



# HISIC450 OVERHEIGHT DETECTORS

RELIABLE OVERHEIGHT DETECTION  
OF VEHICLES

Traffic sensors

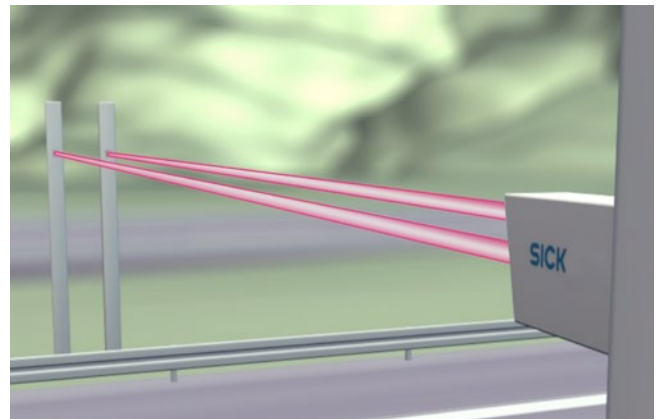
**SICK**  
Sensor Intelligence.

# RELIABLE OVERHEIGHT DETECTION OF VEHICLES

Reliable detection of vehicles in flowing, slow-moving and stationary traffic is the key to future-oriented traffic planning and efficient traffic management. SICK provides the ideal solutions for the requirements of any situation, offering high availability and flexibility.

## Dual sender/receiver system

The HISIC450 overheight detectors consist of two single-beam photoelectric safety switches, mounted at a distance from one another and in parallel, but facing in opposite directions. Although, unlike a photoelectric retro-reflective sensor, the sender and receiver system requires a power supply on each side of the road, it does provide reliable measurement results, even in adverse weather conditions. A logical link between the two single-beam photoelectric safety switch signals makes it possible to detect overheight vehicles, while largely avoiding false alarms.



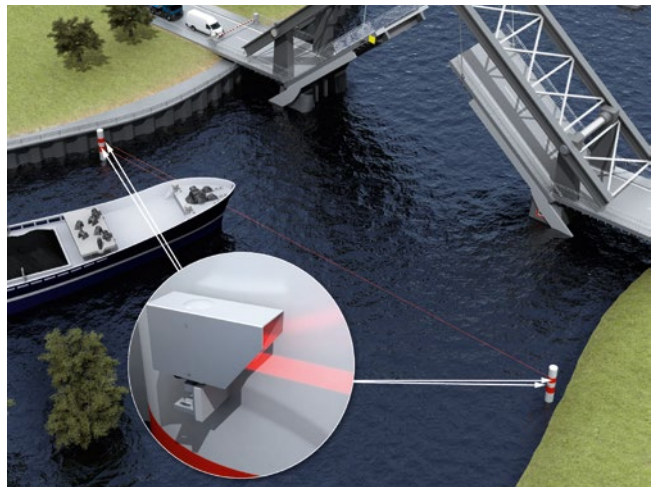
### Detection of high vehicles

A reliable means of detecting overheight vehicles is required in order to protect bridges and entrances to tunnels, but it is vital that antennas and other small objects do not trigger an alarm. The HISIC450 overheight detectors, with their housing featuring protection against corrosion, and additional weather protection cover, can be used in any outdoor environment. The sender/receiver principle results in a large light spot and high light reserve, which allows the detectors to be used over long distances and in bad weather conditions.

