



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.

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	10.5 VDC to 28 VDC
Current Consumption	100 mA at 12 VDC (LEDs off)
RF Power Density	120 uW/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	10.25" x 6.60" x 4.90" (20.04cm x 16.76cm x 12.45cm)
Frequency Bands	10.525 GHz USA; International 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



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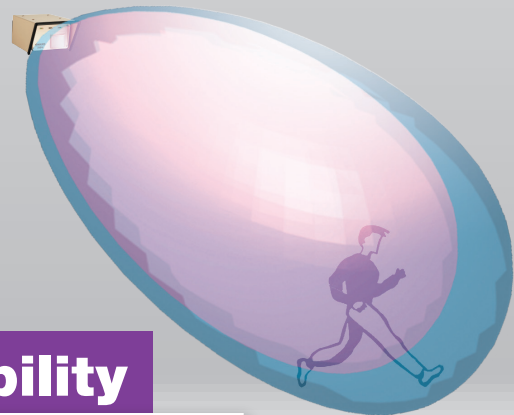
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PIRAMID XL2

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**

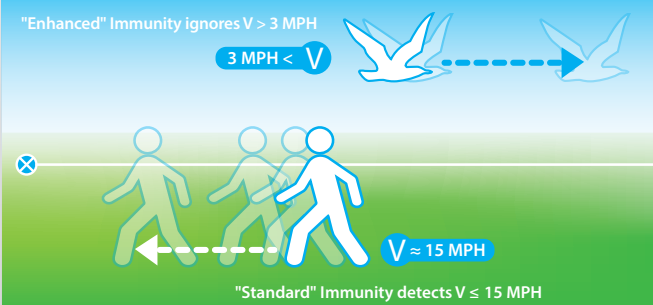


Optimum Security

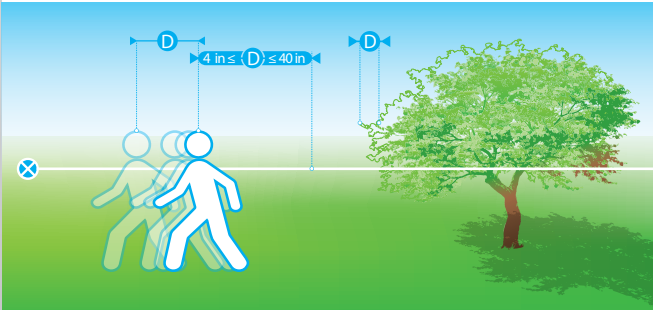
DIRECTION OF MOVEMENT



SPEED OF MOVEMENT



DISTANCE OF MOVEMENT

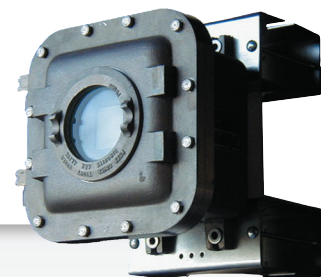


- **3 parameters of detection:**
 - **Direction of Movement:** sensor can differentiate between approaching and receding motion
 - **Speed of Movement:** "immunity switch" enables immunity to birds and small animals
 - **Distance of Movement:** "Sensitivity Control Switch" adjusts distance of movement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



Pyramid EX

