Induction Loop Installation Method

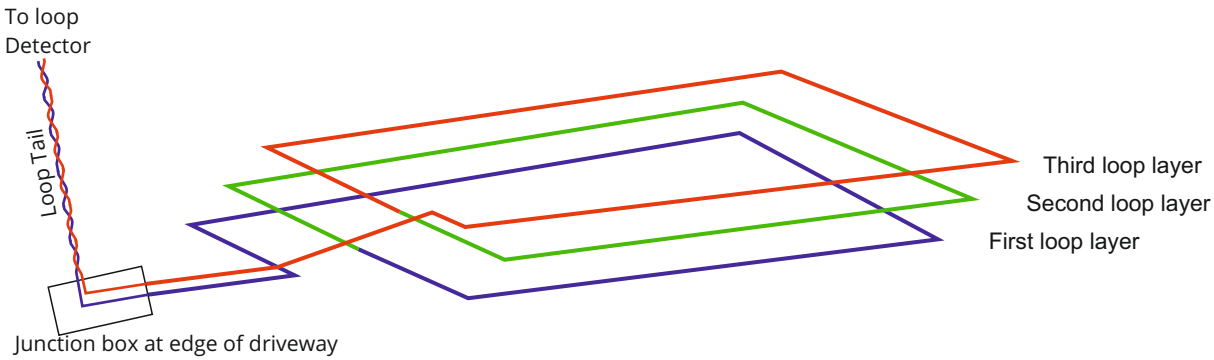
Material Recomendations

Detectors:
APC-LD1 Series Detectors

Loop Cable: APC-C1 Class Cables
Teflon insulated 19 Strand .235mm

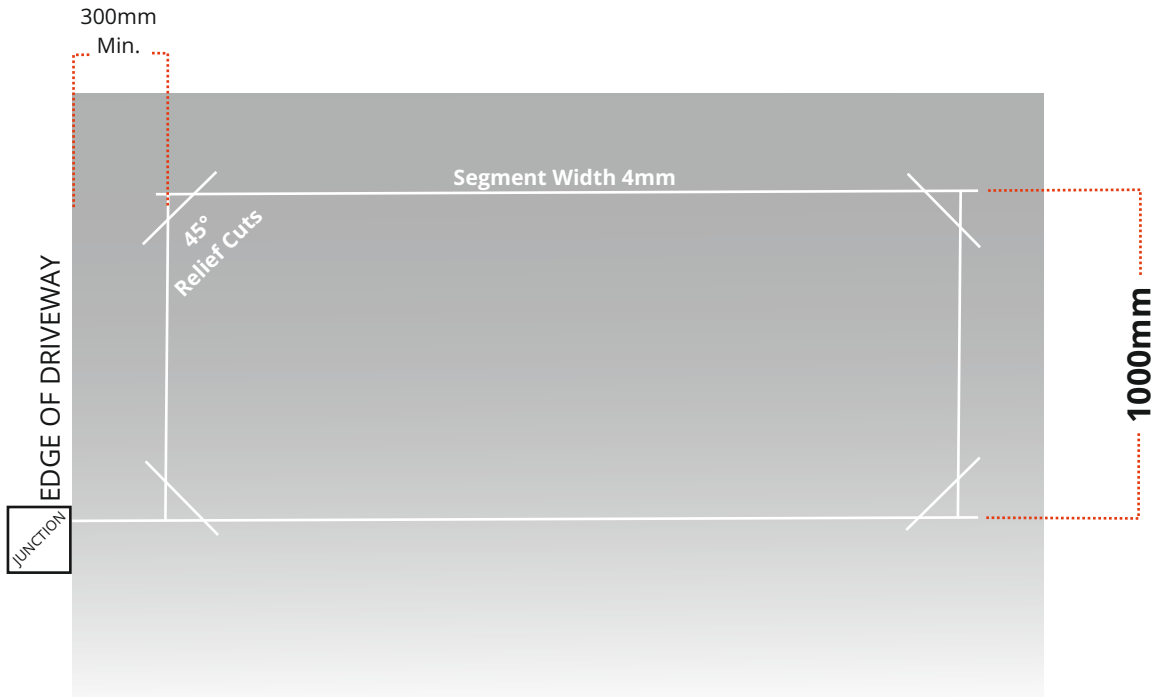
Sealant:
Megapoxy LSS5 or Equivalent

Loop layering and junction



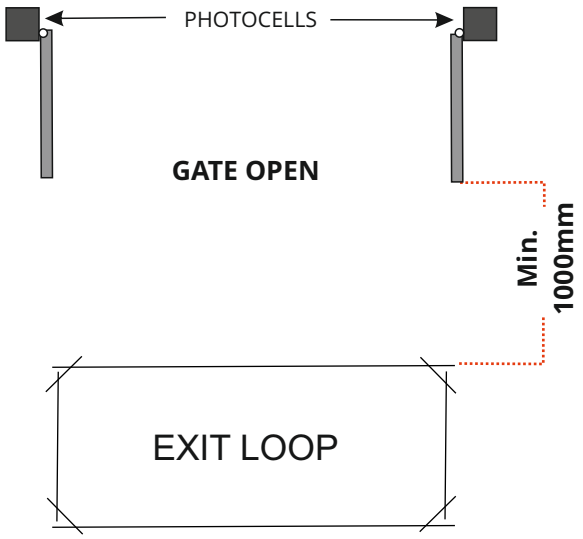
Note:
1. Loops with a circumference of less than 10m should have three layers.
2. Loops with a circumference greater than 10m should have two layers.
3. 20 twists per metre is required for the loop tail from the junction to the detector.

