

PERFECT SOLUTIONS FOR TRAFFIC SYSTEMS



# Catalog 2019



**Intelligent Parking Guidance Systems**  
indoor and outdoor

Version 3.1 2019 EN 



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# Know where a space is free

## MSR-Traffic stands for innovation, quality and reliability

Our objective is to reduce the search for parking spaces for our customers' customers - and for everyone else who comes in contact with our products. Apart from saving time and giving the good feeling of knowing where the next free parking space is, we also protect the environment and increase the efficiency of the parking areas. In times of Smart Cities and Big Data, MSR-Traffic is already one of the leading providers of dynamic parking guidance systems.

### **From the idea to the ready-to-use parking guidance system**

MSR-Traffic offers innovative sensor technology enabling the counting and single space detection of vehicles in indoor and outdoor areas. Motorists are quickly guided to the nearest available parking space via dynamic traffic guidance technology or via app. In addition to the development, production and distribution of intelligent parking guidance systems, we also support you in planning and installation on site.



### Your benefits:

- Reduction of traffic and environmental pollution
- Time savings and increased quality of life
- Increase of utilization of free parking spaces
- Attractive prices
- Individual configuration
- Turnkey systems
- Quick installation
- Long life time

# Enthusiastic customers

All over the world and across all sectors

**FRITZSCHE**  
REISEN

  
Carl-Thiem-Klinikum Cottbus  
AKADEMISCHES LEHRKRANKENHAUS DER CHARITÄT

**AMG**

 **Fraport**

**VDI**

Copenhagen Airports **CPH**

**NÜRNBERG MESSE**

**SONAE**  
**SIERRA**

**MANN +  
HUMMEL**

  
**PARKENPLUS**

**BY&HAVN**

**MEILLER**  
KIPPER

  
**Audi**

  
**MINIMUNDUS**

**KION**  
GROUP

**ALBSTADT**

unibail-rodamco

**SPAR** 

**G4S**

 **WOLFRATSHAUSEN**  
...die Flößerstadt

Markt  
**Lappersdorf** 





Stadt Ingolstadt

 **Glatt**

**Klinikum Nürnberg**  
*Wir sind für Sie da*

 **MAX BÖGL**

 **STADT STRAUBING**

**SYDNEY MARKETS LIMITED**

 **Fraunhofer**

**ECE**

**SUPERNOVA**  
ZADAR

 **Stadt Schwäbisch Hall**

**KTM**

**WSW**

**E**  
**EDEKA**

**Lahn-Dill Kliniken**  
nachhaltige Medizin  
in virtueller Umgebung



# Intelligent Parking and Traffic Guidance Systems Outdoor



## **P** **Single Space Sensors**

### Vehicle detection outdoors

The wireless magnetic field sensors are ideally suited for the single space detection in outdoor areas. They are independent of weather conditions, have a very high detection accuracy and can be flushly grouted with the road surface. Therefore, they are also protected against vandalism and snow ploughs.

## **P<sub>44</sub>** **Counting Sensors**

### Vehicle counting outdoors

The wireless sensors (U-Flow) of MSR-Traffic are particularly suited for the counting (and speed measurement) of vehicles in outdoor areas. The magnetic field sensors are faster to install than conventional measuring techniques and provide highly accurate measurement results.



## Displays

### Guidance and information

The dynamic displays are available in different variations: LCD display, LED segment display and LED matrix. All of them can be combined with conventional traffic signs and can be equipped with wireless communication by MSR-Traffic.



## Noise Measurement

### Noise level monitoring

The sensors for noise measurement are fully compatible with the parking sensors' radio network and measure continuously the noise level at installation location.

# Parking Guidance Systems Outdoors

## Guidance - Counting - Single Space Detection

If a parking space is occupied, the sensor detects the change in the magnetic field and transmits the signal to the server. The evaluation then takes place in combination with a parking guidance system, parking ticket machines, apps or the navigation system.

