



AXLE COUNTER

NON-INTRUSIVE AXLE COUNTING ON MULTIPLE LANES

Profiling systems

SICK
Sensor Intelligence.

With electronic toll collection systems, along with the toll route, the vehicle type is the decisive factor for calculating the toll. In addition to the vehicle size and vehicle profile, the number of axles is used as a reliable variable for accurate specification of vehicle classes.

The Axle Counter, an additional module for the TICx02 and Free Flow Profiler profiling systems from SICK, is perfectly suited to this task. It enables precise detection of numbers of vehicle axles, even on multilane roads and in free-flowing traffic.



Reliable toll calculation in
toll collection systems



www.sick.com/Axle-Counter



Installation example with the TIC502 profiling system

INSTALLATION AND OPERATION

- +** Detection of axles on several lanes by mounting above the lane

 - Detection of axle position and number
 - Flexible mounting – on the side or over the lane
 - Due to contact-free detection, installation into the road surface is unnecessary
 - Low amount of contamination and protection from vandalism due to high installation position

- +** Fast commissioning and operation thanks to web interface

 - The browser-based user interface enables comfortable remote maintenance

- +** Simple, low cost retrofitting

 - The Axle Counter is available together with existing profiling systems from SICK or can be added later

PERFORMANCE AND AVAILABILITY

- +** High detection rate based on Deep Learning

 - Counting accuracy of more than 97 %
 - Vehicle speeds up to 180 km/h
 - Detection of even extra-long vehicles with the stitching method, i.e. by putting several individual images into an overall image
 - Optional second camera per lane as back-up solution

- +** High availability due to high-performance camera

 - Ready for use around the clock
 - Integrated infrared lighting for night operation



Recording with stitching method