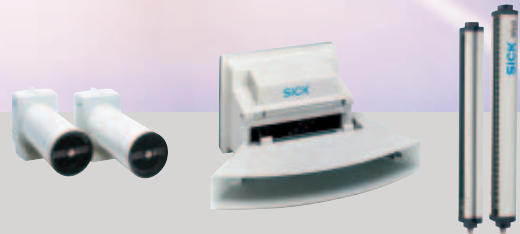




**Intelligent traffic sensors**  
Join us for a journey  
to the traffic of the future.



**SICK**



# Reaching the destination.



## Sensors that make traffic flow better, safer, and more economical.

### From Gothenburg to Valencia.

The following pages are dedicated to all those who want to contribute to solving future traffic problems.

Join us for a journey to the intelligent traffic of the future: With lower traffic costs, fewer accidents and traffic jams and greater cost-effectiveness and availability. As an experienced specialist in traffic sensors, SICK offers adequate solutions for a wide variety of measurement tasks. SICK has comprehensive expertise in the area of automatic traffic systems – gained through many years of co-operation with operators and system integrators worldwide.

#### Intelligent traffic measurement sensors

Sensors and software – individually adapted to the user's needs

##### ■ Traffic monitoring

SICK sensors contribute to traffic data acquisition and the prevention of accidents. They provide, for example, data on traffic density and distance measurements in front of bridges and in tunnels. Automated car parks are a further application in which SICK sensors operate reliably.

##### ■ Toll systems

SICK sensor systems provide data for the detection, classification and separation of vehicles.

##### ■ Road safety

SICK sensors are an important element in measuring fog and visibility.

##### ■ Tunnel safety

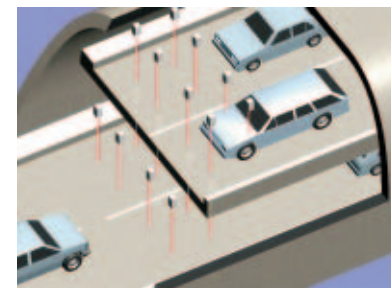
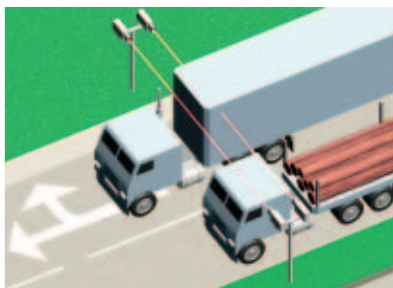
SICK sensors contribute to measuring flow and wind speed, dust and gas concentrations and the early detection of fires.

