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

<table>
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<th>Region</th>
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<tbody>
<tr>
<td>Australia</td>
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<td>China</td>
<td>CCC DS938Z: 2002031901000002</td>
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<td>CCC DS938Z-CHI: 2004031901000036</td>
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<td>Sweden</td>
<td>INTYG DS938Z only: 04-683</td>
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**Installation/configuration notes**

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**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**