

## Dual Channel Inductive Loop Vehicle Detector

PD272 / PD274



The PD270 is a dual channel inductive loop vehicle detector designed specifically for parking and vehicle access control application.

The PD270 incorporates a unique automatic frequency selection option that ensures trouble free installation and has improved sensitivity to facilitate reliable detection of high bed vehicles and SUVs in all conditions.

The primary function of the detector is to detect vehicle presence by means of an inductance change caused by the vehicle passing over a wire loop buried under the road surface.

307FT0201 PD272D Nortech 240 VAC  
 307FT0202 PD274D Nortech 12-24V AC/DC

### FEATURES

#### Automatic Frequency Selection:

Automatic Frequency Selection option allows the detector to automatically select the best operating frequency that will achieve the lowest loop noise and maximum signal strength.

#### Flexibility:

Front panel mounted DIL switch provides many user selected functions without the need to access the internal circuitry. Channel multiplex circuitry eliminates crosstalk interference between the two loops connected to this detector regardless of the proximity.

#### Direction Logic capability:

Internal links optionally modify the outputs to indicate the direction of travel of a vehicle. Outputs are provided for direction A to B and B to A. This option is used for entry/ exit counting, free exit and similar applications.

#### Selectable Permanent Presence:

With this feature selected the output of the presence relay will be maintained for an indefinite period, thereby eliminating premature barrier/gate/door closure and possible vehicle damage.

#### Fault Monitor:

A fault indication is provided in the event of the loop input becoming faulty, or alternatively if the loop is out of the tuning range. This feature will help in localising the fault in the event of a maintenance call-out.

#### Loop Isolation Protection:

The loop isolation transformer provides protection against lightning and transient damage and allows for operation with single point to ground sensor loops.

#### Diagnostic Capabilities:

The software of this unit allows comprehensive diagnostics capabilities in conjunction with separate DU100 hand-held diagnostics readout. Advanced diagnostics features are covered by International patents.

#### Extended Warranty:

The PD270 has a 5 YEAR Warranty from date of manufacture

### APPLICATIONS

- Parking boom gate control
- Vehicle access control
- Motorised gates and doors
- Industrial control systems

## TECHNICAL DETAILS

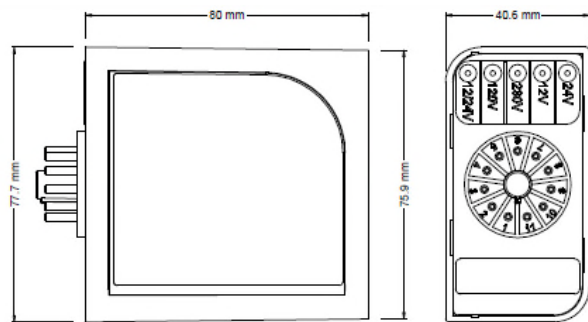
Self tuning range:	20-1000 $\mu$ H
Sensitivity:	Four step adjustable on face-plate: Ranging from 0.01% $\Delta$ L/L to 1% $\Delta$ L/L with ASB override option
Frequency:	Automatic with AFS or manual with High/low adjustable on face plate 12- 80kHz (frequency determined by switch setting and loop geometry))
Output Configuration:	1 output relay per channel (operates in pulse or Presence mode - Fail secure or Fail safe)
Pulse output duration:	Approx. 150ms Factory option 250ms
Presence Time:	Selectable - limited or permanent presence. (Limited-presence 1 hour for 3% $\Delta$ L/L
Output modes:	1. Presence or pulse outputs are independently selectable for CH 1 and CH2 2. Direction logic output – A to B (CH1) & B to A (CH2).
Indications:	The following face-plate indications are provided: Single power LED's plus individual channel LED's 1. Tuning-on (flashed) or slow flash in A/B logic mode 2. Undetect- LED off. 3. Detect - LED on steady 4. Fault - on with short off pulse (manual reset required to restore)
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Power requirements:	240V AC $\pm$ 15% 48-60Hz (PD272) 12-24V AC/DC $\pm$ 15% (PD274) 1.5VA max @ 230V
Output Relays:	1A @ 230V AC

## PD272 / PD274

Operating temperature range: -40°C to +70°C

### Mechanical detail:

Material:	High heat ABS blend
Dimensions:	78(H) x 41(W) x 80(L)mm
Mounting:	Shelf or DIN-rail socket
Connector:	Single rear mount 11-pin submagnal (JEDEC No. B11-88)
Options:	1 metre flying lead 11 pin screw terminal Base



## WIRING DETAILS

pin	designation
1	Live 230V AC 50/60 Hz OR
2	Neutral 12 - 24V AC/DC
3	CH 1 Loop   Twist this
4	CH 1 Loop   pair
5	CH 2 Loop   Twist this
6	CH 2 Loop   pair
7	CH 2 Out Normally Open
8	CH 2 Out Relay contacts
9	Earth
10	CH 1 Out Normally Open
11	CH 1 Out Relay contacts

## OPTIONAL ITEMS

302FT0041	1 metre flying lead
CTR 119090	11 pin Relay Base

