

PD270 Enhanced Dual Channel Vehicle Detector

Product Description

Nortech Detectors are stable and robust, whether exposed to sub-zero temperatures or in a dusty, dry environment. They are easy to install and perform the function that they are designed for, year after year.

The PD270 detectors, as well as offering all of the standard features of the PD230 range, provide additional features and functionality both simplifying installation and improving performance and reliability.

The PD270 model is a dual channel vehicle detector that can be used to identify the presence of vehicles by means of two independent inductive loops buried under the road, and can be used for almost any vehicle detection application. It includes A-B logic to detect the direction of vehicles, plus many new features including AFS (Automatic Frequency Selection), which ensures less set up time, thereby simplifying the installation of complex multilane access control sites. It also ensures a low cost of ownership.

All detectors are CE tested and approved and come with a 5-year manufacturer's warranty.



Applications

- ▶ Parking barrier control
- ▶ Safety loop
- ▶ Accurate vehicle counting with AB Logic
- ▶ Arming control
- ▶ Motorised gates and doors
- ▶ Industrial control systems

Features

- ▶ **Automatic Frequency Selection (AFS)** - the detector can automatically select the best frequency setting to minimise noise and maximise signal strength, avoiding the need to experiment with frequency settings on multiple loop installations.
- ▶ **Configurable AB Logic** - Selectable on the front panel, AB Logic functionality detects the direction that vehicles are travelling in.
- ▶ **Selectable Permanent Presence** - The presence relay output can be set to persist for an indefinite period, eliminating premature barrier, gate or bollard closure, thereby reducing the risk of damage or injury.
- ▶ **Loop Isolation Protection** - The loop is isolated and provides protection against lightning and transient damage and allows for operation with single point to ground sensor loops. Added filtering reduces interference from external noise.
- ▶ **Automatic Sensitivity Boost (ASB)** - Facilitates the reliable detection of all vehicle combinations and high-bed vehicles by boosting the sensitivity to maximum on detection of a vehicle.



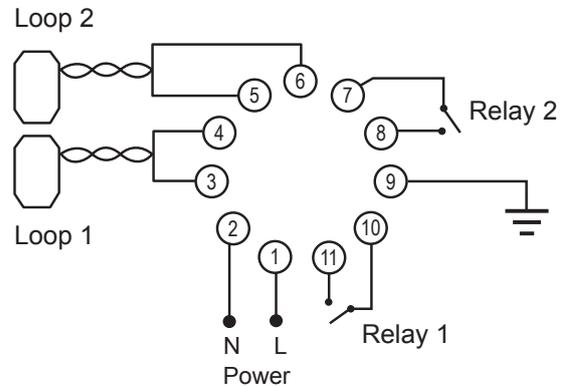
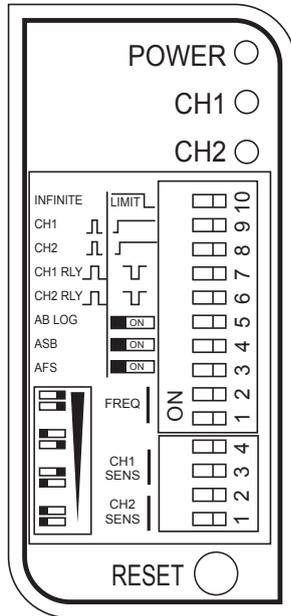
DU700 Diagnostic Unit

PD270 detector setup & loop fault analysis using a smartphone

- ▶ **Diagnostics** - Comprehensive diagnostics capabilities allow for accurate diagnosis of loop and installation problems.
- ▶ **Adjustable Sensitivity** - Each channel has the option to select one of four sensitivity settings.
- ▶ **AFS Override** - It's possible to override the AFS function by selecting one of four frequency options (the frequencies are determined by the loop geometry).
- ▶ **Pulse and Presence** - Each relay can be independently set to provide a Pulse or Presence output.
- ▶ **Anti-locking** - the detector automatically recovers from events that may cause it to be stuck in the detect state. This reduces the need to carry out a manual reset following an event such as a power failure with vehicles on the loop.
- ▶ **Fast Recovery Time** - The time taken by the Nortech detectors to recover from the detection and be ready to detect the next vehicle is very fast, enabling them to respond quicker to the detection of a second vehicle, thereby reducing the possibility of tailgating, etc.
- ▶ **Power Fail Feature** - In the event of an interruption in the power supply, the detector returns to its detect/undetected state prior to the power failure, ensuring that any vehicle that was on the loop during the power failure remains detected when power is restored. It will continue to sample inductance change and verify whether the vehicle is still present. This prevents closing of the barrier, gate or bollard while a vehicle is present, thereby reducing the risk of damage or injury.

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Technical Details



Relay Programming		
	Fail Secure	Fail Safe
Relay		
Undetect		
Detect		
Fault		
Power Off		

Specifications

Self-tuning range:	20µH to 1500µH	Anti-locking:	Incorporated algorithm accommodates the influence of positive inductance changes, the anti-lock time is 4 seconds
Sensitivity:	Four step adjustable on the front panel Ranging from 0.01% ΔL/L to 0.10% ΔL/L ASB (Automatic Sensitivity Boost) selectable	Recovery time:	Set to 80ms allowing for the detector to return to the ambient mode in preparation for arrival of the next detection
Frequency:	Automatic Frequency Select (AFS) and separate option to select from 4 frequencies (Frequency determined by loop geometry)	Output Conf.:	Two output relays. User configurable for: Presence on detect Pulse on detect
AB Logic:	A to B (CH1) & B to A (CH2) Presence or Pulse Selectable	Power Fail:	Permanently on, Reset available to clear stored data
Response time:	200 – 300ms	Surge protection:	Loop isolation transformer, gas discharge tubes, and Zener diode clamping on loop inputs
Presence method:	Permanent or Limited	Power:	PD274: 12 to 24 V +/-10% (AC/DC) PD272: 230V +/-10% AC
Presence time:	Permanent presence (infinite) Limited presence - time dependant upon level of detect and environmental conditions	Relay contact rating:	2A @30VDC, 0.25A@250VAC
Drift compensation:	Incorporated automatic method of tracking changes caused by environmental conditions at a rate approximating 1% ΔL/L per minute (Presence Time)	Operating temp:	-40°C to 80°C
		Humidity:	Up to 90% relative humidity without condensation

Ordering Information

PD272:	Dual channel, boxed, 230V AC	DU700:	PDx7x diagnostic unit
PD274:	Dual channel, boxed, 12-24V AC/DC		