e-Loop Wired

The e-Loop Wired Vehicle Detection System uses magnetometer sensors to detect the presence and movement of vehicles. These detections are transmitted to the gate board using a relay for gate activation. The sensors are installed in the driveway of entry or exit passages using sealant, are IP68 rated and can withstand any vehicle. Gate or door controller must have a dedicated open input and autoclose function enabled.

Functions / Features

Dual 3-axis magnetometer for vehicle detection

- 32 Hz sampling rate
- Auto-calibration
- Exit/Entry detection mode

Fast and simple installation

- Quick non-permanent installation

Reliable and service free

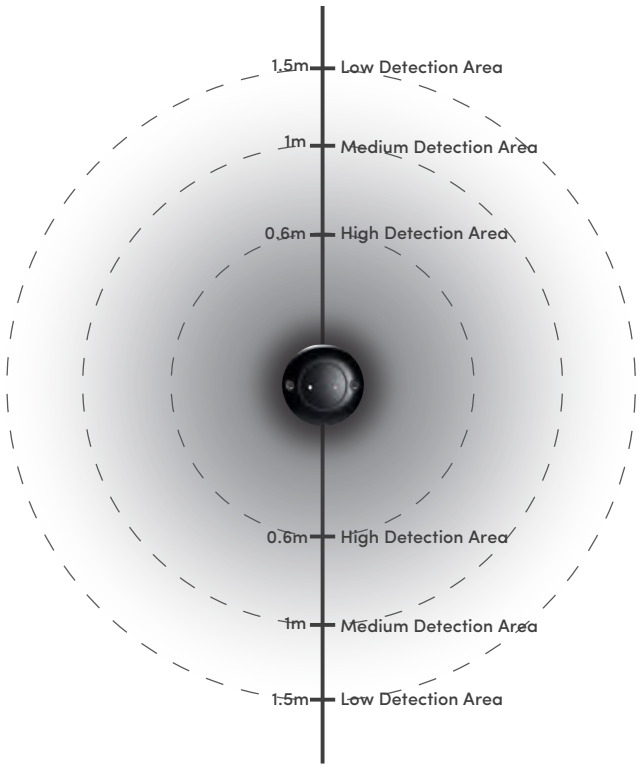
- Compact design
- Compatible with various gates

Reliable radio communications for diagnostics

Added Radar functionality

e-Loop Radar® sensors can detect vehicles that are stopped above the e-loop. The added radar utilises two-way radio communication protocol for reliable operation. Once the magnetometer sensor detects an oncoming vehicle, the transceiver relay will be latched and confirmation will be sent back to the e-loop. If the magnetic field drops below the set threshold, the radar will check if a vehicle is present. If no vehicle is detected, an unlatch command is sent to the relay, and the transciever will send a confirmation to the e-loop. If the confirmation is missed, multiple attempts will be made to ensure safe operation. Radar settings can be adjusted using the e-diagnostics remote. Settings that can be changed include; Dead zone, sensor distance, sensitivity, magnetic field release level, confirmation mode.

Magnetometer Detection Areas



Varying magnetic field detection zones. The grey area depicts a 1m high sensitivity detection area surrounding the e-loop, suitable for the majority of vehicles. The dark colour area depicts a 1.5m medium sensitivity detection area surrounding the e-loop, suitable for most vehicles. The light colour area depicts a 2.5m low sensitivity detection area surrounding the e-loop, which is only suitable for some vehicles.

Power, Physical and Environment

Power	12-24VDC
Dimensions	20x70x70mm
Weight	200g
Environment	• designed for above ground mounting • IP68 ingress protection
Operating Temp	-40° to 100° C
Standby Power	10mA
Activation Power	25mA

Compliance

Safety	Tested to CE Approval
EMC	Tested to: EN 301 489-1 V2.2.3 "ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility" Including a)_Emissions to EN 55032 "Electromagnetic compatibility of multimedia equipment". b)_Transmitter and receiver test to EN 300 220-1 V3.1.1 'Short Range Devices (SRD) operating in the frequency range 25MHz. to 1000MHz; Part 1: Technical Characteristics and methods of measurement." c)_Immunity Tests to EN 301 489-1

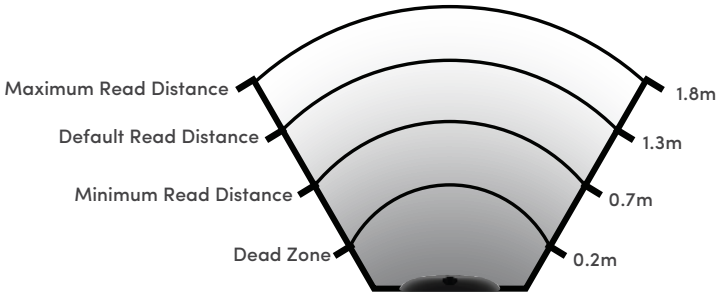
Installation Diagram

Flush Mount

75mm Core Bore

Surface Mount

Radar Read Distances



Radar detection range. Spanning from a 60° FOV from the e-loop, these are the range zones. The gray area is depicts the dead zone, in which objects cannot be detected. The Minimum read distance is 0.2m. The default read distance is 1.8m, and the Maximum read distance spans up to 2m.

Detection Specifications

Activation Time	50ms

Installation Warnings

The e-LOOP should be installed in a location that is always visible.

Do not place the e-LOOP in a dip or area where snow or water can sit.

Keep e-LOOP central in the driveway so as it passes directly underneath the vehicles.

Bolt down e-LOOP on flat surface, using only the supplied concrete screws or a rubberized adhesive.

Do not drill screws in on an angle.

The Presence Mode must be clear of obstructions directly above it to ensure reliable detections.