Saw cut layout

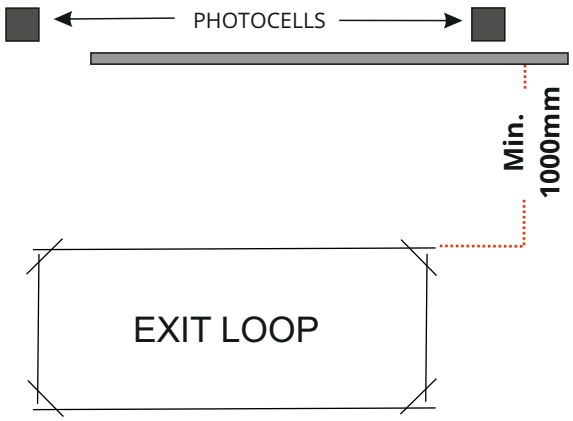


Note:
A segment width of 4mm and depth of 30-50mm will allow for complete submersion of the teflon cable is the polyurethane sealant.

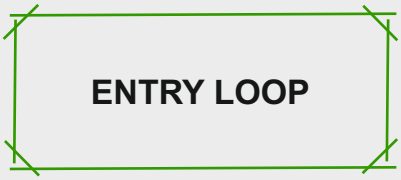
Swing Gate Loop Positioning (Basic)



Sliding Gate Loop Positioning (Basic)



Swing/Sliding Gate Loop (Comprehensive)

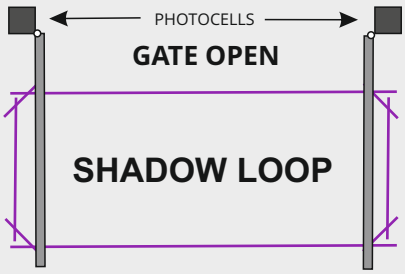


Entry Loop to allow access for vehicle without the need of any access control system, can be placed up to 50m from the detector.

This is a N/O circuit.

ENTRY Safety Loop prevents gate closure and/or reverses gate to the open position.

This is a NC circuit and will work in tandem with photocells.



Shadow Loop (for swing gates) is below the arc of the gate (and will operate in the same method as a safety loop.

This is a NC circuit and will work in tandem with photocells.

EXIT Safety Loop prevents gate closure and/or reverses gate to the open position.

This is a NC circuit and will work in tandem with photocells.

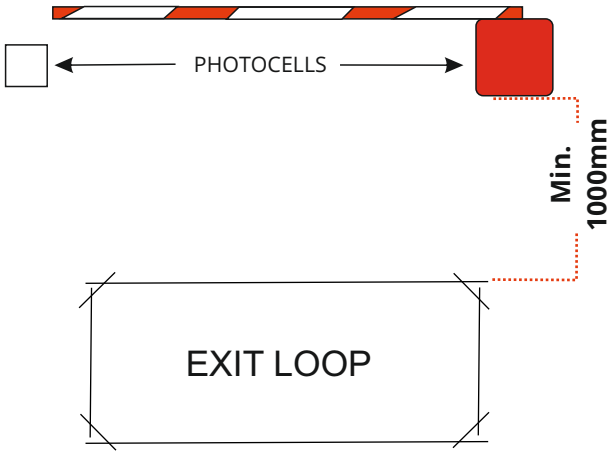
Exit Loop to allow exit for vehicles without the need of any access control system, can be placed up to 50m from the detector.

This is a N/O circuit.

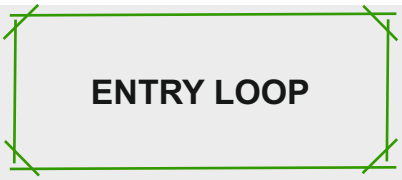
NOTE:

1. Ideal minimum distance between each loop is 2 Metres
2. Each loop detector frequency must be set different to the next loop
3. When possible use a DUAL CHANNEL loop detector for combined ENTRY/EXIT loops

Boom Gate Loop Positioning (Basic)



Boom Gate Loop (Comprehensive)

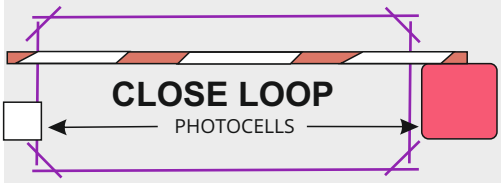


Entry Loop to allow access for vehicle without the need of any access control system, can be placed up to 50m from the detector.

