NORTECH PARKING

308DS0101_00

# PD180

# SINGLE CHANNEL DETECTOR

The 8 Series, Nortech's new flagship Vehicle Detector range addresses the market's need for a slimline, advanced vehicle detection solution. The powerful architecture facilitates sophisticated algorithms ensuring robust and reliable detection every time. The relay and opto outputs are fully configurable, allowing for alarms and alerts on desired events. Nortech's Automatic Frequency Selection (AFS) algorithms have been refined and optimised resulting in simplified setup and installation of complex multi-lane traffic sites.

The new wireless diagnostic unit, the DU800 allows for detector configuration and installation feedback on any iOS or Android device. This eliminates the need to adjust any mechanical interfaces once the unit has been installed. The DU800 also allows for vehicle profile streaming. The new slimline, DIN Rail mount housing allows for more physical connections than the traditional relay base.

The 8 Series detectors simply work, offering peace of mind even in the most complex installation. They are available in both single and dual channel with either relay or opto outputs.

## APPLICATIONS

- Parking barrier control.
- Safety Loop.
- Arming Control.
- Motorised gates and doors.
- Industrial control systems.

## SPECIFIC FEATURES

**Slimline Form Factor**

The PD180 is the slimmest of the Nortech boxed Parking detectors, facilitating installation in even the most physically constrained environments.

| | |
|---|---|
| **AFS** | Automatic Frequency Selection (AFS) automatically examines the detector environment and sets the optimal operating frequency to ensure minimal interference and maximum reliability, significantly decreasing installation time. Frequency can also be manually set via wireless configuration channel. |
| **PowerFail Memory** | In the event of a power failure, the PD180 will retain the presence of the vehicle when power is restored. The PD180 is also able to determine if a vehicle has driven onto the loop while the power is off and detect it immediately when the power returns. This is most useful in applications where damage to vehicles could occur (E.g. Rising Bollards). The PowerFail memory is infinite. |
| **Diagnostics** | Comprehensive, wireless diagnostics allow for accurate diagnosis of loop and installation problems as well as configuration adjustments to eliminate issues. This is made possible via Nortech's DU800 and Integr8 App. |

## TECHNICAL DATA

| | |
|---|---|
| **Self-Tuning Range** | 20µH to 1000µH. |
| **Sensitivity** | Ranging from 0.01% ΔL/L to 5% ΔL/L.<br>Automatic Sensitivity Boost (ASB) is selectable. |
| **Frequency** | Automatic Frequency Selection (AFS) or select from 6 frequency bands 30 - 150kHz (Frequency is determined by loop geometry). |
| **Automatic Frequency Selection** | Automatically evaluates all frequency bands on startup and selects the most suitable in the given environment based on signal strength and noise. |
| **Response Time** | Detect: < 58ms ±1.5ms.<br>Undetect: < 58ms ±1.5ms. |
| **Presence Time** | Permanent or Limited selectable, with optional timeout on Both. |
| **Drift Compensation** | Incorporated method of tracking changes caused by environmental conditions at a rate approximating 1% ΔL/L per minute. |
| **Anti-locking** | Incorporated algorithm accommodates the influence of positive inductance changes to avoid detector lock-up. |
| **Relay Outputs** | 2 programmable relays with NO, NC and COM connections exposed. Options for presence or pulse, pulse on detect, pulse on undetect or fault and each relay has configurable Filter, Delay and Extend options. |
| **Relay Mode** | Relays can be configured to operate as Fail Safe or Fail Secure with the ability to actuate on a Fault condition in Fail Safe mode. |
| **Opto Outputs** | 3 Opto outputs provided as an alternative to relays. Each is individually configurable. |

| | |
|---|---|
| **Protection** | Polarity protection, loop isolation transformer, Zener diode clamping, gas discharge tubes, 50 - 60Hz Noise Rejection. |
| **Power** | 12 - 24V $_{AC/DC}$ ±10%.<br>90V - 230V$_{AC}$ ±10% 50/60Hz. |
| **Connections** | DIN Rail mount.<br>3 x 3 Way Connectors and 1 x 4 Way connector. |
| **Operating Temperature** | -40˚C to +80˚C. |
| **Dimensions** | Maximum outer dimensions are 94mm x 94mm x 22,5mm. |

## ORDERING INFORMATION

| | |
|---|---|
| **308FT0101** | PD182 Single Channel 90 - 230V$_{AC}$ |
| **308FT0102** | PD184 Single Channel 12 - 24V$_{AC/DC}$ |
| **308FT0103** | PD182 Single Channel 90 - 230V$_{AC}$ Opto Outputs |
| **308FT0104** | PD184 Single Channel 12 - 24V$_{AC/DC}$ Opto Outputs |