

MX938i Ceiling-Mount Multiplex Intrusion Detector

Prod. ID

MX938i



The MX938i is a ceiling-mount PIR intrusion detector that provides a 360° coverage pattern consisting of 64 zones grouped into sixteen 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 8 ft. (2.4 m) to 18 ft. (5.5 m) 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 Detection Systems' DS7400, DS7400X, or DS7400Xi Series Control/Communicators with a DS7430 or DS7436 Multiplex Expansion Module or with Bosch Security Systems' 9000 Series Control/Communicators with a D8125MUX Module installed.

Note: The DS7400 and DS7400X require ROM version 1.07 or greater.

■ Features

- Interchangeable optical modules
- Selectable sensitivity
- Selectable signal gain
- Built-in tamper switch

■ Basic Functions

Interchangeable, pointable mirrors

The detector comes with two optical modules:

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

Selectable sensitivity

Selectable for Standard, Intermediate or High:

- **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 60 ft. (18.3 m) 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 40 ft. (12.2 m) 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 40 ft. (12.2 m) in diameter.

Built-in Tamper Switch

The built-in tamper switch sends a signal to the panel's Multiplex Bus for display at the keypads when the detector's cover is removed.

■ Approvals

UL Standards

UL639, Intrusion-Detection Units

Approvals

CE

■ Planning

Wiring

Note: Do not use shielded cable.

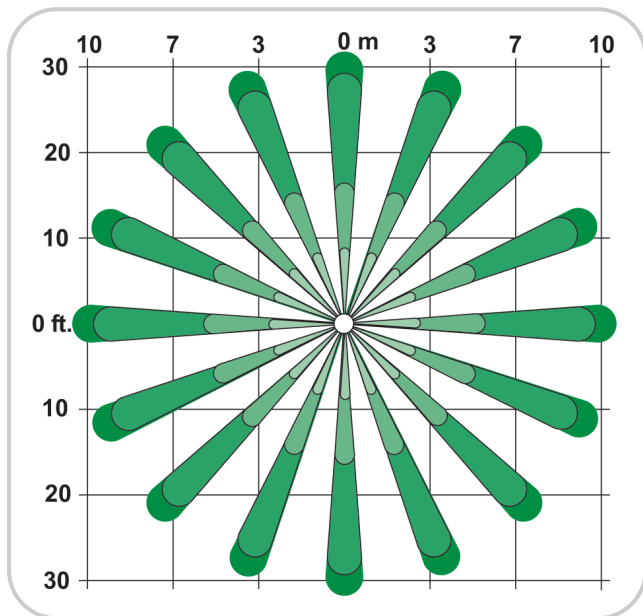
Use wire that is no smaller than #22 AWG (0.8 mm) to connect the detector to the control panel.

Coverage

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

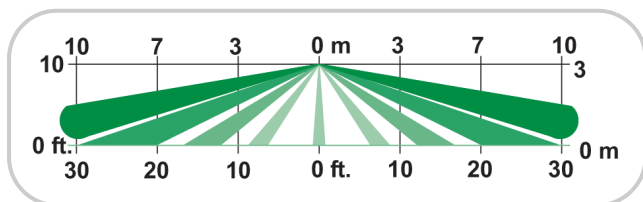
There is a choice of two optical modules depending on ceiling height. These choices provide 360° by 60 ft. (18.3 m) diameter coverage when mounted on 8 ft. (2.4 m) to 18 ft. (5.5 m) high ceilings.

Top View: 360° x 60 ft. (18.3 m) diameter

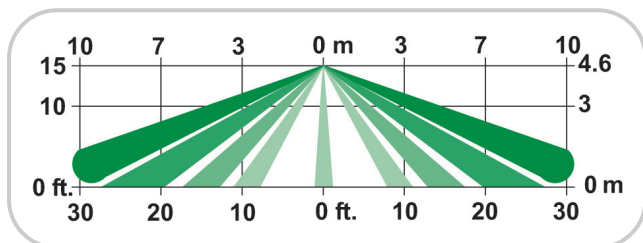


Note: The following side views show a cross section of two opposite zones.

AR8-13 Side View



AR13-18 Side View



Technical Specifications

Environmental Considerations

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

Current Draw (2-wire):

LED Off:	< 350 µA draw on Mux Bus
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In Alarm; LED On:	2 mA draw on Mux Bus
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Current Draw (4-wire):

LED Off:	< 350 µA draw on Mux Bus, 0 mA draw on Aux. power
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In Alarm; LED On:	< 350 µA draw on Mux Bus, 3 mA draw on Aux. power
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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. <i>For UL Listed Requirements, 4 hrs. (1400 µAh) minimum is required.</i>
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Voltage (Input):	12 VDC from panel's MUX Bus and optionally from an auxiliary power supply.
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US Patents:	#4,764,755; #5,268,668; #5,302,941
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