This is a N/O circuit.

ENTRY Safety Loop prevents gate closure and/or reverses gate to the open position.

This is a NC circuit and will work in tandem with photocells.



Close Loop is below the arm of the operator (and is used to signal the system to close once the photocell is clear.

This is a NO circuit and requires photocells to prevent closure

EXIT Safety Loop prevents gate closure and/or reverses gate to the open position.

This is a NC circuit and will work in tandem with photocells.

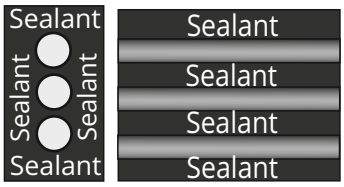
Exit Loop to allow exit for vehicles without the need of any access control system, can be placed up to 50m from the detector.

This is a N/O circuit.

NOTE:

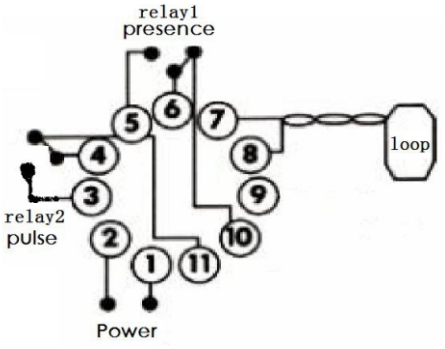
1. Ideal minimum distance between each loop is 2 Metres
2. Each loop detector frequency must be set different to the next loop
3. When possible use a DUAL CHANNEL loop detector for combined ENTRY/EXIT loops

Sealent



The induction loop sealant should completely submerge and surround the entire teflon cable. The sealant MUST be suited to induction loops as they carry specific properties to suit wide temperature ranges, low water absorption, minor shrinkage, adhere to road surfaces, and fuel resistant.

APC-LD1-24V AC/DC



Best suited when a single loop is to be connected to the detector, can be used for opening/closing or as a safety device.

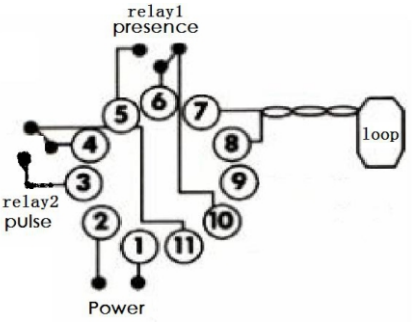
Input Voltage: 12-24V AC/DC
Loop Inputs: 1
Relays: 2 (N/O & N/C) Pulse & Presence

1&2 Input Power
7&8 Loop Wire Input

3 Relay 2 (Pulse) Normally Open
4 Relay 2 Common
11 Relay 2 (Pulse) Normally Closed

5 Relay 1 (Presence) Normally Open
6 Relay 1 Common
10 Relay 1 (Presence) Normally Closed

APC-LD1-240VAC



Best suited when a single loop is to be connected to the detector, can be used for opening/closing or as a safety device.

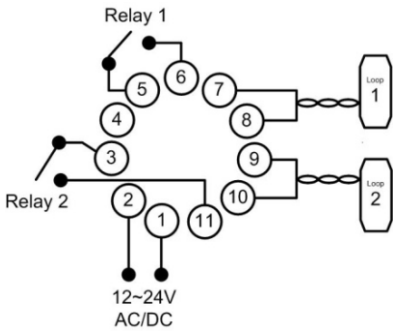
Input Voltage: 220-240V AC/DC
Loop Inputs: 1
Relays: 2 (N/O & N/C) Pulse & Presence

1&2 Input Power
7&8 Loop Wire Input

3 Relay 2 (Pulse) Normally Open
4 Relay 2 Common
11 Relay 2 (Pulse) Normally Closed

5 Relay 1 (Presence) Normally Open
6 Relay 1 Common
10 Relay 1 (Presence) Normally Closed

APC-LD2-12-24VACDC



Best suited when two loops are present, one for entry and the other for exit.

Input Voltage: 12-24VV AC/DC
Loop Inputs: 2
Relays: 2 (N/O)

1&2 Input Power
7&8 Loop 1 Wire Input
9&10 Loop 2 Wire Input

3 Relay 2 (Pulse) Normally Open
11 Relay 2 (Pulse) Normally Closed

5 Relay 1 (Presence) Normally Open
6 Relay 1 Common

Important notes

1. High voltage cables can interfere with the loops magnetic field, consider this when planning for the induction loop and also the loop tail.

2. Loop sealant must always be used with complete submersion of the teflon cable..

3. When concrete reinforcement exists it may be plausible to have a Fourth and Fifth layer if unable to achieve consistent vehicle detection.

4. In multi loop installations always allow for ample spacing between the loops as instructed and set each loop detectors frequency different to any other within the installation.

5. Always avoid joining the induction loops Teflon cable. If it is a must ensure that adequate steps are taken to avoid water ingress or even moisture.