



PIRAMID Intrusion Detection Systems

# DUAL TECHNOLOGY MOTION SENSORS



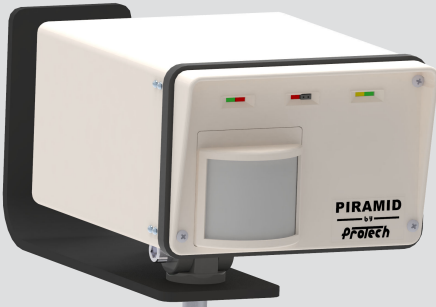


# OPERATING PRINCIPLE

**PIRAMID** intrusion sensors combine PROTECH'S proprietary "Stereo Doppler" Microwave sensor with a dual-element Passive Infrared sensor. Both sensor technologies are configured where they must activate simultaneously to create an overall sensor alarm. The Stereo Doppler Microwave portion activates upon the *movement* of the intruder and the Passive Infrared portion activates on the *change in infrared radiation* caused by the intruder.

## FALSE-ALARM-FREE PERFORMANCE PIRAMID SENSORS IGNORE:

- Vibration
- Inclement weather
- Blowing debris
- Randomly moving objects
- Moving vegetation
- Birds and small animals



### PIRAMID XL2

OUTDOOR

### PIRAMID MIL

OUTDOOR HIGH SECURITY

### PIRAMID

INDOOR

### PIRAMID M-HS

INDOOR ULTRA HIGH SECURITY

### PIRAMID LT

DIRECTION CONTROL

### PIRAMID EX

EXPLOSION-PROOF

#### PROTECTS COMMERCIAL SITES AND CRITICAL INFRASTRUCTURE

- Unique False-Alarm-Free Performance
- Interchangeable Lens Modules
- Enhanced Bird and Animal Immunity
- Rugged Metal Housing/Weather Shroud

#### PROTECTS HIGH SECURITY SITES

- High Density Lens Module
- Detects a Crawling Intruder
- USAF Approved PL-I Sites
- HS Version Offers Anti-masking
- Probability of Detection Greater than 0.95
- Low Nuisance Alarm Rate/False Alarm Rate

#### PROTECTS MEDIUM TO HIGH SECURITY SITES

- Ignores Vibration and Random Moving Objects
- Interchangeable Lens Modules
- Optional FF-3 Fluorescent Filter Module
- High Density Lens Modules Available
- USAF Approved with Lens D, G, H

#### PROTECTS ULTRA HIGH SECURITY SITES

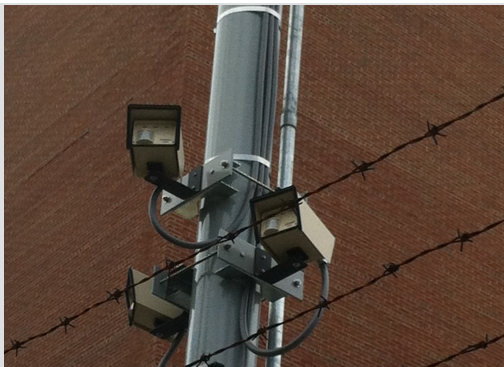
- High Density Lens Modules
- Detects Crawling Intruders
- Optional FF-3 Fluorescent Filter Module
- And Gate/Or Gate Switchable
- Anti-Masking
- Tamper-Proof Mounting

#### PROTECTS AGAINST CLIMBING INTRUDERS

- Protects Ladders and Towers
- 3-Position Direction Control Switch
  - Approach Mode - Detects Approach
  - Recede Mode - Detects Recede
  - Both Mode - Detects Approach/Recede

#### PROTECTS HAZARDOUS LOCATIONS

- Single Technology - Microwave Only
- Housing complies with NEC/CEC location standards
  - Class I, Division I & 2, Groups B, C, D
  - Class II, Division I & 2, Groups E, F, G
  - Class III, NEMA 4, 78CD, 9EFG





# Optimum Performance



**STEREO DOPPLER MICROWAVE & PASSIVE INFRARED TECHNOLOGY**

- **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)

## TECHNOLOGY BENEFITS



**HIGHLY RELIABLE**



**ALL WEATHER PERFORMANCE**

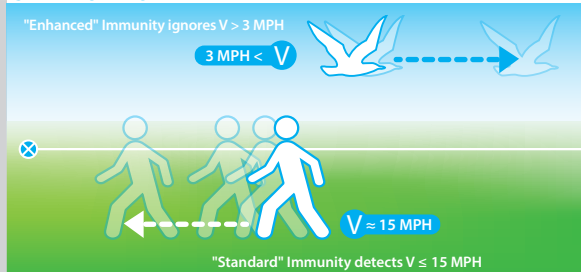


**MAXIMUM PROTECTION**  
Reliable and effective

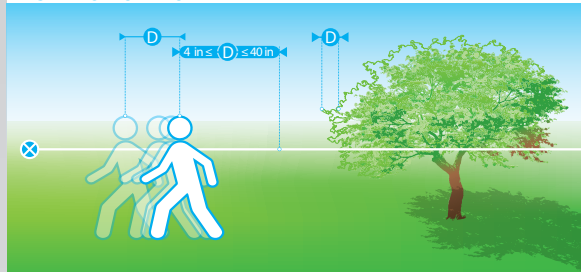
### DIRECTION OF MOVEMENT



### SPEED OF MOVEMENT



### DISTANCE OF MOVEMENT



NC237-ENV1.0 13.22

**PROTECH** MANUFACTURER OF PERIMETER INTRUSION DETECTION SYSTEMS FOR SENSITIVE SITES



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