

Dual Channel Inductive Loop Vehicle Detector

PD232 / PD234



The PD230 is a series of dual channel inductive loop vehicle detectors in a popular miniature housing for DIN rail and relay base mounting. Miniature single and dual channel detectors from Nortech make it unnecessary to compromise on features when selecting a detector for parking control and motorised door or gate applications. 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.

PART NUMBERS

302FT0026	PD232D Nortech	240 VAC
302FT0008	PD234D Nortech	12-24v AC/DC
302FT0054	PD232D Nortech	240 VAC
	N/C contacts	

FEATURES

Compact Size:

Miniature housing that saves space in newer compact equipment designs. The lightweight design makes it possible to plug the unit directly into a DIN rail compatible socket.

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.

APPLICATIONS

- Parking barrier control
- Vehicle access control
- Motorised gates and doors
- Industrial control systems

Nortech Detection Pty Ltd

Unit 1, Bldg 5, 49 Frenchs Forest Rd., Frenchs Forest, NSW 2086
 P O Box 6011, Frenchs Forest DC, NSW 2086

Tel: 02 8977 4047 Fax: 02 9475 4742

email: mail@nortechdetection.com.au
 web: www.nortechdetection.com.au

TECHNICAL DETAILS

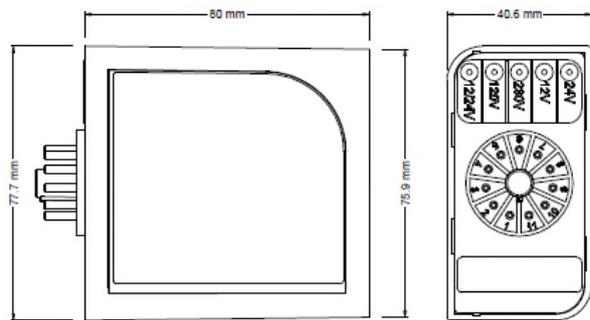
Self tuning range:	20-1000 μ H
Extended Sensitivity:	Four step selectable per channel High - 0.01% Δ L/L Med - High 0.05% Δ L/L Med - Low 0.1% Δ L/L Low - 0.5% Δ L/L Low: 0.5% Δ L/L
Frequency:	Four step adjustable on face plate, High, Med-High, Med-Low, Low (frequency determined by loop geometry)
Output Configuration:	1 output relay per channel (fail safe in Presence mode) - Fail secure (optional model)
Pulse output duration:	Approx. 150ms Factory option 250ms
Presence Time:	Selectable - limited or permanent presence. (Limited-presence 1 hour for 3% Δ L/L
Output modes:	1. Presence or pulse outputs are independently selectable for CH 1 and CH2
(Internal selection)	2. Direction logic output – A to B (CH1) & B to A (CH2) pulse or presence outputs available.
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:	120V AC \pm 15% 48-60Hz (PD231) 240V AC \pm 15% 48-60Hz (PD232) 12-24V AC/DC \pm 15% (PD234) 1.5VA max @ 230V
Presence Output Relay:	5A @ 230V AC N.O contacts (fail-safe in presence mode) or N.C. model

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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