

# HISIC450



## Overheight Vehicle Detection in front of Bridges and Tunnels

### Detection of vehicles with overheight

The HISIC450 detects vehicles which are too high – at tunnel entrances, low underpasses or bridges, for example. Stop and alarm signals are immediately activated when a vehicle infringes the light beam.

The HISIC system is typically of a redundant design consisting of two sub-systems, installed parallel to each other. Each are fitted with a sender and a receiver. The light beams across the road at required monitoring height. Any interruption of the light beam by an overheight vehicle sets off an alarm signal, and traffic lights switch to red for instance.

Response- and OFF-delay times are selectable across a wide range allowing moving obstructions with a minimum diameter of 100 mm, travelling at a speed of up to 100 km/h to be reliably detected.

The usual operating distance of the HISIC450 is 100 m (330 ft) with a

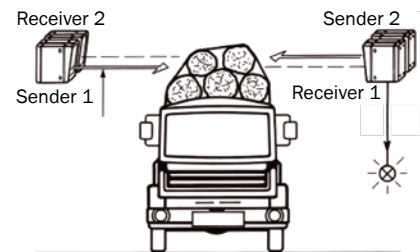
scanning range of 300 m (980 ft). As a rule, the width of carriageways is less than 25 m (80 ft), so the received signal strength is enhanced and there is sufficient light in reserve to cope with difficult weather conditions, i.e. rain, snow or dust clouds. However, these atmospheric influences can not cause a false alarm.

### Complete systems from one source

Our measurement systems for use in traffic, road or tunnel control are based on the perfect combination of precise optics and high speed intelligent electronics.

The systems are characterized by:

- high reliability
- robust and weather proof construction,
- easy to operate and low maintenance requirements
- modular and extendable design

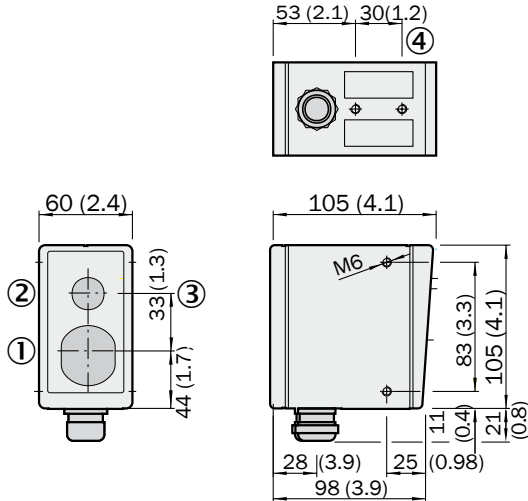


### Key Features

- Robust cast aluminium housing, sealed to IP 67
- Built-in lens heaters to prevent condensation or icing (option)
- Weather protection against snow, rain and dust clouds
- Optical alignment equipment
- Sensitivity adjustment
- Ambient light insensitivity
- Wide power supply range from 24 up to 240 V UC (universal)

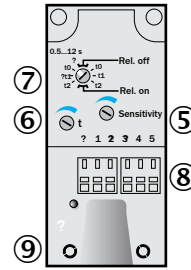
# HISIC450 components

## Dimensions HISIC450 in mm (in)

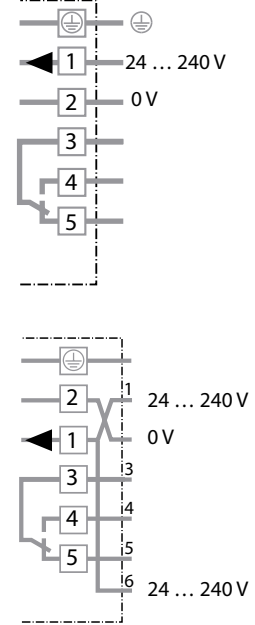


- ① Center of optical axis, sender, center of optical axis, receiver
- ② View finder
- ③ LED signal strength indicator
- ④ Threaded mounting hole M6 x 8
- ⑤ Sensitivity adjustment
- ⑥ Time adjustment
- ⑦ Time delay selector switch; left light-switching, right: dark-switching
- ⑧ Terminal strip
- ⑨ Status indicator

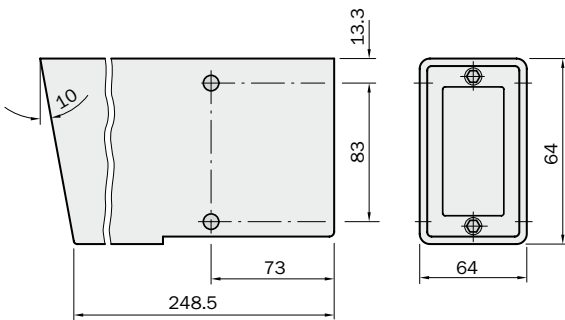
## Possible adjustments



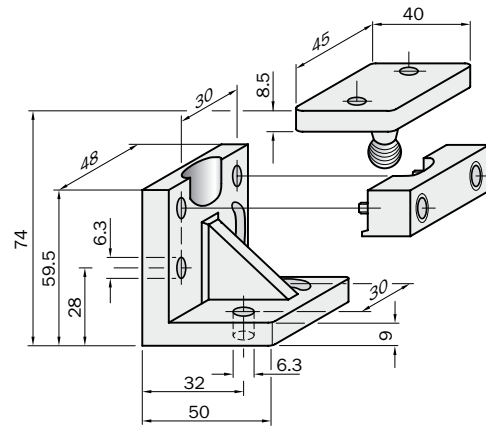
## Connection diagramm



## Dimensions Dust protection



## Dimensions Ball joint bracket



Dimension in mm

Technical data	HISIC450 (WS/WE45)	HISIC450 (WS/WE Transistor)
Scanning range	300 m (980 ft)	300 m (984 ft)
Supply voltage	24 ... 240 V UC (universal)	10 ... 60 V DC
Current/power consumption	250 mA/6 VA	≤ 500 mA
Light transmitter	LED, infrared, pulsed	LED, infrared, pulsed
Average life time	100,000 h	100,000 h
Switching outputs	SPDT, electrically isolated	PNP, Q and $\bar{Q}$
Max. switching voltage	120/250 V AC/DC	
Max. switching current	2/4 A AC/DC	200 mA
Max. braking capacity	120 W/750 VA AC/UC	
Max. response time	≤ 10 ms; max. switching frequency 10/s	≤ 500 μs, max. switching frequency 1000/s
Protection class	IP 67	IP 67
Weight	approx. 800 g (1.7 lb)	approx. 800 g (1.7 lb)
Contamination signal		100 mA, open collector