PD180 Single Channel Advanced Slimline Vehicle Detector

Product Description

The 8 series, Nortech's new flagship Parking Vehicle Detector, addresses the market's need for a slimline, advanced vehicle detection solution. Our Automatic Frequency Selection (AFS) algorithms introduced in the 7 series detectors have been refined and optimised resulting in simplified setup and installation of complex multi-lane access control sites.

The new DU800 wireless diagnostic unit allows for detector configuration and installation feedback of 8 series detectors on any iOS or Android device. This eliminates the need to adjust any mechanical interfaces once the unit has been installed.

The new slimline, DIN Rail mount housing allows for more physical connections than the traditional relay base and Nortech's innovative modular design allows for future expansion.

Like its forebears, the 8 series detectors simply work, offering peace of mind in even the most complex installation.

The PD180 supports a single loop.

Applications

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

Features

- **Slimline Form** - The PD180 is the slimmest of the Nortech parking detectors facilitating installation in even the most physically constrained environments.
- **Expandable** - The innovative expansion port on the PD180 allows for the addition of modules to the system.
- **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 App.

Technical Details

Self-tuning range:	20µH to 1500µH
Sensitivity:	Ranging from 0.01% ΔL/L to 5% ΔL/L 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)
AFS:	Automatically evaluates all frequency bands on startup and selects the most suitable in the given environment based on signal strength and noise.
Presence Time:	Permanent or limited selectable
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, 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
Protection:	Polarity protection, loop isolation transformer, zener diode clamping, gas discharge tubes, 50-60Hz Noise Rejection
Power:	12 - 24V ±10% (AC/DC) 90V - 230V ±10% AC 50/60Hz
Connections:	DIN Rail mount 3 x 3 Way Connectors and 1 x 4 Way connector
Operating Temp.:	-40°C to +80°C
Dimensions:	Maximum outer dimensions are 94mm x 94mm x 22.5mm

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Technical Details

Output Relay Options

Failure Mode (safe/secure)

Operation Mode (presence/pulse)

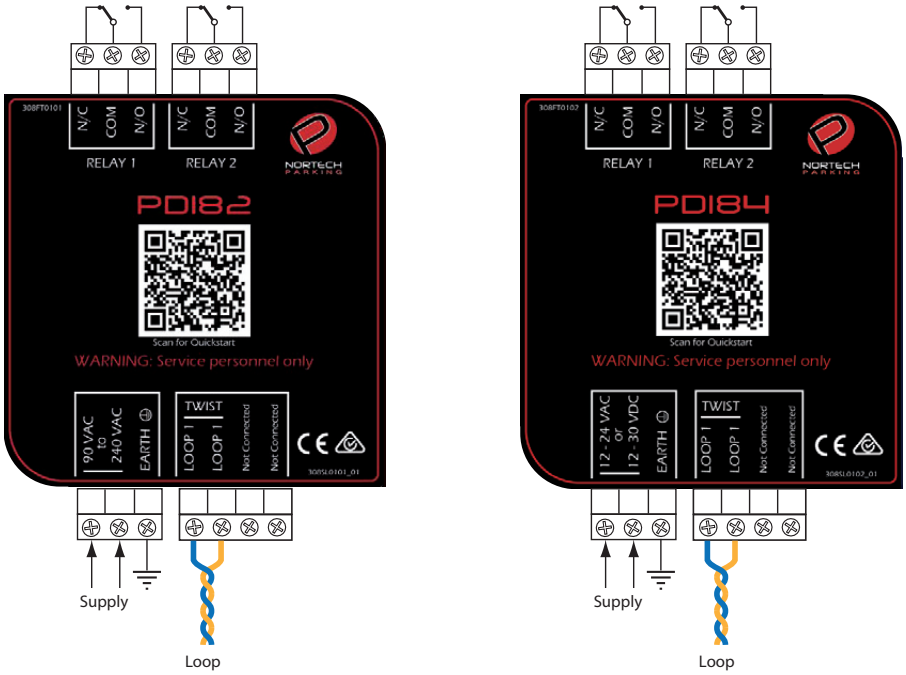
Filter time

Extend time

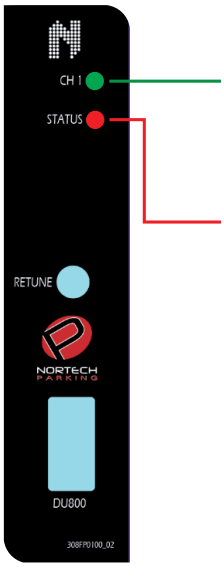
Presence trigger:

- Detect
- Fault

Connections



Indications



CH1 LED (Green)

Status LED (Red)

LED State	Indication
On	Channel is in Detect
Off	Channel is in Undetect

LED State	Indication
Flashing rapidly	Channel is busy tuning to the loop
Fast constant flashing	Channel is in fault
Slow constant flashing	Detector is in firmware update mode
ON	Detector is on and tuned to the loop
OFF	Channel is disabled or detector is not powered

Ordering Information

PD182: Single Channel 90 - 230V AC

PD184: Single Channel 12 - 24V AC/DC

DU800: PDx8x diagnostic unit

nortechcontrol.com

t: +44 (0) 1633 485533
f: +44 (0) 1633 485666
e: info@nortechcontrol.com

Nortech Control Systems Ltd.
Nortech House,
William Brown Close,
Llantarnam Park, Cwmbran,
NP44 3AB, United Kingdom