



DSP-11 Vehicle Detector

All this and a 5-Year Warranty Too!

Overview

Detector operates on any voltage from 10 to 30 volts AC or DC and draws about 35 milliamps 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-11 is a fail safe detector. **Note:** Never use a fail secure detector on a safety loop.

Output Relay Ratings

1A at 125 VAC general use, 1A at 30 VDC

Power

DSP-11-LV (10 to 30 volts AC or DC), DSP-11-117 (117 volts AC), DSP-11-230 (230 volts AC)

Operating Temperature

-35°F to 165°F (-37°C to 74°C)

Size

Height: 1.4" Width: 1.4" Depth: 2.75" overall

Connector

Standard 11-pin (Amphenol 86CP11)

Pin assignments are:

- Pin 1 (black wire) - Power in (See model type)
 - Pin 2 (white wire) - Power in (See model type)
 - Pin 5 (yellow wire) - Output relay common
 - Pin 6 (blue wire) - Output relay N.O. - (closes for detect)
 - Pin 7 (gray twisted wire) - Loop input
 - Pin 8 (brown twisted wire) - Loop input
 - Pin 10 (pink wire*) - Output relay N.C. - (opens for detect)
- *This wire is black (with white) on some harnesses.

Ordering Information

Standard part numbers are as follows: DSP-11-xxx
xxx = LV = Low voltage model 10 to 30 volts AC or DC
xxx = 117 = 117 volts AC

Features

- Works on any in-ground inductive loop from 20 to 2000 microhenries.
- 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 number US 7,132,959 "Non-Interfering Vehicle Detection."
- The DSP-11-LV is protected from damage if plugged into a higher voltage. No need to change a fuse or reset a circuit breaker, simply plug the detector into the proper voltage and it works.
- Separate Power/Fail and Detect LEDs.
- Industry standard 11-pin connector in a small plastic case

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