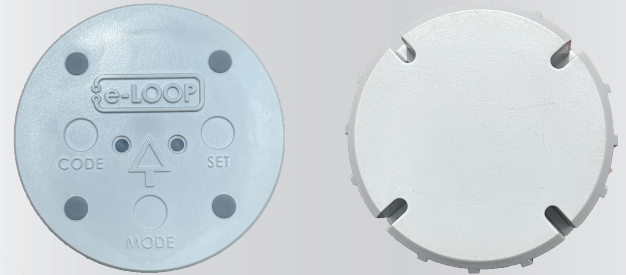


Microtech Designs Commercial e-loop

The Microtech Designs Inground Wireless Vehicle Detection System uses magnetometer sensors to detect the presence and movement of vehicles. These detections are transmitted to a nearby Microtech transceiver for gate activation. The sensors are installed in the ground of entry or exit passages using sikaflex, contain a replacable Lthium battery, and can withstand almost any vehicle. Gate or door controller must have a dedicated open input and autoclose function enabled.



Functions / Features

Lower power consumption

3-axis magnetometer for vehicle detection

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

Fast and simple installation

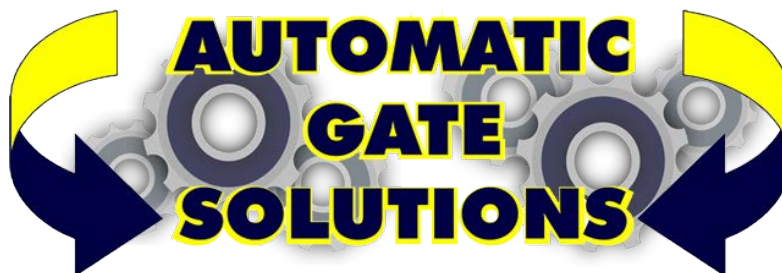
- Quick non-permanent installation

Up to 10 year battery life

- Compact design
- Compatible with various gates

Reliable radio communications with trasceiver

- Reliable radio communication
- High security 128-Bit AES Encryption



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Radio Specifications

Frequency	433.39 MHz
Modulation	FSK
Bitrate	9.6 kbps
Bandwidth	250 kHz
Antenna Type	PCB
Nominal Output Power	10 dBm
Receive Sensitivity	-126.2 dBm
Security	128-Bit AES Encryption
Spurious Emmissions	<ul style="list-style-type: none"> • 30 - 1000 MHz: < -56 dBm • 1 - 12.75 GHz: < -44 dBm • 1.8 - 1.9 GHz: < -56 dBm • 5.15 - 5.3 GHz: < -51 dBm

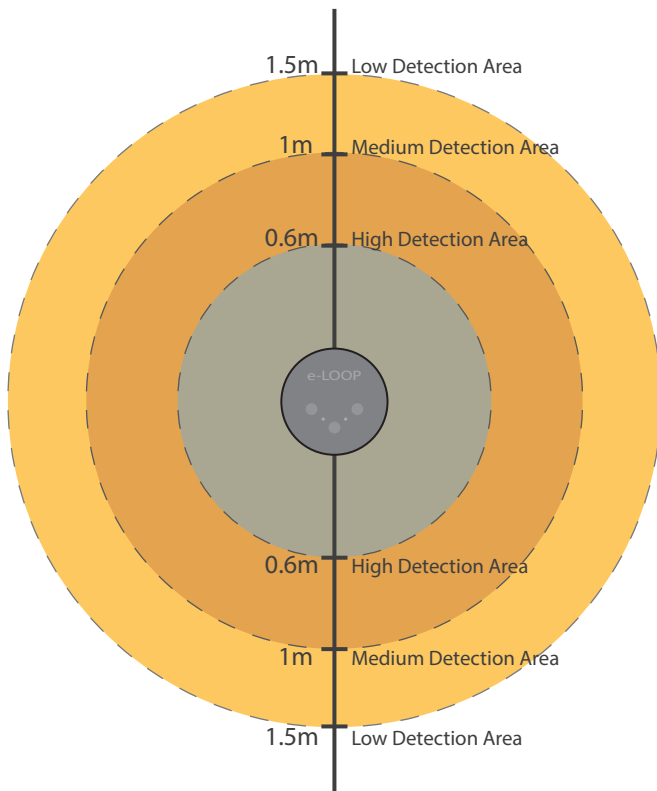
Compliance

Safety	Tested to CE Approval
EMC	<p>Tested to:</p> <p>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"</p> <p>Including</p> <p>a)_Emissions to EN 55032 "Electromagnetic compatibility of multimedia equipment".</p> <p>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."</p> <p>c)_Immunity Tests to EN 301 489-1</p>

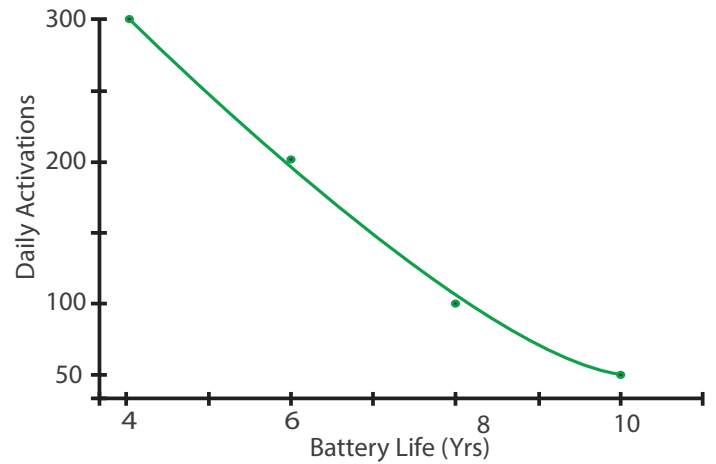
Power, Physical and Environment

Power	1 * 3.6 V 14500ma
Dimensions	88*88*55mm
Weight	300g
Environment	<ul style="list-style-type: none"> • designed for above ground mounting • IP68 ingress protection
Operating Temp	-20° to 80° C
Standby Power	14µA
Activation Power	50mA

Magnetometer Detection Areas



Battery Life vs Daily Activations



Note: Battery life is dependant on many factors, including daily activations, time used per activation, radar range and external conditions.

Varying magnetic field detection zones. The grey area depicts a 0.6m high sensitivity detection area surrounding the e-loop, suitable for the majority of vehicles. The dark colour area depicts a 1m medium sensitivity detection area surrounding the e-loop, suitable for most vehicles. The light colour area depicts a 1.5m low sensitivity detection area surrounding the e-loop, which is only suitable for some vehicles.



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