



## Switching automation light grids SLG, SGS

SGS4-S250P7P02WS21



**Model Name** > [SGS4-S250P7P02WS21](#)  
**Part No.** > [1066626](#)

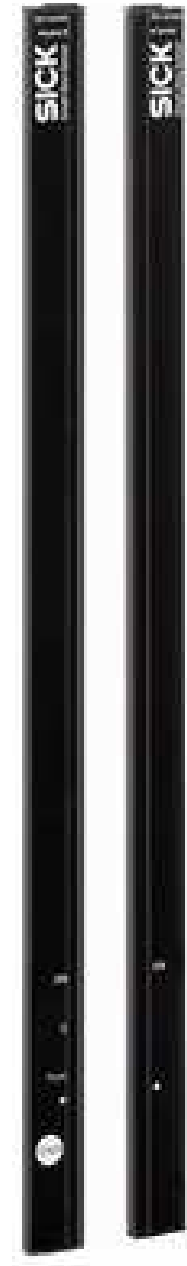


#### At a glance

- Variable detection lengths (in 160 mm increments)
- Simple teach-in setup via cable
- Optional parameter setting with teach-in button, no PC required
- Maximum range 10 m
- 25 mm or 45 mm MDO possible
- Highly immune to sunlight at 150,000 lx
- Small blind zone < 11 mm

#### Your benefits

- Small, slim and sleek design enables easy integration into applications
- Capacitive teach-in button and LEDs make commissioning easier for complex solutions
- Slim and flat models offer flexible mounting options
- User-defined factory preset configuration or flexible configuration with teach-in button
- Optical synchronization eliminates the need to lay cables, saving time
- Stealth detection in public places - at only 8 mm x 25 mm, it fits just about anywhere and can be imbedded inside walls, doors, conveyors, and machines, reducing damage
- Auto-teach and auto-muting enable Plug & Play. And, an alignment aid and "Click & Go" provide faster installation.



#### Features

Technology:	Sender/receiver
Task:	Switching light grid
Minimum detectable object (MDO) <sup>1)</sup> :	Cross beam, 25 mm
Beam separation:	40 mm
Number of beams:	62

Detection height:	2,500 mm
Optical light exit:	Flat
Configuration:	Teach button with configuration software
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 inactive

<sup>1)</sup> 25 mm MDO limited detection area

## Performance

Maximum range:	10 m <sup>1)</sup>
Minimum range:	Multiple scan: $\geq 0.3$ mm <sup>2)</sup>
Working range:	7 m

<sup>1)</sup> No reserve for environmental issue and deterioration of the diode <sup>2)</sup> Aperture  $\pm 10^\circ$

## Interfaces

Output type:	1 x PNP
Electrical connection:	Short cable with connector M8, 4-pin
Inputs:	Teach input

## Mechanics/electronics

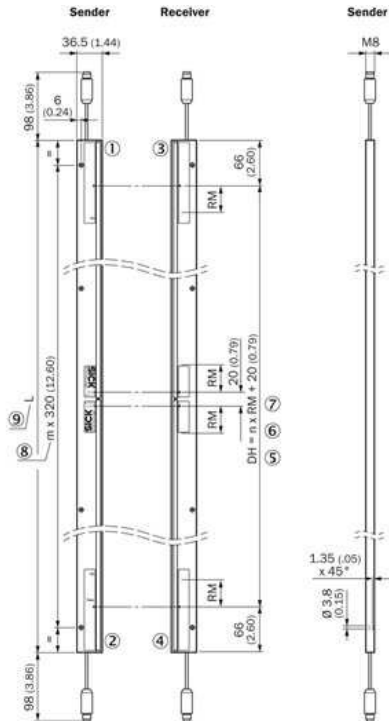
Wave length:	Infrared light 950 nm
Supply voltage $V_s$ <sup>1)</sup> :	DC 24 V, $\pm 20$ %
Ripple:	< 5 Vpp
Output current $I_{max.}$ :	100 mA
Output load capacitive:	100 nF
Output load inductive:	1 H
Initialization time:	1 s
Housing material:	PMMA
Indication:	LED
Enclosure rating:	IP 65
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Switching frequency:	250 kHz, 500 kHz
Aluminum stabilizer:	With stabilizer
Synchronization:	Optical

