immunity
- ▶ Supervised for low-battery, cover-tamper, and removal from mounting surface tamper conditions

RADION wireless security solution 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

Region	Regulatory compliance/quality marks	
Germany	VdS	H116003 [AMAX 2100/3000, RFRC-OPT, RFUN, RFDW-RM, RFDW-SM, RFPR-12, RFDL-11, RFKF-TB, RFKB-FB]
Russia	GOST	EAC
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 [RFDL-11]
China	CCC	2013031901000128 [RFDL-11-CHI]

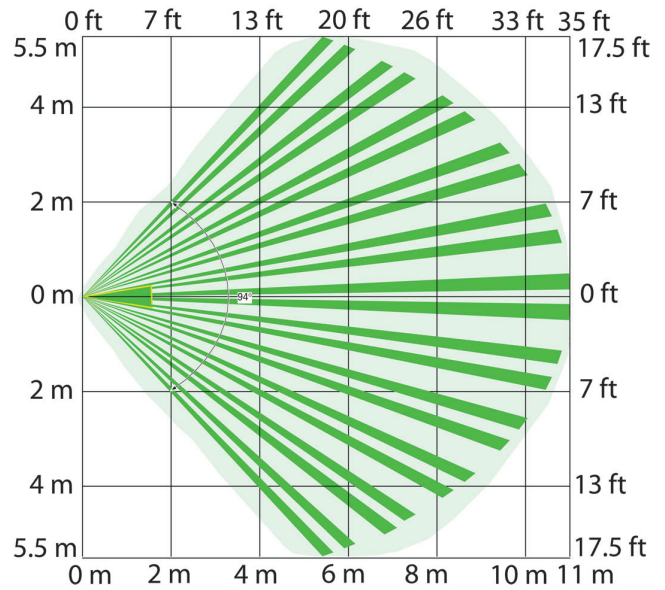
**Installation/configuration notes**

**Mounting Considerations**

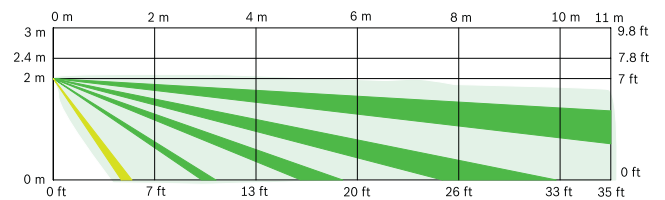
Mounting height for the detector is between 2 m (6.5 ft) and 2.4 m (8.0 ft). When installing the detector, keep in mind that the plastics are specifically designed to allow wall tamper protection in a corner mount installation. Additional considerations include:

- 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 x11 m (35 ft x 35 ft)



Side view Broad 11 m x11 m (35 ft x 35 ft)

**Technical specifications**

**Properties**

Dimensions:	138 mm x 72 mm x 64 mm (5.5 in x 2.8 in x 2.5 in)
Weight:	0,329 kg (0.725 lb)
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 Upon power-up, factory test mode lasts for approximately 10 sec.
Voltage threshold	3.2 V

**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) IP30/IK04
Relative Humidity:	Up to 93% non-condensing
Cover and Wall Tamper Switch <sup>1</sup> :	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.

<sup>1</sup>When 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****RFDL-11-A Wireless motion detector, 35ft (11m)**

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

**RFDL-11 Wireless motion detector, 35ft (11m)**

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

**RFDL-11-CHI Wireless motion detector, 35ft (11m)**

For use in China only.  
Order number **RFDL-11-CHI**

**Accessories****B328 Mounting bracket, gimbal**

Mounts on a single-gang box and allows rotation of a detector. Wires are hidden inside.  
Order number **B328**

**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**

**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**

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