### Robust sensors, regardless of the weather conditions

**The sensors work without restriction in case of:**



Direct or permanent solar radiation



Rain, snow or ice



Foliage or other road pollution  
Plant cover



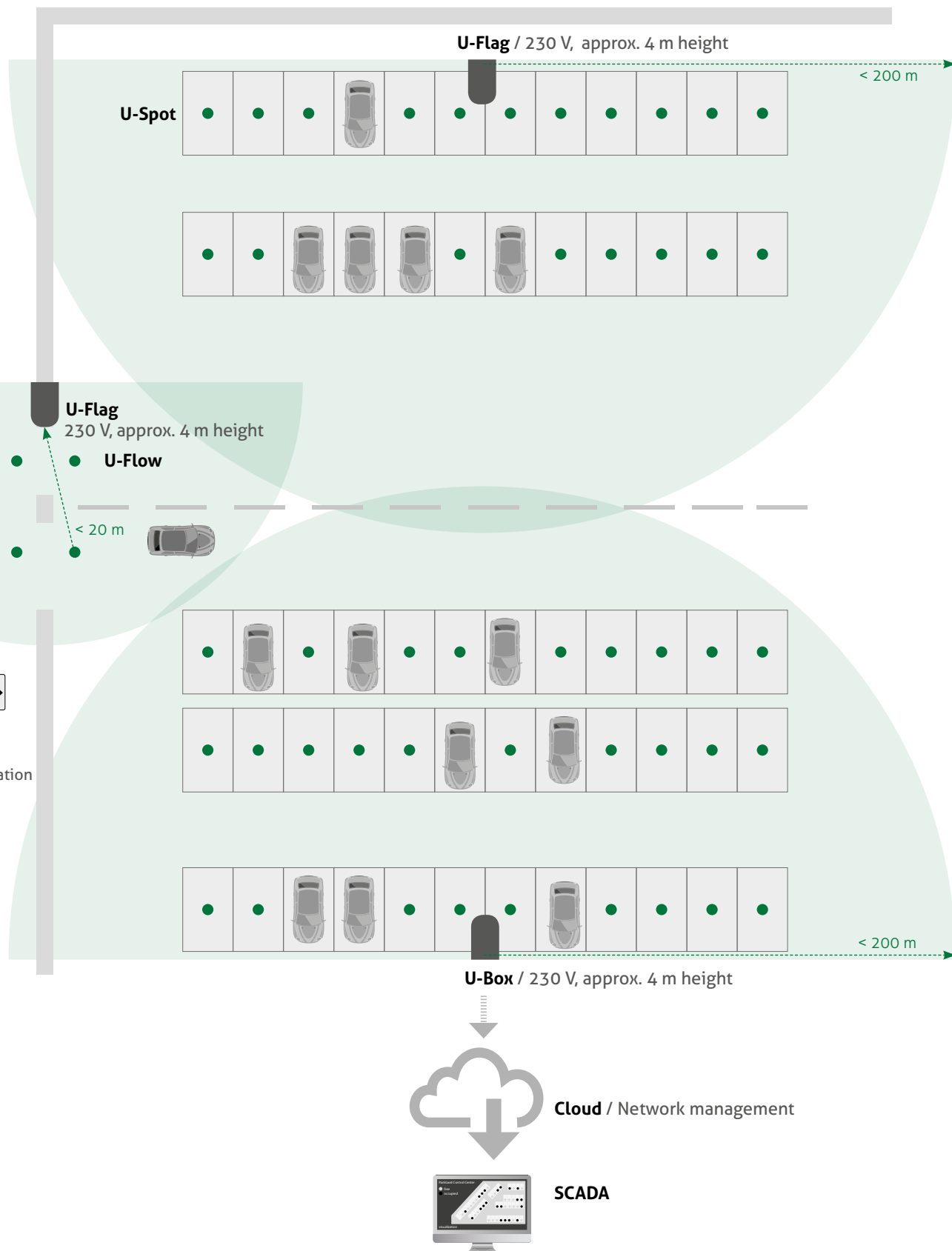
Fog, darkness or sandstorm

### Your benefits:

- Compatible for app connection
- Weather-independant sensors
- Data transmission in real time
- High protection against vandalism



