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Automated collection of parking fees

Automatický výběr parkovného

Complete recording of operating data

Kompletní evidence provozních dat

Error messages

Hlášení chybových stavů

Remote control

Vzdálená správa

High mechanical resistance

Vysoká mechanická odolnost

Long service life of the system

Dlouhá životnost systému

The system can be integrated with other systems

Možnost integrace s dalšími systémy

GP4B Automatic Road Barriers

Automatické závory GP4B

GP4M Automatic Pay Stations

Platební stanice GP4M

GP4T Entry and Exit Terminals

Vjezdové a výjezdové terminály GP4T



PARKING SYSTEM VARIANT
PARKOVACÍ SYSTÉM VARIANT

GP4P

BASIC INFORMATION

Variant – a smart parking system of a new generation – represents a comprehensive solution for automated collection of parking fees with minimum requirements for staff. The system is highly variable, it can be used both for small parking areas and large installations with very intensive traffic and demanding operating conditions.

Modular execution allows the parking system to be built exactly in compliance with the customers' requirements. The parking system can be assembled for any combination and any number of entry and exit terminals, automatic pay stations, automatic road barriers and other components. The system modularity is suitable also for additional or gradual expansion of the system, if required in the future. The server and individual components of the parking system communicate mutually via a set of the TCP/IP network protocols. Flexibility and open communication allows the connection with further systems and the formation of an integrated unit able to provide its users with full comfort and satisfy requirements of all customers and car park operators.

CHARACTERISTICS

- traffic control and management
- automated collection of parking fees with minimum requirements for staff
- robust construction
- high resistance to adverse external conditions
- on-line system controlled by a data server or off-line operation
- network communication of components via a set of the TCP/IP protocols
- car park management, supervision and detailed traffic monitoring via control SW
- vehicle count and overall car park occupancy monitoring
- adaptable and flexible parking system configurations
- selection out of different types of programmable tariffs
- zone parking
- attractive design
- parking system components equipped with safety locks

PARKING MEDIA

Parking cards with different types of identification are usually used as parking media:

- bar code paper ticket,
- bar code paper card,
- magnetic stripe paper card,
- RFID chip contactless plastic card.

Parking cards can be divided into several categories depending on the type of authorization to use parking services:

- *short-term parking card* – this card is designed for a single entry and exit while the time of parking is not time-limited;
- *congress parking card* – this card is designed for multiple entries and exits while the time of parking is limited by a defined card validity period;
- *long-term parking card* – this card is designed for multiple entries and exits while the time of parking is limited by a defined card validity period, the card is issued including the name of the resident;
- *prepaid card* – this card is designed for a single entry and exit or for multiple entries and exits while the time of parking is limited by the amount of credit on the parking card.

In addition to parking cards, the parking system can be controlled by a range of other elements:

- stick-on RFID tag for long range readers,
- device with the NFC chip or the NFC tag,
- PIN code,
- license plate,
- remote control and others.

PARKING PROCESS

- ① Upon the vehicle's arrival at the car park, the entry terminal issues a parking card for the driver or the driver may identify himself/ herself by his or her own parking card (congress, long-term or prepaid).
- ② Prior to the exit from the car park, the customer needs to pay a fee for used parking services in the automatic pay station or manual pay station. The holders of other cards than short-term usually do not perform this operation.
- ③ The driver places the paid parking card to the exit terminal scanner and, after the barrier has opened, he or she leaves the car park area.

USE

The parking system is designed for the use in closed car parks and reserved parking areas. The system offers a wide range of possibilities. The parking system can be used for the management of small car parks, however, many provided functions and advantages will certainly be appreciated also by operators of large car parks with many entries, exits and automated collection of parking fees. The system provides full control of different types of car parks:

- public car parks,
- high capacity garages,
- multi-storey garages,
- P+R car parks,
- company car parks,
- car parks at shopping and business centres,
- car parks at health care centres,
- office centres,
- accommodation buildings,
- cultural and sports centres (stadiums, swimming pools, aquaparks, etc.)
- airports and other types of buildings.

MAIN ADVANTAGES

- remote control and continuous supervision over the operation of all connected devices
- complete recording of operating data (data of financial transactions, parking cards, users, etc.) with an option of subsequent check and reporting
- error messages (lack of paper, etc.)
- *antipassback* – safety mechanism that prevents multiple entries by using a single parking card (without a previous exit)
- well-arranged and intuitive user environment that makes the system very easy to use
- a possibility to be integrated with other systems (traffic control systems, city transport systems, internal access systems, payment systems, security systems and fire alarm systems, hotel systems, etc.)
- parking system modular execution
- top-quality technical processing using modern technologies
- highly reliable operation
- overall processing quality providing a guarantee of the system long service life even if used in difficult operating conditions
- easy and undemanding maintenance
- low operating costs
- high mechanical resistance of the used material

BASIC COMPONENTS

- *GP4T* – entry and exit terminal
- *GP4M* – automatic pay station
- *GP4B* – automatic road barrier
- *GPD* – data server

OPTIONAL ACCESSORIES

- manual pay station
- application SW modules for more effective administration of the car park
- camera system for automatic licence plate recognition
- parking guidance system
- guidance panels and displays providing information on the car park current occupancy
- Card Checker validation device (a marking terminal designed for the modification of parking card characteristics – provision of discounts, etc.)
- intercom (communication system for drivers and the car park staff), etc.

SURFACE TREATMENT

Steel cabinets are zinc coated and this provides them with long-term anti-corrosion resistance. The surface of the device is treated using polyester powder coating. The standard powder paints used for the components are the following RAL colours:

- *RAL 6029* – Mint green,
- *RAL 7043* – Traffic grey B (used only for the roof of the automatic pay station),
- *RAL 9006* – White aluminium.

OTHER PARAMETERS

Mode of operation	on-line
Communication	TCP/IP
Operating system	Microsoft Windows
Database system	SQL Anywhere
Distribution network	TN-S (three-conductor line L, N, PE)
Power supply	230 V AC / 50 Hz
Working temperature	-25°C – +45°C

Modification of design and technical parameters reserved