

SWITCHING AUTOMATION LIGHT GRIDS



SWITCHING AUTOMATION LIGHT GRIDS



Ordering information

Туре	Part no.
SGS4-S060F3PS1T00	1216888

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	16
Detection height	600 mm
Parameterization	Teach-in button
Cross beam/parallel beam	Parallel beam active
Output 1	Output 1 active, if light beam interrupted
Output 2	Output 2 active, if light beam interrupted
Muting function	Muting function deactivated
Muting function output 2	No muting function at output 2
Automatic teach	Automatic teach inactive
Alignment aid	Without alignment aid
Output weak signal 2	Output weak signal output 2 inactive

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

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

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Switching output	PNP
Inputs	Teach-in input (receiver) 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 M8 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

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

Performance

Maximum range	4 m ¹⁾
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 ¹⁾ Indirect: 150,000 lx
Ambient operating temperature	-25 °C +55 °C
Ambient temperature, storage	-25 °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

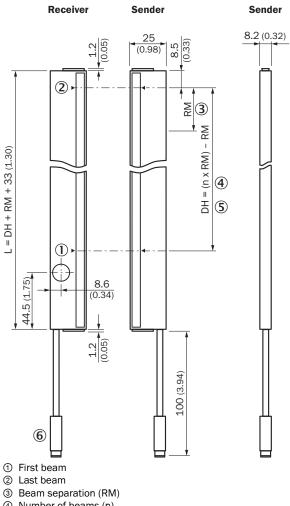
SWITCHING AUTOMATION LIGHT GRIDS

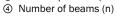
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

Sxx-Sxxxxxx1xxx

Slim, without stabilizer





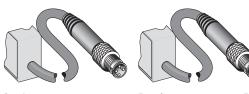
⑤ Detection height (DH)

6 Connection

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Connection type and diagram

Connection type and diagram



Sender

1 L+ 2 Test <u>| 3</u> M 4 NC



Receiver SGSx-xxxxP (PNP) SGSx-xxxxN (NPN)

1 L+

<u>|3</u> M

4 Q₁

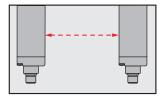
² Teach



Concept of operation

Specific features

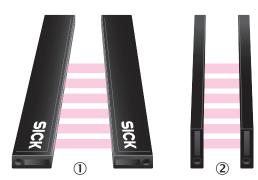
Optical synchronization



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			
DÖCC	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
Others			
N.	 Connection type head A: Female connector, M8, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF8U14- 020VA3XLEAX	2095888

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For us, that is "Sensor Intelligence."

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