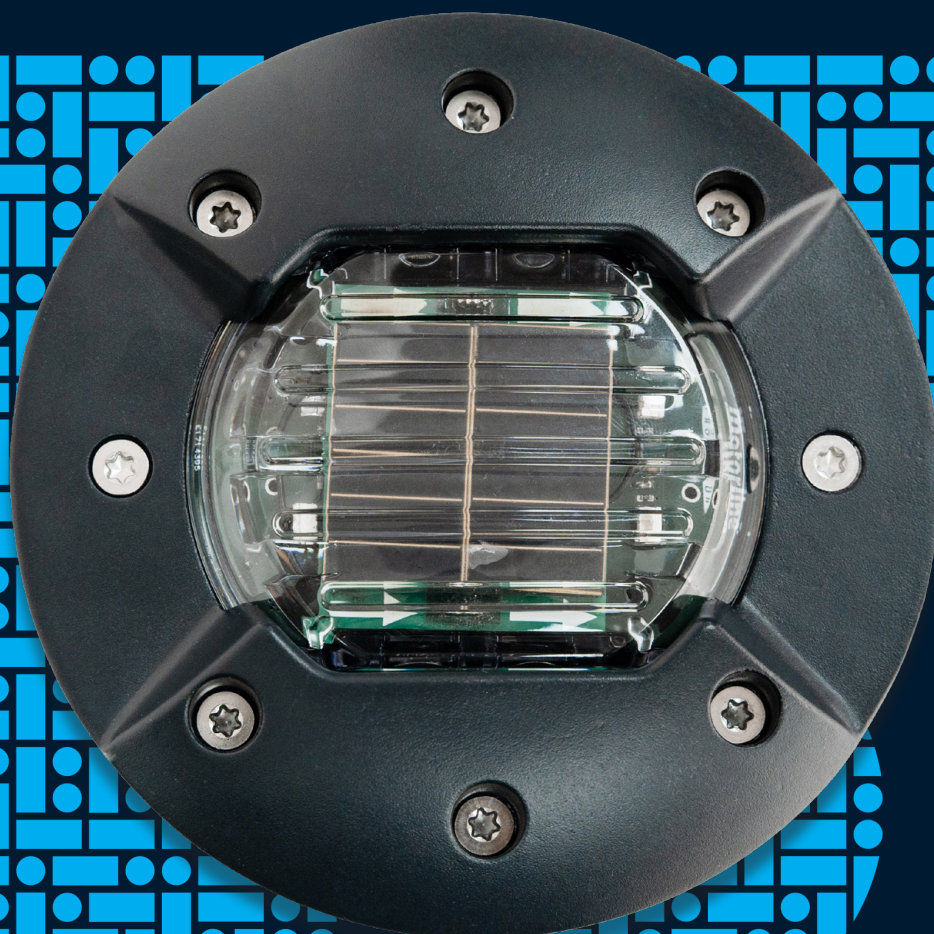




# MSMF-LOOP MRMF-REC

Magnetic vehicle detection system





Detects Presence  
and Vehicle  
Movement



Supports weight  
up to 40 tons



Battery powered



Serial connection  
up to 8 sensors



Integrate easily  
with CAME  
control panels

## MSMF-LOOP MRMF-REC

The MSMF-LOOP / MRMF-REC is an advanced magnetic vehicle detection system with wireless communication, ideal for traffic control and automated access applications.

Easy to install and built for long-term reliability, it accurately detects both the presence and direction of vehicles, even in demanding environments. Delivering dependable performance and operational efficiency, it is an ideal solution for modern access and traffic management systems.

# CONNECTIVITY FOR VERSATILE OPERATION

The MRMF-REC stands out for its versatile connectivity, allowing up to 8 MSMF-LOOP sensors to be connected with bidirectional communication at 868 MHz, guaranteeing fast, stable and interference-free operation.

The system supports various operating modes and allows each channel to be configured for presence or direction detection, offering maximum flexibility and efficiency in any traffic control application.

Thanks to the intelligent management of communication channels, the MRMF-REC synchronises the sending and receiving of signals, activating or deactivating relays according to the movement of vehicles. This feature enables precise control of entrances, exits and collision avoidance systems, ensuring greater safety and operational efficiency.

