

# PIR-720

## Installation Instructions

Dual Element  
Ceiling Mount  
Passive Infrared (PIR)  
Intrusion detector



**AV-GAD**  
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### GENERAL DESCRIPTION

The PIR-720 detector intended for operation in indoor environment. PIR-720 achieves unprecedented signal differentiation, while its powerful circuitry, analyses the signal sensed by dual element PIR sensor to minimize the rejection of false alarms and to determine intrusions.

- The internal chip guarantees constant filtering at all gain levels, without degradation of the signal to noise ratio, using embedded analog multiplier and signal processing.
- The PIR-720 provide multiplier self test mode on every operation to ensure complete functionality of the detector.
- The PIR-720 ensures maximum protection against RFI and EMI disturbances.

### PIR-720 FEATURES

- The PIR-720 include an enhanced bi-directional temperature compensation, which provides constant detection of human body at ambient temperature range from -20 °C to +50 °C (-4 °F to +122 °F). While most PIR detectors fail to detect an intruder when background temperature nears body temperature, the PIR-720 proves to be fully effective in differentiating between them.
- The PIR-720 allows identical detection from left to right and right to left when crossing zones.
- The PIR-720 provides an ultimate monitoring of the protected site, together with automatic updating and self reconfiguring according to the environmental changes.

### Mounting Location

Choose a location most likely to intercept an intruder. See detection patterns in

The detector is ceiling mounted type. Recommended installation height is 2.4m. The PIR-720 is more sensitive to motion across its field of view than to motion to and from it. Mounting height and location should not cause the PIR-720 to exceed its estimated detection range. It should utilize existing elements to attain a stable background, by facing walls and solid background, by facing walls and solid background. While the PIR-720 is capable of detecting intrusions under difficult conditions, it is recommended to install a covering roof against weather elements (rain, snow) and protection against direct sunlight.

### Avoid the following location:

- Facing direct sunlight
- Facing reflective surfaces such as swimming pool, shiny painted surfaces, puddles, etc.
- Mounting surfaces that absorb heat (black walls) metal gates or fences, hot water pipes, etc.
- Areas that are susceptible to a rapid change of temperature -radiators, etc.
- Sources of air currents -air conditioning openings, ventilation ducts, etc.
- Above a window or a door.
- Area with moving objects (swaying trees, bushes, etc.).

### IMPORTANT:

Where a small animal is present, install the PIR-720 at 3.6m (11 ft) above floor level.

### Mounting the detector

A variety of mounting positions are possible with the standard housing of the PIR-720. To open the front cover of the housing:

1. Pry off the front cover.
2. Remove the PC board
3. Prepare mounting holes in accordance with the desired mounting position. Use the four screws holes. Cover all openings for screws with RTV, Silicon or similar sealant.
4. A special opening for cable entry is provided in the PIR-720. Be sure to use this, and only this opening, for wires.

### Terminal Block Connections

#### Terminal Marked “ - ” (-12V)

Connect to -12V at control panel.

#### Terminal 2 - Marked “ + ” (+12V)

Connect to a positive Voltage output of 8.2 –16 Vdc source (usually from the alarm control panel)

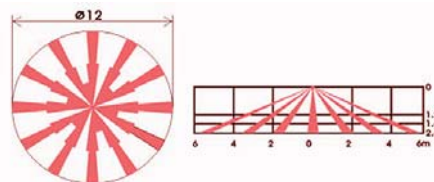
#### Terminals Marked “ TAMPER ”

If a Tamper function is required, connect the terminals to a 24-hour normally closed protective zone in the control unit. If the front cover of the detector is opened, an immediate alarm signal will be sent to the control unit.

#### Terminals Marked “ RELAY ”

These are the detector relay contacts output. Connect to a normally closed zone in the control panel.

### Lens Pattern



The PIR-720 covers approximately 6 meters from the centre when mounted at 3.6 meters ceiling height.

At 2.4 m ceiling the diameter range is 8 m, at 2.4 m installation height the detection is optimized.

At 3.0 m ceiling the diameter range is 10 m

### Technical Specifications

Power input	8.2 - 16VDC
Current consumption	
Standby	13mA at 12VDC
Active	8.5mA at 12VDC
Detection speed	0.15 to 1.8m/sec (0.5 to 6 ft./sec)
Alarm output	N.C 50mA at 24VDC 10 ohm in line resistor
Tamper switch	N.C 50mA at 24VDC 10ohm in line resistor
Operating temperature	-20°C to 50°C (-4°F to 122°F)
Operating humidity	Up to 95% (non-condensing)
Storage temperature	-40°C to 80°C (-40°F to 176°F)
Detection method	Dual element with double optic system
RFI protection	≥30V/m at 10 to 1000MHz
EMI immunity	50,000Volt electrical interference due to power surges or lighting
LED Indicator	LED is blinking 8 times during warm up period and self-testing 12 Sec. LED is ON during alarm.
Dimensions	86 mm (3.38") X 25 mm (0.98")
Weight	62 gr. (2.18 oz)