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Digital recording of licence plates Digitalizace a evidence registračnich značek

Recognition of the majority of the world's licence plates Rozpoznáni většiny světových registračnich značek

Matching of registration plates and parking cards Párování registračni značky a parkovaci karty

Higher level of the car park security Vyšši úroveň zabezpečení parkoviště

Fast check-in/out of drivers
Vysoká rychlost odbavení ridičů


CAMERA SYSTEM FOR AUTOMATIC LICENCE PLATE RECOGNITION KAMEROVÝ SYSTÉM PRO AUTOMATICKÉ ROZPOZNÁVÁNí SPZ GPP LPR - AUTOMATIG REBOGNIION OF LIGENE PLATES

## BASIC INFORMATION

The camera system for automatic scanning and recognition of vehicles' licence plates is an optional accessory to the GP4P Variant parking system. It is a sophisticated solution designed for the identification of vehicles' licence plates. The system is able to recognize individual symbols of licence plates with high precision and low error rate. The system provides both the car park operator and customers with entirely new functions and options. Different features can be allocated to individual registration plates - different types of charges can be selected and the authorization for passage can be granted individually (prepaid parking, visitors, etc.).

## Features

- continuous reading and digital recording of licence plates of arriving and leaving vehicles
- monitoring and recording of all recognized registration plates
- taking photographs of passing vehicles upon every entry and exit and archiving of records for further use
- an option of automatic matching of recognized licence plates with photographs of vehicles and parking card numbers
- an option of payment on the basis of a licence plate (e.g. in case of a lost parking card)
- printing of a licence plate on a short-term parking card or on a receipt/ tax document
- recording of events incl. their detailed list for a possible later check
- traffic reports and statistics based on the acquired data processing
- higher level of control over the car park and parking vehicles
- black and white camera specially adapted for the scanning of licence plates
- infrared illumination for night operation.
- after the parking fee payment, the exit is allowed without the parking ticket scanning


## Use

The camera system for automatic recognition of licence plates is suitable both for the exterior and the interior and different light conditions (day, night, artificial lighting, strong contrasting light). The system can be used for effective monitoring of vehicles' passages e.g. at the following places:

- car parks,
- garages,
- warehouse areas, etc.

The system of licence plate recognition can be used within a short-term parking system (for a single entry and exit without time limitation) for:

- the increase of security - upon the car park entry, the licence plate is recognized and subsequently saved to the database and allocated to a parking card (with a possibility of printing on a parking card); the exit of a vehicle is permitted or denied on the basis of comparison of its licence plate with the data in the database;
- statistical purposes - upon the passage, a licence plate is recognized and its recording is saved to the database; licence plates are not compared with data in the database;
- preventing the misuse of the car park mode - designed for car parks providing customers with daily credit to allow parking free of charge (e.g. 2 hours of free parking); due to the licence plate identification, the vehicle's credit is used also upon multiple entries and exits; after the credit has been used up, a parking fee is charged according to a set tariff.

Within long-term parking, the camera system for automatic licence plate recognition can be used for e.g.:

- the preventing of the prepaid parking cards misuse - one or more licence plates are allocated to a parking card upon its activation; the card can be used only for vehicles with specified licence plates;
- automatic passages - customers can conveniently enter and exit the car park just upon recognized licence plates without having to place their parking cards to the card reader; both customers using prepaid cards and visitors using the booking system can take advantage of this feature.


## Main advantages

- prevention of the repeated misuse of parking free of charge
- higher level of the car park security and protection of parking vehicles against theft
- reduction of financial losses caused by unauthorized use of parking cards
- processing of large volumes of registration plates in a short period of time due to the system high output components
- recognition of the majority of the world's licence plates (including Latin alphabet, Cyrillic, Arabic and Chinese characters, etc.)
- high reliability of the licence plate individual symbols recognition
- independent of light conditions (operation during different light intensity, UV radiation, etc.)
- a possibility of the system operation using the licence plates identification principle (we recommend though, to use the system in combination with a standby identification medium, because unkempt and unclean licence plates may decrease the recognition accuracy of the individual characters, which cause problematic situations)
- fast check-in/out of drivers
- higher user comfort
- easy to install and configure
- saving time and resources


## BASIC COMPONENTS

- digital network IP camera with black and white scanning
- network power supply adapter for a camera ( $12 \mathrm{~V} / 1 \mathrm{~A}$ )
- software designed for the recognition, processing and recording of vehicles' licence plate numbers/ number plates (the extension of the GP Cash basic software kernel) - installation on the camera server equipped with the Microsoft Windows operating system


## OPTIONAL ACCESSORIES

- camera stand


## Other Parameters

Reading distance
Illumination technology
Illumination wavelength
Time of illumination
Dimensions without the shield
Dimensions incl. the shield
Weight
Ingress protection
Power supply
Maximum power consumption
Working temperature
Communication


3-12m
IR (infrared light)
850 nm
up to $950 \mu \mathrm{~s}$ (adjustable via software)
$171 \times 120,4 \times 95,1 \mathrm{~mm}$
$237,5 \times 132,2 \times 100,6 \mathrm{~mm}$
1.6 kg

IP 65
12 V
10 W
$-25^{\circ} \mathrm{C}-+55^{\circ} \mathrm{C}$
TCP/IP


