

NV5

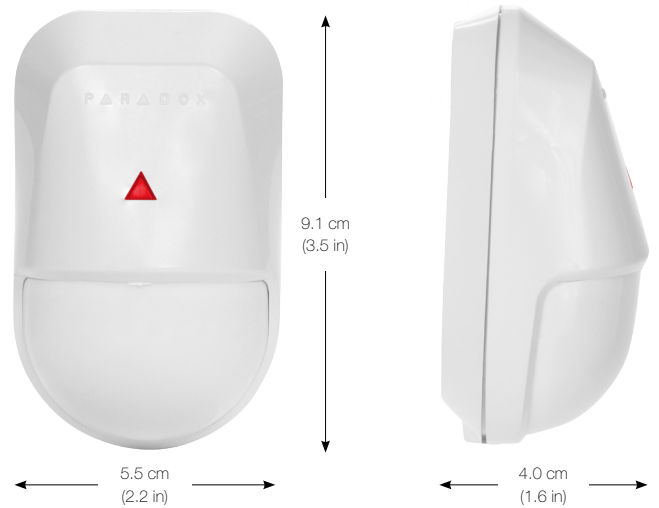
# High-Performance Digital Infrared Motion Detector

## Description

The NV5 is the entry-level motion detector from Paradox's ENVY line of next generation motion detection. Featuring advanced processing technology, optical technology, and easy installation, the NV5 represents state of the art technology with the most advanced and innovative digital infrared detector of its class.

The NV5 features Paradox's developed optics - a Hybrid Cylindrical / Spherical combination 1.0 inch lens with 3<sup>rd</sup> generation 3D Lodiff® Fresnel segments- the first and most advanced lens in the detection industry. This combination offers the best detection possible for passive infrared energy reception optimized for far beams (cylindrical) and medium/close beams (spherical). This lens also features Paradox's "Equalized" detection pattern, ensuring equal sensitivity throughout the protected area. Furthermore, the NV5 offers Small Pet Resistance or, alternatively, a Super Creep Zone Mirror add-on optics, which provides superior detection directly below the detector (see Beam Pattern).

The NV5 offers Auto Pulse Signal Processing with two levels of RF rejection, dual or single edge processing, and LED feedback for each setting. With precision and equalized detection, superior detector stability, total area coverage, and complete false alarm protection, the NV5 is the most advanced and innovative digital infrared detector in its class.



## Features

- Infrared motion detector managed by Full Authority Digital Electronics Control (FADEC)
- Paradox's Hybrid Cylindrical-Spherical 1.0 inch lens with 3<sup>rd</sup> generation 3D Lodiff® Fresnel segments- 10 x 10 m (32.8 x 32.8 ft), 90° viewing angle, and 0.5 m (1.6 ft) to max range (no dead zone beam pattern)
- Paradox's equalized detection pattern - ensures equal sensitivity throughout the protected area
- Paradox Super Creep down-looking beam optic option for straight down detection
- Pet Resistance up to 16 kg (35 lb)
- Dual/Single Edge Processing selection - the only one in its class
- Paradox patented Auto Pulse Signal Processing (APSP) with settings for normal or high interference environments
- Digitally equalized temperature compensation; unit performance specifically tailored to obtain same catch capability at all specified operating temperatures
- Digital Sensitivity trimmer adjustment with five range levels and LED feedback, allows for perfect unit adjustment for all room sizes
- Optional wall/ceiling mount bracket
- Miniature yet easy to install with no PCB removal or adjustment
- CE and EN50131 Grade 2 approved (see PARADOX.com for latest approval updates)
- Interchangeable lenses; 90° standard lens

ENVY  
SERIESPARADOX  
DIGITAL  
DETECTIONPET  
IMMUNITY

## Advanced Digital Technology (FADEC)

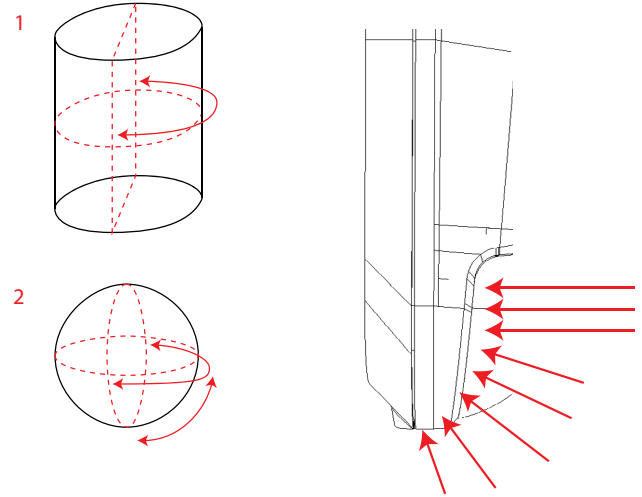
The NV5's digital analysis and algorithms ensure precise and accurate detection performance, managed by Full Authority Digital Electronics Control (FADEC). Depending on the environment application, the NV5 can be easily configured with its unique pre-programmed profile settings (Normal, Moderate, Pet Resistant, and Harsh).

