



BOSCH
Invented for life

DS720i Long Range TriTech PIR Detector (10.525 GHz)



- ▶ Supervised microwave and PIR
- ▶ Anti-masking with spray detect
- ▶ Motion monitor
- ▶ Motion Analyzer II
- ▶ Field-changeable mirrored optics

The wall or ceiling mount DS720i TriTech® PIR and Microwave Detector covers up to 91 m (300 ft). Motion Monitor and Anti-masking protection provides coverage integrity. Field replaceable mirrored optics and three different coverage patterns provide installation flexibility.

Functions

Alarm Memory

- Indicates stored alarms for use in multiple unit applications by latching the alarm LED.
- Controlled by a switched voltage from the control panel.

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. Adjustable PIR and microwave sensitivity.

PIR Signal Processing

Uses Motion Analyzer II multiple thresholds and timing windows to analyze timing, amplitude, duration, and polarity of signals to make an alarm decision. Will not alarm on extreme levels of thermal and illumination disturbances caused by heaters and air conditioners, hot and cold drafts,

sunlight, lightning, and moving headlights. Two sensitivity settings are provided.

Microwave Signal

Uses pattern recognition circuitry to identify and ignore repetitive false alarm sources. Adaptive processing adjusts to background disturbances to reduce false alarms while maintaining catch performance.

Test Features

High-efficiency walk test LED is visible throughout the coverage pattern (reducing installation time). LED flashes to indicate a trouble condition. Internal noise voltage test pins use standard analog meter to provide precise pattern location and background disturbance evaluation. Separate test LEDs for PIR and microwave activation. Alarm LED can be controlled remotely.

Supervised Microwave and PIR

Patented fully supervised microwave and PIR circuitry provides single technology coverage in the event the microwave subsystem fails. Use the memory circuit to force a self-test at anytime.

Anti-masking With Spray Detect

Selectable to provide a microwave supervision trouble signal if microwave reflective material (metal, wood,

plastics) is placed within 30.5 cm (1 ft) of the detector. IR Anti-masking feature detects objects placed to cover the detector or sprayed on the lens area. Anti-mask sensitivity is selectable, and Anti-mask activation can be delayed to reduce false alarms.

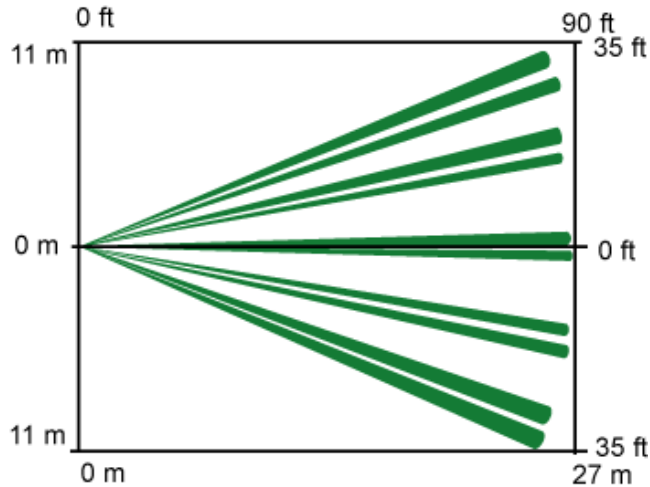
Motion Monitor

Switch-selectable four or thirty day Motion Monitor supervision timers provide the detector with the ability to verify that there is a clear view of the protection area and that it has not been blocked.

Certifications and Approvals

UL Standard UL639, Intrusion Detection Units
Approval FCC Compliant

Installation/Configuration Notes



Top View
Standard Broad Coverage: 27 m x 21 m (90 ft x 70 ft). The standard broad coverage mirror (OA90) is included.



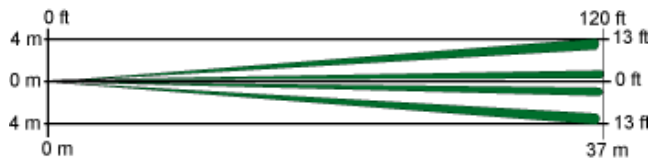
Side View
Standard Broad Coverage: 27 m x 21 m (90 ft x 70 ft). The standard broad coverage mirror (OA90) is included.



Top View
Standard Long Range Coverage: 91 m x 21 m (300 ft x 15 ft). The long range coverage mirror (OA300) is installed.



Side View
Standard Long Range Coverage: 91 m x 21 m (300 ft x 15 ft). The long range coverage mirror (OA300) is installed.



Top View
Optional Long Range: 37 m x 8 m (120 ft x 26 ft). The long range coverage mirror (OA300) is installed.



Side View
Optional Long Range: 37 m x 8 m (120 ft x 26 ft). The long range coverage mirror (OA300) is installed.

Parts Included

Quantity	Component
1	B334 Swivel Mount Bracket
1	Standard Broad Coverage Mirror, labeled OA90
1	Long Range Coverage Mirror, labeled OA300

Note The Long Range Coverage Mirror is installed.

Technical Specifications

Enclosure Design

Dimensions:	20.8 cm x 19.5 cm x 13 cm (8 in. x 7.5 in. x 5 in.)
Material:	High impact ABS plastic enclosure
Properties:	With steel grid over optics area houses a removable circuit board and minor holder assembly.

Environmental Considerations

Operating Temperature:	-29°C to +49°C (-20°F to +120°F) <i>For UL Certificated installations, 0°C to +49°C (+32°F to +120°F)</i>
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Radio Frequency Interference (RFI) Immunity:	No alarm or setup on frequencies in the range from 26 MHz to 950 MHz at 50 V/m.
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Mounting

Height:	4.6 m (15 ft) maximum
Location:	Mounts directly to ceiling or to standard 10.2 cm (4 in.) octagonal electrical box.

Outputs

Alarm:	Form Creed relay rated at 3.0 W, 125 mA at 28 VDC for resistive loads and protected by a 4.7 Ω, 0.5 W resistor in the common C leg.
Tamper:	Normally-closed tamper switch. Contacts rated at 28 VDC, 125 mA maximum.
Trouble:	Normally-closed dry contacts rated at 28 VDC, 125 mA maximum. Open during trouble.

Power Requirements

Current Draw:	32 mA nominal at 12 VDC; up to 60 mA during walk test, stored alarm, or trouble conditions.
Voltage:	9 VDC to 15 VDC

Trademarks

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

Ordering Information

DS720i Long Range TriTech PIR Detector (10.525 GHz) DS720i

Operates at 10.525 GHz. Provides 27 m x 21 m (90 ft x 70 ft) standard broad coverage and 91 m x 21 m (300 ft x 15 ft) long range coverage. Provides anti-masking with spray detect, motion monitor, and Motion Analyzer II signal processing.

Ordering Information

Accessories

OA120-2 Mirror A 36.5 m (120 ft) optical array module. Shipped in packages of two.	OA120-2
TC6000 Test Cord Test cord for connecting a compatible detector's test pins to a voltmeter. It is 4.6 m (15 ft) long.	TC6000

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