



ELG3-0210P513

ELG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|---------------|----------|
| ELG3-0210P513 | 1025438 |

Other models and accessories → www.sick.de/ELG

Detailed technical data

Features

| | |
|----------------------------------------|-------------------------------|
| Technology | Sender/receiver |
| Minimum detectable object (MDO) | Cross beam: ≥ 20 mm ... 35 mm |
| Beam separation | 30 mm |
| Number of beams | ≥ 8 |
| Detection height | 210 mm |
| Evaluation beams | Cross beam |

Performance

| | |
|------------------------------|-------------------------------------|
| Maximum range (PL150) | ≤ 0 m |
| Maximum range | 3 m |
| Minimum range | ≥ 0 mm |
| Working range | 2 m |
| Response time | Parallel beam ≥ 84 ms ¹⁾ |

¹⁾ With resistive load.

Interfaces

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

Mechanics/electronics

| | |
|-------------------------------------|--------------------------------|
| Wave length | 880 nm |
| Supply voltage V_s | DC 15 V ... 30 V ¹⁾ |
| Power consumption sender | < 100 mA ¹⁾ |
| Power consumption receiver | < 100 mA ¹⁾ |
| Ripple | < 5 V _{pp} |

¹⁾ Typical value.

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

| | |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Output current I_{\max} | ≤ 100 mA |
| Output load capacitive | 100 nF |
| Output load inductive | 1 H |
| Initialization time | 1 s |
| Dimensions (W x H x D) | 34 mm x 286 mm x 29 mm |
| Housing material | Aluminum |
| Indication | LED |
| Synchronization | Optical |
| Enclosure rating | IP 65 |
| Circuit protection | U_V connections, reverse polarity protected, Output Q short-circuit protected, Interference pulse suppression |
| Weight | ≥ 1,000 g |
| Switching frequency | 250 kHz |
| Front screen | PMMA |
| Output mode | Q dark switching ²⁾ |

¹⁾ Typical value.

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

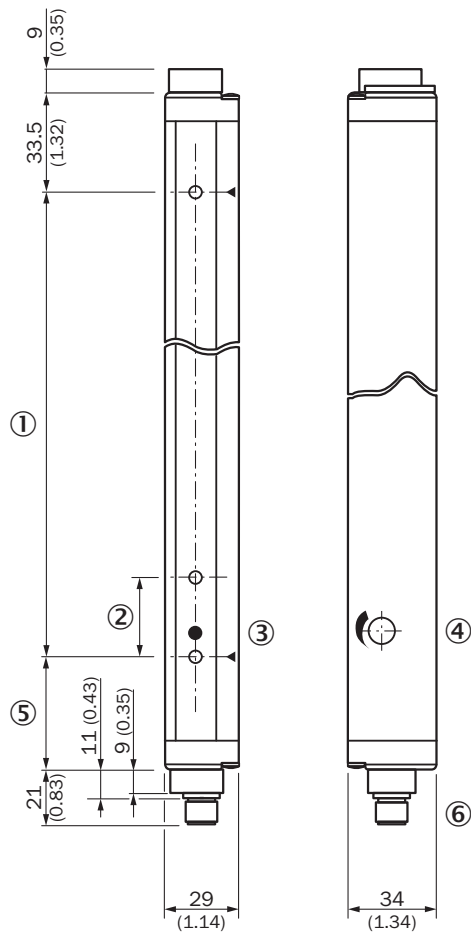
Ambient data

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

¹⁾ Sunlight.

Dimensional drawing (Dimensions in mm (inch))

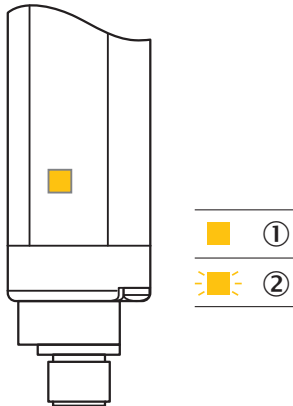
ELG3/ELG6



- 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

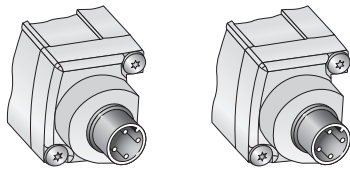
LED display receiver



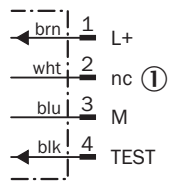
- ① No object in the light path (alignment OK)
- ② Contamination control

Connection type and diagram

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

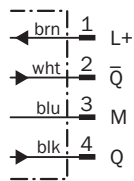


Sender



① Not assigned

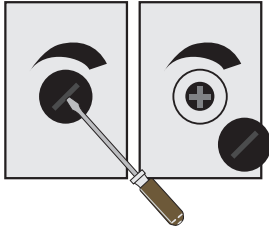
Receiver



Concept of operation

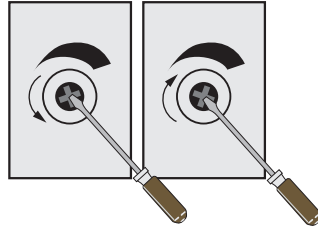
Sensitivity adjustment

1. Remove cap



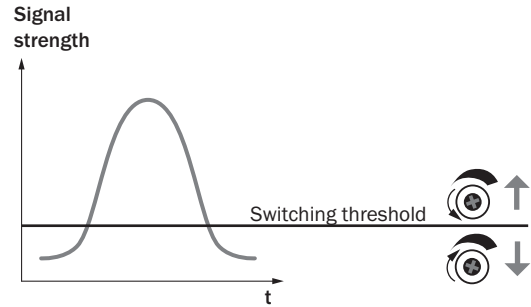
Remove cap with screw driver.

2. Potentiometer adjustment

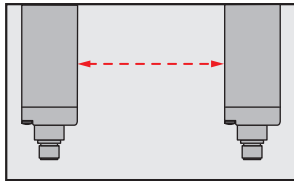


Turn left = for a lower range.
Turn right = for a higher range.

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

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

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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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