

SICK Sensor Intelligence.

**SWITCHING AUTOMATION LIGHT GRIDS** 

SWITCHING AUTOMATION LIGHT GRIDS



### Ordering information

Туре	Part no.
SGS4-S076N3PS1T00	1210030

Other models and accessories -> www.sick.com/SLG



# CE

### Detailed technical data

### Features

Sensor principle	Sender/receiver
Minimum detectable object (MDO)	Parallel beam, 45 mm
Beam separation	40 mm
Optical light exit	Slim
Number of beams	20
Detection height	760 mm
Parameterization	Teach-in button
Cross beam/parallel beam	Parallel beam active
Output 1	Output 1 active, if light beam interrupted
Automatic teach	Automatic teach inactive
Alignment aid	Without alignment aid
Muting function	Muting function deactivated

### Mechanics/electronics

Light source	Infrared light
Wave length	950 nm
Supply voltage V <sub>s</sub>	DC24 V, ± 20 %
Power consumption receiver	≤ 70 mA
Ripple	< 5 V <sub>pp</sub>
Output current I <sub>max.</sub>	100 mA
Output load, capacitive	100 nF
Output load, Inductive	1H
Initialization time	1s
Switching output	NPN
Inputs	Teach-in input (receiver)

 $^{\mbox{\sc 1})}$  Operating in outdoor condition only with a external protection housing.

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	Test input (sender) HIGH = 10 V 30 V / LOW = < 5 V
Dimensions (W x H x D)	25 mm x 832.4 mm x 8.2 mm
Connection type	Cable with M8 male connector, 4-pin
Housing material	РММА
Indication	LED
Synchronization	Optical
Enclosure rating	IP65 1)
Circuit protection	U <sub>V</sub> connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	100 g
Pulse frequency	500 kHz
Aluminum stabilizer	Without stabilizer

 $^{\left( 1\right) }$  Operating in outdoor condition only with a external protection housing.

### Performance

Maximum range	4 m <sup>1)</sup>
Minimum range	Parallel beam: ≥ 0 m
Operating range	3 m
Response time	Parallel beam, 19 ms

 $^{\left( 1\right) }$  No reserve for environmental issue and deterioration of the diode.

### 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: 100,000 lx <sup>1)</sup> Indirect: 150,000 lx
Ambient operating temperature	-25 °C +55 °C
Ambient temperature, storage	-25 °C +70 °C

### <sup>1)</sup> Sunlight.

### Classifications

eCl@ss 5.0	27270910
eCl@ss 5.1.4	27270910
eCl@ss 6.0	27270910
eCl@ss 6.2	27270910
eCl@ss 7.0	27270910
eCl@ss 8.0	27270910
eCl@ss 8.1	27270910
eCl@ss 9.0	27270910
eCl@ss 10.0	27270910

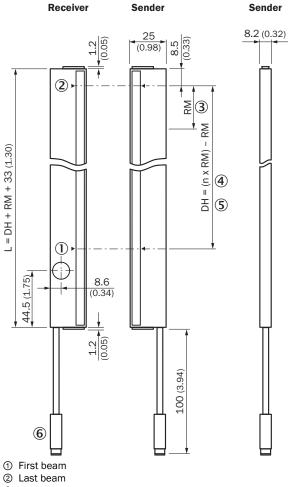
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eCl@ss 11.0	27270910
eCl@ss 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

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

Sxx-Sxxxxxx1xxx

#### Slim, without stabilizer

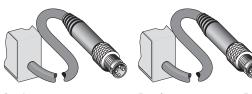


- Beam separation (RM)
- ④ Number of beams (n)
- ⑤ Detection height (DH)
- 6 Connection

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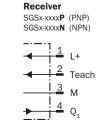
### Connection type and diagram

Connection type and diagram



Sender

1 L+ 2 Test 3 M 4 NC



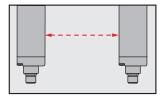




### Concept of operation

Specific features

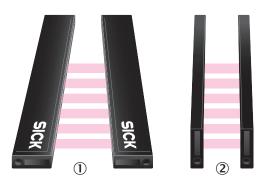
#### **Optical synchronization**



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

### **Functional principle**

Slim & Flat



Slim model = light emission on narrow side
Flat model = light emission on broad side

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### **Recommended accessories**

Other models and accessories -> www.sick.com/SLG

	Brief description	Туре	Part no.
Mounting brackets and plates			
Dür	Mounting bracket for light grids from a detection height of 600 mm (with slot, recom- mended for compensation of material extension caused by temperature), mounting po- sition: front, 2x BEF-SLG1, 2x BEF-SLG2	BEF-SLG-SET1	2055427
Plug connectors and cables			
	Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF8U14- 020VA3XLEAX	2095888

# 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



Online data sheet

