

Laser Vehicle Detection and Categorisation. Kapsch LVDC Multi Lane.



Kapsch Laser Vehicle Detection and Classification (LVDC).

Kapsch LVDC is a vehicle classification system based upon the latest laser-scanner technology. Unlike other applications, it is a turnkey solution for 3D-geometry-based vehicle detection and classification, rather than an application specific combination of multiple sensors. With an array of several scanners, the system is suitable for any road width. Vehicle classification relies not only on three dimensions of a vehicle but also on its shape. Thus, a very precise discrimination of similar vehicle types is feasible. Sophisticated algorithms make the system robust with regard to bad weather and stop&go traffic. Finally, a comprehensive Windows™ based installation-, diagnosis-, and service tool allows a high standard of remote system maintenance.

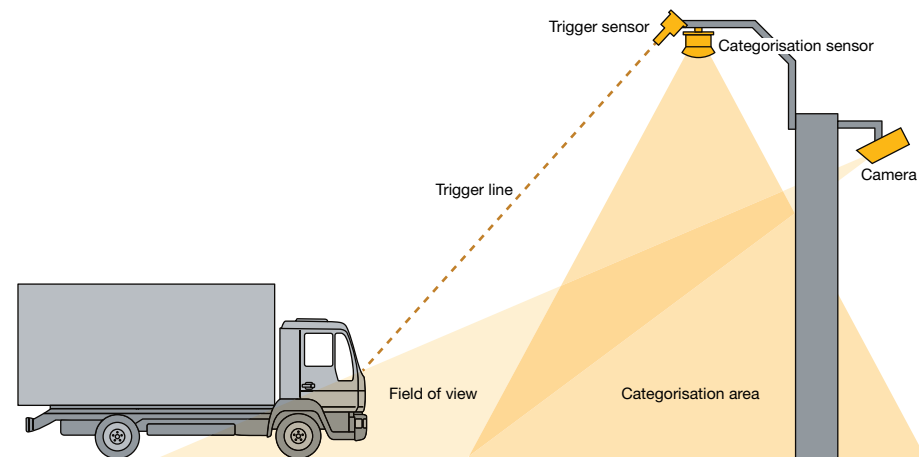
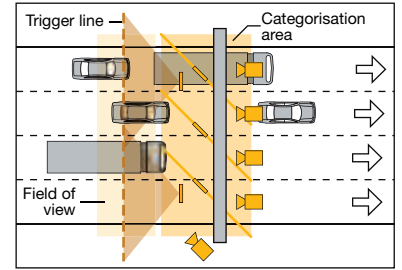
A vehicle's geometry is an outstanding basis for accurate vehicle classification. Particularly for applications where determination of an object's dimensions is not a sufficient basis to derive its class (e.g. buses or mobile homes vs. trucks), the shape of a vehicle is an almost perfect information to recognise different classes.



Kapsch LVDC is based upon proven laser scanner technology. It is designed for vehicle detection and vehicle classification in Multi Lane environments. Detailed investigations in the specific field of electronic fee collection defined fundamental requirements for vehicle detection, tracking and classification and led to the following features for this product:

Measure width, height and lateral position of all passing vehicles:

- Determine speed and length
- Derive characteristic profiles
- Determine the vehicles trailer-state
- Classify vehicles, based upon dimensions and profiles
- Recognise wrong way drivers
- Handle stop&go traffic
- Handle bad weather
- Provide trigger information for enforcement cameras, when the vehicle front/rear arrives at a predefined longitudinal position.



Example for a LVDC configuration (incl. ANPR camera)