

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.

Northstar Controls L.L.C. warrants this product against defects in Manufacturing and workmanship for one year from date of shipment from the Northstar Controls L.L.C. factory.

Specifications are subject to change without notice.

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