DS938Z and ZX938Z Series Panoramic PIR Detectors

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BOSCH
Invented for life

▶ Motion Analyzer II processing

▶ Motion Monitor

▶ Self-test supervision systems

▶ Changeable mirrors

▶ 360° x 18 m (60 ft) diameter pattern

These ceiling mount, 18 m (60 ft) panoramic PIR Detectors use Motion Analyzer II processing to reduce false alarms. The series consists of the:

- DS938Z Panoramic Detector
- ZX938Z Panoramic Detector with POPIT

Several unique self-test features, including Motion Monitor, provide coverage integrity. Field replaceable mirrored optics allow them to be mounted on ceilings from 2.5 m to 6 m (8 ft to 18 ft) in height.

Functions

Motion Analyzer II Processing
Motion Analyzer II uses multiple thresholds and timing windows to analyze timing, amplitude, duration, and polarity of signals to make an alarm decision. It 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. Provides three sensitivity settings.

PIR Supervision
PIR supervision provides trouble output in the event that PIR circuitry fails.

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.

Test Features
Three externally visible high output alarm LEDs visible from any angle, flash to indicate trouble condition. Internal noise voltage test pins provide precise pattern location and background disturbance evaluation using a standard analog meter.
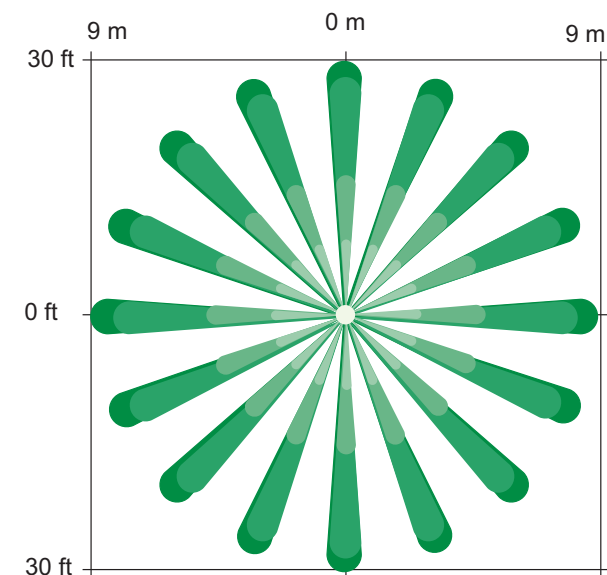
Certifications and approvals

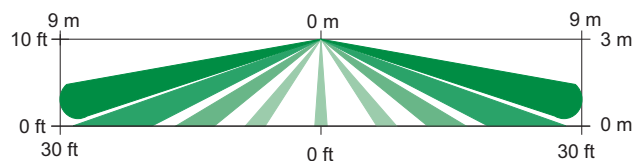These detectors have also been designed to meet the requirements of:

Europe	DS938Z complies with EN50131-1, Grade 2	
France	AFNOR	NF, A2P

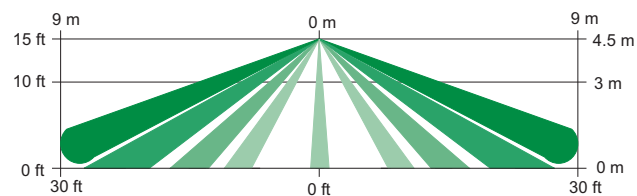| Region	Certification	
Australia	RCM	[DS938Z]
Europe	CE	2004/108/EC EMC Directive (EMC); 2006/95/EC Low-Voltage Directive (LVD); 2011/65/EU Restriction of the [DS938Z][DS938Z-FRA]
	EN50131	EN50131-2-4, Grade 2 [DS938Z-FRA]
USA	UL	DS938Z: ANSR: Intrusion Detection Units (UL639)
	UL	ZX938Z: ANSR: Intrusion Detection Units (UL639)
France	AFNOR	260001760A1 [DS938Z-FRA]
China	CCC	DS938Z: 2002031901000002
	CCC	DS938Z-CHI: 2004031901000036
Sweden	INTYG	DS938Z only: 04-683

Installation/configuration notes

Top View
360° x 18 m (60 ft) diameter

AR8-13 Side View
360° x 18 m (60 ft) diameter

AR13-18 Side View
360° x 18 m (60 ft) diameter

Technical specifications

Enclosure Design

Material:	High impact ABS plastic enclosure
Dimensions:	8.4 cm x 13.3 cm (3.3 in. x 5.25 in.)

Environmental Considerations

Operating Temperature:	-29°C to +49°C (-20°F to +120°F) *For UL Listed Applications, 0°C to + 49°C (+32°F to +120°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.
DS938Z:	Complies with Environmental Class II (EN50130-5)

Mounting

Height (recommended):	2.5 m to 6 m (8 ft to 18 ft)
Location:	Mounts directly to ceiling or to standard octagonal electrical box.
Internal Pointability:	Coverage is adjustable ±10° horizontally, +2° to -18° vertically.

Outputs (DS models)

Alarm:	Form C reed relay at 3.0 W, 125 mA at 28 VDC for resistive loads
Tamper:	Normally-closed. Contacts rated at 28 VDC, 125 mA maximum.

Outputs (ZX model)

Alarm:	Signal through POPEX data bus.
Tamper:	Signal through POPEX data bus. Signaled as missing.
Trouble:	Signal through POPEX data bus.

Power Requirements (DS models)

Current:	18 mA at 12 VDC
Voltage:	6 VDC to 15 VDC

Power Requirements (ZX model)

Current:	< 0.5 mA nominal, 2 mA in alarm with LED enabled
Voltage:	Power comes from two-wire POPEX bus.

Note: Do not leave Walk Test LEDs enabled.

Ordering information

DS938Z Panoramic Detector
Provides PIR, 360° x 18 m (60 ft) diameter coverage and 2.5 m to 6 m (8 ft to 18 ft) mounting height.
Order number **DS938Z**

DS938Z-CHI Panoramic Detector
For use in China. Provides Motion Analyzer II processing, movable mirrors, and 360° x 18 m (60 ft) diameter coverage.
Order number **DS938Z-CHI**

DS938Z-FRA Panoramic Detector
Provides PIR, 360° x 18 m (60 ft) diameter coverage and 2.5 m to 6 m (8 ft to 18 ft) mounting height. For use in France.
Order number **DS938Z-FRA**

ZX938Z Panoramic Detector
Provides PIR, 360° x 18 m (60 ft) diameter coverage and 2.5 m to 6 m (8 ft to 18 ft) mounting height with internal POPIT.
Order number **ZX938Z**

Accessories

AR13-18-3 Optical Module
Designed for 4 m (13 ft) to 6 m (18 ft) mounting height. Shipped in packages of three.
Order number **AR13-18-3**

TC6000 Test Cord
Test cord for connecting a compatible detector's test pins to a voltmeter. It is 4.6 m (15 ft) long.
Order number **TC6000**