

# RF835 Series Wireless TriTech Detectors



## Security Systems



- 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**

Model	Certifications and Approvals
RF835	<ul style="list-style-type: none"> <li>• UL639 Intrusion Detection Units</li> <li>• FCC Compliant</li> <li>• Industry Canada</li> <li>• Australian EMC Acceptance</li> </ul>
RF835E	CE
RF835E-C	CE

**Installation/Configuration Notes**

**Compatibility Information**

Model	Receivers
RF835	RF3222 and RF3224
RF835E	RF3222E and RF3227E
RF835E-C	RF3222E and RF3227E

**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.

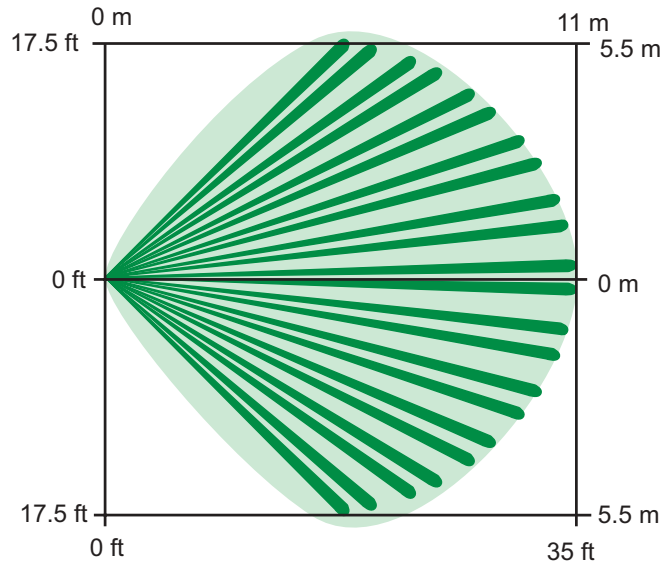
**Battery Recommendations**

The following battery types are recommended for correct operation of your detector: Duracell® MN1500 or PC1500, Energizer® E91, or Panasonic® AM-3.

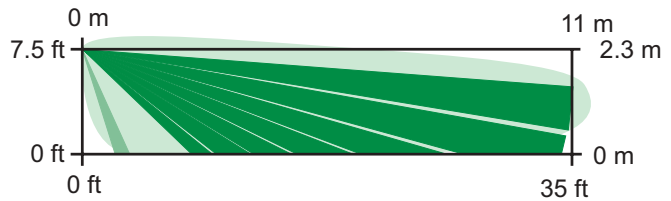
**Coverage**

**Broad: 11 m x 11 m (35 ft x 35 ft)**

*Top View*



*Side View*



### Technical Specifications

<b>Internal Coverage</b>	-4° to -10° vertical
<b>Pointability</b>	±10° horizontal
<b>Sensitivity Selection</b>	Field selectable for standard or intermediate sensitivity.

### Enclosure Design

<b>Dimensions (H x W x D):</b>	12.7 cm x 7.2 cm x 6.2 cm (5 in. x 2.8 in. x 2.5 in.)
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### Environmental Considerations

<b>Operating Temperature:</b>	0°C to +49°C (+32°F to +120°F)
<b>Relative Humidity:</b>	0% to 95% (non-condensing)

### Frequencies

<b>RF835 Microwave:</b>	10.525 GHz
<b>RF835 RF Transmission:</b>	304.00 MHz
<b>RF835E Microwave:</b>	10.525 GHz
<b>RF835E RF Transmission:</b>	433.42 MHz
<b>RF835E-C Microwave:</b>	10.588 GHz
<b>RF835E-C RF Transmission:</b>	433.42 MHz

### Power Requirements

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

### 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.

### 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

### Hardware Accessories

B335-3 Low Profile Mount Bracket	B335-3
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