Robot SmartCamera IV

New times in traffic surveillance: Now with two camera eyes
High technology integrates in the smallest space

The future of traffic surveillance will be controlled by intelligent, highly integrated systems with low power consumption. By introducing the very compact SmartCamera IV, Jenoptik Robot is setting the standard in this new camera class. The new system is a combination of two new independent camera eyes with the latest digital Intel Atom Technology. What began with netbooks is now creating new solutions in the industrial sector. This means: substantial computing power and very low power consumption.

As a result of the two integrated independent camera heads, the customer can choose between maximum dynamics, different focal lengths or a combination of a high-resolution single image with a video. This can all be found in a compact housing with the dimensions 150 x 125 x 160 mm. That is, without rotating parts such as fans or conventional hard disks.

Here are the key advantages at a glance:

- Two integrated camera eyes in a compact housing
- Universal image/image or image/video application
- Maximum dynamics, different focal lengths
- Surveillance of several lanes using a single system
- Very fast image sequence (up to 25 images/sec. depending on the resolution)
- Low Power Intel Atom technology
- Passive cooling concept for operation between -20 and +60°C
- Compatible with existing Robot technology
Efficiency in a system

Each customer and each traffic situation places different demands on the technology used for implementing traffic solutions. Thus, the question is as follows: How can we deploy a highly flexible system in response to these different requirements and be economical at the same time? With the SmartCamera IV, Jenoptik Robot has now developed an intelligent response to this question. It combines two digital camera heads in a minimum space and by using the latest processor technology can create an efficient and power-saving basis which can be adapted to performance requirements at any time. This makes the SmartCamera IV a universal device that can be applied effectively.

Highly variable during application

The Robot SmartCamera IV is genuinely multi-talented. Depending on the measurement device used, the Robot SmartCamera IV can be deployed in almost all situations involving traffic solutions and recording offences. That is, both for speed and red light offences as well as for both combined. Even when traffic is dense, it can guarantee constant recording of individual vehicles.

Surveillance of several lanes.

By using two camera eyes with different lenses (e.g. wide angle and tele lens), up to six lanes can be optimally monitored even in peripheral areas and record offences in high-resolution image quality.

Image/image recording.

When identifying the driver and licence plate, a compromise always had to be reached as regards exposure due to the flash required for the licence plate. With the Robot SmartCamera IV, the offence can now be simultaneously recorded by two camera heads (in each case for licence plate and driver), thus with optimal exposure.

Image/sequence recording*.

For improved evidence, an image sequence can also be simultaneously recorded with the image of the offence. As a result, the speed measured by the measurement system can be subject to secure verification.

Image/video recording*.

In this combination, a video sequence for the preservation of evidence is also stored along with the image of the offence.

Image/live stream*.

For this purpose, a camera head belonging to the system can be used via a network connection and live stream to monitor traffic on an ongoing basis and the second camera eye record offences at the same time.

Licence plate recognition*.

This application is an addition to normal measuring. The licence plates are recorded by a camera eye and compared with a database (e.g. of wanted vehicles) in real time. If the comparison is successful, the second camera eye triggers an image recording.

* Optional functions with changed or additional system equipment.
Double Safety

The image data is tamper-proof and can be presented before a court. However, the issue of data protection has also been fully accounted for through the creation of a sophisticated software and hardware safety concept. This includes, among other things, the encryption of image data.

Investment protection with future prospects

Whoever has already used Jenoptik Robot technology can seamlessly integrate the SmartCamera IV with its various new capabilities. The development engineers at Jenoptik Robot have designed the camera in such a manner that it is compatible with previous systems and components. Furthermore, it has many connection and extension capabilities with which the Robot SmartCamera IV can be adapted to growing or changed requirements at reasonable prices.

Intuitive Operation

The uniform and precise operation concept means that it doesn’t take long to familiarise oneself with the system. The control can be retrieved via a laptop or optional monitor and is used to configure the camera system on the spot. Immediate and clear information about the current status of the camera is provided by the display of the housing.

Operational safety in every climate

Fewer cables, less weight, less power consumption and no moving parts. As a result, the Robot SmartCamera IV is virtually maintenance-free and ready for raw everyday use on the street without incurring too much cost. Highly modern and failsafe digital technology is combined in an innovative, compact housing. Its intelligent design prevents the occurrence of thermal loads. The result: a sealed, dustproof system which can be operated without a fan. Given the wide range of potential operating temperature of -20° to +60° Celsius, the SmartCamera IV can almost always be operated without an air-conditioning unit or heating element.

Technical Specifications

- USB connection
- Network connection
- 14 Bit image data
- COM Express standard
- FlashDisk memory
- User interface via VGA monitor
- Information display and LED status
Traffic monitoring technology Made in Germany
Jenoptik Robot has been a market and technology leader in the field of mobile and stationary monitoring of flowing traffic for decades. Top quality workmanship and our almost proverbial reliability have characterised our brand name just as much as our claim to practical operation. Our own, efficient development department for camera technology and data evaluation has guaranteed our unique vertical integration, short innovation cycles and a decisive cutting edge for many years.