

# ELG6-1080P521

ELG

SWITCHING AUTOMATION LIGHT GRIDS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
ELG6-1080P521	1025586

Other models and accessories → [www.sick.de/ELG](http://www.sick.de/ELG)



### Detailed technical data

#### Features

<b>Technology</b>	Sender/receiver
<b>Minimum detectable object (MDO)</b>	Parallel beam: ≥ 35 mm ... 65 mm
<b>Beam separation</b>	60 mm
<b>Number of beams</b>	≥ 19
<b>Detection height</b>	1,080 mm
<b>Evaluation beams</b>	Parallel beam

#### Performance

<b>Maximum range</b>	17 m
<b>Minimum range</b>	≥ 0 mm
<b>Working range</b>	12 m
<b>Response time</b>	Parallel beam ≥ 100 ms <sup>1)</sup>

<sup>1)</sup> With resistive load.

#### Interfaces

<b>Switching output</b>	2 x PNP (Q and /Q)
<b>Connection type</b>	M12, 4-pin male connector

#### Mechanics/electronics

<b>Wave length</b>	880 nm
<b>Supply voltage V<sub>s</sub></b>	DC 15 V ... 30 V <sup>1)</sup>
<b>Power consumption sender</b>	< 100 mA <sup>1)</sup>
<b>Power consumption receiver</b>	< 100 mA <sup>1)</sup>
<b>Ripple</b>	< 5 V <sub>pp</sub>
<b>Output current I<sub>max.</sub></b>	≤ 100 mA
<b>Output load capacitive</b>	100 nF

<sup>1)</sup> Typical value.

<sup>2)</sup> Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

<b>Output load inductive</b>	1 H
<b>Initialization time</b>	1 s
<b>Dimensions (W x H x D)</b>	34 mm x 1,156 mm x 29 mm
<b>Housing material</b>	Aluminum
<b>Indication</b>	LED
<b>Synchronization</b>	Optical
<b>Enclosure rating</b>	IP 65
<b>Circuit protection</b>	U <sub>V</sub> connections, reverse polarity protected, Output Q short-circuit protected, Interference pulse suppression
<b>Weight</b>	≥ 3,000 g
<b>Switching frequency</b>	250 kHz
<b>Front screen</b>	PMMA
<b>Output mode</b>	Q dark switching <sup>2)</sup>

<sup>1)</sup> Typical value.

<sup>2)</sup> Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

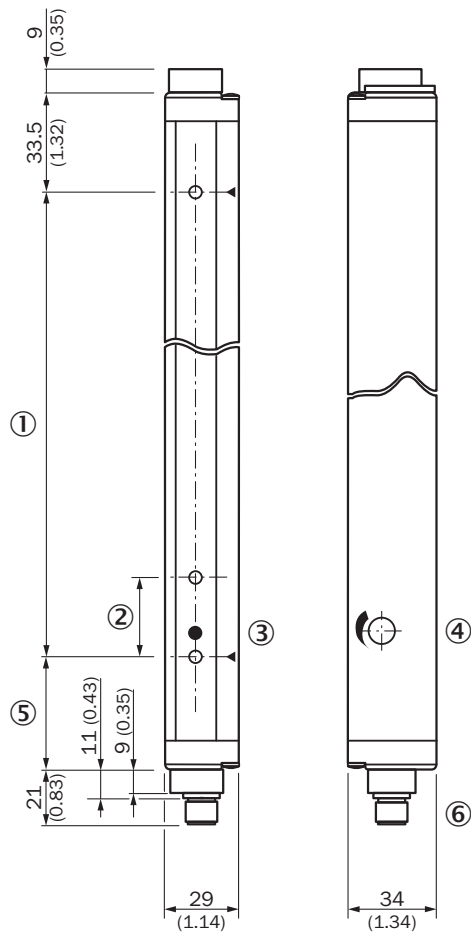
### Ambient data

<b>Protection class</b>	III
<b>EMC</b>	EN 60947-5-2
<b>Ambient temperature</b>	Operation: -25 °C ... +55 °C Storage: -40 °C ... +70 °C
<b>Ambient light immunity</b>	Indirect: ≤ 150,000 lx <sup>1)</sup>
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
<b>Shock load</b>	10 g / DIN EN 60068-2-29 / 16 ms

<sup>1)</sup> Sunlight.