## OPERATING MODES



Free Mode



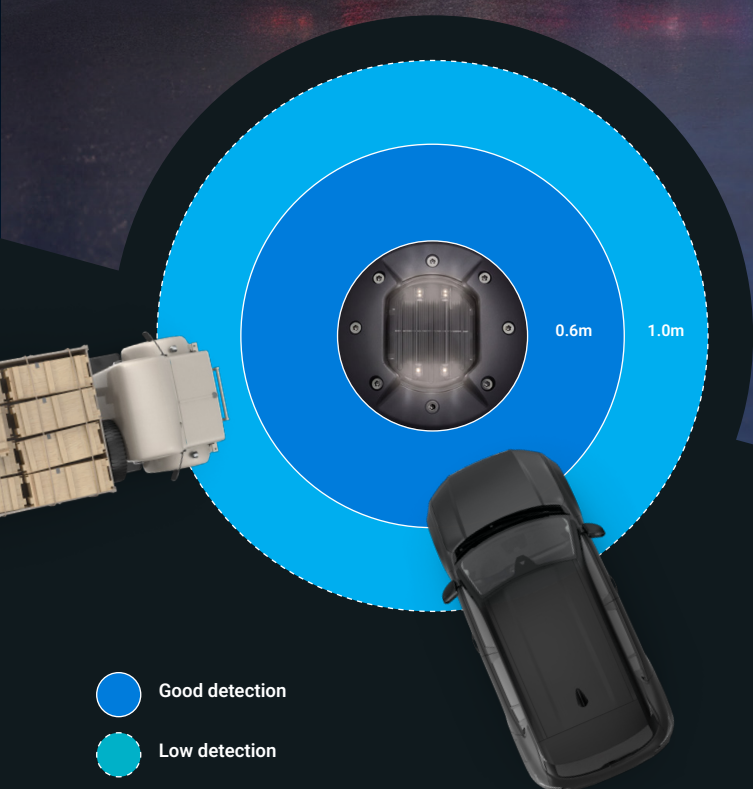
Anti-Crash



AND logic



Two barriers



*The maximum detection height of 400mm depends on the vehicle's mass value*

# SECURITY AND SYSTEM RELIABILITY

The MSMF-LOOP / MRMF-REC system has been designed to guarantee maximum safety and precision in vehicle detection, even in adverse environmental conditions such as rain, snow or fog.

Its advanced magnetic technology and two-way communication ensure stable operation, avoiding failures when opening or closing accesses.

## Simple and quick installation

With its practical and intuitive design, the system requires only a small hole for installation and is easily fixed with two screws. This simplicity reduces assembly and maintenance time.



## Remote or difficult-to-install areas

The sensor is powered by rechargeable batteries with an integrated solar panel, ensuring continuous, environmentally-friendly operation without the need for a direct connection to the electrical grid.



## Robustness in Any Environment

The MSMF-LOOP sensor has been developed to withstand the harshest weather conditions, including heavy rain and snow, while maintaining optimum performance without compromising safety or detection reliability.



## Bi-directional Wireless Communication

Communication between the sensor and receiver is carried out at 868 MHz, guaranteeing stability, low power consumption and the elimination of unnecessary cabling - ideal for hard-to-reach locations.



Protection class: IP68



Indicator light for the presence of the sensor



Compatibility with vehicles up to 40 tonnes



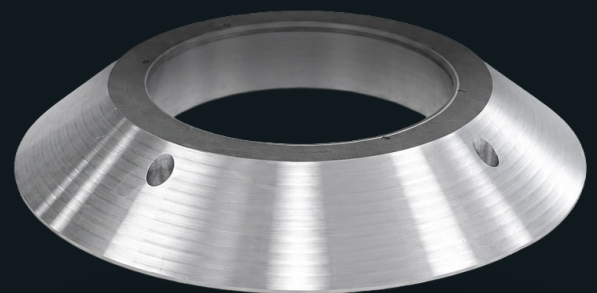
Communication range up to 50 metres



## OPTIONAL **LOOP-RMP** INSTALLATION WITHOUT **DRILLING INTO THE FLOOR**

The installation of vehicle detection sensors does not have to involve building works, cutting into the pavement or drilling. With the optional LOOP-RMP base, the MSMF-LOOP sensor can be installed directly on the ground, offering a practical, quick and less invasive solution.

This solution is ideal for locations where it is not possible or desirable to interfere with the road surface. Installation becomes simpler and more efficient, reducing set-up time and avoiding the work involved in cutting and repairing the road surface.



