MINILOOP - SINGLE CHANNEL DETECTOR

- The MiniLoop is a single channel inductive loop detector designed for parking and access control applications. The detector is connected to an inductive loop mounted in the road surface. When vehicles pass over the loop the detector switches on an output. Typical applications in the parking and access control environments are safety loops for barriers or gates, arming loops for activating card dispensers, entry or exit loops and vehicle counting. The MiniLoop is a compatible replacement for most single channel detectors on the market and is easy to set-up and install.

FEATURES

- **Switch selectable Sensitivity.** The detect sensitivity is the minimum change in inductance required to produce a detect output. Four sensitivity settings are available on the switches to allow flexibility in configuration.

- **Switch selectable Frequency.** The frequency of the loop is determined by the inductance of the loop and the frequency switch setting. If the frequency switch is on, the frequency is reduced. It may be necessary to change the frequency to prevent cross-talk between adjacent loops on different detectors.

- **Sensitivity Boost.** (ASB) This feature sets the undetect level to maximum sensitivity and is used to prevent loss of detection of high-bed vehicles.

- **Permanent Presence.** This feature ensures detection of the vehicle will be maintained when the vehicle is parked over the loop for extended periods.

- **Relay Modes.** The detect relay may be configured for a pulse output or presence output. The pulse output can be configured to be energized on detection of a vehicle or when the vehicle leaves the loop. In presence mode, the relay output can be configured to be Fail-Safe of Fail-Secure.

- **Selectable Pulse Time.** This feature sets the length of time that the pulse relay will be energized. 1 Second or 0.2 Second.

LED INDICATORS

- **Power Indicator.** (RED) This LED Indicator illuminates when power is present.

- **Detect Indicator.** (BLUE) This LED Indicator is illuminated when there is a vehicle over the loop.

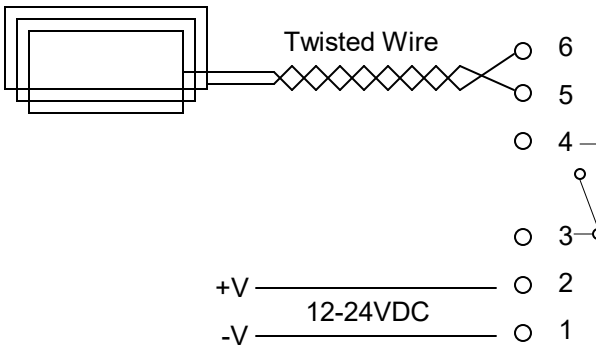
- **Loop Tuning.** Loop tuning is indicated by fast alternating flashing of the power and detect led's.

- **Loop Fault condition.** A loop fault is indicated by slow alternating flashing of the power and detect led's.

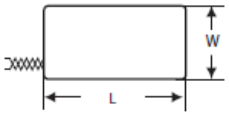
RELAY FUNCTIONALITY

RELAY MODE	SW2	VEHICE PRESENT	NO VEHICLE	LOOP FAULTY	NO POWER
PRESENCE (SW3 OFF)	ON	RELAY OPEN (FAIL SAFE)	RELAY CLOSED	RELAY OPEN	RELAY OPEN
	OFF	RELAY LCLOSED (FAIL SECURE)	RELAY OPEN	RELAY OPEN	RELAY OPEN
PULSE (SW3 ON)	ON	Pulse on Undetect	OPEN	OPEN	OPEN
	OFF	Pulse on Detect	OPEN	OPEN	OPEN

WIRING



Loop Size	Number of turns
10 - 20 ft	5 turns
20 - 35 ft.	4 turns
35 - 60 ft.	3 turns
60 - 80 ft.	2 turns



Length-to-Width ratio: 1:1 up to max. 4:1
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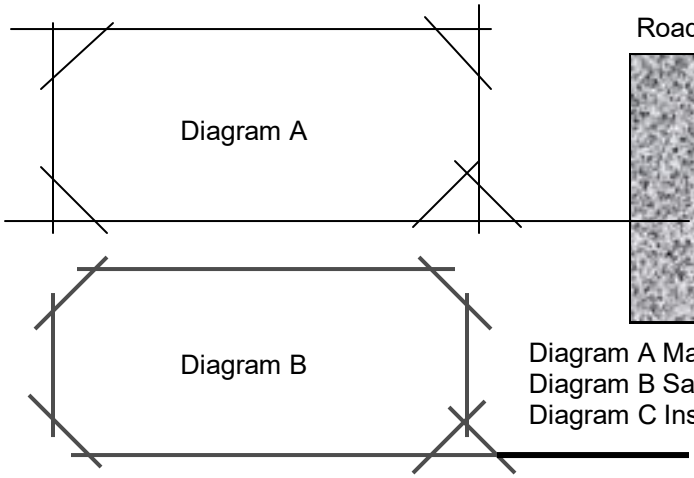
LOOP GUILD



