

DSP-7 Vehicle Detector

A New Plug and Play "Micro" Vehicle Detector



Features

- Designed to be cross talk free between other loops
- Automatically compensates for loop and lead-in sizes
- Switchless, self-adapting to most common installations
- Plug and play; Connect it up and watch it work
- Small profile, perfect for many installations
- Fail safe operation
- Wide low-voltage operation
- This series of Diablo Controls detectors are covered by United States patent. Patent number US 7,132,959 "Non-Interfering Vehicle Detection."

Overview

Detector operates on any voltage from 10 to 30 volts AC or DC and draws about 35 milliamp of current with no vehicle on the loop. This micro-sized detector will automatically adjust its sensitivity level when used on different sized loops. The detector loop inductance should be between 20 and 2000 microhenries.

LED Indicators

The green Power LED blinks once per second to indicate the detector is operating and powered. The red Detect LED will turn on when a vehicle is over the loop detection area.

Loop or Wire Failures

In the case of a loop circuit 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.

Fail Safe vs Fail Secure

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. The DSP-7 is a fail safe detector. **Note:** Never use a fail secure detector on a safety loop.

Power

This detector is powered with 10 to 30 volts AC or DC. Approximately 35 mA current. The relay contacts are rated at 1 amp maximum.

Connector

Removable 7-pin terminal block.

Pin assignments are shown below (from left to right):

- 1 - Relay Normally Closed (NC) - contact opens for detect
- 2 - Relay Common
- 3 - Relay Normally Open (NO) - contact closes for detect
- 4 - Power Common
- 5 - Power In (10 to 30 volts AC or +DC)
- 6 - Loop
- 7 - Loop

Size

Height: 1.52" Width: 2.9" Depth: 1.56"

Operating Temperature

-35°F to 165°F (-37°C to 74°C)

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