Quick installation with no need  
to drill into the floor



No roadworks or changes to  
the road surface



Significant reduction in  
installation time

# TOTAL CONTROL WITH MRMF-REC RECEIVER

## Increased security



### Energy Status Monitoring

The receiver indicates the connection status of the MSMF-LOOP sensors and whether the batteries are currently charging, allowing for a quick overview of the system's general condition and simplifying maintenance operations



### Automatic Precision Calibration

The system performs continuous self-calibration, maintaining maximum sensitivity and detection accuracy, regardless of environmental conditions or vehicle type



### Simple and intuitive configuration

It has two independent configurable outputs (NO, NC, pulsing and switching), allowing easy integration with various controllers and automatic systems



### Box with IP65 protection



The MRMF-REC receiver is housed in a box with IP65 protection level, guaranteeing total resistance to dust and water spray. This robustness allows it to be installed in outdoor or industrial environments without risk of infiltration, ensuring a long life and reliable operation even in adverse conditions

### Digital Programming Display



Equipped with an integrated digital display, the MRMF-REC allows for quick and intuitive programming of both the receiver and the sensors, making system configuration and adjustment simpler and more precise

## PRODUCT RANGE

### Code

### Description

#### Kits

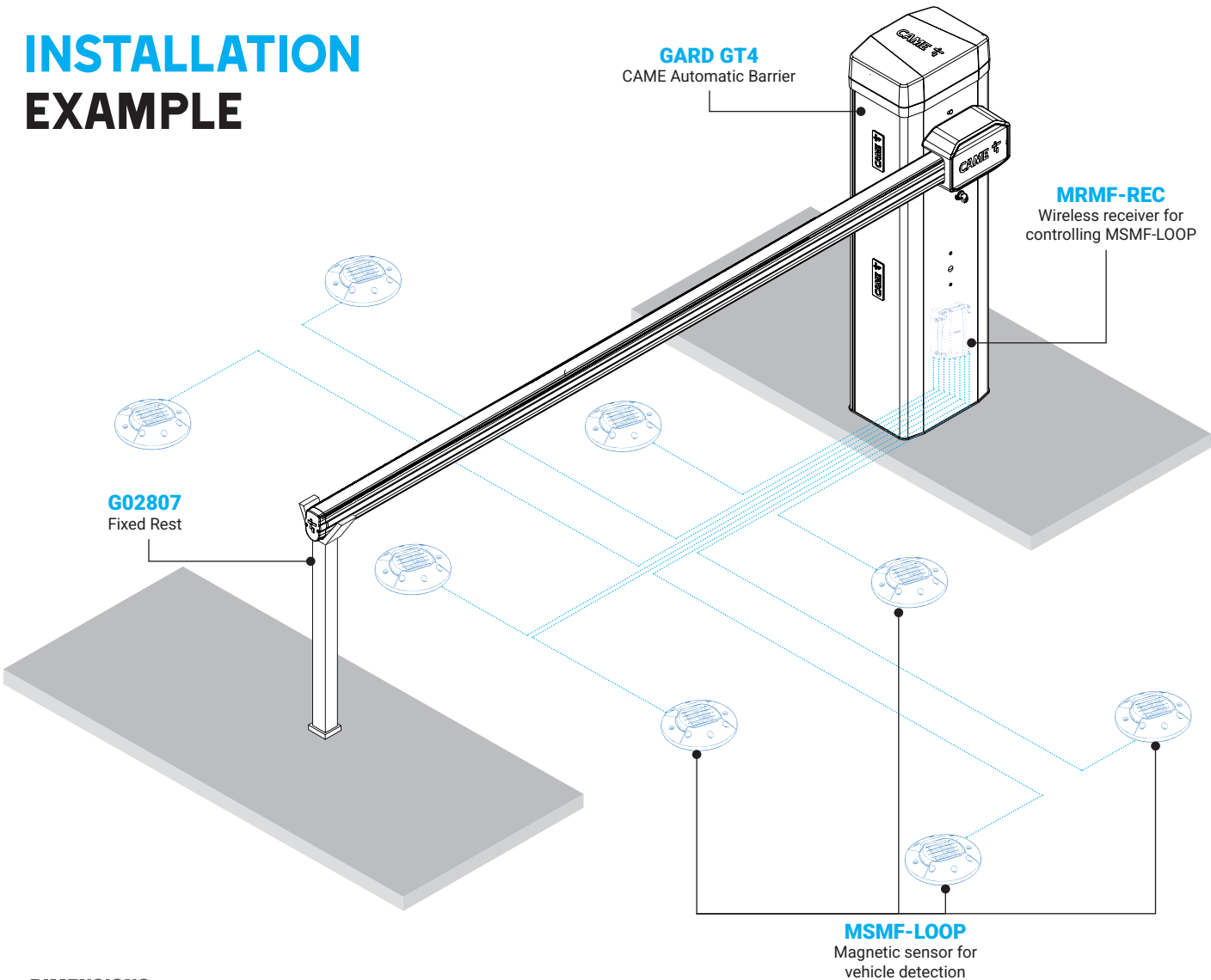
|                   |                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------|
| <b>0U1BDA0001</b> | Standard Kit - 1x 0U1ADA0001 Magnetic sensor with replaceable battery, 1x 0U1ADA0003 Receiver     |
| <b>0U1BDA0002</b> | Solar Kit - 1x 001ADA0002 Magnetic sensor with solar rechargeable battery, 1x 0U1ADA0003 Receiver |