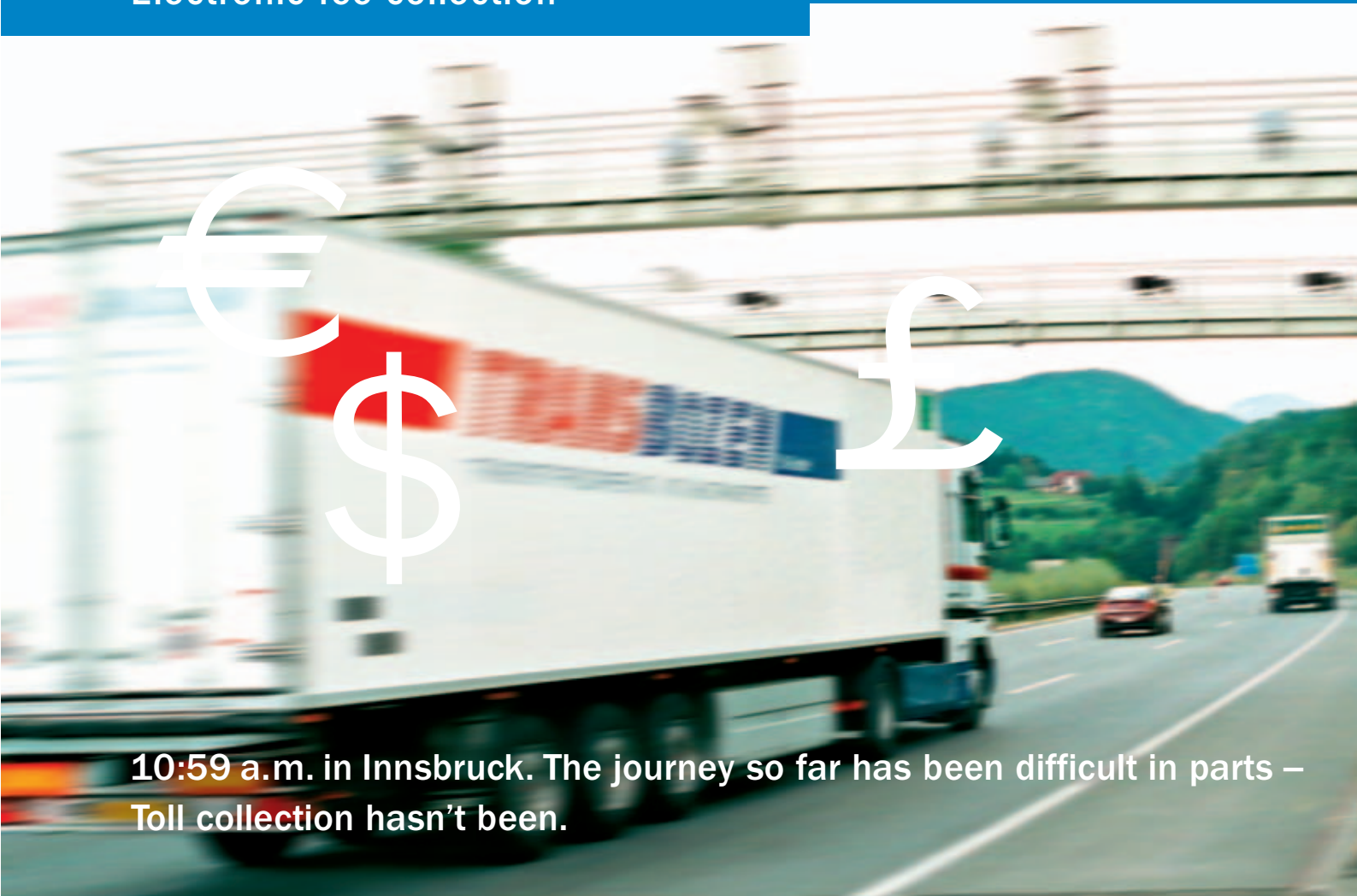
# 1,387,522

9:45 p.m. in Gothenburg. We are approaching some critical crossroads, many traffic lights and a lot of bridges. And looking forward to them.

LMS Laser Measurement Systems contribute to controlling the traffic, monitoring traffic lights, and greater utilisation of capacities. On ferries, larger vehicles (such as vans and trucks) are classified according to volume and occupied space. The HISIC 450 overheight detector ensures detection of vehicles that are too high to fit tunnels and bridges and help prevent accidents. The data acquired by the DS 60 Distance Sensor simplifies rapid and accurate parking, support vehicle detection and counting in tunnels.

- Highly reliable acquisition of traffic data
- More reliable differentiation and classification of individual vehicles as compared to conventional measurement methods
- Rapid and simple commissioning via teach-in (DS 60)
- High system availability through innovative time-of-flight measurement





**10:59 a.m. in Innsbruck. The journey so far has been difficult in parts – Toll collection hasn't been.**



Tailor-made toll solutions can be realised as a result of the flexible combination of sensors. The LMS Laser Measurement System, the MLG Modular Light Grid and W24 sensors provide reliable and accurate data for the detection, separation, and classification of vehicles according to type, length, size of vehicles or number of axles. Toll frauds are easy to identify.

- Non-contact measurement without mechanical wear
- Simple use above one or more lanes
- Support of all common toll systems and vehicle categories
- Separation and classification independent of vehicle speed (including traffic jams)
- Reliable detection of trailer towing bars and the number of axles
- Low-maintenance and almost totally immune to vandalism (complete system is mounted above the road)



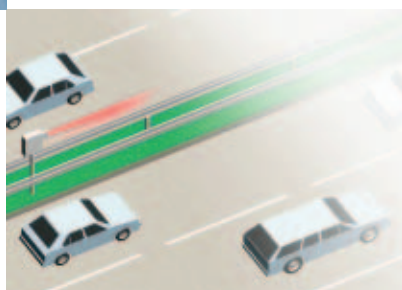
# 50 m

5:24 p.m. in Toulouse. Thick fog with rain drizzle. Poor visibility. Driving is good, however.



The VISIC 610 visibility measurement device contributes to preventing accidents and traffic jams. It detects precisely visibility even in continuous operation under harsh conditions. The system cannot only differentiate between snow and rain, but is also capable of reliably compensating for contamination.

- Comprehensive application experience creates a technological advantage
- Highly economical as a result of low maintenance and operation costs
- High quality ensures continuous and reliable system operation



9:47 p.m. in Valencia. Actually, it's a tunnel like any other. Assuming one can get through it quickly. And safely.

