

# DS9370 Series Ceiling-Mount, Panoramic TriTech<sup>®</sup> Detectors



## Security Systems



The DS9370 Series TriTech detectors can be used on ceilings as high as 25 ft (7.6 m). The combination of passive-infrared (PIR) detection, microwave detection, and advanced signal processing techniques allows TriTech detectors to rapidly respond to human targets without triggering false alarms from other sources. With three separate PIR sections that are fully adjustable, coverage can be customized for specific areas at all mounting heights.

### Series Features

- Up to 25 ft (7.6 m) mounting height
- Fully-adjustable optical arrays for coverage customization
- Hinged chassis and base plate for easy installation
- High-efficiency LED and light-pipe system for easy walk testing
- First Step Processing (FSP)
- Microwave adaptive processing
- 360° x 70 ft (20 m) diameter pattern

### Series Functions

#### Advanced signal processing

These detectors use PIR and microwave technologies to signal an alarm when the fields of protection of both technologies are activated at the same time. The PIR and microwave sensitivities are adjustable.

*Adaptive processing* uses pattern recognition circuitry to identify and ignore repetitive false alarm sources. It adjusts to background disturbances to reduce false alarms without sacrificing the ability to respond to an intruder.

*First Step Processing (FSP)* allows virtually instant response to human targets without generating false alarms for 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) is processed individually, and the alarm relay does not activate unless both sensors agree there is an alarm.

#### Microwave supervision

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

#### Test features

- The high-efficiency LED and light-pipe system provide walk test indication that is easily viewable from any angle and at any mounting height.
- The alarm memory feature allows the detector to latch the alarm LED to aid in response.
- The walk test LED can be activated remotely by a control panel command.

Series Listings, Certifications, and Approvals

Country	Certificate/Listing Number
Australia	AUS C-tick
Canada	ANSR7: Intrusion Detection Units for Canada (ULC-S306)  IC (CAN 1249A 12073)
Europe	CE
USA	ANSR: Intrusion Detection Units (UL639)  FCC (ESV9370)

Trademarks

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

Series Application Information

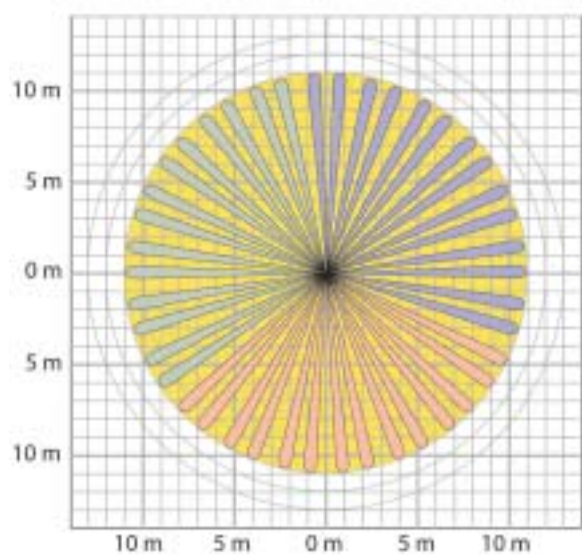
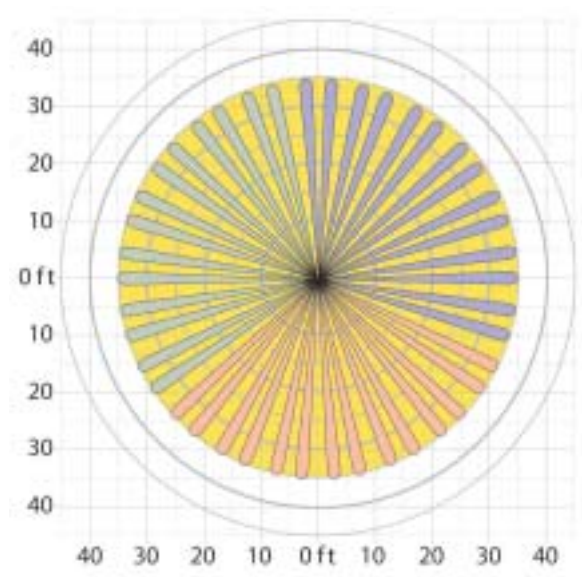
Coverage Pattern

The coverage pattern consists of 21 barriers grouped into three groups of seven barriers each. Each barrier is 35 ft (10 m) long and 5 ft (1.5 m) wide at 35 ft (10 m). Each group has vertical adjustment for customized coverage.

