SMARTSPECTOR Pardus™ LPR





Fields of application

With their new Pardus™ LPR, Smartspector introduces a licence plate recognition system that has been developed primarily for reliable vehicle identification on motorways. Its exceptional performance is an outstanding forté as is the fact that it is based upon sustained security concepts, which have hitherto largely been applied in electronic banking.

Other highlights are: detection of wrong way drivers, multi-sensor data fusion within a cross section to deliver consistent results, remote maintenance and management capabilities.

Performance

Pardus™ LPR is Smartspector's highest performance LPR product. In a consecutive process of image acquisition and image processing at a rate of up to 30 frames per second, the high-end configuration has been designed for maximum throughput. A customised light source, dynamic exposure control and the best customary infrared optics ensure high-contrast, pinsharp pictures in the course of everchanging ambient light conditions.

Data security and authenticity

Camera systems, in particular licence plate recognition systems, are applied in areas where data privacy protection, data security and authenticity are of paramount importance. Smartspector has turned special attention to those areas and continuously implemented sophisticated protective mechanisms. Next to encoded transmission of located licence plates, the system is also able to encrypt image data, either partially or entirely. To guard against manipulation and to guarantee image authenticity, the Pardus™ system implements additional safety mechanisms via TAN code authentification, a method that is absolutely unique in this field of application. Hence all requirements are met as to data privacy protection and data record evidence.

Remote maintenance

Roadside sensors are usually aligned in a decentralised manner and devices are not easily accessible, except in special circumstances. Consequently, Smartspector equipped all PardusTM camera devices with clear-shield technology. This minimises soiling and reduces expensive on-site maintenance.

After on-site installation and start-up, Smartspector provides comprehensive technical support options in order to administrate and maintain the devices unrestrictedly after authentication via remote service. That applies to alterations of all relevant software and firmware as well as to supplementary concerns after implementation, e.g. visual assessment of parameters, soiling, or overall performance. Smartspector LPR systems are optimised towards highest operational availability. After irregular shut-down (due to on-site voltage drop or failure), all temporary interruptions of data transfer are flawlessly documented and an automatic and consistent restart will take place.



Default passage



Wrong way driver









Licence plate:

default configuration*:

- non reflective characters upon undamaged reflecting field
- characters: 0-9, Latin letters A-Z
- single-spaced

Sensor resolution:

752 x 480 pixels

Exposure:

20μs ... 400μs (internally controlled)

Frame rate:

max. 30 frames/s (internally controlled)

Nominal lateral range:

customised, typ. 2,700mm**

Nominal distance:

customised, typ. 6m - 15m

Perspective:

max. angle between optical axis and perpendicular plate axis: 30°

max. angle between principal of field of view and principal of plate: 10°

- different configurations upon request
- actual arrangement depends on font-size and specified LPR-performance
- *** Windows® 32 compatible

Mounting:

camera: guide slide underside camera housing flash: mounting bracket

Results:

LPR image with text header:

- LPR result
- passage ID
- time stamp
- device-ID and name

Result message:

- passage ID
- LPR result (encrypted)

Operating temperature:

-33°C - +45°C

Power supply:

24VDC ±5% / 2A stabilised, short-circuit proof

User authentication:

password, TAN code

Device integration:

Smartspector SVE-DeviceManager***

Device administration:

Smartspector SVE-DeviceManager GUI: Smartspector SVE-Toolbox***

Interface:

100MBit Ethernet

