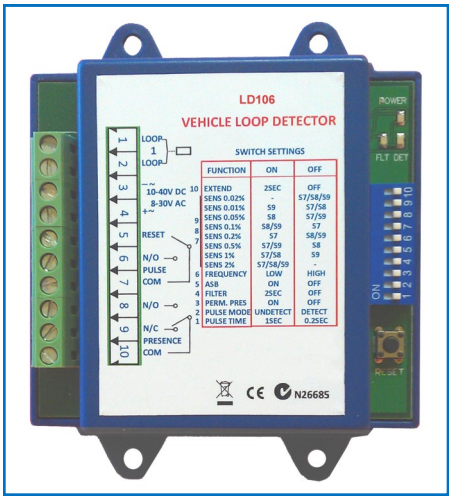
ROTECH

Fast
Safe
Secure

LD106 Ultra Low Power Loop Detector

The LD106 is an ultra low power single channel induction loop detector designed for parking and access control applications.

With a very fast response time of 120ms the loop will provide an excellent safety feature for even the fastest doors and parking boom gates.



The LD106 can be configured for low power operation making it suitable for use with a solar panel. The detector consumes less than 2mA of supply current when there is no vehicle on the loop.

Loop detectors are most often used to open or prevent the closing of boom gates, doors or sliding gates.

The detector is connected to an inductive wire loop mounted in the road surface. When vehicles pass over the loop the detector switches an output.

The use of microprocessor and surface mount technology enables a large number of functions to be incorporated into a small package. The small size of the LD 106 and the 4 screw fixing points make them ideal for mounting in confined spaces.

The eight sensitivity settings and ASB (automatic sensitivity boost) offer enough flexibility to detect small cars and high bed trucks.

LD106 Ultra Low Power Loop Detector features:

- **Reset Switch**: The reset switch enables the detector to be manually reset during commissioning and testing. This results in the detector re-tuning the sensing loop and becoming ready for vehicle detection.
- **Selectable Pulse Time**: This feature sets the length of time that the pulse relay will be energised for 0.1 second or 0.2 second.
- **Pulse Relay Selection**: The Pulse relay may be configured to energise on detection of a vehicle or when the vehicle leaves the loop.
- **Sensitivity Boost**: This feature sets the undetect level to maximum sensitivity and is used to prevent loss of detection of high-bed vehicles.
- **Switch selectable Sensitivity**: Eight sensitivity settings are available on the switches to allow flexibility in configuration.
- **Switch selectable Frequency**: Two frequency settings are available to prevent cross-talk between adjacent loops.
- **Filter Option**: This option is used to provide a delay between detection of the vehicle and switching of the output relay. This delay is normally used to prevent false detection of small or fast moving objects.
- **Permanent Presence Option**: This feature ensures detection of the vehicle will be maintained when the vehicle is parked over the loop for extended periods.
- **Low Power Option:** When switched on this feature puts the detector into low power mode.

Technical Specifications

Specification	LD106 Ultra Low Power Loop Detector
Power Requirement	10 - 50 VDC 60 mA 8 - 35v VAC 50/60Hz
Encryption Type	Code-Hopping
Supply Current (approximate values)	**Normal mode:** Un detect - 11mA In Detect - 15mA **Low Power Mode:** Un detect -1.5mA In detect - 6mA
Presence / Pulse relay	0.5A/220VAC
Indicators	LED indicators show: Power, Detect state and Loop Fault
Detector Tuning Range	15 - 1500 uH
Frequency	Two step adjustable 23—130kHz
Sensitivity Settings	1 0.01 % HIGH 2 0.02 % 3 0.05 % 4 0.1 % 5 0.2 % 6 0.5 % 7 1 % 8 2 % LOW
Protection	Loop isolation transformer, zener diode and gas discharge tube
Environmental Tracking	Automatic compensation
Response Time	**Normal Mode:** 120ms after vehicle enters the loop **Low Power Mode:** 1 second after vehicle enters the loop
Connector	8 Way Screw terminal block
Operating Temperature	-20°C to + 70° C

Dimensions