

Advanced Motion Sensor Technology

Reliable, accurate motion sensors play a critical role in security systems. GE Security offers professional security installers a robust product line using three advanced technologies –

PrecisionLine Series

Dual Technology Motion Sensors

PrecisionLine motion sensors combine two technologies – PIR and Doppler Radar technology. Unlike other dual technology sensors that combine PIR and microwave technologies, PrecisionLine sensors offer precise range control and accurate detection. Since dual technology sensors require both technologies detect an intruder before going into alarm, PrecisionLine sensors have even better false alarm immunity than advanced single technology sensors. The sensors will not alarm when a person is beyond a set range. This technology has two patents. The dual-technology RCR-REX uniquely combines typical PIR technology with precise Doppler Range Controlled Radar for access control applications.



AP Series

Mirror Optic Passive Infrared (PIR) Motion Sensors

Mirror optic motion sensors use mirror optics to focus infrared energy. Mirror optics focus the infrared energy and create curtains of protection that provide superior detection. The curtain created by mirror optics offers excellent false alarm immunity since hot spots and cold spots common with some single technology sensors are virtually eliminated. GE Security offers the only complete line of mirror optic motion sensors, the AP Series. It includes pet immune, long range, wireless and anti-masking models.



Fresnel Series

Fresnel Lens Passive Infrared (PIR) Motion Sensors

Fresnel lenses are specially designed pieces of thin plastic with molded grooves. The molded grooves of Fresnel lenses focus infrared energy and provide ‘fingers’ of protection coverage pattern. The white plastic window often associated with motion detectors is, in fact, the flat side of a Fresnel lens. The Fresnel lenses designed for PIR’s are created to address specific application challenges in homes and businesses.



Applications

GE Security offers professional installers a variety of options to tackle the toughest installation challenges. Whether the application is commercial, residential, industrial or specialty, we have solutions that provide reliable detection and false alarm immunity.

	Product Line	Technology	Benifits
Commercial Office Buildings, Retail Stores, Medical/Dental Offices, Day Care Centers, etc	PrecisionLine	Dual Technology	Range adjustments 9 – 90 feet
	AP Series	Mirror Optics	Ceiling Mount and ultra 200' long range options
	Fresnel Series	Fresnel Lens	Industrial and Harsh Environment options
Residential Single Family Homes and Apartments	PrecisionLine	Dual Technology	See pet immune sensor selector table for complete information
	AP Series	Mirror Optics	
	Fresnel Series	Fresnel Lens	
Specialty High security applications, wireless, addressable	PrecisionLine	Dual Technology	Stealth mounting option lets you install the sensor out of sight while it protects a precise area
	AP Series	Mirror Optics	Anti-masking, wireless and addressable sensors options
	Fresnel Series	Fresnel Lens	Industrial, intrinsically safe, and non-incendive

Applications with Pets

Pets pose a unique challenge for installers. The size, weight and number of animals can effect the way the sensor works in the application. GE Security offers a complete line of pet immune motion sensors for a range of applications.

	Weight	Number of Pets	Technology	Range	Sensor Size
PrecisionLine	Up to 80 lbs.	Multiple	Dual Technology	9,18,27,&35'	Medium
AP950PI*	Up to 80 lbs.	Multiple	Mirror Optics	35'	Large
AP100PI	Up to 44 lbs.	1-2	Mirror Optics	33'	Very Small
PI6000	Up to 30 lbs.	1-2	Fresnel Lens	40'	Small
* AP950PI offers selectable option of either a 50' standard mirror or a 35', 80 lbs., pet immune mirror.					

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Applications Tips

**DO** position the motion sensor so that an intruder must cross the sensor’s field of view. This is especially important for single technology PIR sensors since an intruder must cross both the positive and negative elements of one zone of the PIR’s sensor to trigger an alarm.

**DO** pre-test the sensor in the direction of likely intruder motion and walk-test monthly.

**DO** locate the sensor so that valuables are well within the coverage pattern.

**DO** terminate each protection zone on a solid object such as a wall or floor whenever possible. This provides maximum detection.

**DO** mask zones around fireplaces because a smoldering log can change temperature quickly if it bursts into flames.

Whether the application is commercial, residential, industrial or specialty, we have solutions that provide reliable space detection and false alarm immunity.

You know GE as an innovative manufacturer of quality products. You’ve relied on GE over the years to make your life better and brighter in all kinds of ways. It’s only natural that you would turn to a trusted brand to make your home or business secure. Call on GE for the highest technology and most reliable performance – as always.

**DO** consider the environment of the installation. Water, steam and oil can affect the way a standard sensor operates. Consider using industrial grade sensors for these types of applications.

**DON’T** aim single technology PIR sensors at sources of rapid heating or cooling. These include forced air ducts, space heaters, direct sunlight, strong white lights and mirrors that can reflect strong lights. Dual technology sensors are better suited for these types of applications.

**DON’T** obstruct the sensor’s field of view. This is especially important for single technology PIR sensors. When obstructions are a concern (i.e., storage rooms) use an anti-mask sensor or dual technology sensor in radar only mode.

