# ELG6-2040P523

ELG

**AUTOMATION LIGHT GRIDS**

**SICK**
Sensor Intelligence.

# ELG6-2040P523 | ELG
## AUTOMATION LIGHT GRIDS

## Ordering information

| Type | part no. |
|------|----------|
| ELG6-2040P523 | 1025594 |

Other models and accessories ➜ www.sick.com/ELG

Illustration may differ

## Detailed technical data

### Features

| | |
|---|---|
| **Sensor principle** | Sender/receiver |
| **Minimum detectable object (MDO)** | 35 mm [1] |
| **Beam separation** | 60 mm |
| **Number of beams** | 35 |
| **Detection height** | 2,040 mm |
| **Evaluation beams** | Cross beam |

[1] Cross beam.

### 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 $V_{pp}$ |
| **Output current $I_{max.}$** | ≤ 100 mA |
| **Output load, capacitive** | 100 nF |
| **Output load, Inductive** | 1 H |
| **Initialization time** | 1 s |
| **Switching output** | 2 x PNP [2] |
| **Output mode** | Q dark switching [3] |

[1] Typical value.
[2] Q / Q̄.
[3] Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.
[4] Operating in outdoor condition only with a external protection housing.

| | |
|---|---|
| Dimensions (W x H x D) | 34 mm x 2,116 mm x 29 mm |
| Connection type | Male connector M12, 4-pin |
| Housing material | Aluminum |
| Indication | LED |
| Synchronization | Optical |
| Enclosure rating | IP65 [4] |
| Circuit protection | $U_V$ connections, reverse polarity protected<br>Output Q short-circuit protected<br>Interference pulse suppression |
| Protection class | III |
| Weight | 5,200 g |
| Pulse frequency | 250 kHz |
| Front screen | PMMA |

[1] Typical value.

[2] Q / Q̄.

[3] Q = active, if at least one beam is interrupted, /Q = active, if all of the beams are free.

[4] Operating in outdoor condition only with a external protection housing.

## Performance

| | |
|---|---|
| Maximum range | 17 m |
| Minimum range | ≥ 900 mm |
| Operating range | 12 m |
| Response time | 300 ms [1] |

[1] With resistive load.

## Ambient data

| | |
|---|---|
| Shock resistance | 10 g / DIN EN 60068-2-29 / 16 ms |
| Vibration resistance | 5 g, 10 Hz … 55 Hz (IEC 68-2-6) |
| EMC | EN 60947-5-2 |
| Ambient light immunity | Direct: ≤ 150,000 lx [1] |
| Ambient operating temperature | –25 °C … +55 °C |
| Ambient temperature, storage | –40 °C … +70 °C |

[1] Sunlight.

## Certificates

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |

## Classifications

| | |
|---|---|
| ECLASS 5.0 | 27270910 |
| ECLASS 5.1.4 | 27270910 |

| | |
|---|---|
| **ECLASS 6.0** | 27270910 |
| **ECLASS 6.2** | 27270910 |
| **ECLASS 7.0** | 27270910 |
| **ECLASS 8.0** | 27270910 |
| **ECLASS 8.1** | 27270910 |
| **ECLASS 9.0** | 27270910 |
| **ECLASS 10.0** | 27270910 |
| **ECLASS 11.0** | 27270910 |
| **ECLASS 12.0** | 27270910 |
| **ETIM 5.0** | EC002549 |
| **ETIM 6.0** | EC002549 |
| **ETIM 7.0** | EC002549 |
| **ETIM 8.0** | EC002549 |
| **UNSPSC 16.0901** | 39121528 |

## Dimensional drawing ELG3/ELG6
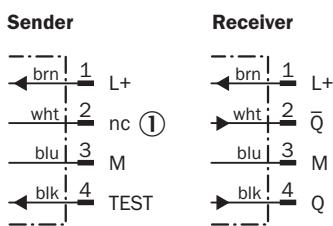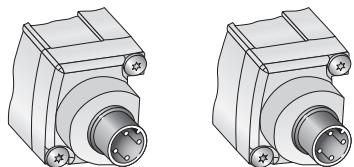


Dimensions in mm (inch)
① Detection height
② beam separation ELG3: 30 mm/ELG6: 60 mm
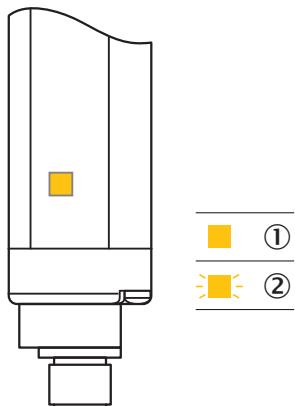
③ Status indicator (ELGE)/Power on (ELGS)
④ sensitivity control
⑤ Distance to first beam; ELG3: 42.5 mm/ELG6: 72.5 mm
⑥ Connection

## Connection type and diagram

**Sender**

| | | |
|---|---|---|
| brn | 1 | L+ |
| wht | 2 | nc ① |
| blu | 3 | M |
| blk | 4 | TEST |

**Receiver**

| | | |
|---|---|---|
| brn | 1 | L+ |
| wht | 2 | $\overline{Q}$ |
| blu | 3 | M |
| blk | 4 | Q |

① Not assigned

## LED display receiver

■ ①
■ ②
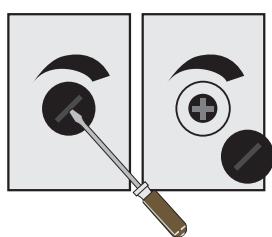
① no object in the light path (alignment OK)
② Contamination control

## Specific features
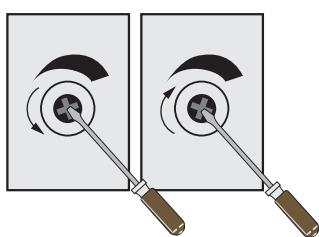
### Sensitivity adjustment

**1. Remove cap**

**2. Potentiometer adjustment**

**Sensitivity adjustment**

Signal strength

Switching threshold

t

Remove cap with screw driver.
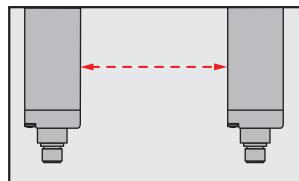
Turn left = for a lower range.
Turn right = for a higher range.

### 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.com/ELG

| | Brief description | Type | part no. |
|---|---|---|---|
| **Mounting systems** | | | |
| | • **Description:** Mounting kit 1, rotatable, swivel mount<br>• **Material:** Plastic<br>• **Details:** Plastic<br>• **Packing unit:** 4 pieces<br>• **Suitable for:** All protective field heights in small housing | BEF-2SMKEAKU4 | 2019649 |
| **connectors and cables** | | | |
| | • **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 4-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YF2A14-050VB3XLEAX | 2096235 |

## 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."**

## WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

SICK AG  |  Waldkirch  |  Germany  |  www.sick.com

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