

Indoor Intrusion Detection Systems

## **PIRAMID**

Dual Technology Sensor for Medium and High Security Applications



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The PIRAMID indoor intrusion sensor combines Stereo Doppler Microwave and Passive Infrared technologies whereby both technologies must activate simultaneously to create an alarm. The Stereo Doppler Microwave portion activates upon the *movement* of an intruder and the Passive Infrared portion activates on the *change in infrared radiation* caused by the intruder.

## **Applications**

The PIRAMID indoor sensor was designed to satisfy high level and medium level security requirements as well as environmentally challenging applications. Using the unique combination of Stereo Doppler Microwave and Passive infrared increases detection sensitivity while providing unequalled false-alarm-free performance.

## **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.
- Assorted Protection Patterns Interchangeable Fresnel Lens Modules offer tremendous assortment
  of protection patterns for optimum flexibility.
- Fluorescent Filter Module (Optional) FF-3 Fluorescent Filter eliminates interference from nearby fluorescent lighting affecting sensor performance.



TECHNICAL SPECIFICATIONS	
Input Voltage	10.5 VDC to 28 VDC
Current Consumption	100 mA at 12 VDC (LEDs off)
RF Power Density	120 uW/cm² 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" (15.88cm x 13.34cm x 8,890cm)
Frequency Bands	10.525 GHz USA; International 10.587 GHz/9.0 GHz/9.47 GHz

ORDERING INFORMATION		
SDI-76-A	(Commercial Version)	75 ft. x 75 ft. (22m x 22m)
SDI-77-D	(Commercial Version)	100 ft. x 10 ft. (30m x 3m)
SDI-76-H	(High Security Version)	50 ft. x 50 ft. (15m x 15m) (Same as SDI-76-G)
SDI-77-D	(High Security Version)	100 ft. x 10 ft. (30m x 3m)
FF-3		Optional Fluorescent Filter Module, add FF-3 to end of the part number
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Mounting Options	Sensor comes with PH-6L Bracket
PH-4	1.5" to 4.5" Diameter Pole mount for PIRAMID
PH-4A	4.5" to 8.5" Diameter Pole mount for PIRAMID
PH-6CLMNT	PIRAMID Ceiling Mount





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