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MX938i Multiplex Intrusion Detector

- **Interchangeable optical modules**
- **Selectable sensitivity**
- **Selectable signal gain**
- **Internal tamper switch**

The MX938i is a ceiling-mount PIR intrusion detector that provides a 360° coverage pattern consisting of 64 zones grouped into 16 barriers, with one additional zone looking straight down from the unit (sabotage). Through the use of interchangeable optical modules, the detector can be mounted on ceilings from 2.4 m (8 ft) to 5.5 m (18 ft) high.

It is designed to connect to the multiplex bus of a control panel and optionally to an auxiliary 12 VDC power source. It is compatible with DS7400Xi Series Control Panels with a DS7430 or DS7436 Multiplex Expansion Module or with GV2 and G Series Control Panels with a D8125MUX Module installed.

Note The DS7400Xi Series Control Panels require ROM version 1.07 or greater.

Functions

Interchangeable, Pointable Mirrors

The detector comes with two optical modules:

- **AR8-13:** For ceilings between 2.4 m (8 ft) and 4.0 m (13 ft) high
- **AR13-18:** For ceilings between 4.0 m (13 ft) and 5.5 m (18 ft) high

Selectable Sensitivity

- **Standard:** Recommended setting for maximum false alarm immunity. Tolerates environment extremes on this setting. Not recommended for Long Range or Barrier type patterns. The detector is shipped in Standard Sensitivity mode.
- **Intermediate:** Recommended setting for any location where an intruder is expected to cover only a small portion of the protected area. Tolerates normal environments on this setting. This setting will improve your intruder catch performance.
- **High:** Fast response to intruder signals. For use in quiet environments where thermal and illumination transients are not anticipated.

Signal Gain

The MX938i permits selection of the signal gain depending upon the environment to be protected. The gain select jumper is located under the optical module.

- **High Gain:** Recommended for large coverage applications up to 18.3 m (60 ft) in diameter. The MX938i is shipped in this setting. If the gain jumper is missing, it will default to high gain.
- **Low Gain:** Recommended for applications where the area to be covered is 12.2 m (40 ft) or less in diameter and for applications where the HIGH signal gain setting may be too sensitive for environmental extremes.

Note Setting the MX938i for the LOW signal gain setting reduces the coverage area to 12.2 m (40 ft) in diameter.

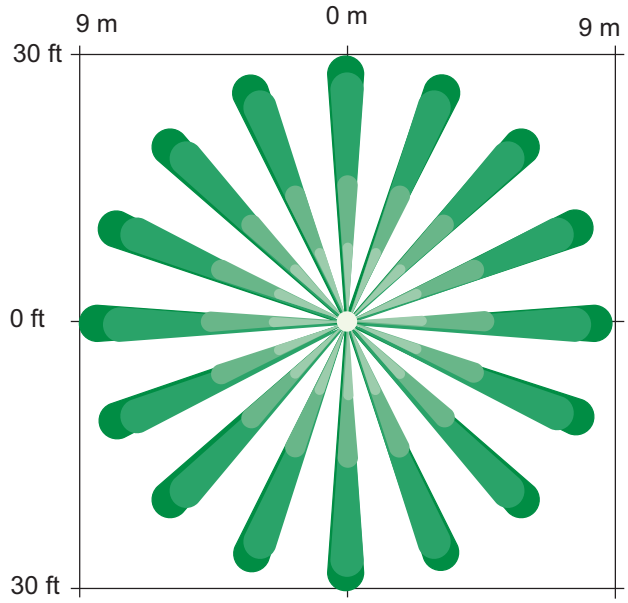
Internal Tamper Switch

The internal tamper switch sends a signal to the panel's multiplex bus for display at the keypads when the detector's cover is removed.

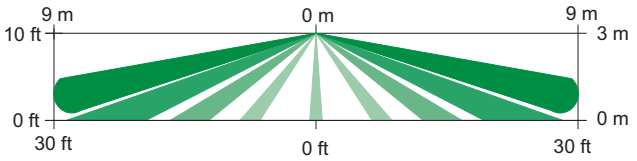
Certifications and Approvals

Region	Certification	
USA	UL	ANSR: Intrusion Detection Units (UL639)
China	CCC	MX938i: 2002031901000002
Europe	CE	

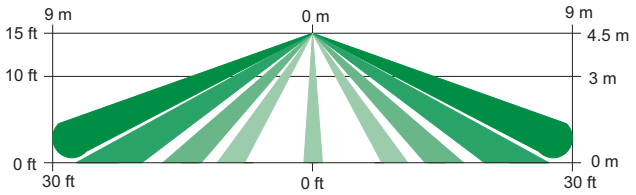
Installation/Configuration Notes



Top View
360° x 18.3 m (60 ft) Diameter



AR8-13 Side View - This view shows a cross section of two opposite zones.



AR13-18 Side View - This view shows a cross section of two opposite zones.

Coverage Information

The recommended mounting height range is 2.4 m (8 ft) to 5.5 m (18 ft). The pattern consists of 64 zones grouped into 16 barriers, with one additional zone looking straight down from the unit (sabotage). Each barrier is 9.2 m (30 ft) long and 1.3 m (4.4 ft) wide at 9.2 m (30 ft).

There is a choice of two optical modules depending on ceiling height. These choices provide 360° by 18.3 m (60 ft) diameter coverage when mounted on 2.4 m (8 ft) to 5.5 m (18 ft) high ceilings.

Wiring Considerations

Do not use shielded cable. Use wire that is no smaller than 0.8 mm (22 AWG) to connect the detector to the control panel.

Technical Specifications

Environmental Considerations

Temperature (Operating):	-29°C to +49°C (-20°F to +120°F). *For UL Listed Requirements, the temperature range is 0°C to +49°C (+32°F to +120°F).*

Power Requirements

Standby Power:	There is no internal standby battery. Connect to DC power sources capable of supplying standby power if primary power fails. For each hour of standby time needed, 350 µAh are required. *For UL Listed Requirements, four hours (1400 µAh) minimum is required.*
Voltage (Input):	12 VDC from panel's MUX bus and optionally from an auxiliary power supply.
Current Draw (two-wire):	
LED Off:	< 350 µA draw on MUX bus
In Alarm; LED On:	2 mA draw on MUX bus
Current Draw (four-wire):	
LED Off:	< 350 µA draw on MUX bus, 0 mA draw on Aux. power
In Alarm; LED On:	< 350 µA draw on MUX bus, 3 mA draw on Aux. power

Ordering Information

MX938i Multiplex Intrusion Detector Provides a 360° coverage pattern consisting of 64 zones grouped into 16 barriers.	**MX938i**
Accessories	
AR13-18-3 Optical Module Designed for 4 m (13 ft) to 6 m (18 ft) mounting height. Shipped in packages of three.	**AR13-18-3**

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