Product data sheet

SGS4-F092N3PS1W04

SLG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
SGS4-F092N3PS1W04	1217539

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

Detailed technical data

Features

Sensor principle	Sender/receiver
Minimum detectable object (MDO)	Parallel beam, 45 mm
Beam separation	40 mm
Optical light exit	Flat
Number of beams	24
Detection height	920 mm
Configuration	None
Cross beam/parallel beam	Parallel beam active
Output 1	Output 1 active, if light beam interrupted
Automatic teach	Automatic teach active
Alignment aid	Without alignment aid
Muting function	Muting function deactivated

Mechanics/electronics

Light source	Infrared light
Wave length	950 nm
Supply voltage V_S	DC24 V, ± 20 %
Power consumption sender	≤ 160 mA [1]
Power consumption receiver	≤ 70 mA
Ripple	< 5 V_{pp}
Output current $I_{max.}$	100 mA
Output load capacitive	100 nF
Output load inductive	1 H
Initialization time	1 s

[1], without load.
[2] Operating in outdoor condition only with a external protection housing.

Switching output	NPN
Inputs	Teach-in input (receiver) Test input (sender)
Dimensions (W x H x D)	25 mm x 992.4 mm x 8.2 mm
Connection type	Cable with M8 male connector, 4-pin
Housing material	PMMA
Indication	LED
Synchronization	Optical
Enclosure rating	IP65 2)
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	120 g
Pulse frequency	500 kHz
Aluminum stabilizer	Without stabilizer

1) , without load.
2) 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

1) No reserve for environmental issue and deterioration of the diode.

Ambient data

EMC	EN 60947-5-2
Ambient operating temperature	–25 °C +55 °C
Ambient storage temperature	–25 °C +70 °C
Ambient light immunity	Direct: 100,000 lx 1) Indirect: 150,000 lx
Vibration resistance	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock load	10 g / DIN EN 60068-2-29 / 16 ms

1) Sunlight.

Classifications

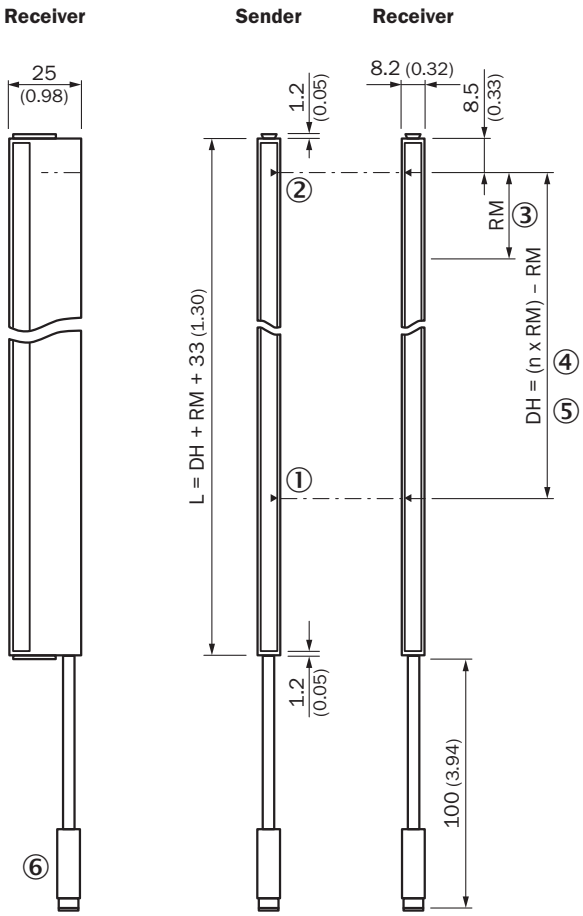
ECl@ss 5.0	27270910
ECl@ss 5.1.4	27270910
ECl@ss 6.0	27270910
ECl@ss 6.2	27270910
ECl@ss 7.0	27270910
ECl@ss 8.0	27270910
ECl@ss 8.1	27270910

ECl@ss 9.0	27270910
ECl@ss 10.0	27270910
ECl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

Sxx-Fxxxxxx1xxx

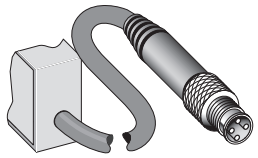
Flat, without stabilizer

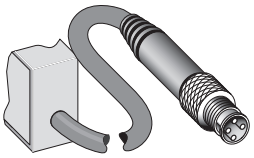


① First beam
② Last beam
③ Beam separation (RM)
④ Number of beams (n)
⑤ Detection height (DH)
⑥ Connection

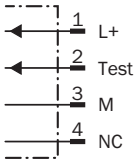
Connection type and diagram

Connection type and diagram

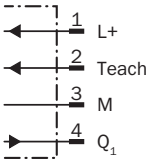




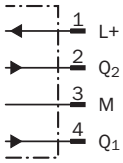
Sender



Receiver
SGSx-xxxx**P** (PNP)
SGSx-xxxx**N** (NPN)



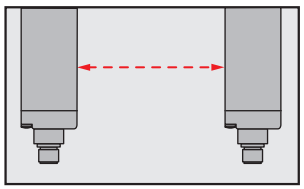
Receiver
SGSx-xxxx**F** (2 x PNP)
SGSx-xxxx**E** (2 x NPN)



Concept of operation

Specific features

Optical synchronization



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

Funktionsprinzip

Slim & Flat

① Slim model = light emission on narrow side
② Flat model = light emission on broad side

Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for light grids from a detection height of 600 mm (with slot, recommended for compensation of material extension caused by temperature), mounting position: 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

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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.”

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