

SMARTSPECTOR Pumilio™ LPR

The most compact licence plate recognition system in the world



full-size illustration

Car registration plates are uniquely identifying vehicles, hence their production and disposal require meticulous carefulness in the first place. Precisely defined logistics with a comprehensive process documentation approach is needed. The all-in-one Smartspector Pumilio™ LPR perfectly fulfils those requirements. It provides a reliable measuring system that automatically reads registration numbers and visually documents every single licence plate.



Compact!

With Smartspector Pumilio™ LPR (in Latin, pumilio stands for dwarf), Smartspector launches definitely the most compact all-in-one recognition system in the world. Measuring only 185 grams in weight and less than 150cm³ in size, the brand-new splash-proof recognition system features:

- superb global shutter CMOS WVGA image sensor
- low-power processing unit
- customary Linux OS
- pulsed ring light
- status LEDs

Altogether, power input including integrated lighting lies below 3 watt.



Robust!

As a dust-proof and water-proof device, Pumilio™ LPR displays excellent mechanical robustness and comes up to scratch, also for a multitude of embedded and outdoor applications. The integrated lighting has ideally been adapted to the nominal range of measurement and to the properties of retro-reflecting licence plates. Thanks to cutting-edge image sensors, image defects such as blooming and smear belong to the past, even small structures in high-contrast images always come out accurately to the minutest detail.



Fully adequate!

Apart from its genuine light source and its miniaturised optics, Pumilio™ features all essential performance data of the Smartspector standard models.

The ability to localise individual licence plates up to 25 times per second, thereby readjusting optimum exposure with each frame, is one of Smartspector Pumilio™ LPR's big assets. By far the most compact, fully integrated LPR system, it is always on a par with customary high-speed solutions.



Open-ended!

Designed both as a mobile measuring system and in a discreet embedded version, Smartspector Pumilio™ LPR is also best suited for patrol cars. Customised systems may be designed for self-sufficient and integrated operational modes. Interface options are Ethernet, Digital IOs including a dedicated flash-trigger output.

PUMILIO™



sample image taken with Smartspector Pumilio™ LPR

SMARTSPECTOR Pumilio™ LPR

Specifications (industrial application)

Device under test:

- reflective licence plate
- single or double-spaced
- width max. 520mm
- height max. 200mm
- characters: numerical digits 0-9, Latin letters A-Z

Testbed:

- nominal distance 1,500mm
- optical axis of sensor perpendicular to plate ($\pm 5^\circ$)
- plate centred horizontally and vertically (± 10 mm)
- plate in line with principal of field of view ($\pm 3^\circ$)

Mounting:

screw-on adapter set

Cable set:

Ethernet, supply/digital IO: 1.5m

Illumination:

integrated flash (white)

Interface:

- 100MBit Ethernet
- 2 x 24V digital in
- 1 x 24V digital out
- 1 x 24V flash out

Dimensions:

45mm x 45mm x 84mm

Weight:

185g

Results:

- time log of LPR results
- LPR image with text header:
 - LPR result
 - consecutive number
 - date and time
 - device ID and name

Power-supply :

24VDC $\pm 10\%$

Current consumption (load free outputs):

120mA

Maximum total current:

1.5A on 24V outputs

Protection class as per EN60529:

IP65/IP67

Vibration and shock:

tested as per DIN/IEC 68/EN 60068 part 2-6;
0.35 mm travel at 10 ... 60 Hz;
5g acceleration at 60 ... 150 Hz
tested as per DIN/IEC 68/EN 60068 part 2-27;
 $\pm 30g$ at 11ms duration; 5 shocks per direction

Continuous shock resistance:

tested as per DIN/IEC 68/EN 60068 part 2-29;
 $\pm 15g$ at 6ms duration; 1,000 shocks per direction