



Outdoor Intrusion Detection Systems

PIRAMID XL-MIL & XL-HS

Dual Technology Sensor for High Security Applications



Overview

The high security version of the **PIRAMID (MIL Sensor)** offers enhanced detection capability for slow moving, fast moving and crawling intruders.

The **PIRAMID XL-MIL** combines PROTECH's proprietary "Stereo Doppler" microwave technology with a dual element passive infrared sensor. The independent sensor modules are "And Gated" and must activate simultaneously to create an overall sensor alarm.

Applications

PIRAMID XL-MIL detectors 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 XL-MIL 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.
- **Dual Element Infrared Sensor** - Ignores normal temperature variations yet very responsive to rapid infrared changes created by an intruder.
- **Microprocessor Controlled** - Proprietary integrated circuit design provides enhanced digital signal processing for both microwave and passive infrared technologies.
- **Balanced Temperature Compensations** - Stereo Doppler Microwave and Passive Infrared automatically adjust detection parameters to compensate for losses in range that occur at elevated temperatures.
- **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.
- **Weather Shroud** - Metal hood provides maximum protection from rain, snow, wind, and sun loading.
- **Assorted Protection Patterns** - Interchangeable Fresnel Lens Modules offer tremendous assortment of protection patterns for optimum flexibility.
- ✳ **HS Auxiliary PCB** - Optional factory installed PCB providing anti-masking and self-test features.
- **False Alarm Rate** - 1/unit/year based on signal to noise ratio.
- **Probability of Detection** - Greater than 0.95



TECHNICAL SPECIFICATIONS

Input Voltage	10 VDC to 28 VDC
Current Consumption	150 mA at 12 VDC (LED's off)
RF Power Density	120 uW/cm ² max. at the face of the unit
Operating Temperature	-40°F to 150°F / -40°C to 65°C
Operating Humidity	0 to 100% relative humidity
Relay Contact Rating	0.1 A / 50 V
Housing Dimensions	6.5" (L) x 5.25" (W) x 3.5" (H) (16.5cm x 13.3cm x 8.5cm)
Shroud Dimensions	9.25" (L) x 6" (W) x 4.25" (H) (23.5cm L x 15.25cm W x 11cm H)
Frequency Bands	10.525 GHz USA International Frequencies: 10.587 GHz/9.90 GHz/ 9.47 GHzv

ORDERING INFORMATION

SDI-76XL-MIL	50 ft. x 50 ft. (15m x 15m) - Lens H - Dual Technology Sensor
SDI-77XL-MIL-D	100 ft. x 10 ft. (30m x 3m) Lens D - Dual Technology Sensor
SDI-76XL-HS*	50 ft. x 50 ft. (15m x 15m) - Lens H - Dual w/Anti-Masking*
SDI-77XL-HS*	100 ft. x 100 ft. (30m x 30m) Lens D - Dual w/Anti-Masking*
HS Versions*	HS Auxiliary PCB Factory installed providing Anti-Masking Feature

NC224-EN V3.0.02.21



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