# DS9370/DS9371 Series Panoramic TriTech Ceiling Mount Detectors

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- ▶ Up to 6.1 m (20 ft) mounting height
- ► Fully adjustable optics for coverage integrity and customization
- ▶ Hinged chassis and base plate for easy installation
- ► High efficiency LED and light pipe system for easy walk testing
- ▶ First Step processing, or FSP

Each DS9370 Series TriTech PIR/Microwave Doppler radar Motion Detector model is panoramic and uses several patented processing techniques to provide excellent catch performance with freedom from false alarms. Each model can be mounted on ceilings as high as 6.1 m (20 ft). With three separate PIR sections that are fully adjustable, the DS9370 Series provides coverage integrity at all mounting heights, plus the ability to customize the coverage for specific areas.

# **Functions**

#### Signal Processing

Uses passive infrared and microwave Doppler radar 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.

# First Step Processing

FSP allows virtually instant response to human targets without sacrificing false alarm immunity to other sources. By adjusting its sensitivity based upon signal amplitude, polarity, slope and timing, FSP eliminates the need for the installer to select the sensitivity level

for the application. Each sensor is processed individually and both must agree there is an alarm before the alarm relay is activated.

#### Microwave Noise Adaptive Processing

Adaptive processing adjusts to background disturbances. This helps to reduce false alarms while maintaining catch performance.

# **Microwave Supervision**

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

## **Test Features**

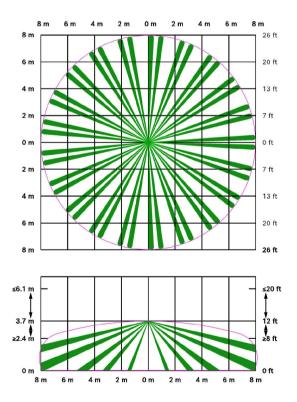
- High efficiency LED and light-pipe system provide walk test indication that is easily viewable from any angle and at any mounting height.
- Alarm memory feature allows detector to latch the alarm LED to aid in response.
- Remote LED walk-test control allows the LED to be enabled or disabled using a switched input without accessing the detector.

# **Certifications and approvals**

Australia DS9370: AUS C-tick

Region	Regulate	ory compliance/quality marks
Australia	RCM	[DS9370]
Europe	EN5013 1	2820200009A1 [DS9370E-C]
	EN5013 1	2800200010A1 [DS9370E]
Sweden	SBSC	470 3 008 20 0008 [DS9370E]
Russia	GOST	TC N RU Д-NL.МН09.В.00334 EAC
USA	UL	20190115; UL639 – Standard for Intrusion-Detection Units
	UL	Intrusion Detection Units Certified for Canada (cULus) [DS9370]
	FCC	ESV9370
Canada	IC	1249A-12073
France	AFNOR	2800200010A1 2021-DS9370E- BOSCH
	AFNOR	2820200009A1 [DS9370E-C]
China	CCC	2015031901000325 [DS9370-CHI]
Brazil	ANATEL	Certificado Anatel 0871-03-1855 [DS9370 & DS9371]
Singapore	iDA	LPREQ-S0154-2004 [DS9370]

# Installation/configuration notes



#### **Mounting Considerations**

The mounting height range is from 2.4 m to 6.1 m (8 ft to 20 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 as well as the presence or lack of microwave Doppler radar reflective materials within the coverage area. 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°.

# **Coverage Information**

For UL, ULC applications, provides up to 7.0 m (23 ft) radius, 14.0 m (46 ft) diameter 360° coverage when mounted up to 6.1 m (20 ft).

For EN50131 applications, provides up to 7.0 m (23 ft) radius, 14.0 m (46 ft) diameter  $360^{\circ}$  coverage when mounted up to 5.2 m (17 ft).

For CCC applications, provides up to 8.2 m (27 ft) radius, 16.4 m (54 ft) diameter 360° coverage when mounted up to 4.9 m (16 ft).

Pattern consists of 69 zones in 21 barriers. The barriers are grouped into three groups of seven barriers each. Each group has vertical adjustment for customized coverage.

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# **Technical specifications**

# **Enclosure Design**

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

# **Environmental Considerations**

Operating Temperature	FCC: $+5$ °C to $+50$ °C (41 °F to 122°F) CCC / CE (excluding France, UK): $-10$ °C to $+55$ °C (14 °F to 131 °F) CE France: $5$ °C to $+40$ °C (41 °F to 104 °F)
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.

# Mounting

Height Range	2.4 m to 6.1 m (8 ft to 20 ft) recommended
Location	Mounts directly to ceiling or to standard 10.2 cm (3.5 in.) octagonal electrical box.

# **Outputs**

Alarm	Form C Solid State relay rated at 2.8 W, 100 mA at 28 VDC for DC-resistive loads.
Tamper	Cover and ceiling tamper. Normally Closed (with cover in place) tamper switch. Contacts rated at 28 VDC, 100 mA, 3 W maximum.

# **Power Requirements**

Current	12 mA standby, 20mA in alarm. Max 24mA
Voltage	9 VDC to 15 VDC

# **Ordering information**

### DS9370 Motion detector 360° ceiling mount

Classic Line TriTech CM Motion detector, 360° ceiling mount. 10.52 to 10.55 GHz <20mW. White. Order number DS9370

# DS9370E Motion detector 360° ceiling mount, EU

Classic Line TriTech CM Motion detector, 360° ceiling mount. For use in Europe. 10.52 to 10.55 GHz. <20mW. White.

Order number **DS9370E** 

# DS9370E-C Motion detector 360° ceiling mount, FR

Classic Line TriTech CM Motion detector, 360° ceiling mount. 10.57 - 10.60 GHz. <20mW. White. For use in France only.

Order number DS9370E-C

# DS9370-CHI Motion detector 360° ceiling mount, CN

Classic Line TriTech CM Motion detector, 360° ceiling mount. For use in China. 10.525 GHz. White. Order number DS9370-CHI

# DS9371 Motion detector 360° ceiling black

Classic Line TriTech CM Motion detector, 360° ceiling mount, 10.52 to 10.55 GHz <20mW. Black enclosure and lenses.

Order number DS9371

#### DS9371E Motion detector 360° ceiling black, EU

Classic Line TriTech CM Motion detector, 360° ceiling mount. For use in Europe. 10.52 to 10.55 GHz. <20mW. Black enclosure and lenses. Order number DS9371E

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