- High-resolution and full-dynamic range digital signal conversion
- High-speed, advanced algorithm, digital signal processing
- Digital EMI / RFI interference rejection
- Five choices of digital range levels (via trimpot)

## Advanced Optical Technology

Paradox's Hybrid Cylindrical-Spherical combination offers the best detection possible for passive infrared energy reception for far beams (1. Cylindrical) and medium/close beams (2. Spherical). This lens design allows for ultimate perpendicular beam collection. Superior and uniform energy collection translates to a better image quality of the target which provides unmatched detection accuracy and stability.

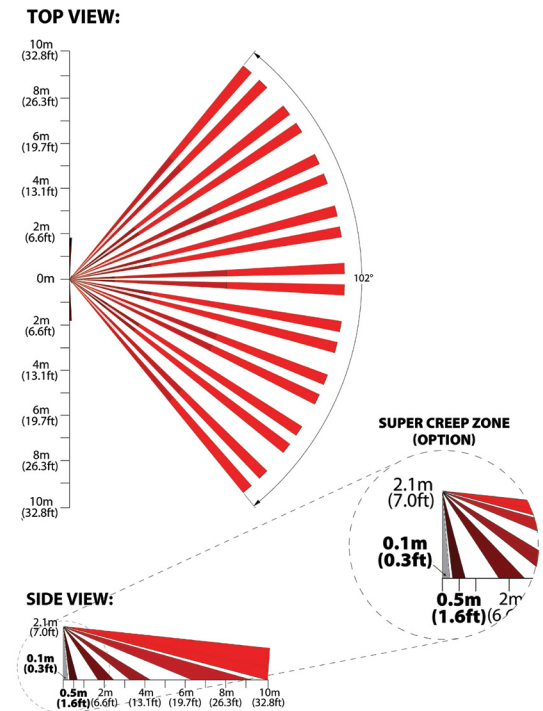
- 3<sup>rd</sup> generation 3D LoDiff® Fresnel segments
- Optically and digitally equalized beam pattern (all beams optimized for generating equal signal level at any distance or angle)
- Optional Super Creep Zone or Pet Resistance up to 16 kg (35 lb)



## Technical Specifications

Installation height	2.1 m – 3.1 m (7.0 ft – 10.2 ft) For 10 m and above range, unit must be installed at 2.1 m (7.0 ft) height and above
Sensor	Dual rectangular element, low noise, high sensitivity, EMI immunity
Lens	Hybrid Cylindrical Spherical 3 <sup>rd</sup> gen. Fresnel Lens, equal beam sensitivity (patent pending)
Processing	High resolution digital signal processing. Four profiles (Normal, Medium, Pet Res., Harsh), true digital temperature compensation.
Super Creep Zone	Add on mirror option for enhanced creep zone at 0.1 m from the wall (no Pet Resistance)
Range adjustment	5 level range adjustments (50% to 150%)
Startup time	10 seconds
Detection speed	0.2 m/s to 3 m/s (0.6 ft/s to 9.8 ft/s)
Power input	10 Vdc to 15 Vdc
Current consumption	10.5 mA @ Standby / 11.3 mA @ Alarm
Coverage	10 m (32.8 ft) x 90° 0.5 m (1.6 ft) down looking with optional creep zone
PET Resistance	Up to 16 kg (35 lb)
Alarm indicator	Red LED for 3 seconds
Alarm output	Solid State, N.C. 150 mA
Anti-tamper switch	N.C. 28 Vdc, 0.15 A
Operating temperature	-10°C to 50°C (14°F to 122 °F)
Humidity	95% max.
Dimensions	9.1 x 5.5 x 4 cm (3.5 x 2.2 x 1.6 in.)
RFI Immunity	10 V/m 80 MHz to 2 GHz
Environmental standards	Complies with EN 50131 Security Grade 2 / Environmental Class I

## Beam Pattern



## Wall/Ceiling Bracket

Wall Mount Bracket

Ceiling Mount Bracket

