

# DS9371 Panoramic TriTech Detector

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- ▶ Up to 7.6 m (25 ft) mounting height
- ▶ 360° x 20 m (70 ft) diameter pattern
- ▶ 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

The DS9371 TriTech® detector can be used on ceilings as high as 7.6 m (25 ft). 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 fully-adjustable PIR sections, coverage can be customized for specific areas at all mounting heights.

## 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.

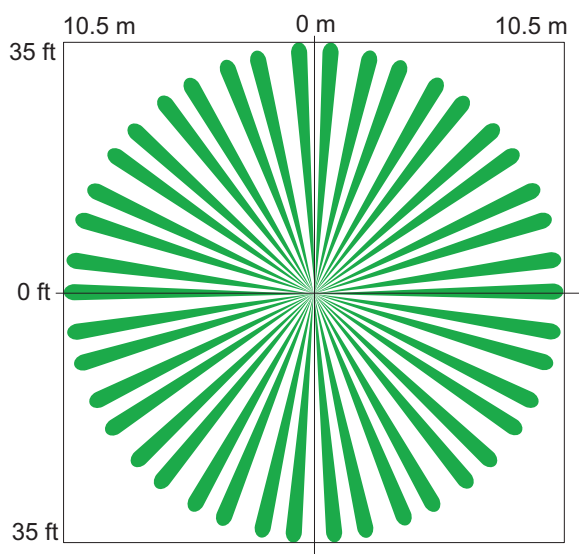
### Test Features

- 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.

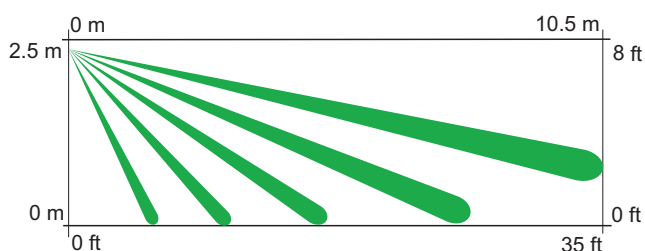
## Certifications and approvals

| Region | Certification |                                                                                                                                                                                                                                                                                                  |
|--------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Europe | CE            | 2014/30/EU EMC Directive (EMC); 2014/35/EU Low-Voltage Directive (LVD); 1999/5/EC Radio equipment and Telecommunications Terminal Equipment (R&TTE); 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) [DS9370][DS9371] [DS9370-C] |
| USA    | UL            | ANSR: Intrusion Detection Units (UL639), ANSR7: Intrusion Detection Units Certified for Canada (cULus)                                                                                                                                                                                           |
|        | FCC           | ESV9370                                                                                                                                                                                                                                                                                          |
| Brazil | ANATEL        | Certificado Anatel 0871-03-1855 [DS9370 & DS9371]                                                                                                                                                                                                                                                |

## Installation/configuration notes



Top View



Side View

### Coverage Information

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

### Mounting Considerations

The mounting height range is from 2.4 m to 7.6 m (8 ft to 25 ft). The recommended mounting height range is from 3.7 m to 7.6 m (12 ft to 25 ft). The coverage area can be set between 9.1 m and 21.3 m (30 ft and 70 ft). If mounted at 2.4 m (8 ft) high, the coverage area can be set between 6.1 m and 12.2 m (20 ft and 40 ft). If mounted at 3 m (10 ft) high, the coverage area can be set between 6.1 m and 15.2 m (20 ft and 50 ft). These detectors can be mounted directly on the ceiling or on a standard 9 cm (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 unwanted areas. Apply the masks to 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 safety extra-low voltage (SELV) circuits only.
- **Standby Power:** This detector has no internal standby battery. For UL Listed product installations, four hours (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.

## Technical specifications

### Enclosure Design

|             |                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------|
| Design:     | Modular chassis and hinged mounting base design provide easy access to setup switches and wiring. |
| Dimensions: | 8.9 cm x 17.8 cm<br>(3.5 in. x 7 in.)                                                             |
| Material:   | High impact ABS plastic enclosure                                                                 |

### Environmental Considerations

|                                              |                                                                                                              |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Operating Temperature:                       | -40°C to +49°C (-40°F to +120°F)<br><i>For UL Certificated installations, 0°C to +49°C (+32°F to +120°F)</i> |
| 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.                     |

### Outputs

|                           |                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|
| Alarm:                    | Form C reed relay rated at 3.0 W, 125 mA at 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

|          |                                |
|----------|--------------------------------|
| Current: | 19 mA standby, 39 mA in alarm. |
| Voltage: | 9 VDC to 15 VDC                |

## Trademarks

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

## Ordering information

### DS9371 Panoramic TriTech Detector

Provides PIR and microwave, 360° x 21 m (70 ft) diameter coverage and 2.4 m to 7.6 m (8 ft to 25 ft) mounting height with black enclosure and lenses.  
Order number **DS9371**

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