<sup>1)</sup> Limit values

## Ambient data

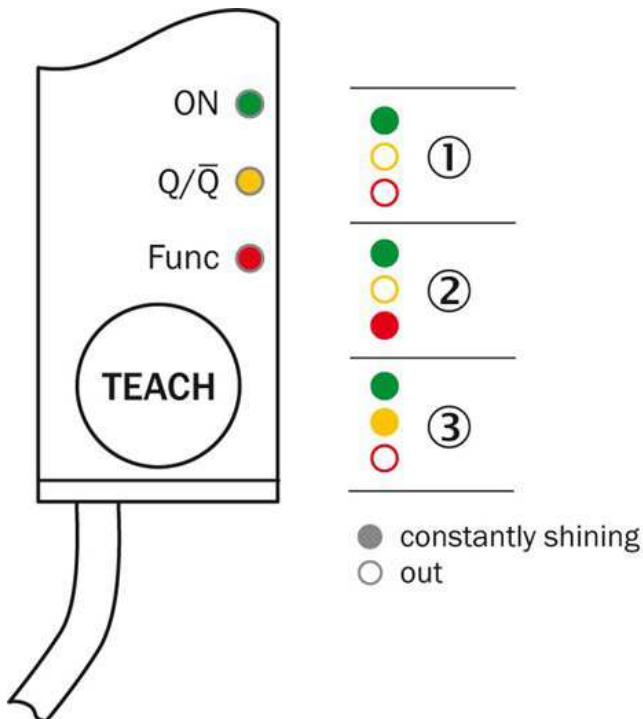
Protection class:	III
EMC:	EN 60947-5-2
Ambient temperature:	Operation: -25 ... +55 °C Storage: -25 ... +70 °C
Vibration resistance:	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock load:	10 g/DIN EN 60068-2-29/16 ms
Ambient light immunity:	Direct: $\geq 100,000$ lx, Indirect: $\geq 150,000$ lx <sup>1)</sup>

**Dimensional drawing**



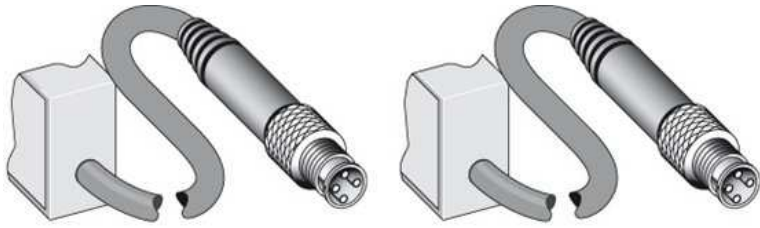
- |1| Sender, standard version
- |2| Sender, standard version
- |3| Receiver, standard version
- |4| Receiver, standard version
- |5| Detection height (DH)
- |6|  $m =$  number of Beam separations 54 (SGS4-S218P7P02WS20), 62 (SGS4-S250P7P02WS21)
- |7| 40 mm beam spacing (RM)
- |8|  $n =$  number of separations (mounting holes) 7 (SGS4-S218P7P02WS20), 8 (SGS4-S250P7P02WS21)
- |9|  $L =$  2312 mm (SGS4-S218P7P02WS20),  $L =$  2633 mm (SGS4-S250P7P02WS21)

**Receiver, LED indication**

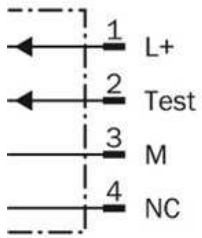


- |1| Supply voltage
- |2| Active, if teach-in button is pressed
- |3| No object in the light path

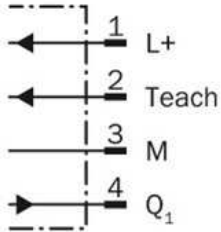
## Connection type and diagram



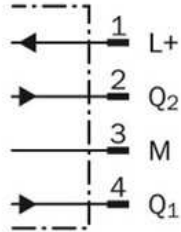
### Sender



### Receiver PNP/NPN



### Receiver 2 x PNP/2 x NPN



## Special functions

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## Setting the switching threshold

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**Configuration mode**

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**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Česká republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail info@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederland**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886 2 2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 88 65 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)