



PRODUCT DATA SHEET

PD130 SINGLE CHANNEL VEHICLE DETECTOR

The PD130 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 diverse applications with a wide range of configurable options available.

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.

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 barrier control
- Rising Bollards
- Motorised gates and doors
- Industrial control systems

TECHNICAL DATA - PD130

Functional Specification:

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 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: 1. Limited / permanent presence
 2. Pulse on detect / 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 – indicator 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

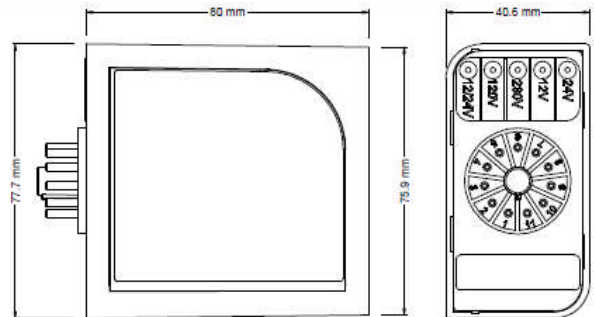
Presence Output Relay: 5A @ 230V AC
 Change-over contacts (fail-safe)

Pulse relay: 5A @ 230V AC
 Change-over contacts (non-fail-safe)

Operating temperature range: -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)
 Option: 1 metre flying lead



11-pin connector wiring

pin	designation
1	Live 230V AC 50/60 Hz
2	Neutral OR 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

ORDERING INFORMATION

301FT0101	PD132D Nortech	240 VAC
301FT0122	PD134D Nortech	12-24v AC/DC
301FT0175	PD134D Operate Delay 0 - 1 - 2 - 4 sec	12-24v AC/DC
301FT0041	1 metre flying lead	option
CTR 119090	11 pin Relay Base	option