SMARTSPECTOR Mobile LPR

Standard model

PUMiLiO™ - mobile demo

Smartspector mobile licence plate recognition systems are designed both for statistical analysis and documentation of vehicle detection along roadway sections. Our mobile sensor equipment is also best suited for the detection of blacklisted vehicles.

Compactness

For mobile licence plate recognition, Smartspector offers three distinct device types:
- Pumilio™
- Pumilio™ plus
- Standard model

Even the most compact configuration, based upon the Smartspector Pumilio™ system, enables continuous battery-powered traffic observation for several hours. The unrivalled compactness of the complete package, which comprises camera and lighting, the complete electronics system together with a rechargeable battery pack, a compact tripod, and a netbook for configuration and data recording. For all that, its overall weight is below 8 kilos.

Pumilio™ plus features high variability by facilitating exchangeable optics, i.e. focal length can be adapted to changing geometry at different locations.

Finally, the standard housing features all relevant facilities and the general advantages of fixed camera installation technology, without the prerequisite of on-site infrastructure.

Energy efficiency

It is not only for their compactness but also for their superb energy efficiency that Smartspector sensor systems are ideally suited for self-sustaining operation. Our light sources are perfectly syncronised with exposure contol and therefore no energy is wasted.

The complete case comes with a 600 gramme battery pack. At a pre-set acquisition rate of 20 images/second, nominal 4-hour measuring time is attained. When operating at low-speed road sections, the frame rate can be reduced via configuration to prolong power supply.

Integrated data base

For several application types, identified licence plates are to be matched with blacklisted or whitelisted vehicles. Smartspector mobile systems operate fully independent from any central data-server, i.e. identified number plates can be matched in realtime with an integrated data base. Authorised users can edit and update databases online, by using the included user-interface. A digital output signal indicates every match, which allows to set up application-specific user notification.

SMARTSPECTOR®
artificial perception engineering GmbH

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Specification examples[1] Mobile LPR

	Type A	Type B	Type C
End device	Pumilio	Pumilio plus	Standard
Licence plate	default configuration[2]: - non reflective characters upon undamaged reflecting field - characters: 0-9, Latin letters A-Z - single-spaced		
Perspective	max. angle between optical axis and perpendicular plate axis: 30° max. angle between principal of field of view and principal of plate: 5°		
Sensor	752 x 480 pixels		
Exposure	$20\mu s$ ... $800\mu s$ (internally controlled)		
Frame rate	5-25 frames/s (configurable)		
Lens	12mm, focus adjustable, not IR-compensated	12mm (exchangeable), IR-compensated	12mm, IR-compensated
IR-light source	external IR-flash		internal IR-flash
Tripod	ball head, approx. 45cm - 120cm		three way head, approx. 60cm - 190cm
Netbook inside case	yes	yes	no
Battery pack[3]	rechargeable battery pack, nominal 24VDC / 2300mAh		
Result	LPR image with text header: - LPR result, - passage ID, - time stamp, - device ID and name		
Operating temperature	0 ... 45°C (battery) -10°C ... 45°C (camera)		0 ... 45°C (battery) -15°C ... 45°C (camera)
Case dimensions	486 x 460 x136 mm³	486 x 460 x136 mm³	594 x 561 x 161 mm³
Approx. weight	7,9kg	8,3kg	12,5kg
User authentication	password, TAN code		
Device integration	Smartspector SVE-DeviceManager[4]		
Device administration	- Smartspector SVE-DeviceManager - GUI: Smartspector SVE-Toolbox[4]		

[1] Smartspector assembles mobile LPR systems in a customer specific manner to meet different requirements in the best possible way.

[2] different configurations upon request

[3] battery charger not included

[4] Windows® 32 compatible