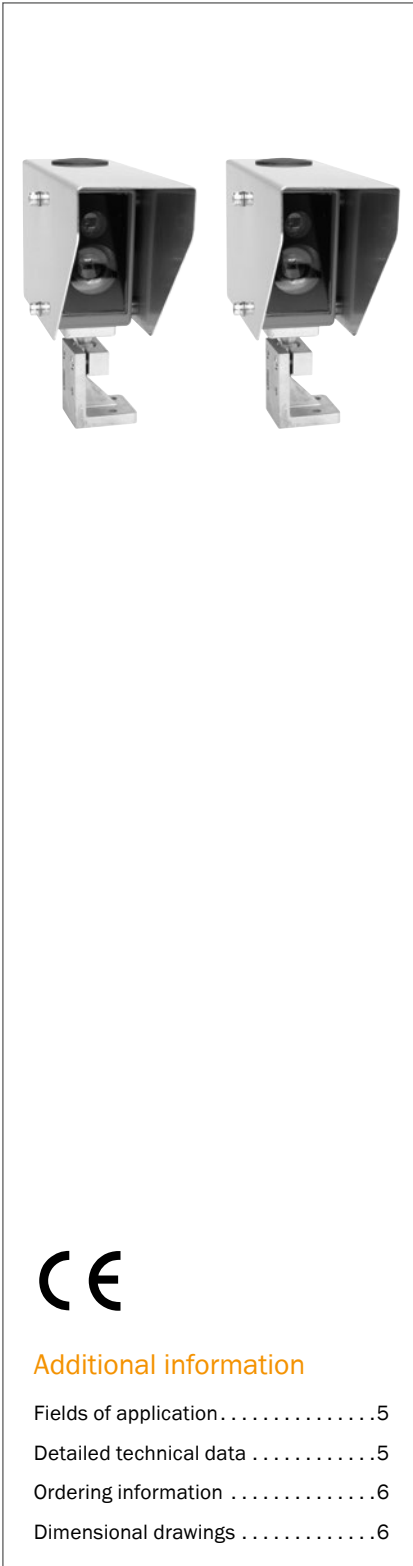


### Detecting ships on rivers and canals

In order to coordinate locks as efficiently as possible and control automatic draw bridges, it is necessary to detect approaching vessels in good time. The HISIC450 comprises two outdoor single-beam photoelectric safety switches, which can be installed along rivers or canals as far in front of the draw bridge as desired, providing reliable detection of ships.



# OVERHEIGHT DETECTION OF VEHICLES



### Additional information

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### Product description

The HISIC450 overheight detector monitors the height of vehicles – at tunnel entrances, low underpasses or bridges, for example. Reliable stop and alarm signals are activated when a vehicle infringes both photoelectric switches of the HISIC450 and this signal is then combined with traffic data (e.g. induction

loop signal). Even overheight vehicles travelling at speeds of up to 100 km/h are reliably detected. It can cope with difficult weather conditions, i.e. rain, snow or dust clouds, due to its large beam diameter and high signal reserve.

### At a glance

- Aluminum enclosure with anti-corrosion coating and high enclosure rating
- Built-in lens heaters to prevent condensation or icing
- Weather protection against snow, rain and dust clouds
- Accessories (weather hood and mounting bracket) made of stainless steel
- Sensitivity adjustment
- Insensitive to ambient light

### Your benefits

- Reliable signals – even in nasty weather conditions

→ [www.mysick.com/en/HISIC450](http://www.mysick.com/en/HISIC450)

For more information, just enter the link and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.

## Fields of application

- Overheight detection in front of tunnels and bridges

## Detailed technical data

The exact device specifications and performance data of the product may deviate from the information provided here, and depend on the application in which the product is being used and the relevant customer specifications.

