



## Smart light grids SGS

SGS4-S108P3PS1T00



**Model Name** > [SGS4-S108P3PS1T00](#)  
**Part No.** > [1209472](#)



#### At a glance

- Variable detection lengths from 600 mm up to 1,400 mm (in 160 mm increments)
- Simple teach-in setup via cable
- Optional parameter setting with teach-in button, no PC required
- Maximum range 10 m
- Response time 18 ms
- 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
- Slim and flat models offer flexible mounting options and optimize shelf/bin space while reducing damage
- Customized preset configurations or set parameters via one-touch teach-in with no PC
- Optical synchronization eliminates the need to lay cables, saving time
- Optional: Capacitive teach-in button and LEDs make commissioning easier for complex solutions
- 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): | Parallel beam: ≥45 mm |
| Beam separation:                 | 40 mm                 |
| Optical light exit:              | Slim                  |

|                           |                                            |
|---------------------------|--------------------------------------------|
| Number of beams:          | 28                                         |
| Detection height:         | 1,080 mm                                   |
| Cross beam/parallel beam: | Parallel beam active                       |
| Output 1:                 | Output 1 active, if light beam interrupted |
| Automatic teach:          | Automatic teach inactive                   |
| Alignment aid:            | Without alignment aid                      |
| Muting function:          | Muting function inactive                   |
| Configuration:            | Teach button with configuration software   |

## Performance

|                |                                     |
|----------------|-------------------------------------|
| Maximum range: | 4 m <sup>1)</sup>                   |
| Minimum range: | Parallel beam: ≥0 mm                |
| Response time: | Parallel beam: ≥19 ms <sup>2)</sup> |
| Working range: | 3 m                                 |

<sup>1)</sup> No reserve for environmental issue and deterioration of the diode <sup>2)</sup> With resistive load

## Interfaces

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

## Mechanics/electronics

|                                   |                                                                                                       |
|-----------------------------------|-------------------------------------------------------------------------------------------------------|
| Wave length:                      | IR 950 nm                                                                                             |
| Supply voltage Vs:                | DC 24 V <sub>DC</sub> , ± 20 % <sup>1)</sup>                                                          |
| Power consumption sender:         | 208 mA <sup>2)</sup>                                                                                  |
| Power consumption receiver::      | 70 mA <sup>3) 4)</sup>                                                                                |
| Ripple:                           | < 5 Vpp                                                                                               |
| Output current I <sub>max</sub> : | 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 1,152.4 mm x 8 mm                                                                             |
| Housing material:                 | PMMA                                                                                                  |
| Indication:                       | LED                                                                                                   |
| Synchronization:                  | Optical                                                                                               |
| Enclosure rating:                 | IP 65                                                                                                 |
| Circuit protection:               | Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected |
| Weight:                           | 140 g                                                                                                 |
| Power consumption:                | 208 mA <sup>5)</sup>                                                                                  |
| Aluminum stabilizer:              | Without stabilizer                                                                                    |
| Switching frequency:              | 500 kHz                                                                                               |

<sup>1)</sup> Limit values <sup>2) 3) 4) 5)</sup> Without load

## Ambient data

|                       |                                                          |
|-----------------------|----------------------------------------------------------|
| Protection class:     | III                                                      |
| EMC:                  | EN 60947-5-2                                             |
| Ambient temperature:  | Operation: -25 ... 55 °C, Storage: -25 ... 70 °C         |
| Ambient light safety: | Direct: ≥100,000 lx, Indirect: ≥150,000 lx <sup>1)</sup> |
| Vibration resistance: | 5 g, 10 Hz ... 55 Hz (IEC 68-2-6)                        |

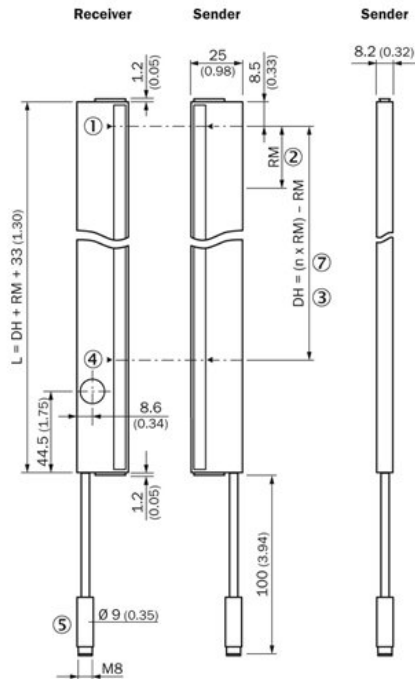
Shock load:

10 g/DIN EN 60068-2-29/16 ms

1) Sunlight

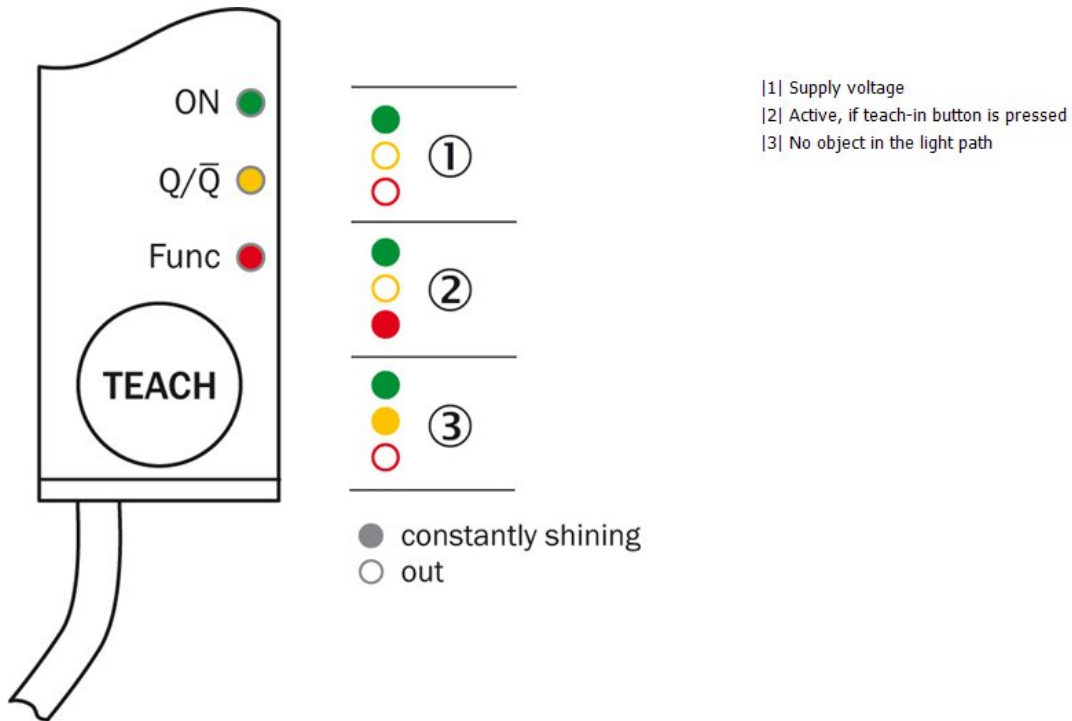
## Dimensional drawing

Slim, without stabilizer

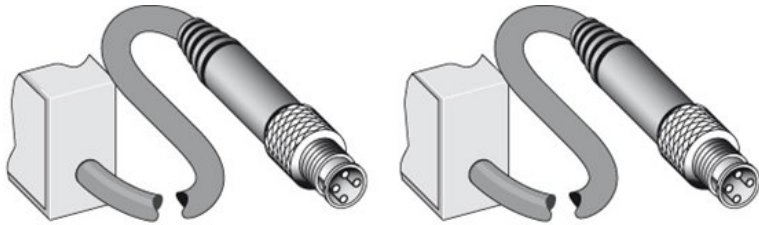


- |1| Last beam
- |2| Beam separation RM
- |3| DH - Detection height (n x 40 mm) - RM
- |4| First beam
- |5| Connection
- |6| Same distance
- |7| n = beam
- |8| m = mounting hole

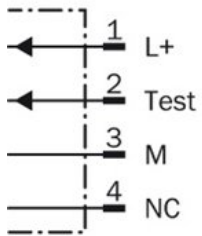
## Adjustments



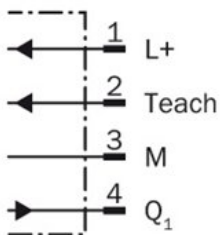
## Anschlussart und -schema



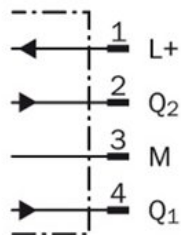
### Sender



### Receiver PNP/NPN



### Receiver 2 x PNP/2 x NPN



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