Coverage Pattern Legend

- PIR coverage area 1
- PIR coverage area 3
- PIR coverage area 2
- Microwave coverage

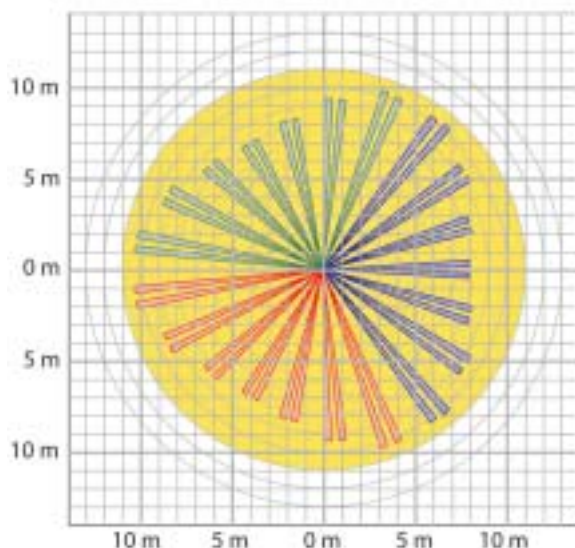
Top View



### DS9370-BEL Coverage Pattern

The DS9370-BEL is designed for use in Belgium and has a unique coverage pattern. The typical pattern shown is for 3.7 m mounting height with optical adjustments set to 1. The maximum range is available between the lens centers, not directly in front of the lens as might be expected.

*Top View*



### Mounting Considerations

- The mounting height range is from 8 ft to 25 ft (2.4 m to 7.6 m). The recommended mounting height range is from 12 ft to 25 ft (3.7 m to 7.6 m) where the coverage area can be set between 30 ft and 70 ft (9.1 m and 21.3 m). When mounted at 8 ft (2.4 m) high, the coverage area can be set between 20 ft and 40 ft (6.1 m and 12.2 m). When mounted at 10 ft (3 m) high, the coverage area can be set between 20 ft and 50 ft (6.1 m and 15.2 m).
- These detectors can be mounted directly to the ceiling or to a standard 3.5 in. rectangular electrical box.
- The maximum range of the detector depends on the mounting height and the vertical adjustment of the PIR coverage pattern. In areas where part of the area needs a targeted coverage, the optical modules can be adjusted for the correct coverage.

- A masking kit containing two 120° and two 90° masks is included to allow masking of unwanted areas. The masks are designed to go on the outside of the detector. With the supplied masks, you can mask 90°, 120°, 180°, 210°, 240°, or 330°.

### Power Considerations

#### Power Limits

Input power must be provided by an Approved Limited Power Source. All outputs must be connected to SELV (Safety Extra-Low Voltage) circuits only.

#### Standby Power

This detector has no internal standby battery. *For UL Listed product installations, 4 hr (116 mAh in standby; 156 mAh in alarm) of standby power must be supplied by the control unit or by a UL Listed burglary power supply.*

### Series Technical Specifications

#### DS9370 Series Specifications

##### Enclosure Design

Design: Modular chassis and hinged mounting base design provide easy access to setup switches and wiring.

Dimensions (HxD): 3.5 in. x 7 in. (8.9 cm x 17.8 cm)

Material: High impact ABS plastic enclosure

##### Environmental Considerations

Operating Temperature: -40°F to +120°F (-40°C to +49°C)  
*For UL Certificated installations,*  
 +32°F to +120°F (0°C to +49°C)

##### Outputs

Alarm: Form C reed relay rated at 3.0 W, 125 mA @ 28 VDC for resistive loads.

Cover and Ceiling Tamper: Normally-closed (with cover on) tamper switch with contacts rated at 28 VDC, 125 mA maximum.

Power Requirements: 9 VDC to 15 VDC, 29 mA standby, 39 mA in alarm.

Radio Frequency Interference (RFI) Immunity: No alarm or setup on critical frequencies in the range from 26 MHz to 950 MHz at 50 v/m.

### **DS9370 Panoramic TriTech Detector (10.525 GHz)**

Order number	DS9370
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The DS9370 is intended for use in all countries within the Americas (North, Central, and South), all countries in the Asia/Pacific region, and in the following countries:

Denmark	Greece	Hungary
Italy	Netherlands	Norway
Poland	Romania	Spain
Sweden	Ukraine	

### **DS9370-BEL DS9370 for Belgium (10.525 GHz)**

Order number	DS9370-BEL
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The DS9370-BEL meets all requirements for use in Belgium and has a unique coverage pattern.

### **DS9370-C Panoramic TriTech Detector (10.588 GHz)**

Order number	DS9370-C
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The DS9370-C is intended for use in the following countries:

Czech Republic	Denmark	France
Greece	Hungary	Italy
the Netherlands	Norway	Poland
Ukraine	United Kingdom	

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