Single Channel Inductive Loop Vehicle Detector

PD132 / PD134

The PD130 series is a single channel microprocessor based detector designed specifically for parking and vehicle access control application. The PD130 has been designed using the most up-to-date technology in order to meet the requirements of a vast number of parking applications in terms of operating conditions and options available to the user.

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

301FT0101	PD132D Nortech	240 VAC
301FT0122	PD134D Nortech	12-24V AC/DC
301FT0175	PD134D Delay 0 - 4 sec	12-24V AC/DC

FEATURES

Compact Size:

The compact aesthetically pleasing housing combined with all the industry requirements regarding features and functionality allows this detector to be incorporated into any new or existing vehicle detection system.

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.

Selectable Permanent Presence:

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

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.

Loop Frequency Indication:

The possibility of crosstalk (interference) between adjacent loops/detectors can be determined by an integral indication, and eliminated by changing the frequency settings.

Automatic Sensitivity Boost (ASB):

This feature facilitates the reliable detection of large truck-trailer combinations and high-bed vehicles by automatically boosting the sensitivity to maximum on detection of a vehicle.

Detect Filter:

Selection of the filter option will provide a finite turn-on delay, thus allowing small or fast-moving objects to pass over the loop undetected.

APPLICATIONS

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

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TECHNICAL DETAILS

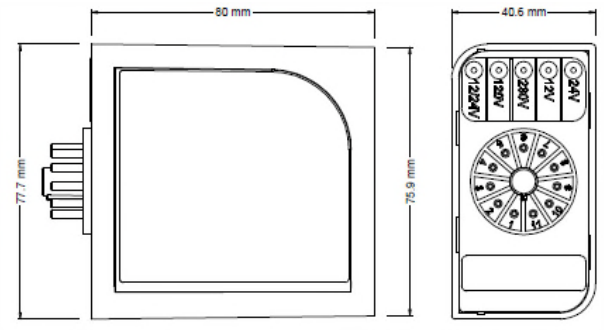
PD132 / PD134

Self tuning range:	20-1500µH
Sensitivity:	Four step adjustable on face-plate: High: 0.02% ΔL/L Medium High: 0.05% ΔL/L Medium Low: 0.1% ΔL/L Low: 0.5% ΔL/L
Frequency:	Four step adjustable on face plate, 12- 80kHz (frequency determined by switch setting and loop geometry)
Output Configuration	2 output relays: Relay 1 = Presence output Relay 2 = Pulse output
Pulse output duration:	Approx. 150ms Factory option 250ms
Presence time:	1 hour for 3% ΔL/L and permanent presence option
Operating modes:	Four way Mode selector on face-plate 1. Limited presence/ permanent presence 2. Pulse on detect/Pulse on undetect 3. Automatic Sensitivity Boost off/on 4. Filter off/on (2 second delay)
Indications:	The following face-plate indications are provided: Red LED – power; Green LED – channel indicator 1. Tuning – on steady followed by flashing frequency count (x 10 kHz) 2. Undetect – off 3. Detect – on steady 4. Fault – on with short off
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Power requirements:	120V AC ± 15% 48-60Hz (PD131) 240V AC ± 15% 48-60Hz (PD132) 12-24V AC/DC ± 15% (PD134) 1.5VA max @ 230V
Presence Output Relay:	5A @ 230V AC Change-over contacts (fail-safe)
Pulse relay:	5A @ 230V AC Change-over contacts (non-fail-safe)

Operating temperature range: -40ºC to +70ºC

Mechanical detail:

Material:	High heat ABS blend
Dimensions:	78(H) x 41(W) x 80(L)mm
Mounting:	Shelf or DIN-rail socket
Connector: submagnal	Single rear mount 11-pin (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	Pulse Relay	Normally Open contact
4	Pulse Relay	Common contact
5	Presence Relay	Normally Open contact
6	Presence Relay	Common contact
7	Loop	Twist this
8	Loop	pair
9	Earth	
10	Presence Relay	Normally Closed contact
11	Pulse Relay	Normally Closed contact

OPTIONAL ITEMS

301FT0041	1 metre flying lead
CTR 119090	11 pin Relay Base

NORTECH PARKING