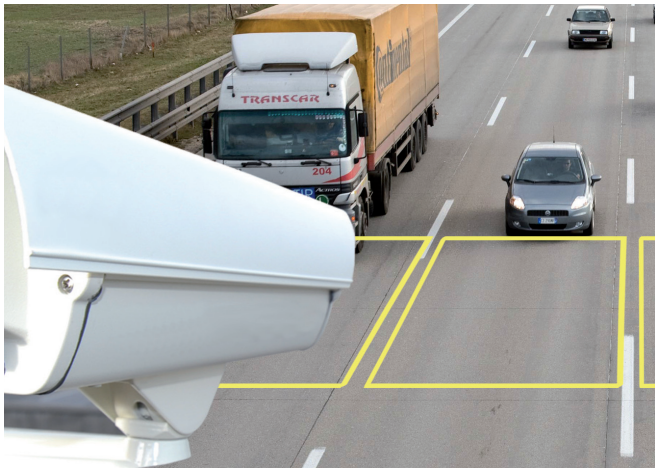
AUSTRIAN INSTITUTE OF TECHNOLOGY
TOMORROW TODAY

smart eye ▶ TDS
TRAFFIC DATA SENSOR

REVOLUTIONIZING TRAFFIC MONITORING

The smart eye TDS is an intelligent, fully embedded traffic monitoring device for individual vehicle detection, classification and speed measurement. Its advanced vision sensor technology enables traffic data acquisition with flexible mounting options on up to four lanes simultaneously with a single, "all in-one" solution.

A license for the powerful "smart eye Center" GUI for maintaining TDS sensor networks is included with the TDS. It allows live monitoring of the data[1], easy configuration of the sensors parameters and the intuitive graphical configuration of the sensors detection zones.



FEATURES I

Individual vehicle, real time traffic monitoring:
- ▶ Class: car or truck
- ▶ Vehicle speed
- ▶ Vehicle net time gap (in milliseconds)
- ▶ Detector occupancy (in milliseconds)

FEATURES II

Data accumulation and statistics in configurable time intervals:
- ▶ Average speeds vehicles/trucks
- ▶ Speed standard deviation
- ▶ Vehicle and truck volumes
- ▶ Average net time gap (in milliseconds)
- ▶ Average detector occupancy (in %)

Each vehicle or statistic data set further contains sensor location and time information.

OTHERS

- ▶ Remote sensor configuration and maintenance via Ethernet.
- ▶ SNTP protocol clock synchronization via Ethernet.
- ▶ On-board flash memory for offline operation.

AVAILABLE SOFTWARE

- ▶ smart eye Center (for remote configuration and control)
- ▶ smart eye Server (interface for data base)

[1] Note: No video image stream available due to the vision sensors motion detection principle.

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SPECIFICATIONS

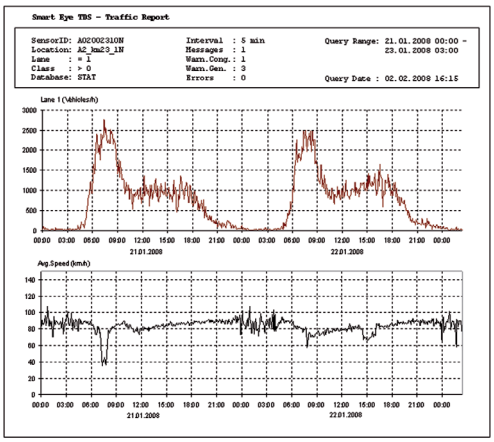
- ▶ Weight: 1.8 kg
- ▶ Dimensions: 340 x 140 x 110 mm
- ▶ Housing: Al-camera housing with heating
- ▶ Protection: IP 65
- ▶ Data connection: Ethernet 10/100 Mb/s (RJ45)
- ▶ Protocols: TCP/UDP, SNTP, TFTP
- ▶ Flash memory storage capacity: up to 100 000 individual vehicle or statistics data sets[1)]
- ▶ Counting accuracy: typ. < 5% error[2)]
- ▶ Speed measurement: 20-220 km/h, typ. < 10% error[2), 3)]
- ▶ Temperature: -30 to 55°C
- ▶ Humidity: 0-95%, non condensing
- ▶ Supply voltage: 230V AC
- ▶ Power consumption: typ. 8.5W (max. 20 W with heating)
- ▶ Certification: CE mark

MOUNTING HEIGHT REQUIREMENTS

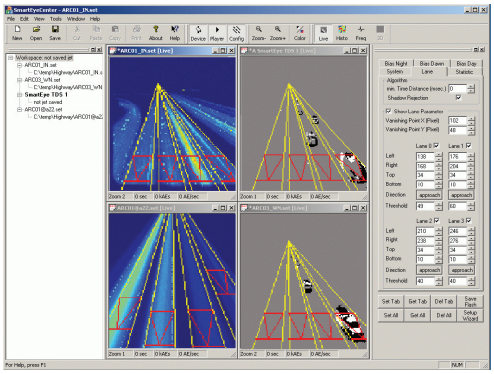
Configuration	Height[4)]	Optimal position
2 lanes	7-12m	at road side
3 lanes	7.5-15m	above road
4 lanes	7.5-17m	above road

OPTIONS

u RS485 interface with SITOS protocol



Typical two day traffic data (volume and average speed in 5 min intervals) acquired with smart eye TDS on a highway.



Screenshot of the "smart eye Center" software for remote configuration and management of the smart eye TDS.

[1)] Equivalent of 1 year offline operation at a 15min reporting intervals and a four lane configuration.

[2)] Data are based on samples and believed to be representative.

[3)] Standard deviation of measured speeds in a 100 vehicle sample, front-fire, two lane configuration.

[4)] Mounting height depends on distance from road side (setback), refer to manual for details.

CONTACT

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