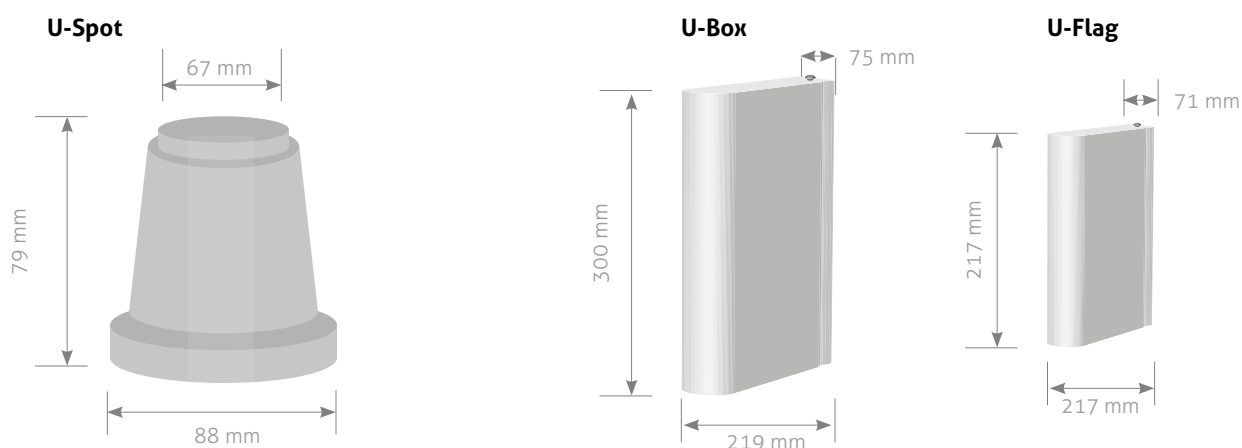
# Scheme Outdoors



## P Single Space Sensors

### Parking area with single space detection

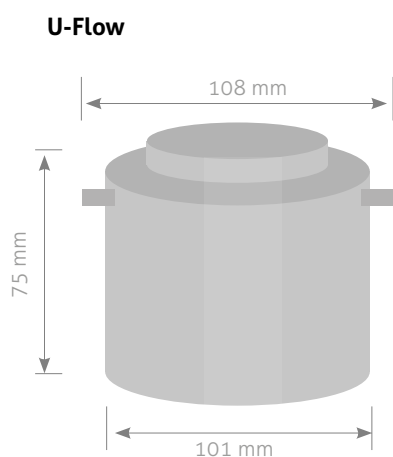
- Floor mounting, flush with the road surface
- Wireless communication
- 98 % detection accuracy



## P<sub>44</sub> Counting Sensors

### Parking areas with counting

- Floor mounting, flush with the road surface
- Wireless communication
- 95 % detection accuracy

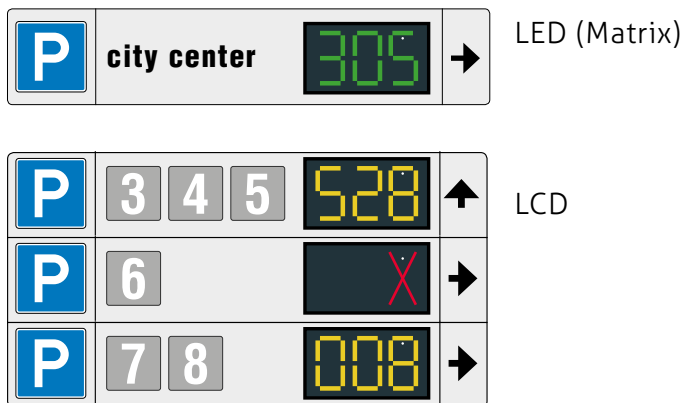


# P Displays

## Perfect application for the urban space

- Individual configuration of numbers, arrows and symbols
- Flat and modern design
- Good visibility with non-reflecting displays
- Individual modular design

### Road Signs:



### Totems:



# Noise Measurement

## Effective noise measurement

U-Sound is a wireless noise sensor that measures continuously the for people audible sound pressure level of the environment within the frequency range.

The collected data is aggregated each minute and sent to the cloud, where the application of correction factors are processed in real time, based on calibrations and installation site. Thus, we offer an accuracy in accordance with a Class II sound level meter.

