998 - Ademco 50’X50’ Infrared Motion Detector

Fresnel Lens PIR with Look-Down Zone

- 50’ x 50’ (15m x 15m) coverage pattern
- Horizontal and vertical pattern adjustment
- Optional swivel mount bracket
- Alternate polarity pulse count
- SMD constructions
- EZ-Mount features for fast trouble free installation
- Optional coverage patterns (extra lenses included)
- Package of six 998 PIRs with look-down available as 998PK

The ASC Edge:
High Performance Look-Down Design

Positioning of the lens of the look-down zone is critical to look-down performance. Typically, a PIR will have a look-down lens as an integral part of the outside housing, as seen on the left side of the figure. This creates two problems:

1. Detection can be compromised. A lens focuses its infrared energy at a fixed spot just like a magnifying glass or telescope. For best operation, this fixed spot in a motion detector is on the pyroelectric elements. When the PCB is moved vertically for coverage adjustment, this energy will be defocused except when the board is in just one particular position. Less energy is collected and detection performance suffers.

2. Immunity to rodents is compromised. The long focal length (the distance from the lens to the pyro elements) causes the projected beam for the look-down zone to be small. As seen in the left figure, rodents can fill a large portion of the beam and generate a false alarm.

ADEMCO look-down designs overcome both problems by using a shorter focal length lens mounted very close to the detector as part of the circuit board, as shown on the right figure. When the PCB is shifted vertically for pattern coverage adjustment, infrared energy is always focused since the distance between the lens and the pyro elements never changes. Because the lens is close to the element, the projected beam on the floor is now large compared to the size of a rodent. Avoid both detection and false alarm problems with Ademco look-down designs.

998 Specifications:

- Coverage: Detection Method: Passive Infrared
- Coverage: Standard Wide Angle Lens 50’ x 50’ (15m x 15m), 90°
- Coverage: Long Range Lens 100’ x 10’ (30m x 3m)
- Pet Alley Lens (998 only) 50’ x 70’ (15m x 21m), 100°
- Detection Pattern: Standard Lens: 18 zones (9 long range, 5 intermediate, and 4 short range)
- Detection Pattern: Long Range: 5 zones, (1 long range, 2 intermediate, 2 short range)
- Detection Pattern: Pet Alley: 12 zones Detector provides single "downward-looking" zone with all lenses
  (downward-looking window must be masked when using pet alley lens)
- Pulse Count: Installer-selectable, 1- or 2-event
- Detectable Walk Rate: 0.5-5 ft/sec (.15-1.5m/sec)
- Mounting: 7' to 8' nominal (2.1m-2.5m)
- Indicators: Red LED with enable/disable link
- Alarm Relay: Form A, N.C. 5A contact rating @ 30V DC. 15 ohm protective resistor
- Input Voltage: 12 VDC nominal (voltage reversal makes PIR inoperative)
- Current: 15 mA (non-alarm), 17 mA (alarm)
- Operating Temp: 14ºF to 122ºF (-10ºC to 50ºC)
- Operating Humidity: Up to 95% RH (max.), non-condensing
- Dimensions: 25/8"W x 43/8"H x 2" D (67mm x 111mm x 51mm)

998 PROTECTION PATTERNS
STANDARD LENS

PET ALLEY LENS

LONG RANGE LENS

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