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

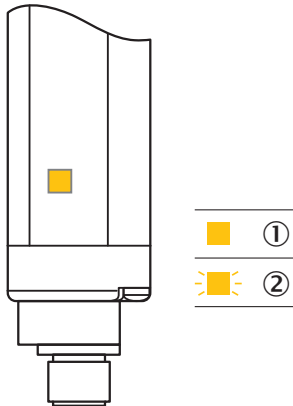
ELG3/ELG6



- ① Detection height
- ② Beam separation ELG3: 30 mm/ELG6: 60 mm
- ③ Status indicator (ELGE)/Power on (ELGS)
- ④ Sensitivity control
- ⑤ Distance to first beam; ELG3: 42.5 mm/ELG6: 72.5 mm
- ⑥ Connection

## Adjustments

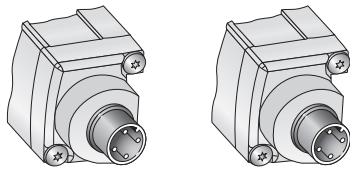
LED display receiver



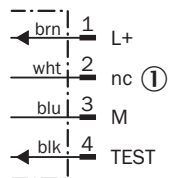
- ① No object in the light path (alignment OK)
- ② Contamination control

## Connection type and diagram

ELG3/ELG6 Sender Connector M12, 4-pin Receiver Connector M12, 4-pin

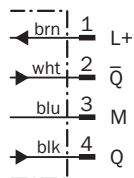


**Sender**



① Not assigned

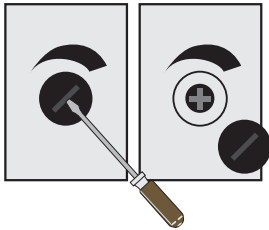
**Receiver**



Concept of operation

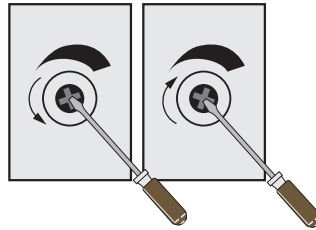
**Sensitivity adjustment**

**1. Remove cap**



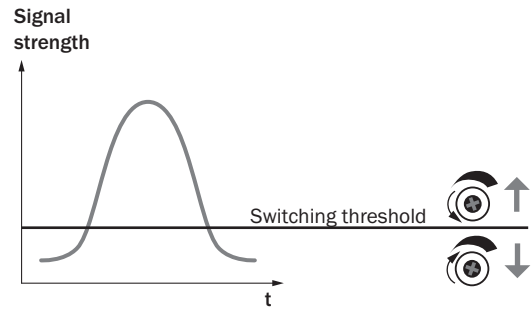
Remove cap with screw driver.

**2. Potentiometer adjustment**

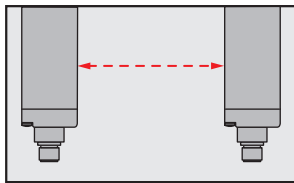


Turn left = for a lower range.  
Turn right = for a higher range.

**Sensitivity adjustment**





**Optical synchronisation**



The light grid communicates via the light beams. A cable is not necessary for the optical synchronisation.

Recommended accessories

Other models and accessories → [www.sick.de/ELG](http://www.sick.de/ELG)

	Brief description	Type	Part no.
<b>Terminal and alignment brackets</b>			
	4 pieces, Mounting kit 1, rotatable, swivel mount, plastic	BEF-2SMKEAKU4	2019649
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. 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 a wide range of 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 complete 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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