### With Leq (A) 1Min. values can be generated:

- Noise Levels for different time frames
- <Lden>, <Lday>, <Levening> and <Lnight> indicators according to European Directive 2002/49/EC
- Percentiles (L90, L50, L10)
- Traffic Noise Index (TNI) and Noise Pollution Level (NPLL) Indexes









# Intelligent Parking and Traffic Guidance Systems

## Indoor



### Single Space Sensors

#### Vehicle detection indoors

The ultrasonic sensors are mounted below the ceiling (on plaster or rail). All ultrasonic sensors have up to 3 different status LED integrated in their housing.



### Counting Sensors

#### Vehicle counting indoors

MSR-Traffic's sensors are well suited for vehicle counting at entrances and exits of car parks. They are faster to install than conventional measuring techniques and provide highly accurate measurement results. The mounting also takes place below the ceiling.





## Displays

### Guidance and information

The dynamic displays are available in different variations: LCD display, LED segment display and LED matrix. All of them can be combined with conventional traffic signs and can be equipped with wireless communication by MSR-Traffic.



## Gas Warning Systems

### Protection against CO, NO<sub>x</sub>, LPG

The CO sensors of MSR-Electronic are used in parking garages and loading zones for the continuous monitoring of harmful gas proportions in the air. Whether as the classic CO warning system or in connection to NO<sub>x</sub> and LPG measurements, MSR-Electronic's gas warning systems protect the health and facilities in these areas.

# Parking and Traffic Guidance Systems

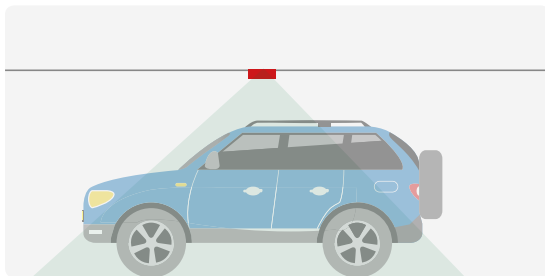
## Everything networked indoors

**The operator can reduce ventilation and environmental costs due to the optimal use of parking spaces.**

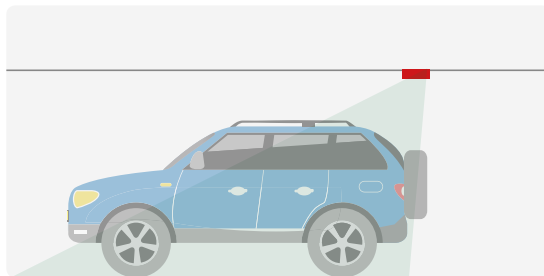
The availability of each individual parking space is detected by means of ultrasonic sensors and managed via controllers / hosts. The resulting occupancy status is indicated on LED displays at the entrance and on each level. Thus, customers can be guided directly to the nearest available parking space. This not only makes the search easier and reduces the traffic in the garage, but it also saves the customer valuable time.

The systems for detection and counting of incoming and exiting cars in car parks can be implemented for a certain zone, but also for individual levels.

