



## Single Channel Loop Detector

### Description

Loop detectors in recent years have become a popular tool having innumerable applications in policing, right from surveillance operations to traffic control. Automation of gates and doors has become a popular usage of the loop detector.

The digital technology of the loop detector enables the equipment to sense a change in the inductance of the loop as soon as it detects the metal object in its path. The inductive loop which detects the object is made of insulated electrical wire (32/020; 32 Strand, 2mm diameter) and is arranged either as a square or rectangle shape.

The loop consists of several loops of wire and consideration should be giving to the loop sensitivity when installing on different surfaces. Setting the correct sensitivity allows the loop to operate with maximum detection (16 levels via a trimpot). When detection occurs, the detector energises 2 relays for the output (each can be configured individually). This energising of the relay can be configured into different modes, by selecting the respective dip switch.

The LD-100 Enhanced Vehicle detector is also provided with an integral fault relay, which will provide an output in the event of a loop fault condition.

### Features

**Compact Size:** the compact and well engineered housing Combines all of the industry requirements regarding Features and functionality and allows this detector to be Incorporated into any or existing traffic detection system.  
**Diagnostic Capabilities:** Comprehensive diagnostics Capabilities allow for accurate diagnosis of loop and Installation problems.

**Selectable Presence Time:** The output of the presence Relay can be selected to limit a detect output to a fixed time(time>30 minutes)while a vehicle remains on the loop  
**Loop Frequency Indication:** Interference between adjacent loop/detectors can be determined by an integral indication, and eliminated by changing the frequency setting.

Two separate output relays:

Presence Relay A is presence output. Can be extended for 0,2,5,8,10,15,20 or 30 seconds, programmable with external 10 way DIP switches.

Pulse Relay B, programmable with external 10 way DIP switches, provides presence, pulse on entry, pulse on exit, or failed output.



### Applications

- Traffic Control Application
- Vehicle Counting
- Toll Systems
- Traffic Analysis
- Parking Control Application



# LD-100 Series single channel loop detector

## Technical Details:

### Faceplate LED indicators

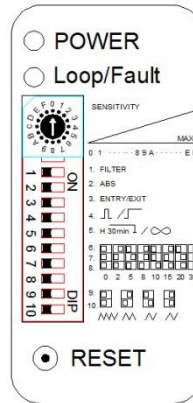
Red –Power

Green –Loop/Fault:

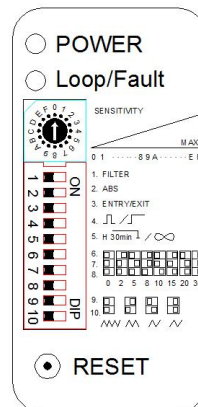
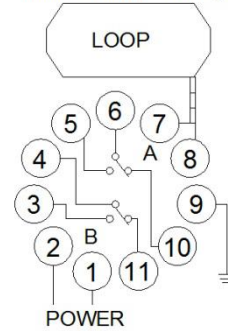
1. Undetect -off
2. Detect – on steady
3. Fault – flashing

### Faceplate Setting:

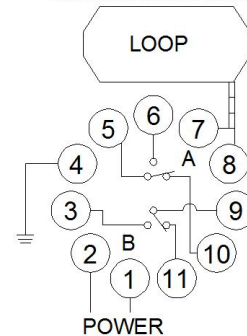
1. Sensitivity
2. Filter
3. ABS
4. Entry/Exit
5. Presence Time
6. Delay Time
7. Frequency



LD-100 LD-102  
Standard Model Wiring



LD-105 LD-106  
Standard Model Wiring



## Specifications

Self-turning range: 20-2000 $\mu$ H

Sensitivity: 16 way selectable  
Highest 0.010% DL/L  
Lowest 2.56% DL/L

Frequency: Four step switch  
selectable 20-80KHz

Power Requirements: 110-240VAC (48 to 62Hz)  
12-24VADC(48 to 62Hz)

Operation Temp: -40 $^{\circ}$ C to +70 $^{\circ}$ C  
(-111 $^{\circ}$ F to +158 $^{\circ}$ F)

Fault Output: Blinks slowly: It maybe because  
the loop is short circuit or the no:  
of turns is not enough.  
Blinks faster: It maybe because  
the loop is open or the no: of  
turns is too many.

Response Times: Turn-on 10-90MS  
Turn-off 10-90MS

Visual Indications: Power LED-Red  
Channel LED-Green

Reset: Reset by push button on  
front of enclosure

Relay Output: Presence Relay/Fault Relay

Humidity: Up to 95% relative humidity  
without condensation

## Ordering Information:

LD-100 single channel, boxed, 1 type 11pin connects 100-240VAC

LD-102 single channel, boxed, 1 type 11pin connects 12-24VADC

LD-105 single channel, boxed, 2 type 11pin connects 100-240VAC

LD-106 single channel, boxed, 2 type 11pin connects 12-24VADC