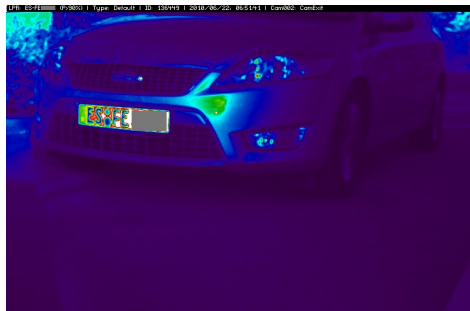


SMARTSPECTOR Porta™ LPR **Highly reliable camera systems add convenience and security to business premises**



Partner / customer: Festo is a leading world-wide supplier of automation technology and the performance leader in industrial training and education programs. As the original manufacturer of the Pumilio™-platform, Festo partnered Smartspector in many important engineering issues. In order to prove the robustness and the reliability of Smartspector's complete system, Festo ordered a Smartspector Porta™ LPR camera system. At the companies headquarter in Esslingen am Neckar (Germany), the system should automatically handle the companies vehicle fleet at the delivery entrance.



Sensor arrangement: The track-width is around 4m for both directions, which considerably exceeds the original product specification. The installation height is as low as 700mm, hence the cameras are fairly exposed to dirt and the viewing direction is almost horizontal. Accordingly, the applied algorithms must handle complex and ever-changing scenes (above pictures). The integrated number plate related shutter control facilitates optimum contrast for each passage by compensating variations due to daylight, range and individual soiling of different plates (lefthand result images).



Access management: The plate numbers of authorized vehicles are managed in a pre-existing external database. An automated synchronisation procedure keeps the records inside the camera-devices up to date. Even during interruptions of all communication ports, the cameras proceed with reliable access management flawlessly and without any delay. As soon as a camera catches sight of a white-listed vehicle, the associated gate is triggered. All others have to ask the porter for permission.

Data protection: With regard to privacy protection, the treatment of passages of registered and uncharted vehicles can be configured independently. Given that all data is processed and matched in the camera device, a continuous access management can be configured to operate in an autarkic mode without the transmission and storage of any images and other passage data. To rule out the data abuse, only skilled and authorized staff of the control system has access to the systems configuration capabilities.

Operational availability: The system has been in 24x7 operation since February 2009; both cameras have been entirely defect-free since initial startup. The software has been tested extensively since October 2009. In particular, not a single application crash has been reported yet. On site, no special preventive maintenance and no cleaning has been carried out; nevertheless, the total system has evinced reliable and largely constant high performance over the course of time.



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Version: 101220

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