



Single Channel – Dual Output Plug-In Vehicle Detector

Model NP2-ES Features:

- Plug-in compatible with many of today's gate operators
- 4 Selectable Sensitivities
- 4 Selectable Frequencies
- Wrong Voltage Protection
- Separate Power/Fault and Detect Indicators
- Automatic Sensitivity Boost
- Power Supply Requirement 10 to 30 Volts DC, 5mA nominal
- Selectable Presence Times
- Permanent Presence Option



The NP2-ES has been specifically designed and engineered for use in the Parking/Access Control industries and is designed for plug-in compatibility with many contemporary gate operator designs. With standard operations including compatibility with all radio controls and more, the NP2-ES covers your low power, plug-in detection needs.

The NP2-ES's wide inductance range allows for use with small loops sometimes found in the Parking/Access Control industries (for recommended loop sizes please consult the Northstar Loop Information Guide).

Separate indicators for power/fault and detect output provide for quick visual verification of proper operation. Loop diagnostics are easily viewed with the front panel power/fault indicator.

Reliable operation and long field life are key engineering goals in every Northstar product.

NP2-ES Specifications

Front Panel Selections:

Sensitivity – controlled by front panel DIP switch.

- 0 = Low sensitivity
- 3 = High sensitivity

Medium sensitivity is used for most applications; this is a setting of 1 or 2. Always use the lowest sensitivity setting that provides expected operations.

Frequency – four separate settings controlled by front panel DIP switches.

- 2+1 = High
- 2+0 = Medium High
- 1+0 = Medium Low
- 0+0 = Low

Reset – front panel reset performs a hard reset of the detector.

DIP Switch Options:

Switch A ON = 15 min presence time

Switch A OFF = 60 min presence time

Switch B ON = Permanent Presence

Outputs:

Detect Output is fail secure, loss of power does not cause a detect output to be placed.

Factory Settings:

- Set to High frequency
- Set to Medium Low sensitivity (1)

Specifications:

Output Rating: Solid State both Detect and Fail. 30mA Maximum current sink. Outputs are protected from over-voltage or polarity reversal.

Power: 10 to 30 volts DC, 5mA nominal.

Inductance Range: 20uH to 1500uH.

Temperature Range: -30 F to +180 F.

Lead-In Length: up to 2500 ft. with proper lead-in and loop.

Mechanical: 2.4" H x 2.25" D x 0.8" W.

Supply Voltage – incorrect voltage supplied to the unit will not result in damage, the unit will simply not operate until correct voltage is supplied. No fuses need to be reset.

Indicators – front panel indicators:

Power/Fault – Green, solid with correct power supplied.

Flashes during a fault condition.

Fault flash sequence: Single flash and

pause = Open Circuit Loop

Double flash and pause = Shorted

Loop.

Detect – Red, solid during detect.

Power Saving Mode: While in normal operation with no fault indication, the Green LED will extinguish after a period of 2 minutes. A power interruption or reset will re-illuminate the Green LED.

Sensitivity Boost – automatic during detect except in the highest sensitivity setting (3).

Connector: – 10 position Molex Type 09-48-1104

Pin #	Function
1	Loop
2	Loop
3	Power – 10 to 30 V DC
4	Not used
5	Not used
6	Fail output
7	Fail output
8	Detect output
9	Power – 10 to 30 V DC
10	Power common

Note: The above connections are shown with correct power supplied and no vehicle present.

