Data sheet



ELG1-0100P531

ELG

AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
ELG1-0100P531	1026807

Included in delivery: BEF-WK-XLG (1)

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

Detailed technical data

Features

Sensor principle	Sender/receiver
Minimum detectable object (MDO)	15 mm [1]
Beam separation	10 mm
Number of beams	11
Detection height	100 mm
Evaluation beams	Parallel beam

[1] Parallel 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]
Dimensions (W x H x D)	34 mm x 187 mm x 29 mm
Connection type	Male connector M12, 4-pin
Housing material	Aluminum

[1] Typical value.
[2] Q / $\bar{Q}$.
[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.

Indication	LED
Synchronization	Optical
Enclosure rating	IP65 [4]
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	700 g
Pulse frequency	500 kHz
Front screen	PMMA

[1] Typical value.
[2] Q / $\bar{Q}$.
[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	4 m
Minimum range	≥ 0 mm
Operating range	3 m
Response time	14 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	Indirect: ≤ 150,000 lx [1]
Ambient operating temperature	–25 °C ... +55 °C
Ambient temperature, storage	–40 °C ... +70 °C

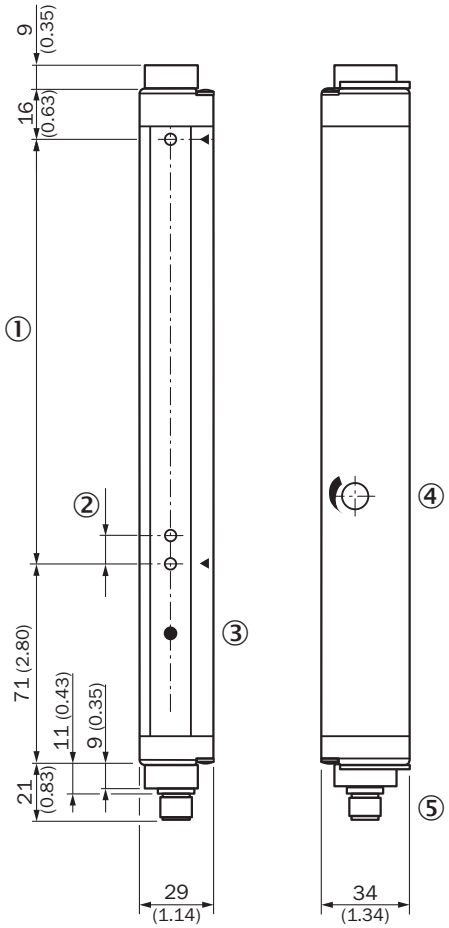
[1] Sunlight.

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

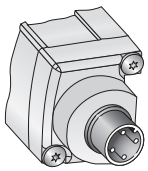
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing ELG1

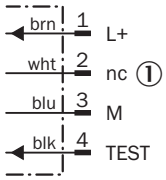


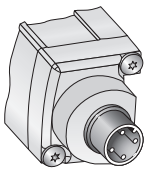
Dimensions in mm (inch)
① Detection height
② Beam spacing ELG1: 10 mm
③ Status indicator (ELGE)/Power on (ELGS)
④ sensitivity control
⑤ Connection

Connection type and diagram

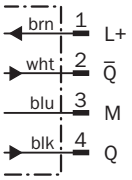


Sender



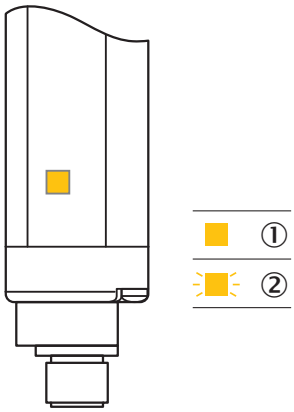


Receiver



① Not assigned

LED display receiver

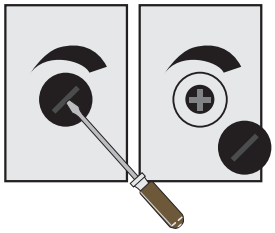


① no object in the light path (alignment OK)
② Contamination control

Specific features

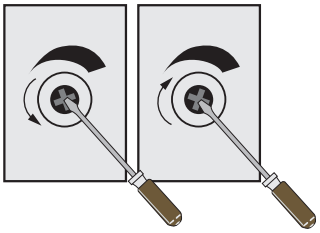
Sensitivity adjustment

1. Remove cap



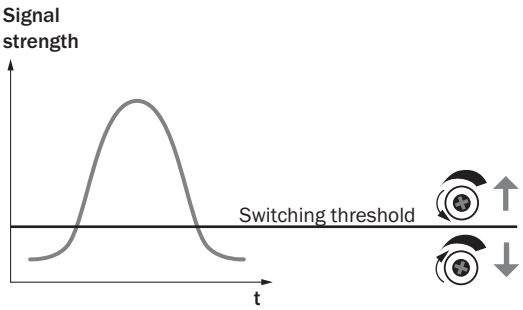
Remove cap with screw driver.

2. Potentiometer adjustment

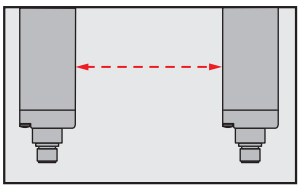


Turn left = for a lower range.
Turn right = for a higher range.

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.com/ELG

	Brief description	Type	part no.
Mounting systems			
	• **Description:** Mounting kit 1, rotatable, swivel mount • **Material:** Plastic • **Details:** Plastic • **Packing unit:** 4 pieces • **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 • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **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