



## Blue Line ISM-BLD1 TriTech Detectors



- ▶ 11 m x 11 m (35 ft x 35 ft) broad coverage
- ▶ Dual detection technologies with advanced signal processing
- ▶ Flexible mounting height from 2.3 m to 2.7 m (7.5 ft to 9 ft)
- ▶ No range or height adjustments required
- ▶ Supervised microwave; microwave range can be adjusted
- ▶ Eight detection layers including optional look-down zone
- ▶ Draft and insect immunity
- ▶ Temperature compensation
- ▶ Combined cover and wall tamper
- ▶ Optional camera, nightlight, and sounder modules

The ISM-BLBD1 TriTech® Detectors use a combination of passive infrared (PIR) and microwave detection technologies with advanced signal processing. These small unobtrusive detectors are simple to install and do not need field adjustments.

These detectors are available in three frequencies:

Frequency	Detector
9.9 GHz	ISM-BLD1-F3
10.525 GHz	ISM-BLD1-F1
10.687 GHz	ISM-BLD1-F4

### Functions

#### Advanced Signal Processing

*Adaptive processing* adjusts to background disturbances, reducing false alarms without sacrificing the ability to respond to an intruder.

*First Step Processing (FSP)* almost instantly responds to human targets without producing false alarms from other sources. FSP adjusts the detector's sensitivity based on signal amplitude, polarity, slope, and timing. This eliminates the need for the installer to select the sensitivity level. Each sensor (PIR and microwave)

processes signals individually, and both sensors must agree there is an alarm before the alarm relay activates.

#### Test Features

An externally-visible, tricolor (blue, yellow, green) alarm LED (light-emitting diode) indicates each sensor's status.

#### Supervised Microwave

The microwave circuit is fully-supervised. If the microwave subsystem fails, the PIR subsystem provides single technology coverage.

#### Draft and Insect Immunity

The sealed optical chamber prevents drafts and insects from affecting the detector.

#### Temperature Compensation

The detector adjusts its sensitivity to maintain its ability to identify human intruders at critical temperatures.

**Certifications and Approvals**

Country	Certification/Listing Number
Belgium	ISM-BLD1-F1: INCERT
Europe	Complies with EN50131-1 grade 2
Russia	GOST 12997-84, GOST R 50009-2000, GOST R 51317.3.2-99, GOST R 51317.3.3-99, GOST R MEK 60065-2002

**Installation/Configuration Notes**

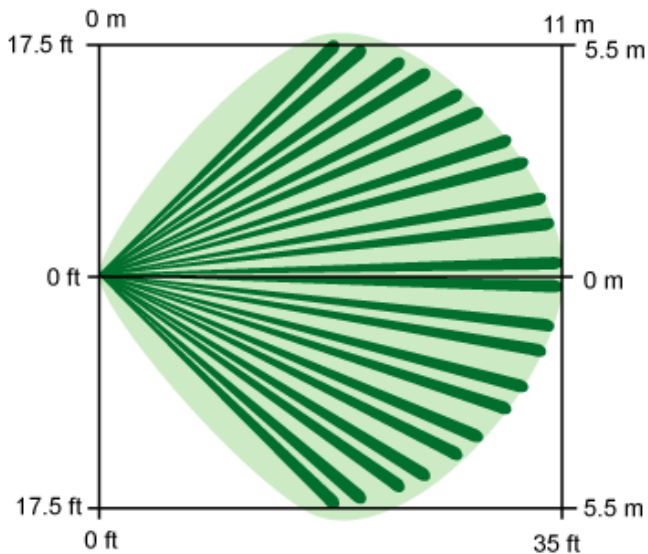
**Application Information**

**Coverage Patterns**

**Note** An alarm occurs only when an intruder is detected in areas in which the PIR and microwave patterns overlap.

**Coverage Pattern Legend**

- PIR coverage pattern
- Look-down zone
- Microwave coverage pattern



*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)*

**Mounting**

The recommended mounting height is 2.3 m to 2.7 m (7.5 ft to 9 ft).

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.
- At the junction of two perpendicular walls.
- On the ceiling with the optional B338 Ceiling-mount Bracket.

**Standby Power**

This detector has no internal standby battery.

**Parts Included**

Quant.	Component
1	Detector
1	Hardware pack
1	Literature pack

## Technical Specifications

### Environmental Considerations

Complies with EN50131 Environmental Class II, Security Grade 2

Relative Humidity: 0 to 85%, non-condensing

Temperature (operating): -29°C to +49°C (-20°F to +120°F)

### Mechanical Properties

Color: White

Dimensions: 13.2 cm x 6.1 cm x 4.8 cm (5.2 in. x 2.4 in. x 1.9 in.)

Material: High-impact ABS plastic

Radio Frequency Interference (RFI) Immunity: No alarm or setup on critical frequencies in the range from 26 MHz to 950 MHz for field strengths less than 50 V/m.

### Outputs

Digital Alarm: 5 V normally, grounded for 4 sec during alarm.

Relay: Solid state, supervised, Form A normally-closed (NC) contacts rated for 125 mA, 28 VDC, 3 W.

Tamper: Normally-closed (NC) contacts (with cover on) rated at 28 VDC, 125 mA maximum.  
Connect tamper circuit to 24-hour protection circuit.

### Power Requirements

Current (Alarm): 22 mA

Current (Standby): 15 mA maximum at 12 VDC

Voltage (Operating): 10 VDC to 14 VDC

### Trademarks

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

## Ordering Information

B328 Gimbal-mount Bracket B328  
Mounts on a single-gang box and allows rotation of a detector. Wires are hidden inside.

B335-3 Low-profile Swivel-mount Bracket B335-3  
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.

B338 Universal Ceiling Bracket B338  
Plastic swivel bracket for ceilings. The vertical pivot range is +7° to -16°; the horizontal pivot range is ±45°.

## Ordering Information

Blue Line ISM-BLD1 TriTech Detector (10.525 GHz) ISM-BLD1-F1

Blue Line ISM-BLD1 TriTech Detector (9.9 GHz) ISM-BLD1-F3

Blue Line ISM-BLD1 TriTech Detector (10.687 GHz) ISM-BLD1-F4

### Hardware Accessories

Blue Line ISM-BLA1-CC Color Camera Module (NTSC ISM-BLA1-CC-N format)

Blue Line ISM-BLA1-CC Color Camera Module (PAL ISM-BLA1-CC-P format)

Blue Line ISM-BLA1-CM Monochrome Camera Module ISM-BLA1-CM-C (CCIR Format)

Blue Line ISM-BLA1-CM Monochrome Camera Module ISM-BLA1-CM-E (EIA format)

Blue Line ISM-BLA1-LM Nightlight Module ISM-BLA1-LM

Blue Line ISM-BLA1-SM Sounder Module ISM-BLA1-SM

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