



Indoor Intrusion Detection Systems

PIRAMID MW

Microwave Sensor for High Security Applications



Overview

The **PIRAMID MW** indoor models are single technology microwave intrusion sensors designed for applications where the very highest level of security is required or where single technology intrusion sensors are a requirement. As in all PROTECH intrusion sensors, PIRAMID MW sensors utilized PROTECH's proprietary "Stereo Doppler" Microwave Technology.

Stereo Doppler Technology

Protech's unique microwave technology can determine the precise distance in inches (centimeters) that a target must move to create a valid alarm signal. With the advanced "Stereo Doppler" signal processing PROTECH sensors can discriminate against vibration and randomly moving targets as potential sources of nuisance alarms.

Applications

The **PIRAMID MW** offers enhanced detection capability for slow moving, fast moving, and crawling intruders. The PIRAMID MW indoor sensors can be used in various high security applications such as military bases, correctional facilities and nuclear power plants where the highest level of security is required. The PIRAMID MW offers a very high PD (probability of detection) of greater than 0.95 yet, provides a very low NAR/FAR (Nuisance Alarm Rate/False Alarm Rate).

FEATURES

- **Stereo Doppler Microwave Sensor** - Two receiving channels with the ability to eliminate vibration and periodically moving objects as sources of false alarms.
- **Microprocessor Controlled** - Proprietary integrated circuit design provides enhanced digital signal processing for both microwave and passive infrared technologies.
- **Stereo Doppler Supervision** - Self-checking circuitry ensure proper performance is maintained.
- **Master LED** - Displayed on the face of the unit indicating the alarm relay status.
- **Analytic LEDs** - Alarm and environmental caution LEDs for Stereo Doppler Microwave and Passive Infrared portions are displayed on the face of the sensor. An internal switch can disable analytic LEDs.
- **Metal Housing** - Rugged and durable; offers maximum protection against RFI and EMI interference.
- **Fluorescent Filter Module (Optional)** - FF-3 Fluorescent Filter eliminates interference from nearby fluorescent lighting affecting sensor performance. **Note: Add FF-3 to model designation.**

TECHNICAL SPECIFICATIONS	
Input Voltage	10.5 VDC to 28 VDC
Current Consumption	150 mA at 12 VDC (LEDs off)
RF Power Density	120 μ W/cm ² max. at the face of the unit
Operating Temperature	-40°F to 158°F / -40°C to 70°C
Operating Humidity	0 to 100% relative humidity
Relay Contact Rating	100 mA / 50 V
Housing Dimensions	6.70" x 5.25" x 3.5" (14.88cm x 13.34cm x 8.890cm)
Frequency Bands	10.525 GHz USA; International 10.587 GHz/9.90 GHz/9.47 GHz

ORDERING INFORMATION - COMMERCIAL VERSIONS	
SDI-76-MW	50 ft. x 50 ft. (15m x 15m)
SDI-77-MW	100 ft. x 60 ft. (30m x 18m)

* HS Features - High Security PCB Assembly (Optional)



For the purpose of continuously improving the quality and performance of its products, Protech reserves the right to change the above specifications without notice.

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