

DSP-50 Vehicle Detector

All this and a 5-Year Warranty too!



Features

- Works on any in-ground inductive loop from 20 to 2000 microhenries.
- Can be connected to a standard inductive loop as well as the new mini-loops
- Designed to be cross talk free between other loops
- Automatically compensates for loop and lead-in sizes
- Small profile, perfect for many installations
- Fail safe operation
- Wide low-voltage operation
- Separate Power/Fail and Detect LEDs

Overview

At last a plug-in detector that will operate on any voltage from 10 to 30 volts AC or DC. It can be connected to a standard inductive loop or one of the new mini-loops. The Diablo Controls mini-Loop is a small “pipe shaped” device approximately 5” by 3/4” and is designed to be buried in the ground to detect vehicles. Contact Diablo Controls for more information. The DSP-50 can be used as either a safety loop or free exit loop detector. With the flexibility to be either “fail safe” or “fail secure,” it is the most “user friendly” detector on the market today. The detector loop inductance should be between 20 and 2000 microhenries.

LED Indicators

The green Power LED will be on steady to indicate the detector is operating and powered. In the case of a loop circuit or mini-loop failure, the green LED flashes slowly (twice per second) for an open loop circuit failure. The green LED will flash fast (10 times per second) to indicate a shorted loop circuit.

The red Detect A LED will turn on when a vehicle is over the loop detection area. If delay is programmed, the LED will blink slowly during the delay interval. If extension is programmed, the LED will blink fast during the extension interval.

The red Detect B LED will echo the B output.

SENSITIVITY SWITCH

This detector has a 10-position rotary sensitivity switch. The unit is shipped in the “5” position which is the normal sensitivity level. Sensitivity can be adjusted up and down from this level to accommodate different street loops or mini-loops.

Frequency

One of four operating frequencies can be selected by changing DIP switches 9 and 10

Loop Type

Turn DIP switch 8 off to operate with a normal inductive loop. Turn the switch on to operate with a Diablo Controls mini-loop.

Extended Presence Time

Turn DIP switch 7 off to hold a vehicle’s presence for about 20 minutes before tuning it out. Turn the switch on to hold it much longer.



Pros Who Know Trust Diablo

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Output B Control

DIPSWITCH 6 and 5 (Effects output "B" only)
 6 = OFF and 5 = OFF B outputs are normal presence outputs.
 6 = OFF and 5 = ON B outputs "Entry" pulse.
 6 = ON and 5 = OFF B outputs "Exit" pulse.
 6 = ON and 5 = ON B outputs "Fail" condition.

Sensitivity Boost

Turn DIP switch 4 off to operate with normal sensitivity. Turn DIP switch 4 on to automatically boost sensitivity during a call to improve detection of high-bed vehicles and truck/trailer combinations. Sensitivity boost is not applicable to most situations.

Failure Operation

A fail safe detector will output "detect" when the loop circuit is failed. This is always useful on a safety loop. On the free exit loop this will keep the gate open until the situation is fixed. This is useful in applications where it is important to allow traffic flow to continue. A fail secure detector will never output "detect" when the loop circuit is failed. This will keep the gate closed. This is useful in high-security areas or installations where containment is needed. Turn DIP switch 3 off to operate in fail safe mode. Turn the switch on to operate in fail secure.

Note: Never use a fail secure detector on a safety loop.

Output A Control

DIPSWITCH 1 and 2 (Effects output "A" only)
 1 = OFF and 2 = OFF Output A normal Presence.
 1 = OFF and 2 = ON Output A has 2 seconds of delay.
 1 = ON and 2 = OFF Output A has 2 seconds of extension.
 1 = ON and 2 = ON Output A has 5 seconds of extension.

Mini-Loop Operation

The mini-loop mode will always be an entry pulse. As such, it is perfect for free exit operation. Never use the mini-loop as a safety loop.

Outputs

Solid-state (open transistor collectors) for both detect and fail outputs. 30 mA maximum current sink - transient voltage protected.

Power

12 to 30 volts DC

Operating Temperature

-35°F to 165°F (-37°C to 74°C)

Enclosure

Impact resistant, high temperature plastic
 H: 2.375" (60.4 mm) W: 0.86" (22 mm) D: 2.25" (58mm)

Connector

(looking into the connector – right to left.)

- 1 Loop or Mini-Loop
- 2 Loop or Mini-Loop
- 3 Power input "+"
- 4 Not Connected
- 5 Not Connected
- 6 Output B
- 7 Output B reversed
- 8 Output A
- 9 Power input "+"
- 10 Power (and logic) common

Ordering Information

Only one model available: DSP-50



Veteran Owned & Operated

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