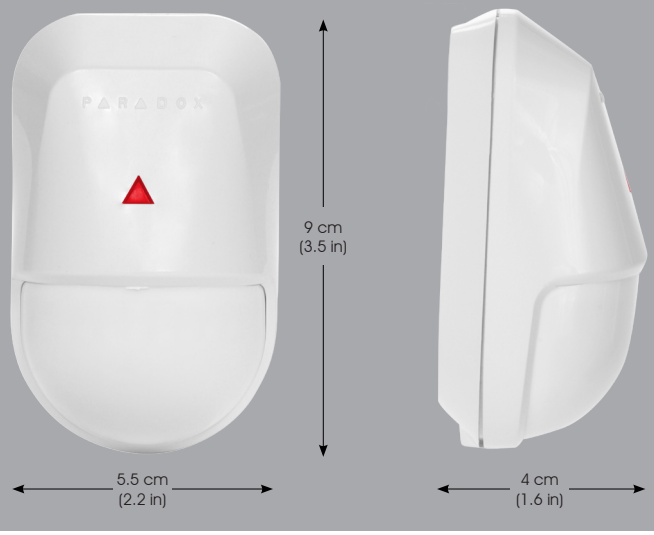
PARADOX™

ENVY SERIES

PARADOX DIGITAL DETECTION

PET IMMUNITY

The Detection Series to ENVY



NV500: High-Performance Digital Infrared Motion Detector

Description

The NV500 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 NV500 represents state of the art technology with the most advanced and innovative digital infrared detector of its class.

The NV500 features Paradox's developed optics - a Hybrid Cylindrical / Spherical combination 1.0" lens with 3rd generation 3D Lodif® 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 NV500 offers Small Pet Immunity or, alternatively, a Super Creep Zone Mirror add-on optics, which provides superior detection directly below the detector (*see Beam Pattern on reverse*).

The NV500 offers Dual Digital Auto Pulse Signal Processing with two levels, superior 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 NV500 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" lens with 3rd generation 3D Lodif® Fresnel segments- (12 x 12 m (40 x 40 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 Immunity up to 16 kg (35 lb)
- Dual/Single Edge Processing selection - the only one in its class
- Paradox patented Dual Digital Auto Pulse Signal Processing (APSP) with two-level selection
- 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, long range and curtain available Q1 2012

Advanced Digital Technology (FADEC)

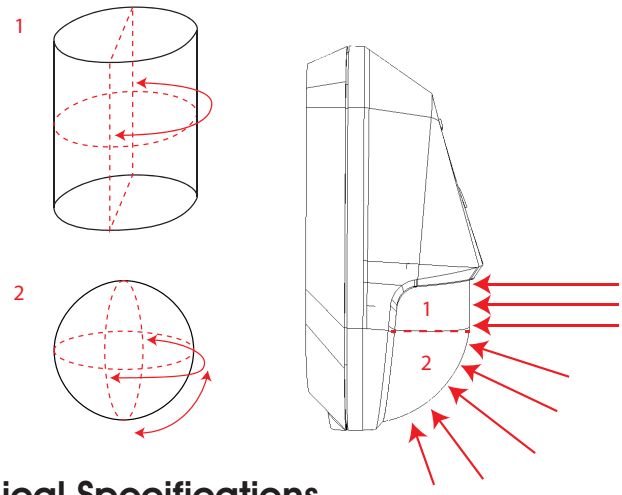
The NV500's digital analysis and algorithms ensure precise and accurate detection performance, managed by Full Authority Digital Electronics Control (FADEC). Depending on the environment application, the NV500 can be easily configured with its unique pre-programmed profile settings (4 levels: Normal, Moderate, Pet Immunity, 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)

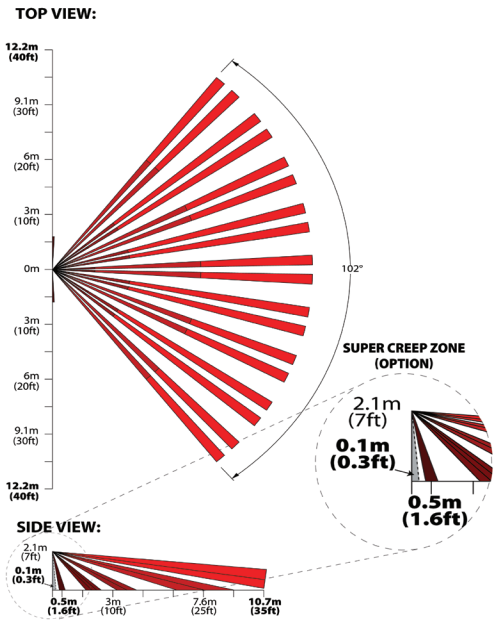
Advanced Optical Technology

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 in a better image quality of the target which provides unmatched detection accuracy and stability.

- 3rd 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 Immunity (up to 16 kg (35 lb))



Beam Pattern



Technical Specifications

Installation height	2.1m – 3.1m (7' – 11'ft). For 10m and above range, unit must be installed at 2.4m height and above
Sensor	Dual rectangular element, low noise, high sensitivity, EMI immunity
Lens	Hybrid Cylindrical Spherical 3rd gen. Fresnel Lens, equal beam sensitivity (patent pending)
Processing	High resolution digital signal processing. Four profiles (Normal, Medium, Pet Imm., High). True digital temperature compensation.
Super Creep Zone	Add on mirror option for enhanced creep zone at 0.1m from the wall (no Pet Immunity)
Range adjustment	5 levels Range adjustments (50% to 150%)
Startup time	10 Seconds
Detection speed	0.2m to 3m/s (0.6ft to 9.8ft/s)
Power input	10Vdc to 15Vdc
Current consumption	10.5mA @ Standby / 11.3mA @ Alarm
Coverage	35' (10m) x 90. 0.5 meter down looking w/ optional Creep zone
PET Immunity	Up to 16Kg (35 lb)
Alarm indicator	Red LED for 3 Seconds
Alarm output	Solid State, N.C. 150mA
Anti-tamper switch	N.C. 28Vdc, 0.15A
Operating temperature	-10°C to 50°C (14°F to 122 °F)
Humidity	95% max.
Dimensions	9 x 5.5 x 4cm (3.5 x 2.2 x 1.6 in.)
RFI Immunity	Complies w/ EN 50131: 10V/m 80MHz to 2GHz
Environmental standards	Complies with EN 50131 Security Grade 2 / Environmental Class I

Wall/Ceilling Bracket

Wall Mount Bracket

Ceiling Mount Bracket

TNV500-G2K_Rev00 - Printed in Canada 09/2011

PARADOX™
PARADOX.COM