

SPL-F120PPS1W04

SLG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
SPL-F120PPS1W04	1046128

Other models and accessories → www.sick.de/SLG



Detailed technical data

Features

Technology	Sender/receiver
Minimum detectable object (MDO)	Parallel beam, 45 mm
Beam separation	40 mm
Optical light exit	Flat
Number of beams	≥ 4
Detection height	120 mm
Configuration	Without teach button with configuration software
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

Performance

Maximum range	3 m ¹⁾
Minimum range	Parallel beam: ≥ 0 mm ²⁾
Working range	1.5 m
Response time	Parallel beam ≥ 19 ms

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

²⁾ Aperture ± 10°.

Interfaces

Switching output	1 x PNP
Inputs	Job LED
Connection type	Short cable with connector M8, 4-pin

Mechanics/electronics

Wave length	Infrared light, 950 nm
Supply voltage V_s	DC24 V, $\pm 20\%$ ¹⁾
Power consumption sender	≥ 50 mA ²⁾
Power consumption receiver	≥ 50 mA ^{2) 2)}
Ripple	< 5 V _{pp}
Output current I_{max}	≤ 100 mA
Output load capacitive	100 nF
Output load inductive	1 H
Initialization time	1 s
Dimensions (W x H x D)	25 mm x 192.4 mm x 8 mm
Housing material	PMMA
Indication	LED
Synchronization	Optical
Enclosure rating	IP 65
Circuit protection	U_V connections, reverse polarity protected, Output Q short-circuit protected, Interference pulse suppression
Weight	≥ 20 g
Switching frequency	500 kHz
Aluminum stabilizer	Without stabilizer

¹⁾ Limit values.

²⁾ Without load.

Ambient data

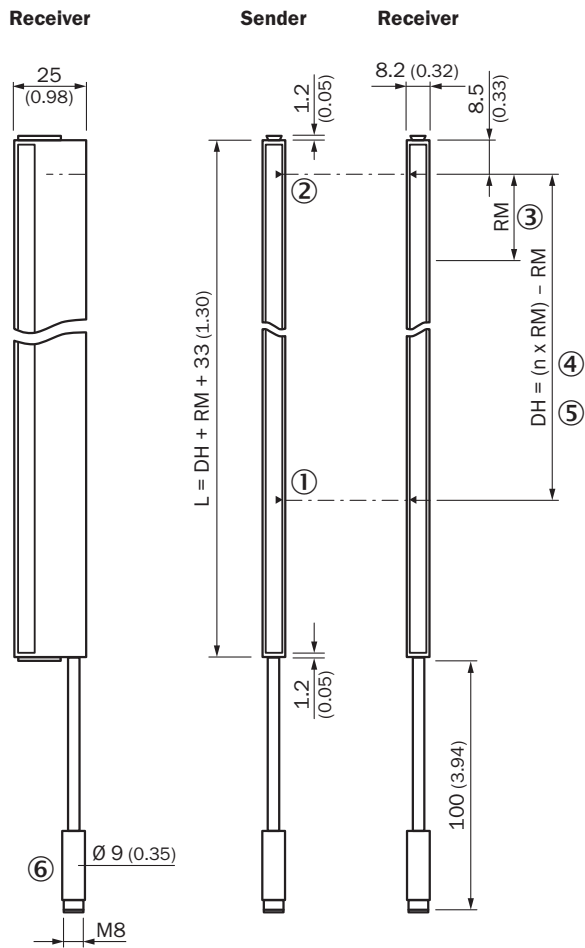
Protection class	III
EMC	EN 60947-5-2
Ambient temperature	Operation: -25 °C ... $+55$ °C Storage: -25 °C ... $+70$ °C
Ambient light immunity	Direct: 100,000 lx ¹⁾ Indirect: 150,000 lx
Vibration resistance	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock load	10 g/ DIN EN 60068-2-29 / 16 ms

¹⁾ Sunlight.

Dimensional drawing (Dimensions in mm (inch))

Sxx-Fxxxxxx1xxx

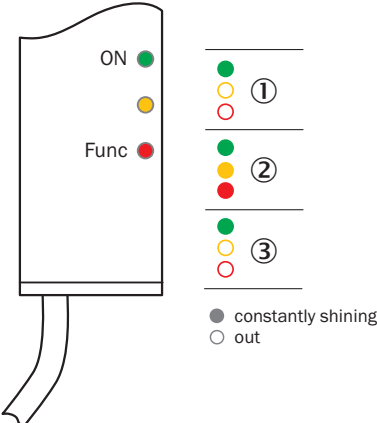
Flat, without stabilizer



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

Adjustments

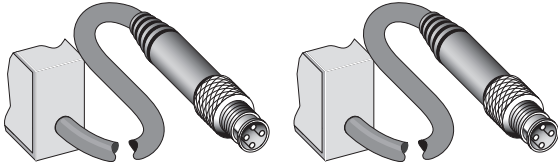
SPL, receiver, LED indication



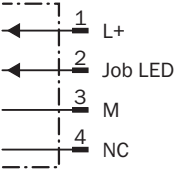
- ① Supply voltage
- ② Active if teach process active
- ③ No object in the light path

Connection type and diagram

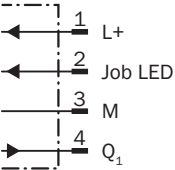
SPL



Sender



Receiver

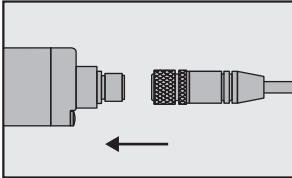


Concept of operation

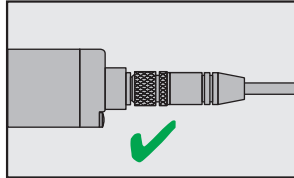
SPL

Plug & play

1. Plug in and tighten the ring of the connector

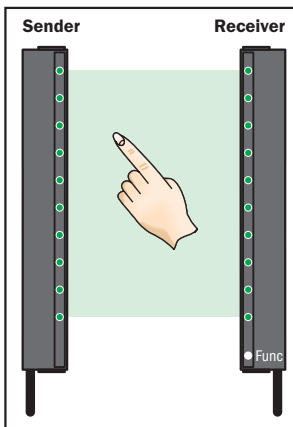


2. Device is ready for use



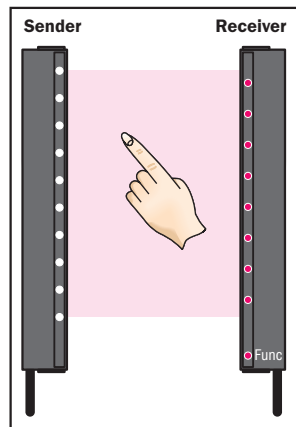
Easy installation

1. Object picking from the indicated bin



The "green" Job LEDs indicate the correct picking bin to the operator and confirm optically that the correct picking has taken place.

2. Incorrect picking



The "red" Job LEDs light in case of picking errors. The function LED "Func" will also turn "red" to indicate a picking error.

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.de/SLG

	Brief description	Type	Part no.
Mounting brackets and mounting plates			
	Mounting bracket for light grids up to a monitoring height of 600 mm, mounting on the face sides, 2x BEF-SLG1, 2x BEF-SLG2	BEF-SLG-SET1	2055427
Plug connectors and cables			
	Head A: female connector, M8, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-0804-G02M	6009870

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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.”

WORLDWIDE PRESENCE:

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