# CO

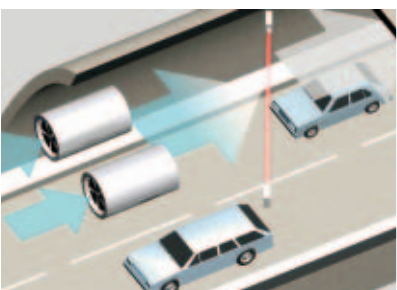
# NO



The VICOTEC 410 forms the base for measuring visibility and gas concentrations, and provides an early detection of smoke. Precise determination of wind speed and direction with the FLOWSIC 200 allows efficient and cost-cutting control of tunnel ventilation. And even minimum dust concentrations in the microgram range are detected with the VISIC 610.

The HISIC 450 overheight detector helps prevent accidents at tunnels and bridges, caused by vehicles that are too tall. The Laser Measurement System measures the distance between vehicles in tunnels.

- Decades of project experience contribute towards optimising the entire system
- The wide range of devices offers a base for made-to-measure solutions
- Support for planning and installation allows shorter project realisation times
- Soonest possible availability of precise measurement results through optical in-situ measurement technology



## Traffic monitoring

Scanner systems for monitoring and controlling traffic



Detection of overheight, classification of volumes, monitoring traffic lights and traffic data acquisition



**LMS 211**  
Laser Measurement System



**HISIC 450**  
Overheight detector



**DS 60**  
Distance Sensor

## Electronic fee collection

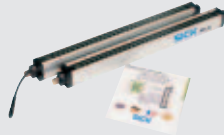
Measuring devices for separating, classification and detecting vehicles



Classification of vehicles according to type, size, length and number of axles



**LMS 211**  
Laser Measurement System



**MLG**  
Modular Light Grid



**W 24**  
The W 24 series of photoelectric switches

## Road safety

Visibility measurement devices for the road



Measuring visibility impairment caused by fog



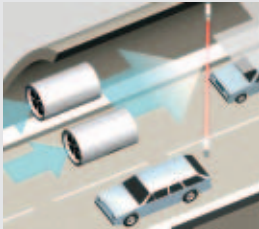
**VISIC 610**  
Visibility measurement device



**HISIC 450**  
Overheight detector

## Tunnel safety

Measuring devices for wind speed, dust and gas concentrations, visibility



Early detection of fire, and determination of wind speed and dust concentration, to keep the traffic moving.



**FLOWSIC 200**  
Wind speed measurement device



**HISIC 450**  
Intelligent overheight detector



**VICOTEC 410**  
Visibility/CO measurement system



**LMS 211**  
Distance measurement in tunnels

A white semi-truck is driving on a bridge at night. Below the bridge, a road curves through a dark landscape, with light trails from cars creating a sense of motion. The scene is illuminated by a deep blue light, suggesting dusk or dawn.

# Forward thinking.

**Traffic concepts for the present and the future.**

Rising traffic density increases the need for intelligent sensors. The precise detection and preparation of traffic information contributes to a reorganisation of traffic. Whether streets, tunnels or ferries – automated traffic systems that monitor, control or classify traffic create conditions that keep traffic on the move.



Our complete range of sensors provides answers to suit any application in the field of automation. Even under rugged ambient conditions objects are reliably detected, counted and positioned in respect of their form, location and surface finish, as well as their distances established with pin-point accuracy.



Comprehensive safeguarding of both personnel and machinery! As specialists in Sensor Technology, SICK develops and manufactures pioneering products for providing protection in hazardous zones, dangerous locations and for safeguarding access points. By providing services, which encompass all aspects of machine safety and security, SICK is setting new standards in Safety Technology.



System control, maintaining setpoints, optimising process control and monitoring the flow of materials – the instruments and services for Analysis and Process Measurement, supplied by SICK-MAIHAK, are setting the standards for these applications in terms of Technology and Quality.



Whether the tasks involve identification, handling, classification or volume measurement, innovative Auto Ident systems and laser measuring systems function extremely reliably, even under rapid cycle times. They conform to the latest Standards and can be simply and speedily integrated in all industrial environments and external applications.

## SICK. Sensor Intelligence.

**SICK**

**SICK** | MAIHAK

### Worldwide in reach:

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Ceská Republika  
China  
Danmark  
Deutschland  
España  
France  
Great Britain  
Italia  
Japan  
Korea  
Nederland  
Norge

Österreich  
Polska  
Schweiz  
Singapore  
Suomi  
Sverige  
Taiwan  
USA/Canada/México

Adresses and more detailed contact information of our representatives and agencies at [www.sick.com](http://www.sick.com)

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