



## PD170 SINGLE CHANNEL DETECTOR

The 7 Series, is designed to meet the markets' need for a more cost effective, 'plug and play' solution! Our legendary Automatic Frequency Selection (AFS) results in less set up time, simplifying the installation of complex multi-lane access control sites. AFS also ensures trouble free installation and improved sensitivity facilitating the reliable detection of vehicles in all conditions.

Unlimited PowerFail Memory and a sophisticated environmental tracking algorithm ensures that whether your site has a simple or complex configuration, these detectors just work, giving you peace of mind. Consuming less power and with a 5 year manufacturer's warranty, the 7 Series offers a low cost of ownership and is available with DIN rail housing and relay base mounting. It is available in single and dual channel.

### APPLICATIONS

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

### SPECIFIC FEATURES

#### 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 the faceplate.

## **PowerFail Memory**

In the event of a power failure, the PD170 will retain the presence of the vehicle when power is restored. The PD170 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 diagnostics capabilities allow for accurate diagnosis of loop and installation problems. This is made possible via Nortech's DU100 and DU700.

## **Permanent Presence**

The output of the presence relay can be selected to maintain an output for an infinite period, eliminating premature barrier/gate/door closure.

## **ASB**

Automatic Sensitivity Boost (ASB) facilitates the reliable detection of all vehicle combinations and high-bed vehicles by boosting the sensitivity to maximum after detection of a vehicle.

# **TECHNICAL DATA**

## **Self-tuning Range**

20 $\mu$ H to 1500 $\mu$ H

## **Sensitivity**

4 step adjustable on the front panel:  
Ranging from 0.01%  $\Delta$ L/L to 0.1%  $\Delta$ L/L  
Automatic Sensitivity Boost (ASB) is switch selectable

## **Frequency**

Automatic Frequency Selection (AFS) or select from 4 frequency bands 18-110kHz (Frequency is determined by loop geometry)

## **Presence Time**

Permanent or limited selectable

## **Drift Compensation**

Incorporated method of tracking changes caused by environmental conditions at a rate approximating 1%  $\Delta$ L/L per minute

## **Anti-locking**

Incorporated algorithm accommodates the influence of positive inductance changes to avoid detector lock-up

## **Relay Outputs**

1 dedicated presence relay, and 1 pulse relay that can be configured to pulse on detect or pulse on undetect. The pulse duration is selectable between either 150ms or 250ms

## Relay Mode

The Presence relay can be configured to operate as Fail Safe or Fail Secure

## Protection

Loop isolation transformer, zener diode clamping, gas discharge tubes

## Power

12-24V  $\pm 10\%$  AC/DC  
120V  $\pm 10\%$  AC  
230V  $\pm 10\%$  AC

## Connector

11 pin submagnal connector (JEDEC B11-88)  
Also available in DIN rail mount unit with 2 x 6way connectors

## Operating Temperature

-40°C to +80°C

## ORDERING INFORMATION

**307FT0103**

PD171 Single Channel 120V

**307FT0101**

PD172 Single Channel 230V

**307FT0102**

PD174 Single Channel AC/DC 12-24V