**Design sensor:**



**Cross sensor:**

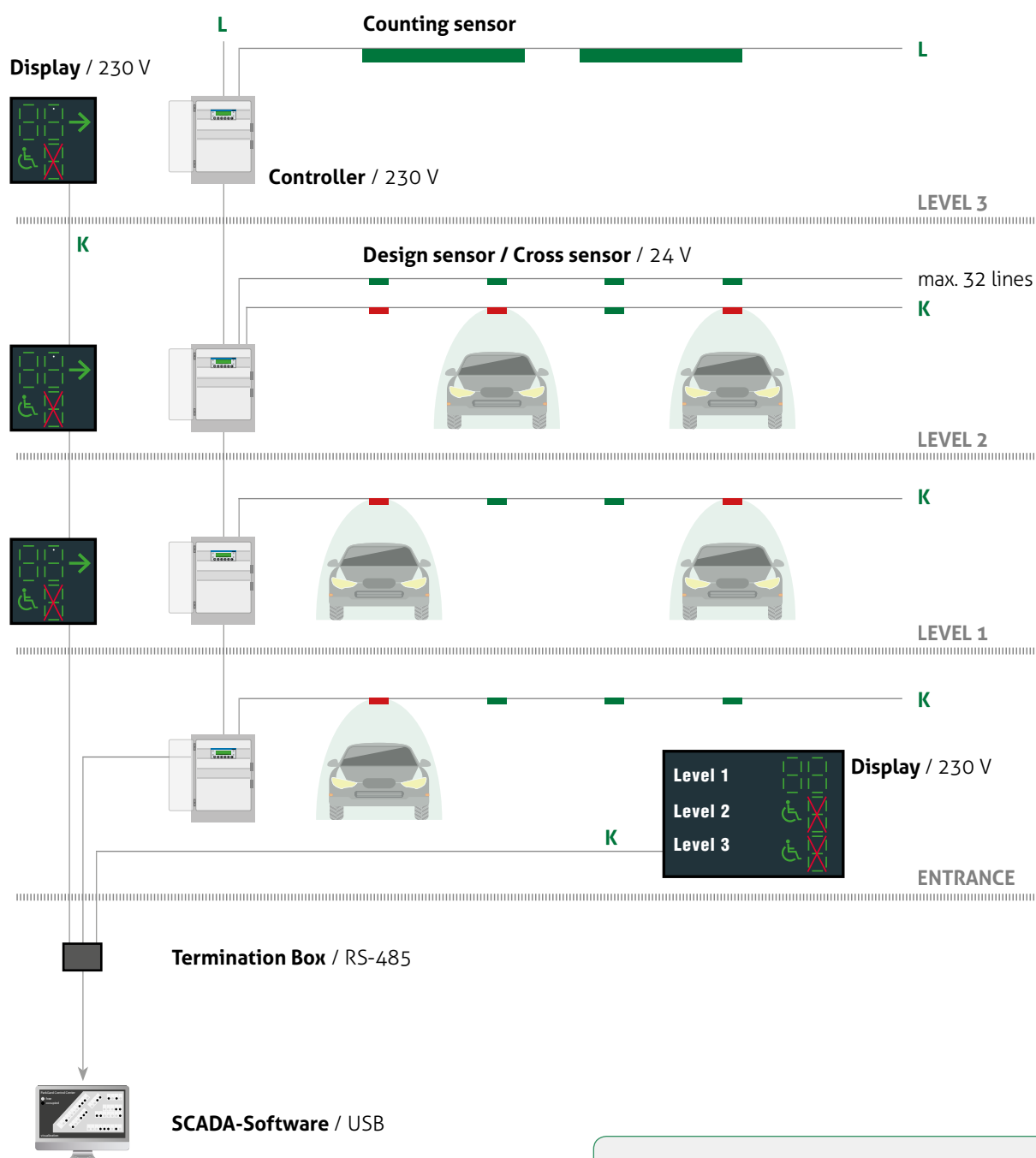


### Your benefits:

- Mounting below the ceiling
- ModBus communication
- 99 % detection accuracy
- Integrated status LED
- Open interface
- Easy installation
- High protection against vandalism



# Scheme Indoors



**K** Cable: 2x2x0.8 mm / (24 V / RS-485)

**L** Cable: 2x2x0.8 mm / (RS-485)  
Cable: 3x1.5 mm<sup>2</sup> / (230 V AC)

max. cable length 900 m main bus  
max. cable length 500 m field bus



## Single Space Sensors

Parking area with single space detection

- Mounting below the ceiling
- ModBus communication
- 99 % detection accuracy

Ultrasonic sensors with colored status LED:



**Cross sensor**

Mounting at the edge of the lane



**Design sensor**

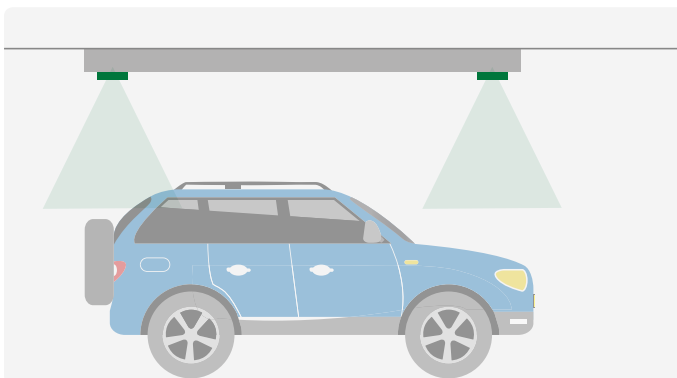
Mounting centrally above the parking space



