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Outdoor Intrusion Detection System

PIRAMID XL2

Dual Technology Sensor for Medium Security Applications

Overview

The PIRAMID XL2 outdoor 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 XL2 outdoor sensor was designed to satisfy 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.

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Protection Coverage Diagrams - Microwave and Passive Infrared Coverage

Model	SDI-76XL2	SDI-77XL2	SDI-77XL2-B	SDI-77XL2-C	SDI-77XL2-D
Lens angle	Wide Angle	Wide Angle	Medium Angle	Long Narrow	Vertical Barrier
Type of Lens	Lens A	Lens A	Lens B	Lens C	Lens D
	50' L x 50' W 15 m x 15 m	90' L x 50' W 27 m x 15 m	100' L x 35' W 30 m x 10.5 m	125' L x 20' W 38 m x 6 m	100' L x 10' W 30 m x 3 m
Lens angle - Top View					
Side View					
Pet Lens: optional lens	Lens A-Pet	Lens A-Pet	Lens B-Pet	Lens C-Pet	
Side View with "Pet" Lens					

Option   IR Pattern   Microwave Coverage

TECHNICAL SPECIFICATIONS

Input Voltage	10 VDC to 28 VDC
Current Consumption	150 mA at 12 VDC (LED's off)
RF Power Density	120 uW/cm² 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
Frequency Bands	10.525 MHz USA
	International Frequencies: 10.587 GHz/9.90 GHz/ 9.47 GHz

ORDERING INFORMATION

SDI-76-XL2	50 ft. x 50 ft. (15m x 15m) - Wide Angle
SDI-77-XL2	90 ft. x 50 ft. (27m x 15m) - Wide Angle
SDI-77-XL2-ABC	Includes Lens A, B, and C Lens Modules
SDI-77-XL2-B	100 ft. x 35 ft. (30m x 10.5m) - Medium Angle
SDI-77-XL2-C	100 ft. x 20 ft. (30m x 6m) - Narrow Angle
SDI-77-XL2-D	100 ft. x 10 ft. (30m x 3m) - Vertical Barrier
SDI-77-XL2-ABCP	Includes Lens A, B and C "Pet" Lens Modules

NC224-EN V3.0.02.21

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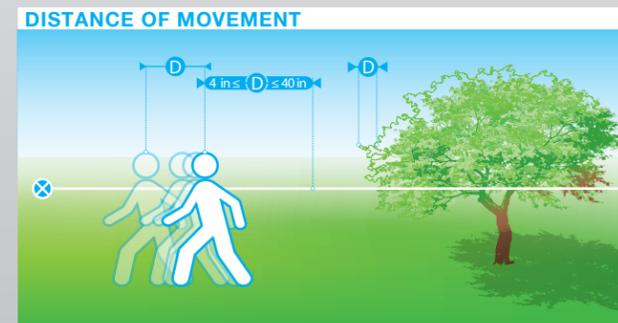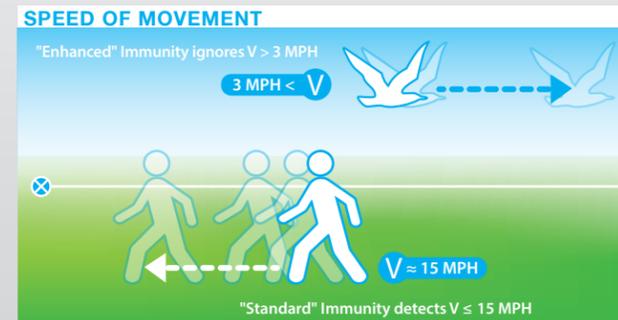# PIRAMID XL2

Dual technology intrusion detection sensors.

Dual Technology **Performance**

- Combination of PROTECH's unique proprietary **Stereo Doppler Microwave Technology** and **Passive Infrared**

- **"And Gated" Configuration :** Both sensor technologies must be activated simultaneously to create an overall sensor alarm

- Ability to **ignore randomly moving** objects

- **Temperature compensation** automatically adjusts **detection parameters** to eliminate loss of range at elevated temperatures

Exceptional Detection **Reliability**

- **Stereo Doppler Supervision:** any component or power failure will cause the sensor to lock-in alarm

- **Maximum protection** against RFI and EMI interference due to rugged, weather-proof metal housing

- Weather shroud provides **Maximum Protection from ice, snow, wind and sun-loading** and channels rain away from sensor's face

Optimum Security

DIRECTION OF MOVEMENT

SPEED OF MOVEMENT

"Enhanced" Immunity ignores V > 3 MPH

3 MPH < V

V ≈ 15 MPH

"Standard" Immunity detects V ≤ 15 MPH

DISTANCE OF MOVEMENT

4 in ≤ D ≤ 40 in

- 3 parameters of detection:
  - **Direction of Movement:** sensor can differentiate between approaching and receding motion
  - **Speed of Movement:** "immunity switch" enables immunity to birds and small animals
  - **Distance of Movement:** "Sensitivity Control Switch" adjusts distance of movement required for an alarm

- **Digital Range Control:** adjustment of overall size of the sensor's detection area (Ten-position digital switch)

Various Applications

- Protects **high-value assets** and **strategic areas:** electrical and water utilities, chemical storage, oil and gas plants, correctional facilities, airports, car dealerships.

- **Protection index: IP65**

- **Hazardous areas** - Explosion-proof model **Piramid EX** available

Piramid EX