

SICK Sensor Intelligence.

SWITCHING AUTOMATION LIGHT GRIDS

SWITCHING AUTOMATION LIGHT GRIDS



Ordering information

	Туре	Part no.
SG54-5060P3151W01 1218109	SGS4-S060P3TS1W01	1218109

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



CE

Detailed technical data

Fea	tur	es
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Sensor principle	Sender/receiver
Minimum detectable object (MDO)	Cross beam, 25 mm ¹⁾
Beam separation	40 mm
Optical light exit	Slim
Number of beams	16
Detection height	600 mm
Parameterization	None
Cross beam/parallel beam	Cross 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

 $^{1)}\,25$ mm MDO limited detection area.

Mechanics/electronics

Light source	Infrared light
Wave length	950 nm
Supply voltage V _s	DC24 V, ± 20 %
Power consumption receiver	≤ 70 mA
Output current I _{max.}	100 mA
Output load, capacitive	100 nF
Output load, Inductive	1H
Initialization time	1s
Switching output	PNP
Inputs	Teach-in input (receiver)

 $^{\left(1\right) }$ 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 672.4 mm x 8.2 mm
Connection type	Cable with M12 male connector, 4-pin
Housing material	РММА
Indication	LED
Synchronization	Optical
Enclosure rating	IP65 1)
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	80 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 ¹⁾
Minimum range	Cross beam: \geq 0.3 m ²⁾
Operating range	3 m
Response time	Cross beam, 57 ms

 $^{1)}\,\mathrm{No}$ reserve for environmental issue and deterioration of the diode.

²⁾ Aperture \pm 10°.

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 ¹⁾ Indirect: 150,000 lx
Ambient operating temperature	-25 °C +55 °C
Ambient temperature, storage	-25 °C +70 °C

¹⁾ 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

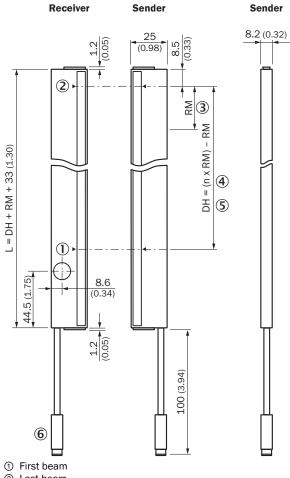
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eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
eCl@ss 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

Sxx-Sxxxxxx1xxx

Slim, without stabilizer



② Last beam

③ Beam separation (RM)

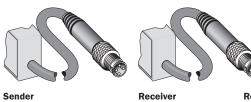
④ Number of beams (n)

⑤ Detection height (DH)

6 Connection

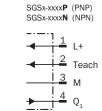
Connection type and diagram

Connection type and diagram



Sender





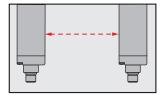




Concept of operation

Specific features

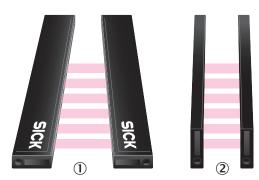
Optical synchronization



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

Functional principle

Slim & Flat



① Slim model = light emission on narrow side ② 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, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A14- 020VB3XLEAX	2096234

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