## Counting Sensors

Parking area with counting

- Mounting below the ceiling
- ModBus communication
- 95 % detection accuracy





# Displays

Perfect application for parking garages

- Individual configuration of numbers, arrows and symbols
- Flat and modern design
- Good visibility with non-reflecting displays
- Individual modular design

Level Displays



Main Entrance Displays



Matrix LED Displays





# Gas Warning Systems

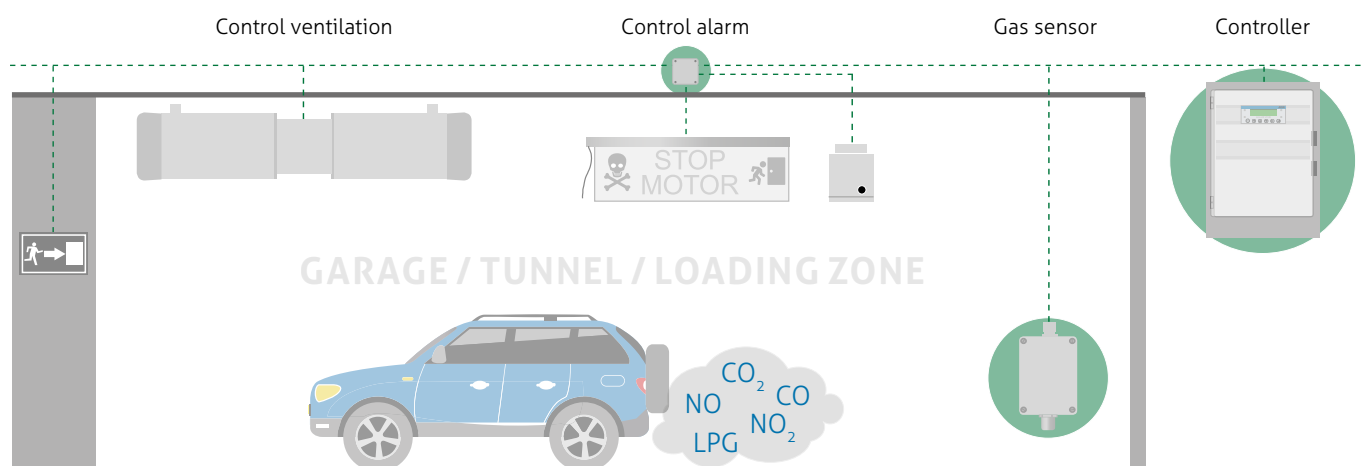
## Safety systems for underground car parks

PolyGard®2 sensors by MSR-Electronic measure reliably and with the utmost of precision the emission of car exhaust (CO, NOx and Ex/LPG). Thus, ventilation systems are activated and regulated accordingly.

**All products comply with the new European standard EN 50545 and EN 50271.**

## Your benefits:

- GC-06 is expandable with up to 7 EP-06 modules
- Control per module up to 32 actuators
- PolyGard® 2 digital controller DGC-06 for connecting
  - up to 7 modules
  - up to 32 analog and/or 96 digital sensors
  - up to 32 relay outputs: potential-free / 250 V / 5 A
  - up to 16 analog outputs 4-20 mA / up to 4 digital inputs
- Compliant with EN 50545 and EN 50271
- Housing protection type IP65







