BOSCH

Invented for life

RF835 Series Wireless TriTech Detectors

- ▶ **Wireless transmission**
- ▶ **Battery powered**
- ▶ **Artificial intelligence**
- ▶ **Flexible mounting height**
- ▶ **Motion Analyzer II PIR signal processing**
- ▶ **Microwave and PIR supervision**
- ▶ **Pet, draft, and insect immunity**
- ▶ **Eight detection layers including look down zones**
- ▶ **Temperature compensation**

The RF835 Series Wireless TriTech® PIR/Microwave Detectors includes the following models:

Model	Microwave	RF Transmission
RF835	10.525 GHz	304.00 MHz
RF835E	10.525 GHz	433.42 MHz
RF835E-C	10.588 GHz	433.42 MHz

Each model 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

Uses passive infrared and microwave technologies to provide an alarm condition when both fields of protection are simultaneously activated. Alarm signals must meet the signaling requirements of both technologies to activate an alarm. Microwave range is factory set, but can be adjusted if desired.

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.

Supervised Microwave

Patented fully supervised microwave circuitry provides single technology coverage in the event the microwave subsystem fails.

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.

Certifications and Approvals

RF835

Listings and Approvals:	UL ANSR: Intrusion Detection Units (UL639)
	Industry Canada
Complies with:	Australian EMC
	Federal Communications Commission (FCC)

RF835E and RF835E-C

Listings and Approvals:	CE
Complies with:	EN50131-1 grade 2

Installation/Configuration Notes

Compatibility Information
The RF835 Series products are compatible with the following combinations of receivers and control panels:

RF835

Receivers	Control Panels
RF3212	Solution Ultima 844, 862, and 880 control panels, CC488 control panels
RF3213	VR-8 control panels
RF3222	DS7400XiV4 control panels
RF3224	DS7240, DS7220, D6412, D4412

RF835E and RF835E-C

Receivers	Control Panels
RF3212E	Solution Ultima 844, 862, and 880 control panels, CC488 control panels
RF3213E	VR-8 control panels
RF3222E	DS7400XiV4 control panels
RF3227E	DS7240, CC7240-A Solution 40 control panel
RF3228E	Marise control panels
RF3249E	DA (Abacus) control panels

Mounting Considerations
- Mounting height for the detector is between 2 m (6.5 ft) and 2.4 m (8.0 ft).
- The wall tamper cannot be used in corner mount installations or when using the optional swivel bracket.
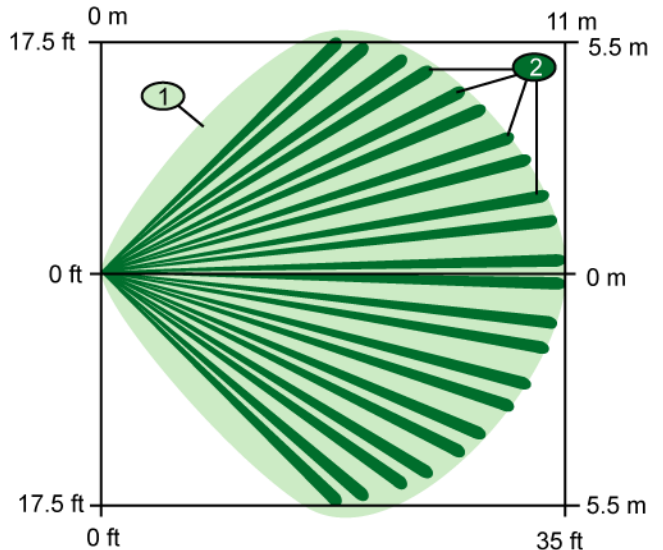
- The integral RF transmitter transmits 150 m (500 ft) in open air. However, in normal operation, it is recommended that the detector is within 30 m (100 ft) of the receiver.

Note   Actual acceptable transmitter range should be verified for each installation.
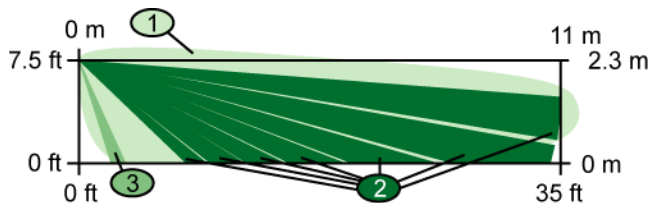
Battery Recommendations
The following battery types are recommended for correct operation of your detector: Duracell® MN1500 or PC1500, Energizer® E91, or Panasonic® AM-3.

Coverage

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

1	Microwave coverage area	2	PIR coverage pattern

Side View Broad: 11 m x 11 m (35 ft x 35 ft)

1	Microwave coverage area	2	PIR coverage pattern
3	Look-down zone		

Technical Specifications

Environmental Considerations

Relative Humidity:	0% to 95% (non-condensing)
Temperature (operating):	0°C to +49°C (+32°F to +120°F)

RF835E and RF835E-C:

Complies with EN50131 Environmental Class II, Security Grade 2

Mechanical Properties

Dimensions:	12.7 cm x 7.2 cm x 6.2 cm (5 in. x 2.8 in. x 2.5 in.)
Internal Coverage Pointability	Vertical : -4° to -10° Horizontal: ±10°
Sensitivity Selection	Field selectable for standard or intermediate sensitivity.

Power Requirements

Batteries:	Four 1.5 V AA alkaline batteries
Battery Life:	2 to 3 years under normal operating conditions with recommended battery types
Current Draw:	0.1 mA with LED disabled

Transmission Characteristics

RF835

Microwave:	10.525 GHz
RF Transmission:	304.00 MHz

RF835E

Microwave:	10.525 GHz
RF Transmission:	433.42 MHz

RF835E-C

Microwave:	10.588 GHz
RF Transmission	433.42 MHz

Trademarks

Eveready® is a registered trademark of Eveready Battery Company, Inc.

Duracell® is a registered trademark of the Gillette Company, USA, in the United States and/or other countries.

Panasonic®® is a registered trademark of Matsushita Electric Industrial Co., Ltd.

TriTech® is a registered trademark of Bosch Security Systems in the United States and other countries.

Ordering Information

Accessories

B335-3 Low-profile Swivel-mount Bracket Plastic, swivel, low profile bracket for walls. The vertical pivot range is +10° to -20°; the horizontal pivot range is ±25°. Shipped in packages of three.	**B335-3**

Ordering Information

RF835 Wireless TriTech Detector (10.525 GHz/304 MHz)	**RF835**
RF835E Wireless TriTech Detector (10.525 GHz/433.42 MHz)	**RF835E**
RF835E-C Wireless TriTech Detector (10.588 GHz/433.42 MHz)	**RF835E-C**
RF835-CHI Wireless TriTech Detector	**RF835-CHI**