GE  
Security

Intrusion Detection  
Solutions



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## Commercial

# PrecisionLine Dual Technology Sensors

**RCR-50 and RCR-90**  
Dual Technology Motion Sensors

- Doppler radar and PIR technology combined
- RCR-50 Precise range settings at 20, 30, 40 & 50'
- RCR-90 Precise range settings at 60, 70, 80 & 90'

**RCR-REX**  
Dual Technology Request-to-Exit

- Built in piezo sounder for door position monitoring
- Double pole, double throw, relay outputs
- Easy adjustable range and angle
- Wall or ceiling mount

RCR Detection: 3' min. range, 15' max. angle

PIR Detection: 15' max. range, 15' max. angle



## Residential

**RCR-PET**  
Dual Technology Motion Sensor with 80 lbs Pet Immunity

- Doppler radar and PIR technology combined
- Precise range settings at 9, 18, 27 & 35'
- 80 lbs pet immunity

**RCR-A or RCR-C**  
Dual Technology Motion Sensor

- Doppler radar and PIR technology combined
- Precise range settings at 9, 18, 27 & 35'
- RCR-A (Form A) / RCR-C (Form C)
- May be stealth mounted in radar only mode for high security applications

RCR Detection: 3' min. range, 15' max. angle

PIR Detection: 15' max. range, 15' max. angle



## Specialty

**PrecisionLine Series**  
Dual Technology Motion Sensors: RCR-90, RCR-50, RCR-PET, RCR-A, RCR-C

- Doppler radar and PIR technology combined
- Precise range settings from 9' - 90'
- 80 lbs pet immune model
- May be stealth mounted in radar only mode behind a curtain or drywall

# Mirror Optic Passive Infrared Sensors

**AP669**  
Ceiling Mount Mirror Optic PIR

- 360°, 60' diameter coverage
- 180° shunt application
- Mounts up to 16' high

**AP633A or AP633**  
Long Range Mirror Optic PIR

- 12 coverage patterns, 200' long range, 80' wide and 40' coverage in one sensor
- 4D signal processing analyzes size, speed, shape and adaptive alarm threshold
- 6 - 10' Mounting height

**AP475**  
Single Curtain Mirror Optic PIR

- 75' single curtain for narrow spaces
- 4D signal processing with gliding focus mirror optics analyzes size, speed, shape and adaptive alarm threshold
- Mounts up to 16' high

AP633: 40ft\* (12.2m) range, 80ft (24.4m) width

AP633A: 200ft (61.0m) range, 80ft (24.4m) width

# Fresnel Lens Passive Infrared Sensors

**6150 Series**  
Multi-range Fresnel Lens PIR

- Advanced Digital Signal Processing and ASIC reduce false alarms
- Ball swivel mount or fixed
- Standard Wide Angle, Extra Wide Angle, Long Range, Single Beam Pet Alley, Pet Alley and Curtain Coverage Patterns
- 6155 Form A
- 6157 Form C
- 6155/6157-CT cold temperatures from -40° F to 420° F (-40° C to 50° C)

Standard: 45° angle, 13.7m range

Long Range: 36° angle, 27.5m range

Extra Wide Angle: 140° angle, 15.2m range

Curtain: 7' range, 4' width

Pet Alley: 35' range, 10.7m width

Single Beam Pet Alley: 3' range, 15.2m width

**AP450 or AP450A**  
50' Range Mirror Optic PIR

- 9 Curtain, 50' range
- AP450 Form C with tamper, AP450A Form A with relay
- Mounts up to 16' high

**AP950PI**  
2 in 1 Mirror Optic PIR

- Offers two mirrors; 50' standard or 35' 80 lbs pet immune
- 4D signal processing with gliding focus mirror optics analyzes size, speed, shape and adaptive alarm threshold
- 7 - 10' Mounting height

**AP100PI**  
44 lbs Pet Immune Mirror Optic PIR

- Sleek, compact design
- 4D signal processing with gliding focus mirror optics analyzes size, speed, shape and adaptive alarm threshold
- 44 lbs pet immunity

AP450: 50' (15.2m) range, 4.8' (1.4m) width

AP950PI: 50' (15.2m) range, 4.8' (1.4m) width

AP100PI: 35' (10.7m) range, 3.2' (1m) width

**PI6000**  
Fresnel Lens PIR with 30 lbs Pet Immunity

- ASIC-based signal processing & sophisticated motion verification
- 40' x 40' range
- 30 lbs pet immunity

**6000**  
Fresnel Lens PIR

- ASIC-based signal processing & sophisticated motion verification
- 35' x 35' range

PI6000: 40' x 40' range

6000: 35' x 35' range, 88.6° angle

**AP950AM**  
Mirror Optic PIR with Anti-Masking

- Anti-masking feature detects attempts to block the sensor's field of view
- 9 curtains at 50'
- 4D signal processing with gliding focus mirror optics analyzes size, speed, shape and adaptive alarm threshold

**Wireless**  
60-880-95 (NX-482)

- Compatible with GE Security wireless control panels
- 7 curtains, 50 ft. range at 6'-10' mounting heights
- 4D signal processing analyzes size, speed, shape and adaptive alarm threshold

**Addressable**  
AP750-ID Mirror Optic PIR

- Compatible with NetworX PinPoint addressable control panels
- 7 curtains, 50 ft. range at 6'-10' mounting heights
- 4D signal processing analyzes size, speed, shape and adaptive alarm threshold

AP950AM: 50' (15.2m) range, 4.8' (1.4m) width

Wireless: 50' (15.2m) range, 4.8' (1.4m) width

Addressable: 50' (15.2m) range, 4.8' (1.4m) width

**Hazardous Environments**  
6197/6198 Intrinsically Safe PIR System and Non-Incentive PIR

- Cast metal PIR, both water resistant and dust proof
- Standard 45' x 90°, Long range 70' x 6° or Vertical Barrier 40' x 6°
- UL and FM-approved for use in hazardous environments

**Industrial/Outdoor**  
6187CTX

- Die-cast aluminum housing with gasket for rugged installations
- Standard 45' x 90°, Long range 70' x 6° or Vertical Barrier 40' x 6°
- Cold temperature rated (-40° to 120°)
- Wireless adaptable model available

Hazardous Environments: 45' x 90° range

Industrial/Outdoor: 45' x 90° range, 13.7m width