



Diablo DSP-10-LV Loop Detector User Guide

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DIABLO

Diablo DSP-10-LV Loop Detector



WIRING

The pin assignments for the detector and the optional wiring harness are:

Pin	Wire Color	Function
1	Black	DC + or AC Line
2	White	DC – or AC Neutral
3	Orange	Relay B N.O.
4	Green	Chassis Ground
5	Yellow	Relay A Common
6	Blue	Relay A N.O.

Pin	Wire Color	Function
7	Gray	Loop
8	Brown	Loop
9	Red	Relay B Common
10	Pink or White/Black	Relay A N.C.
11	Violet or White/Red	Relay B N.C.

DIP SWITCHES

1	Function
OFF	Detect Immediately on Entry
ON	2 Second Detect Delay on Entry

2	3	Function
OFF	OFF	No Extension
ON	OFF	2 Second Extension Time
OFF	ON	5 Second Extension Time
ON	ON	10 Second Extension Time

4	Function
OFF	Normal Sensitivity
ON	Sensitivity Boost During Detect

5	6	Function
OFF	OFF	Relay B is Presence
ON	OFF	Relay B is an “Entry” Pulse
OFF	ON	Relay B is an “Exit” Pulse
ON	ON	Relay B is a “Fail” Condition

5	6	Function
OFF	OFF	Relay B is Presence
ON	OFF	Relay B is an “Entry” Pulse
OFF	ON	Relay B is an “Exit” Pulse
ON	ON	Relay B is a “Fail” Condition

8	Function
OFF	Inductive Loop
ON	Free Exit Probe (Magnetometer)

9	10	Function
OFF	OFF	Highest Frequency
ON	OFF	Medium Highest Frequency
OFF	ON	Medium Lowest Frequency
ON	ON	Lowest Frequency

SENSITIVITY

The factory default is 5 and should work for most installations.

Setting	0	1	2	3	4	5	6	7	8	9
%ΔL/L	0.48	0.32	0.24	0.16	0.12	0.08	0.06	0.04	0.03	0.02
Response	70 ms ± 10 ms							140 ms ± 20 ms		

INDICATORS

Green Power LED

Steady on when operating normally. See fault table for a flashing condition.

Fault	Display for Current Fault	Display for Prior Fault
Low Voltage	2 Hz with 50% duty cycle	NONE
Open Sensor	1 flash ON every 2 seconds	1 flash OFF every 2 seconds
Shorted Sensor	2 flashes ON every 2 seconds	2 flashes OFF every 2 seconds
Large Change	3 flashes ON every 2 seconds	3 flashes OFF every 2 seconds


Red Detect A LED

The 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.

FAIL-SAFE or FAIL-SECURE

There are three jumpers internal to the detector that are used to select Fail-Safe or Fail-Secure mode of operation for the Relay A output. This setting determines what states the relay output should be in if a loop failure is detected. Fail-Safe operation has the relay activated. Fail-Secure has the relay deactivated. Most applications that are not high security will use the Fail-Safe mode of operation. The detector is shipped in the Fail-Safe mode from the factory. Additional information is available at the Diablo Controls website www.diablocontrols.com or contact technical support at (866) 395-6677.

Documents / Resources

	<p>Diablo DSP-10-LV Loop Detector [pdf] User Guide DSP-10-LV Loop Detector, DSP-10-LV, Loop Detector, Detector</p>
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References

- [Diablo Controls - The Experts In Access, Traffic And Parking Control Devices](#)
- [Diablo Controls - The Experts In Access, Traffic And Parking Control Devices](#)