

PD 130 Single Channel Detectors

The innovative PD130 series of single channel inductive loop vehicle detectors are used to detect vehicles presence by means of an inductive loop buried under the road and have all the features and benefits found on much larger modules. No longer is it necessary to make compromises when selecting a detector for parking control and motorised door or gate applications – these "one chip" microprocessor-based units are suitable for them all. Available in over 100 variations these detectors can cater to your every system requirement.

APPLICATIONS

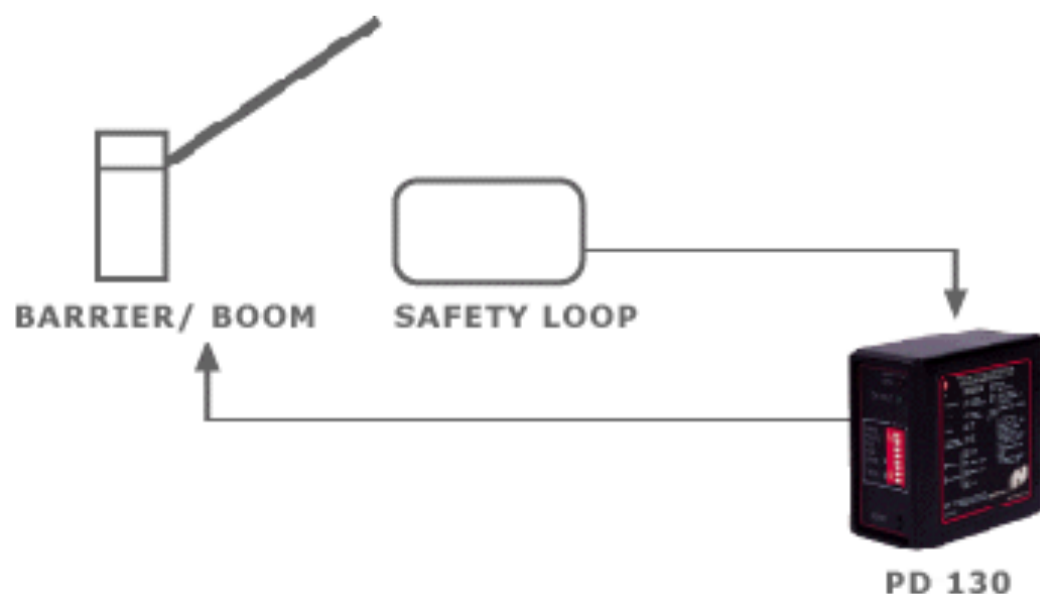
- Parking barrier control
- Vehicle counting
- Motorised gates and doors
- Industrial control systems



FEATURES

- **Compact Size:** This compact and well engineered housing combines all of the industry requirements regarding features and functionality and allows this detector to be incorporated into any new or existing vehicle detection system.
- **Diagnostic Capabilities:** Comprehensive diagnostics capabilities allow for accurate diagnosis of loop and installation problems.
- **Selectable Permanent Presence:** The output of the presence relay can be selected to maintain an output for an indefinite period, eliminating premature barrier / gate / door closure.
- **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.
- **Loop Frequency Indication:** Interference between adjacent loops / detectors can be determined by an integral indication, and eliminated by changing the frequency settings.
- **Environmental Analyser:** Continuous monitoring of external parameters ensures reliable product performance and operations under all environmental and power supply conditions.
- **Automatic Sensitivity Boost (ASB)** Facilitates the reliable detection of all vehicle combinations and high-bed vehicles by boosting the sensitivity to maximum after detection of a vehicle.
- **Detect Filter:** Provides a turn-on delay, thus allowing selective detection which is often useful for screening out unwanted inputs.
- **Powerfail Memory (options)** In the event of a power failure, the PD130 detector will retain the presence of the vehicle when power is restored. This is most useful in applications where damage to vehicles could occur (e.g. Rising Bollards)

Using the PD130 Detector as a Safety Loop



Self-tuning Range: 20 – 1500 μ H
Sensitivity: Four step adjustable on faceplate
 High 0.02% Δ L/L Med-High 0.05% Δ L/L
 Med-Low 0.1% Δ L/L Low 0.5% Δ L/L

Frequency: Four step adjustable on faceplate 12–80kHz
 (Frequency determined by loop geometry)

Output Configuration: 2 output relays:
 Relay 1 = Presence output (fail safe) Relay 2 = Pulse output

Pulse Output Duration: Approx. 150 ms (option – 250 ms).
Presence Time: 1 hour for 3% Δ L/L Permanent presence option
Power Fail Memory: 10 minutes
 (option)

Operating Modes: Four-way mode selector on faceplate:
 1. Limited presence / permanent presence
 2. Pulse on detect / pulse on undetect
 3. Automatic Sensitivity Boost selectable
 4. Filter selection(2 second delay)

Indications: The following faceplate indications are provided:
 Red LED – Diagnostic
 Power Green LED – Channel green Indicator
 1. Tuning – on steady followed by flashed frequency count (x 10 kHz)
 2. Undetect – off
 3. Detect – on steady
 4. Fault – on with short off periods

Protection: Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection.

Power Requirements: 120V AC \pm 15% 48–60Hz (PD131)
 230V AC \pm 15% 48–60Hz (PD132)
 12–24V AC/DC (PD134)
 Requirements – 1.5VA max @ 230V

Output Relays: Presence Relay – 5A @ 230V AC
 (Rating and Type) Change-over contact (Fail-safe)
 Pulse Relay – 5A @ 230V AC
 Change-over contacts (Non fail-safe)

Operating Temp Range: –20°C to +70°C (Circuit sealed against condensation)
Material: High heat ABS blend
Dimensions: 76 mm (high) 40 mm (wide) x 78 mm (deep)
Mounting: Shelf or DIN-rail socket
Connector: Single rear mount 11-pin submagnal (86CPII)
 Option – 1 metre flying lead

PD 130 Typical Wiring Configuration for standard models.

PIN	FUNCTION
1	LIVE
2	NEUTRAL
230V = PD132 12/24V = PD134	
3	PULSE N/O
4	PULSE COMMON
5	PRESENCE N/O
6	PRESENCE COMMON
7	LOOP
8	LOOP
TWIST THIS PAIR	
9	EARTH
10	PRESENCE N/C
11	PULSE N/C

* May vary according to special requirements