

XLP-8

Small, Easy to Use, Low Power Loop and Probe Vehicle Detector



Features

- ❖ Extremely low power. Less than 1 ma of current draw in the non-detect state.
- ❖ Very few settings simplify the detector setup.
- ❖ Can be connected to a standard inductive loop as well as a magnetometer probe.
- ❖ Very small size allows use in cabinets with little room.
- ❖ Pluggable connector allows for pre-wiring of cabinets.
- ❖ 9 user selectable sensitivities.
- ❖ Diagnostics Mode to display the last recent fault.
- ❖ Wide operating voltage range with extended low-voltage operation.
- ❖ Sensitivity Boost for applications detecting semi-trucks.

The XLP-8 is specifically designed a small, simple to use, extremely low current draw, vehicle detector capable of using an inductive loop or a magnetometer sensor. The extremely low power use makes this detector ideal for solar applications.

The XLP-8 can be connected to a standard inductive loop or one of Diablo Controls magnetometer-based probes. The Diablo Controls probe is a small “pipe shaped” device approximately 4-1/2” by 1” and is designed to be buried in the ground to detect vehicles. **If the probe function is turned on, the detector cannot be used as an obstruction detector as there is no presence detection in this mode of operation.**

The XLP-8 has 1 amp rated relay contact outputs. Both Normally-Open and Normally-Closed contacts are provided.

The XLP-8 has 9 selectable sensitivity settings and a diagnostics mode. It uses a 4-position DIP switch to configure the detector. This includes the magnetometer probe selection as well as sensitivity boost, fail-safe or fail-secure operation, and operating frequency. This makes the XLP-8 flexible enough to deal with most installations.

Switch	Function			
1	OFF	High Frequency	ON	Low Frequency
2	OFF	Inductive Loop	ON	Mini-Loop
3	OFF	Normal Sensitivity	ON	Sensitivity Boost
4	OFF	Fail Safe	ON	Fail Secure

SPECIFICATIONS

Loop Inductance:	20 µH to 1500 µH (including lead-in)
Operating Temperature:	-35°F to 165°F (-37°C to 74°C)
Operating Voltage:	8 volts to 40 volts DC 8 volts to 28 volts AC
Operating Current:	Sensitivities 1-6: Without detection is 0.85 ma maximum With a detection is 30.00 ma maximum Sensitivities 7-9: Without detection is 1.60 ma maximum With a detection is 30.00 ma maximum
Output Ratings:	AC: 125 volts @ 1 amp DC: 60 volts @ 1 amp
Enclosure:	Impact resistant plastic 2.362” (H) x 0.866” (W) x 2.008” (D) 60.0 mm (H) x 22.0 mm (W) x 51.0 mm(D)



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SELECTABLE FEATURES

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 or down from this level to accommodate different loop sizes or probe placements.

Setting	0	1	2	3	4	5	6	7	8	9
%AL/L		0.32	0.24	0.16	0.12	0.08	0.06	0.04	0.03	0.02
Response Time	Diag Mode	160 ms ± 130 ms						200 ms ± 140 ms		

Diagnostic Mode: When the sensitivity is set to 0 the detector will operate in the diagnostics mode. In this mode the detector will continue to operate normally using the sensitivity setting that was active prior to selecting the diagnostics mode. The power LED will display the last fault, if it occurred within the last 7 days. The detect LED continues to work normally. The power LED will on if there is no prior fault to display.

Frequency: Frequency can be selected using DIP switch 1.

1	Function
OFF	Highest operating frequency
ON	Lowest operating frequency

Sensor Type: Set DIP switch 2 to off to operate with a normal inductive loop. Set the switch to on to operate with a Diablo Controls magnetometer probe. The probe mode will always be an entry pulse. As such, it is perfect for free exit operation. Never use the probe as an obstruction sensor.

2	Function
OFF	Normal inductive loop
ON	Magnetometer probe

Sensitivity Boost: Set DIP switch 3 to off to operate with normal sensitivity. Set DIP switch 3 to on to automatically boost sensitivity during a detection. Use sensitivity boost to improve detection of high-bed vehicles and truck/trailer combinations. Sensitivity boost is not applicable if the probe mode of operation is selected.

3	Function
OFF	Detector uses normal sensitivity
ON	Detector increases sensitivity once detection has occurred

SELECTABLE FEATURES - CONTINUED

Failure Operation: Set DIP switch 4 to off to operate in the fail-safe mode. Set DIP switch 4 to on to operate in the fail-secure mode. In the fail-safe mode, the detector will output a detect when the sensor circuit is failed. In the fail-secure mode, the detector will not output a detect when the sensor circuit is failed.

4	Function
OFF	Fail-Safe mode of operation
ON	Fail-Secure mode of operation

INDICATORS

Green Power LED: The power LED is used to convey status information about the detector. Since this detector is designed to be an extremely low power detector, the LED will be off most of the time. The LED will be on solid when there is possible activity over the loop.

Fault	Display
None	1 flash ON once every 4 seconds
Low Voltage	250ms ON then 250ms OFF, continually repeated
Open Loop	1 flash ON once every 2 seconds
Shorted Loop	2 flash ON once every 2 seconds

Red Detect LED: The LED will turn on when the output relay is activated.

CONNECTOR PINS

7 pin, 5 mm spacing, Header Pins

Pin	Function
1	Output Relay – Normally Closed Contact
2	Output Relay – Common Contact
3	Output Relay – Normally Open Contact
4	DC - or AC Neutral
5	DC + or AC (must be less than 40 VDC or 28 VAC)
6	Sensor – Loop or Probe
7	Sensor – Loop or Probe

ORDERING INFORMATION

XLP – 8	Detector Only
XLP-8-75	Detector + Free Exit Probe with 75' Lead-in
XLP-8-100	Detector + Free Exit Probe with 100' Lead-in

Visit our Website at www.diablocontrols.com for the most current information on all of our products. Specifications are subject to change.



Veteran Owned & Operated

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