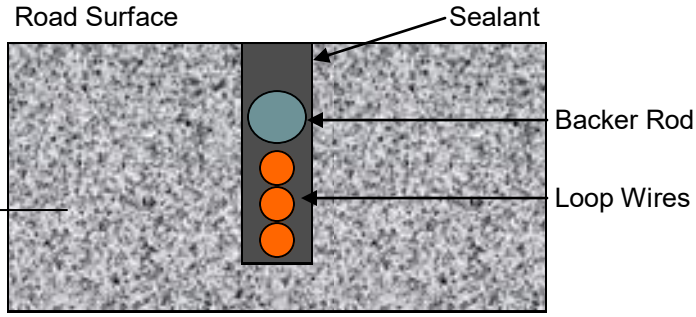
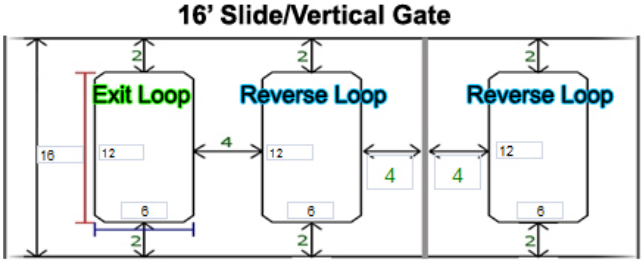
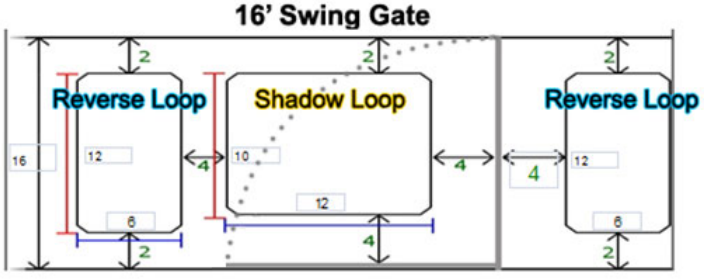


Diagram A Mark out loop, use a Rafter Speed Square for the corners
Diagram B Sawcut 3/16 blade up to 1/4, 18ga. Stranded Wire
Diagram C Install Wire, Backer Rod and Sealant

16' Slide/Vertical Gate



16' Swing Gate



TECHNICAL SPECIFICATIONS

Power supply	12 - 24VDC 34mA max
Relay	(Normally open contact) Change over contact 0.3A @ 125VAC | 1A @ 30VDC
Response time	Approximately 120ms after vehicle enters loop.
Indicators	LED indicators show: Power, Detect state, Tuning and Loop Fault.
Detector tuning range	15 - 1500uH
Loop Frequency	Approx. 23 – 130KHz
Environmental tracking	Automatic Compensation .
Protection	TVS diode protection on loop and supply inputs.
Connector	6way plug, accepts up to 1.5mm2 wire
Dimensions	18mm (height) X 36mm (width) X 55mm (Depth incl. connector).
Operating Temperature	-40°C to +80°C
Temperature	Storage -40°C to +85°C

MINILOOP SWITCH SETTINGS

Switch No	Function	ON	OFF
8	Frequency	Low	High
6,7	Sensitivity 1%	6 & 7	-
6,7	Sensitivity 0.5%	6	7
6,7	Sensitivity 0.1%	7	6
6,7	Sensitivity 0.02%	-	6 & 7
5	ASB	On	Off
4	Permanent Presence	On	Off
3	Relay Mode	Pulse	Presence
2.	In Pulse Mode (sw3 ON)	Undetect	Detect
2.	In Presence Mode (sw3 OFF)	Fail-Safe	Fail-Secure
1.	Pulse Time	1 Sec	0.2 Sec

Other Products Available

TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
The POWER LED is not on.	No power supply voltage on the input.	Check that the power supply is correctly wired to the detector.
The DETECT LED flashes erratically.	There may be a poor connection in the loop or loop feeder.	Check all wiring. Tighten screw terminals. Check for broken wires.
	The detector may be experiencing crosstalk with the loop of an adjacent detector.	Try changing frequencies using the frequency switch. Put the detector with the larger loop onto low frequency and the detector with the smaller loop onto high frequency.
The DETECT LED randomly stays on.	Faulty loop or loop feeder wiring.	Check the wiring. Tighten screw terminals. Check for pinched or bent wires. Is the feeder wire twisted?
	Movement of the loop in the ground.	Check for cracks in the road surface near the loop.
The LED's are indicating a LOOP FAULT (Slow alternating flash).	The loop inductance is too small or the loop is short circuit.	Check that there is no short circuit on the loop feeder wiring or the loop. If there is no short circuit then the inductance is to small and more turns of wire should be added to the loop.
	The loop inductance is too large or the loop is open circuit.	Check that there is electrical continuity on the loop. This can be done using a multimeter on the ohms range (< 5 Ω). If the loop inductance is too large then try reducing the number of turns.

WARRANTY

Our warranty covers manufacturing defects and workmanship **ONLY** and **excludes damage from incorrect installation, overloading, or external events like accidents or acts of God**. This warranty is offered to the original **purchaser only** and must be an authorized dealer. For full details of warranty repairs, contact your dealer information below.

Still Have Questions ? Call Your Technician

Your Dealer is