## MSR-Electronic products for Gas Alarm Systems:



### Gas sensor

Easy calibration and certificated safety



### Controller and Modules

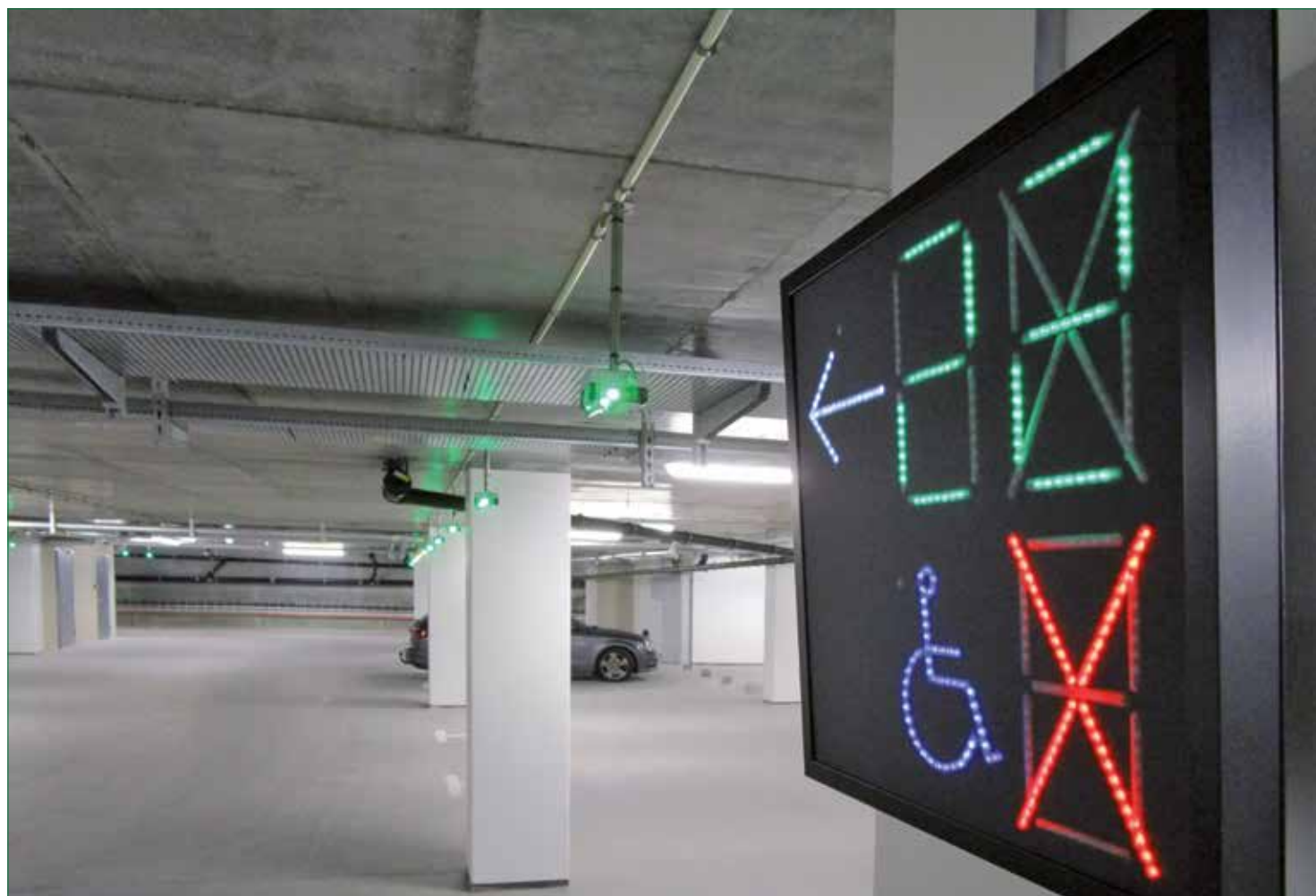
Individually customizable with extended safety



### Warning devices

Compatible, safe and highly visible

For further information please visit [www.msr-electronic.de](http://www.msr-electronic.de)







ParkGard®

# Control Center

## Perfect control of all parking spaces in real time

The ParkGard® Control Center from MSR-Traffic leaves nothing to be desired in device supervision and control.

### REST-API

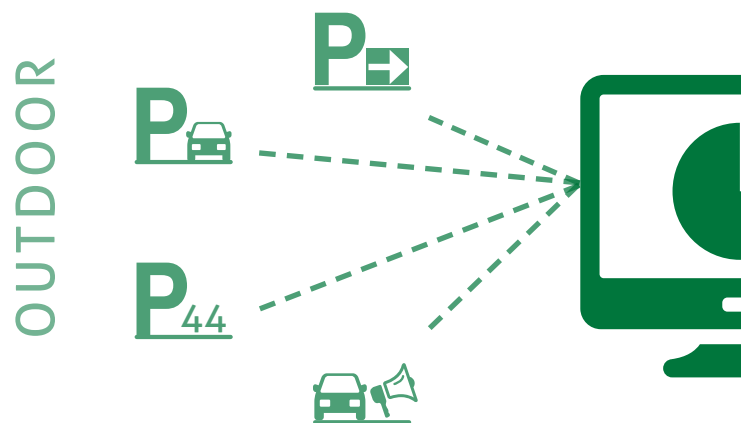
- Easy integration in SW-application
- Data transfer in JSON format
- Read rights/write permission via user level
- Reserve/block/dark switching
- DI/DO control (block barrier)

