



SGS4-S250P7P02WS21

SLG

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
SGS4-S250P7P02WS21	1066626

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

Detailed technical data

Features

Minimum detectable object (MDO)	Cross beam, 25 mm ¹⁾
Beam separation	40 mm
Optical light exit	Flat
Number of beams	62
Detection height	2,500 mm
Parameterization	None
Cross beam/parallel beam	Cross beam inactive
Output 1	Output 1 inactive, 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 %
Ripple	< 5 V _{pp}
Output current I_{max.}	≤ 100 mA
Output load, capacitive	100 nF
Output load, inductive	1 H
Initialization time	1 s
Switching output	PNP
Inputs	Teach-in input (receiver) Test input (sender)

¹⁾ Operating in outdoor condition only with a external protection housing.

	HIGH = 10 V ... 30 V / LOW = < 5 V
Connection type	Cable with M8 male connector, 4-pin
Housing material	PMMA
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
Pulse frequency	250 Hz, 500 Hz
Aluminum stabilizer	With stabilizer

1) Operating in outdoor condition only with a external protection housing.

Performance

Maximum range	10 m ¹⁾
Minimum range	Cross beam: ≥ 0.3 mm ²⁾
Operating range	7 m

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

2) Aperture ± 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

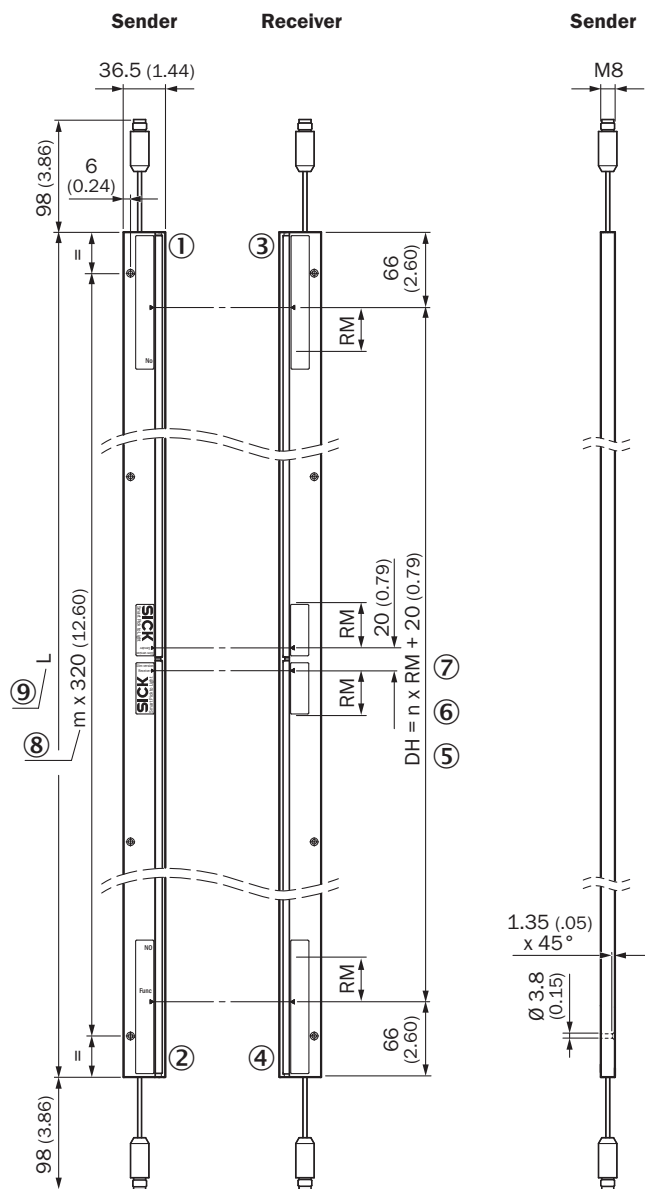
eCl@ss 5.0	27270910
eCl@ss 5.1.4	27270910
eCl@ss 6.0	27270910
eCl@ss 6.2	27270910
eCl@ss 7.0	27270910
eCl@ss 8.0	27270910
eCl@ss 8.1	27270910
eCl@ss 9.0	27270910
eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
eCl@ss 12.0	27270910
ETIM 5.0	EC002549

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ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

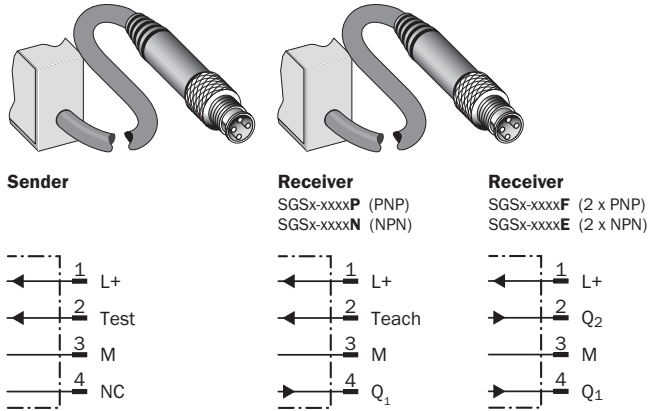
Dimensional drawing (Dimensions in mm (inch))



- ① Sender, standard type
- ② Sender, standard type
- ③ Receiver, standard version
- ④ Receiver, standard version
- ⑤ Monitoring height (MH)
- ⑥ M = number of Beam separations 54 (SGS4-S218P7P02WS20), 62 (SGS4-S250P7P02WS21)
- ⑦ 40 mm beam spacing (RM)
- ⑧ N = number of separations (mounting holes) 7 (SGS4-S218P7P02WS20), 8 (SGS4-S250P7P02WS21)
- ⑨ L = 2312 mm (SGS4-S218P7P02WS20), L = 2633 mm (SGS4-S250P7P02WS21)

Connection type and diagram

Connection type and diagram



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

Recommended accessories

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

	Brief description	Type	Part no.
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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