Wireless Vehicle Detection System

Introducing a new concept in wireless vehicle detection. The e-Loop replaces traditional wired inductive loops, saving time and money while increasing reliability.

PRESENCE MODE WITH ADDED RADAR PROTECTION. **EL00C-RAD**

Installation in 3 simple steps

1. Code in the e-Loop
2. Secure the e-Loop to the driveway
3. Calibrate the e-Loop... and you're ready to operate in less than 15 minutes.

Save many hours of installation time compared to wired loop systems.

CE

KIT CONTENTS

- **1 x e-Loop wireless detection module.**
- **1 x 12–24VDC single channel transceiver (or option LCD e-Trans 200 transceiver).**
- **2 x Concrete fixing bolts.**
- **1x Magnet.**

DISCLAIMER: UNITS WITH THE PRESENCE FEATURE IS NOT TO BE USED AS A SOLE SAFETY DEVICE & SHOULD BE USED IN CONJUNCTION WITH STANDARD GATE SAFETY PRACTICES.

FEATURES – (EL00C-RAD MODEL)

- Magnetic field and Radar detection.
- Quick and easy installation.
- Compact profile – only 28mm high x 220mm diameter (IP68).
- Not affected by ground movement.
- 10600 mA battery giving up to 6 years battery life (depending on usage).
- High security 128 bit encryption.
- Range 50 metres.
- Made of high-impact plastic (10 tonne static load limit).

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Commercial e-loop Presence Mode

EL00C-RAD

The Commercial Wireless Vehicle Detection System uses magnetometer sensors to detect the presence of oncoming vehicles.
These detections are transmitted to a nearby transceiver for gate activation. After the vehicle is detected, the e-loop will switch to radar mode.
The sensors are installed on the surface of entry or exit passages using concrete fixing bolts, contain four replaceable Lithium batteries, and can withstand almost any vehicle.

Note: Gate or door controller must have a dedicated open input and auto close 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 6 year battery life

- Compact design
- Compatible with various gates

Reliable radio communications with transceiver

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

The 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 transceiver will send a confirmation to the e-loop. If the confirmation is missed, multiple attempts will be made to ensure A 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.

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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 Emissions	• 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

Power, Physical and Environment

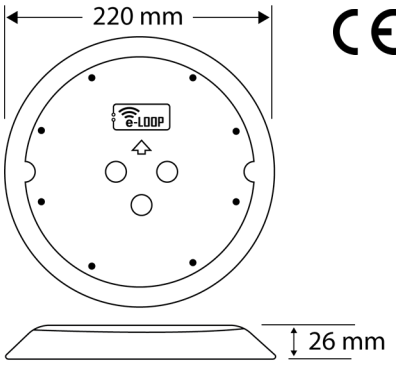
Power	4 * 3.6 V 2700ma
Dimensions	220*220*26mm
Weight	1000g
Environment	• designed for above ground mounting • IP68 ingress protection
Operating Temp	-40° to 80° C
Standby Power	14µA
Activation Power	50mA

Compliance

Safety	Tested to CE Approval
EMC	FSKTested to: EN 301 489-1 V2.2. “ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for Electro Magnetic 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

Detection Specifications

Activation Time	300ms



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