### PROJECTMANAGEMENT

- Integration of various car parks
- User account control with access to individual or various projects
- Public access ([www.mycity.com](http://www.mycity.com))
- Only rented parking spaces visible

### E-MAIL/SMS

- Notification long-term parkers (e.g. tourists, weekend parkers)
- Disturbance/alarm/maintenance



### INTEGRATION

- Availability of many connections (barrier systems, induction loops,...)
- Project-specific interface integration



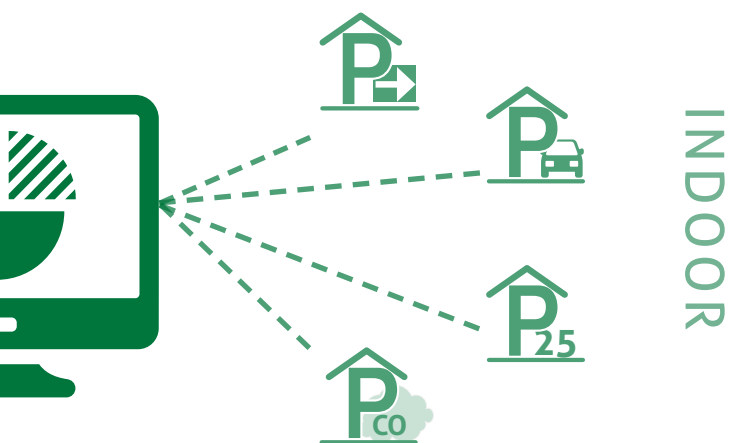


## EXCEL REPORTS

- Prefabricated Excel spreadsheets for the evaluation of parking statistics
- Customer-specific tables (e.g. weather, etc.)

## CLOUD / WEB SERVICE

- [www.your-parkingguidancesystem.com](http://www.your-parkingguidancesystem.com)
- Access via Internet
- No additional PC necessary
- Complete separation from the company network



## SCHEDULER

- Automate recurring actions
- Block parking area during weekly market
- Night shut-off "save electricity"
- Plan and control traffic during events

## DISPLAY (LED MATRIX)

- Event-based control
- Exceeded filling ratio: Release of parking spaces (e.g. HC/E parking spaces)
- Traffic control in case of fire
- Change of display: number of parking spaces / weather / events / info

# MSR-Group

All under one roof

perfect solutions for  
**life and progress**





The MSR-Group combines three innovative companies from the electronics sector. Whether gas alarm systems, parking guidance systems or sensor technology for building automation - the products are reflected in many commercial and industrial applications, like parking garages, cold rooms, biogas plants or offices.

[www.msr-group.eu](http://www.msr-group.eu)



#### **MSR-Electronic GmbH**

For reliable gas monitoring and/or leakage detection MSR-Electronic offers fixed gas alarm systems for closed buildings, industrial plants and for the shipping sector: sensors with exchangeable head, controllers and warning devices.

[www.msr-electronic.de](http://www.msr-electronic.de)



#### **MSR-Traffic GmbH**

Intelligent parking guidance systems indoors and outdoors: Wireless magnetic field sensors for outdoor parking spaces and smart cities, ultrasonic sensors for indoor application, such as underground garages and car parks, dynamic signposts for every parking system in indoor and outdoor areas.

[www.msr-traffic.de](http://www.msr-traffic.de)



#### **MSR-International**

MSR presents itself on a global scale with own branches and is available for many international customer wishes. So you can always find the right contact in your area.



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System videos on the MSR-YouTube Channel



Follow our news

**[www.msr-traffic.de/en](http://www.msr-traffic.de/en)**

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Realisation: BRANDS & PROJECTS