#### Individual Items

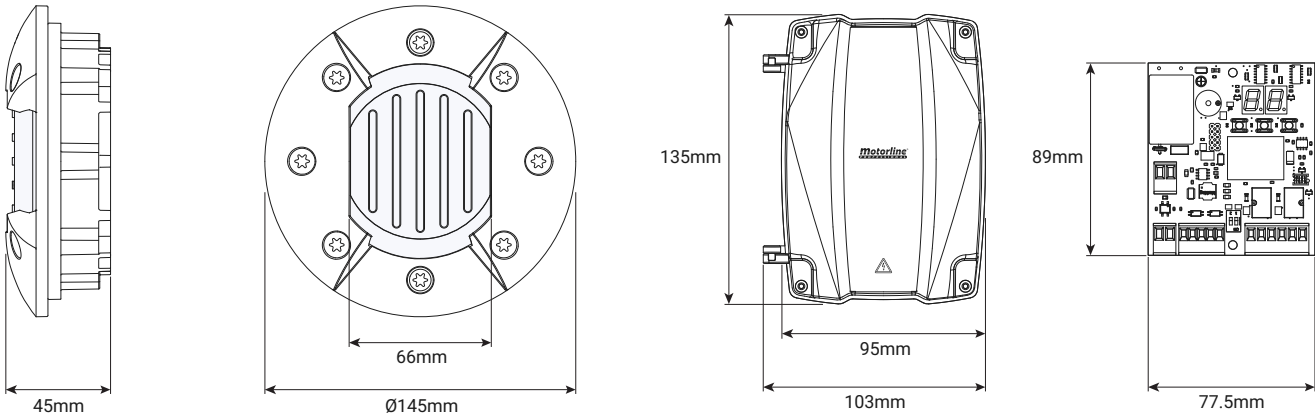
|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| <b>0U1ADA0001</b> | MSMF-LOOP Magnetic Sensor with replaceable battery            |
| <b>0U1ADA0002</b> | MSMF-LOOP-REC Magnetic Sensor with solar rechargeable battery |
| <b>0U1ADA0003</b> | MRMF-REC Receiver                                             |
| <b>0U1ADA0004</b> | LOOP-RMP Surface Mount Kit                                    |



# INSTALLATION EXAMPLE



## DIMENSIONS



## TECHNICAL FEATURES

| MODELS                | MSMF-LOOP                                                                                            | MRMF-REC            |
|-----------------------|------------------------------------------------------------------------------------------------------|---------------------|
| Sensor                | Magnetometer                                                                                         | -                   |
| Power Supply          | 3.35V Solar Panel + 3.2V 1800mAh Rechargeable Battery<br>or<br>Non-Rechargeable Battery 3.6V 7800mAh | 230V AC / 12/24V AC |
| RF Frequency          | 868MHz ~ 869.75MHz                                                                                   | 868MHz ~ 869.75MHz  |
| Modulation            | FSK                                                                                                  | FSK                 |
| RF Sensitivity        | -100dBm                                                                                              | 800                 |
| RF Power (max.)       | 14dBm                                                                                                | 14dBm               |
| RF range (open field) | 50m                                                                                                  | 50M                 |
| Protection class      | IP68                                                                                                 | -                   |
| Static load capacity  | 40 Tons                                                                                              | -                   |

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