



# PIRAMID XL

## INDOOR PIRAMID DUAL TECHNOLOGY INTRUDER DETECTOR

### MODELS SDI-76 AND SDI-77

## GENERAL

The PIRAMID (Passive InfraRed And Microwave Intruder Detector) combines Stereo Doppler Microwave and Passive Infrared technologies into an intrusion sensor in which both technologies must activate simultaneously to create a sensor alarm. The Stereo Doppler Microwave portion activates on the movement of the intruder and the Passive Infrared portion activates on the change in infrared radiation caused by the intruder.

The PIRAMID was designed to satisfy high level and medium level security requirements as well as those environmentally difficult applications. Utilizing the unique combination of Stereo Doppler Microwave and Passive Infrared in a Dual Technology sensor not only increases stability but also permits greater detection sensitivity. The high false alarm rejection attributed to this unique combination enables the detection sensitivity of each technology portion to be dramatically increased to levels far beyond sensitivity levels that would be practical if used as single technology sensors. The result is greater detection sensitivity, greater stability and higher security. PIRAMID is the ultimate in Dual Technology Sensors.

## FEATURES

**Stereo Doppler Microwave Sensor** - Two receiving channels rather than one and the ability to eliminate vibration and periodically moving objects as sources of false alarms.

**Dual Element Infrared Sensor** - Ignores normal temperature variations yet is 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.

**Digital Range Control** - Ten-position digital switch adjusts how far the sensor detects (to its maximum range).

**Digital Sensitivity Control** - Ten-position digital switch adjusts the amount of movement required to initiate an alarm condition.

**Balanced Temperature Compensation** - Stereo Doppler Microwave and Passive Infrared automatically adjust detection parameters to compensate for losses in range that occur at elevated temperatures.

**Assorted Protection Patterns** - Interchangeable Fresnel Lens Modules offer a tremendous assortment of protection patterns for optimum flexibility.

**Stereo Doppler Supervision** - A component failure will cause the sensor to lock-in alarm.

**Master LED** - Displayed on the face of the unit indicating the alarm relay status.

**Analytic LED's** - Alarm and environmental caution LED's for both Stereo Doppler Microwave and Passive Infrared portions are displayed on the face of the sensor. An internal switch can disable both Master and Analytic LED's.

**All Solid State Relay** - User selectable form C relay output.

**Metal Housing** - Rugged and durable and offers maximum protection against RFI and EMI interference.

**Swivel Mounting** - Multi-directional

**Fluorescent Filter Module (Optional)** - FF-3 Fluorescent Filter is a plug-in printed circuit board module that can be field installed on the sensor in applications where nearby fluorescent lighting is affecting sensor performance. The FF-3 Fluorescent Filter is highly recommended in applications where fluorescent lighting will be left on during the protected hours and the lighting fixtures are located in the sensors field of view (within 20 ft.).

## SPECIFICATIONS

<b>Input Voltage:</b>	8.5 to 20 VDC
<b>Current Consumption:</b>	150 mA@12 VDC (LED's off)
<b>RF Power Density:</b>	120 uW/cm <sup>2</sup> max. at the face of the unit
<b>Operating Temperature:</b>	-30F to 130F (-34C to 54C)
<b>Operating Humidity:</b>	0 to 100% Relative Humidity
<b>Relay Contact Rating:</b>	0.1A, 50V
<b>Housing Dimensions:</b>	6 1/2" L x 5 1/4" W x 3 3/8" H 16.5cm L x 13.3cm W x 8.5cm H
<b>Microwave Frequency:</b>	Factory adjusted to one of the following frequencies: 10,525 MHz USA 10,587 MHz International 9,900 MHz International 9,470 MHz International

## ORDER INFORMATION

SDI-76	75 ft. x 75 ft.	(22m x 22m)
SDI-77	100 ft. x 10 ft.	(30m x 3m)
FF-3 (Optional Fluorescent Filter Module)		
Optional Lens Modules A-G – See Installation Manual		

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