

## AE TOM 3000

### Traffic Observation Module



SYMBOLIC PICTURE

### ≡ Discription

The EFKON Laser Traffic Sensor AE TOM 3000 is a scanner for traffic applications like vehicle detection, counting and classification.

The AE TOM 3000 has its focus in MLFF applications and provides highest possible accuracy in vehicle detection and classification, exceptionally in combination with the EFKON Multi-lane classification solution.

For integration in customer own classification solutions the TOM 3000 combines highest precision of captured data with easiest integration solution direct by Ethernet connection and defined interface protocol.

The AE TOM 3000 unit continues with the EFKON product focus on easy and simple installation - started already with AE TOM 2000 - by simply mounting on a gantry above the lane – no need to dig or cut in the road surface.

Cutting edge technology – Six widened laser beams create an infrared laser curtain, which records a 2-dimensional profile of objects moving underneath. These beams are aligned 90 degrees to the road and all beams work in simultaneous operation

This technology enables the TOM 3000 to provide data for highest precision in vehicle detection, -separation, -counting and vehicle classification. Data are derived from measuring the travel time of a light pulse to the road surface or surface of the vehicle and back. The distance profile can then be used to calculate data as vehicle entrance detection, -exit detection vehicle classification, driving direction, speed indication, height indication and more.

Typical outputs are entry/exit trigger, height; begin/end of vehicle, travel direction, presence of trailers. AE TOM 3000 has no moving parts, a major design consideration when aiming for high reliability.

### ≡ Key Features

- High sampling rate due to fixed laser beams (no moving deflection unit)
- Complete lane coverage by 6 independent laser beams / two curtains
- Robust design for harsh outdoor traffic environment conditions
- AE TOM 3000 provide vehicle mapping of highest excellence
- Application in vehicle speed environment from 0 ~ 250 km/h
- Provide data for vehicle detection, trailer detection, classification, height profile processing, speed and driving direction indication
- Using the EFKON Multi-lane classification system, one or more TOM 3000 units can be combined with a classification controller to cover single or multiple lanes. The Multi-lane system is able to resolve lane crossing, mid-lane driving and closely driving adjacent vehicle situations
- Ideal for tolling applications, traffic management and traffic statistics data collection

For more information, please contact us at: [solution@efkon.com](mailto:solution@efkon.com)

### ≡ Technical Specifications

#### General Features

- **Technology:** Active near infrared laser
- **Input power requirements:** 24 V DC
- **Temperature range: ( at 6 m mounting height)**  
Operating: -20° ~ +60° C<sup>1</sup>  
Storage: -40° ~ +65° C
- **Humidity:** 10% - 95% RH, non condensing
- **Dimensions (L x W x H):** 440 x 235 x 260 mm
- **Weight:** 12.5 kg
- **EMC:** CE according to all applicable standards
- **Safety:** Laser class 1 (eye-safe)
- **Protection class:** IP65
- **Vibration class:** Following EN 60721-3-4 and HD638 S1:2001 +A12006 (=VDE0832-100

1) Housing temperature

#### Accessories

##### Included:

- CD with product documentation and *Softguide* PC software

##### Optional:

- Ball joint mounting bracket for quick adjustment
- Cables – various length
- Interface converter to run AE TOM 3000 via serial data port RS422
- Various power supplies for operation of up to 3 AE TOM 3000 units
- Starter kit (includes all basic components to use AE TOM 3000 for testing and system integration development)

#### Typical Application Environment

- Vehicle detection
- Camera trigger
- Vehicle classification
- Traffic monitoring
- Toll audit systems
- Section speed control
- Detection of bumper to bumper driving (tailgating)
- Parking & Access solutions
- Bridge vibration monitoring and investigations
- Vehicle classification together with "weight in motion" for weight class surveillance

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