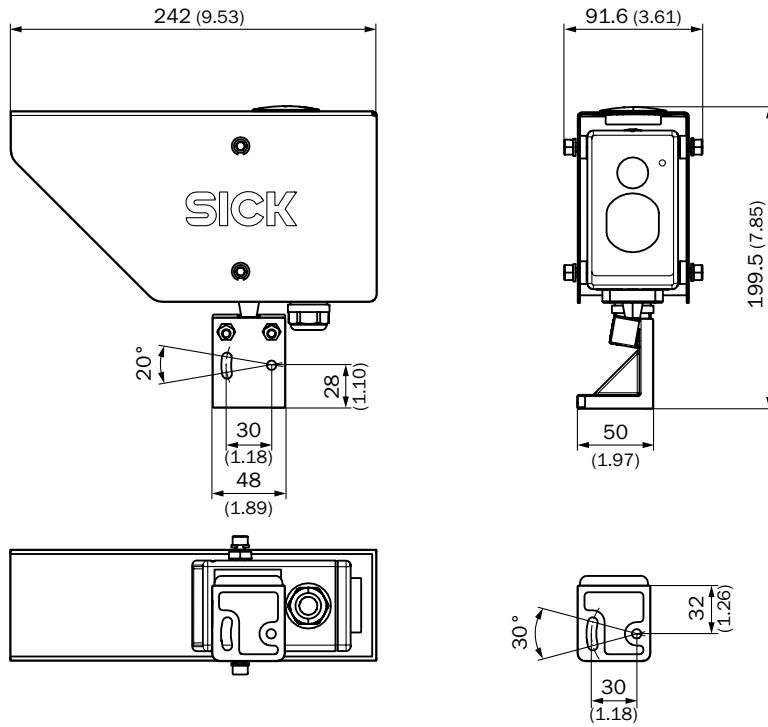
<b>Measured values</b>	Overheight	
<b>Maximum number of measurands</b>	1	
<b>Measurement principles</b>	Double photoelectric switch	
<b>Length of measuring path</b>	≤ 100 m For outdoor measurement	
<b>Response time</b>	HISIC450-N250, HISIC450-P250: ≤ 500 µs HISIC450-R250: ≤ 10 ms	
<b>Ambient temperature</b>	-25 °C ... +55 °C	
<b>Electrical safety</b>	CE	
<b>Enclosure rating</b>	IP 67	
<b>Digital outputs</b>	1 PNP output: 200 mA Short-circuit-proof, only HISIC450-P250 1 NPN output: 200 mA Short-circuit-proof, only HISIC450-N250 1 relay contact: 750 mA, 120 W Electrically isolated, only HISIC450-R250	
<b>Dimensions (W x H x D)</b>	60 mm x 126 mm x 105 mm	
<b>Power supply</b>	Voltage	HISIC450-R250: 24 ... 240 V DC HISIC450-N250, HISIC450-P250: 10 ... 60 V DC
	Connections	Protected against polarity Reversal, only HISIC450-N250 and HISIC450-P250
	Current consumption	HISIC450-N250, HISIC450-P250 ≤ 250 mA
	Power consumption	HISIC450-R250 ≤ 6 W

## Ordering information

Our regional sales organization will help you to select the optimum device configuration.

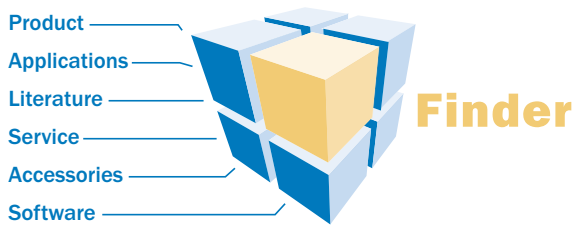
## Dimensional drawings (Dimensions in mm (inch))

HISIC450 sender/receiver unit



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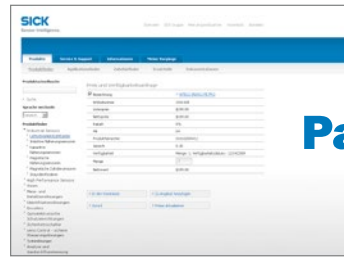
**Product Finder:** We can help you to quickly target the product that best matches your application.

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**Verification & Optimization**  
Safe and regularly inspected



**Upgrade & Retrofits**  
Easy, safe, economical



**Training & Education**  
Practical, focused and professional

## SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 6,500 employees and over 50 subsidiaries and equity investments as well as numerous representative offices worldwide, we are always close to our customers. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in various industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services round out our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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Detailed addresses and additional representatives → [www.sick.com](http://www.sick.com)