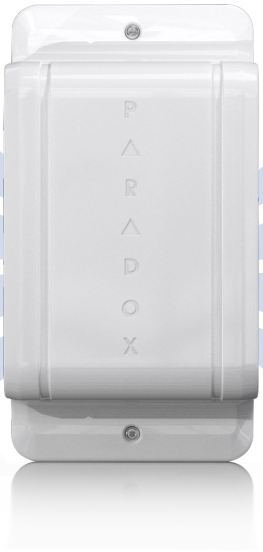
PARADOX™

NV780M Series

NV780MX/NV780MR Dual Side-View Outdoor Detectors with Anti-Masking and Pet Immunity



Description

The NV780M detector is designed to provide a pre-entry protection solution, while keeping the perimeter free from movement, designed to protect exterior/interior walls and doors or windows.

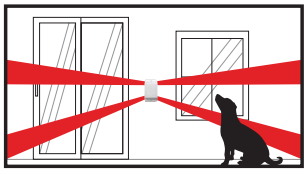
Available in both wired relay and bus connection with EVO panels (NV780MX), or in a wireless version (NV780MR) internally selectable to transmit at 433 MHz or 868 MHz.

The NV780M rugged indoor/outdoor detector incorporates two double passive infrared side-by-side detectors (right and left view), independent of each other with separate anti-mask detection for each side. The optics are specially designed to provide multiple narrow beams for excellent detection covering up to 12m (40 ft) for each side.

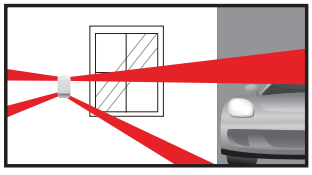
Range adjustment is performed by adjusting the viewing angle of the bottom facing beams (moving them up and down). The detectors are configurable to report as a single unit (two side detectors reporting to a single zone output) or as dual units (each side reporting to a separate zone). The NV780MR provides up to three years of extended battery life.

Immediate Perimeter Protection

The NV780M Series creates a narrow detection beam pattern from 3m (10 ft) up to 12m (40 ft) on each side protecting windows, doors and walls.



Pet Immune



Range Adjust

Features

Two double passive infrared motion detector with:

- Dual side anti-masking detection – Active IR detection, fast 20 seconds detection designed for outdoor detecting sprayed liquids and blocking items up to 25 cm (10 in.)
- Pet Immunity capability, up to 40 kg (90 lb)
- 4 dual element sensors arrangement
- High efficiency long focal point (1.77 in.) LoDiff lens
- Combination optics – mirror and Fresnel Lens for optimal sharp detection
- Wireless frequency selection NV780MR supports two internally selectable frequencies
- Single or Dual operation modes
- Optical and digital range adjustments
- Dual LED and buzzer indicators
- Wall-mount, with built-in level tool

Active IR Anti-Mask

Paradox Anti-Masking technology, anti-masking detection regulatory requirements with enhanced range and shorter detection period resulting in superior Anti-masking detection and stable reliability. The NV780M Series recognizes objects placed close proximity up to 30 cm / 12 in. of the lens within 20 seconds detection confirmation developed for outdoor environments, detection includes hard to detect clear lacquer, aluminum foil and clear adhesive tape, as well as degradation of the lens due to dirt or dust.

PARADOX DIGITAL DETECTION

PET IMMUNITY

PARADOX KEEPING MY FAMILY SAFE

Adjustable Detection Range

The NV780MX/NV780MR detection range can be adjusted separately for each side by sliding the down-looking beams up or down, adjusting the range from 3m to 12m. The beam sensitivity gain can also be adjusted digitally as well by a dip switch (Fig. 1).

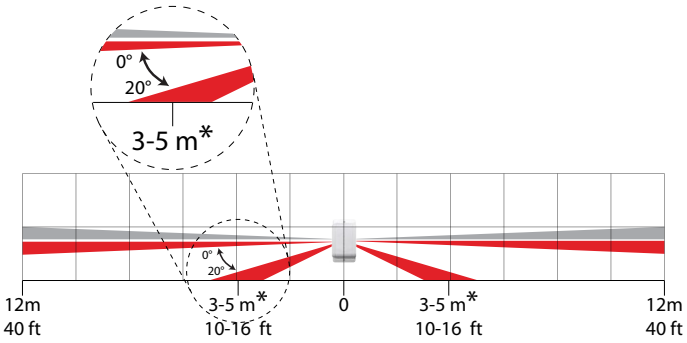
Adjustable Beam Angle from Wall

Beams can be parallel or 3° away from wall and can be adjusted separately for each side (Fig. 2).

Rain Cover

Optional rain cover that clips on the top of the NV780M to provide additional protection from rain, snow, and dampness.

Figure 1: Range Adjustment



* Depends on installation height and environment. Test recommended.

Figure 2: Wall (Top View)

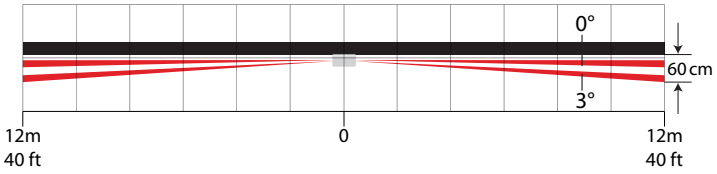
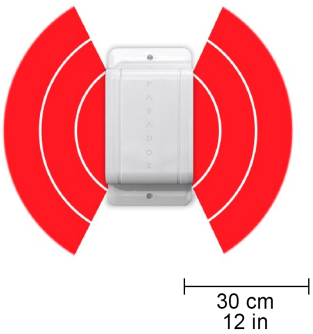


Figure 3: Anti-Mask Range



Technical Specifications

Sensor	4 x dual low noise rectangular elements
Lens	2nd gen., flat 2x dual beam, 1.7 in. focal point, narrow beam long-range Fresnel lens
Processing	Digital APSP / Digital temperature compensation
Anti-Mask	Dual Active IR left / right with accelerated fast respond processing detecting blocking objects, sprayed materials and degradation
Startup time	25 sec, with anti-mask calibration
Detection speed	0.2m/sec – 4m/sec (0.6 ft/sec – 13.1 ft/sec)
Power input	**NV780MX** 9 Vdc to 15 Vdc **NV780MR** 3x AA alkaline battery
Current consumption	**NV780MX** Typical / Standby: 37 mA Max: 80 mA **NV780MR** 3 year battery life
Coverage	Bi-directional, independent, 2 x 3m to 12m (9.8 ft to 39 ft) at 2.5m height
PET Immunity	Up to 40 kg (90 lb) - requires min.1.5m (4.9 ft) installation height
Installation height	1.5m and above
Alarm indicator	Red LED flashes for 3 sec., audible buzzer
Anti-Mask indicator	Orange LED flashes for 6 seconds, repeats every 60 sec.
Alarm output	**NV780MX** 2 Solid State, N.C., 150 mA Dual mode, in Single mode the relays operate together
Anti-tamper switch	**NV780MX** N.C. 28 Vdc, 0.15A **NV780MR** Box and wall tamper detection
RF frequency	**NV780MR** 433 MHz or 868 MHz, internally selectable
RF immunity	Complies with EN 50130-4: 10V/m 80 MHz to 2.7 GHz
Operating temperature	-35°C to +50°C (-31°F to +122°F)
Humidity	95% max.
Dimensions	L8.2 in. x W4.3 in. x D2.7 in. (21 cm x 11 cm x 7 cm)
Standards	EN 50131-2-2, Security Grade 2, EN 50130-5 Environmental Class IVA

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