



## Smart light grids SGS

SGS4-S124N3PS1T0D



**Model Name** > [SGS4-S124N3PS1T0D](#)  
**Part No.** > [1209172](#)



#### 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): | Multiple scan: $\geq 25$ mm <sup>1)</sup> |
| Beam separation:                 | 40 mm                                     |
| Optical light exit:              | Slim                                      |

|                           |                                            |
|---------------------------|--------------------------------------------|
| Number of beams:          | 32                                         |
| Detection height:         | 1,240 mm                                   |
| Cross beam/parallel beam: | Cross beam active                          |
| Output 1:                 | Output 1 active, if light beam interrupted |
| Automatic teach:          | Automatic teach active                     |
| Alignment aid:            | With alignment aid                         |
| Muting function:          | Muting function inactive                   |
| Configuration:            | Teach button with configuration software   |

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

## Performance

|                |                                            |
|----------------|--------------------------------------------|
| Maximum range: | 4 m <sup>1)</sup>                          |
| Minimum range: | Multiple scan: $\geq 0.3$ mm <sup>2)</sup> |
| Response time: | Multiple scan: $\geq 57$ ms <sup>3)</sup>  |
| Working range: | 3 m                                        |

<sup>1)</sup> No reserve for environmental issue and deterioration of the diode <sup>2)</sup> Aperture  $\pm 10^\circ$  <sup>3)</sup> With resistive load

## Interfaces

|                  |                                      |
|------------------|--------------------------------------|
| Output type:     | 1 x NPN                              |
| 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>...</sub> , $\pm 20\%$ <sup>1)</sup>                                                     |
| Power consumption sender:          | 232 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 1,312.4 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:                            | 160 g                                                                                                 |
| Power consumption:                 | 232 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:

Ambient light safety:

Vibration resistance:

Shock load:

Operation: -25 ... 55 °C, Storage: -25 ... 70 °C

Direct:  $\geq 100,000$  lx, Indirect:  $\geq 150,000$  lx<sup>1)</sup>

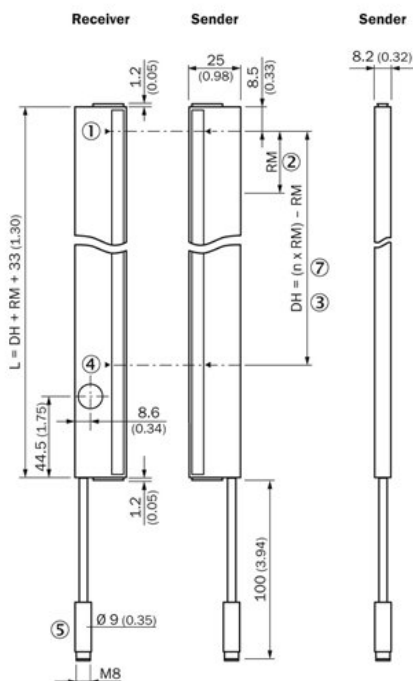
5 g, 10 Hz ... 55 Hz (IEC 68-2-6)

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

<sup>1)</sup> Sunlight

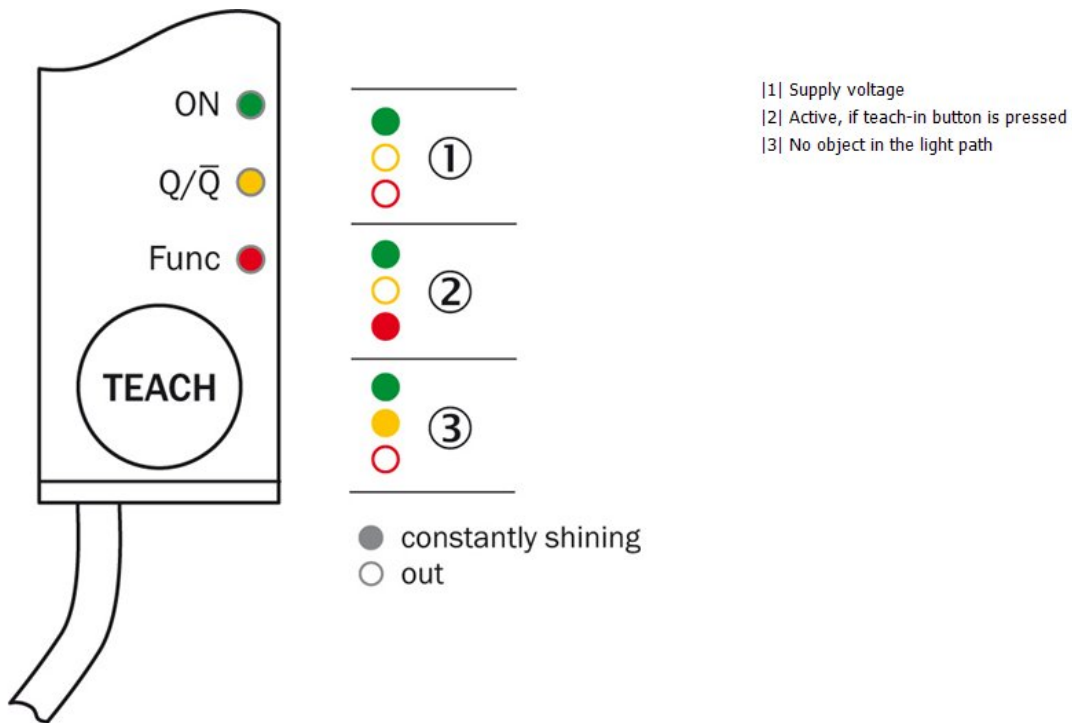
## Dimensional drawing

Slim, without stabilizer

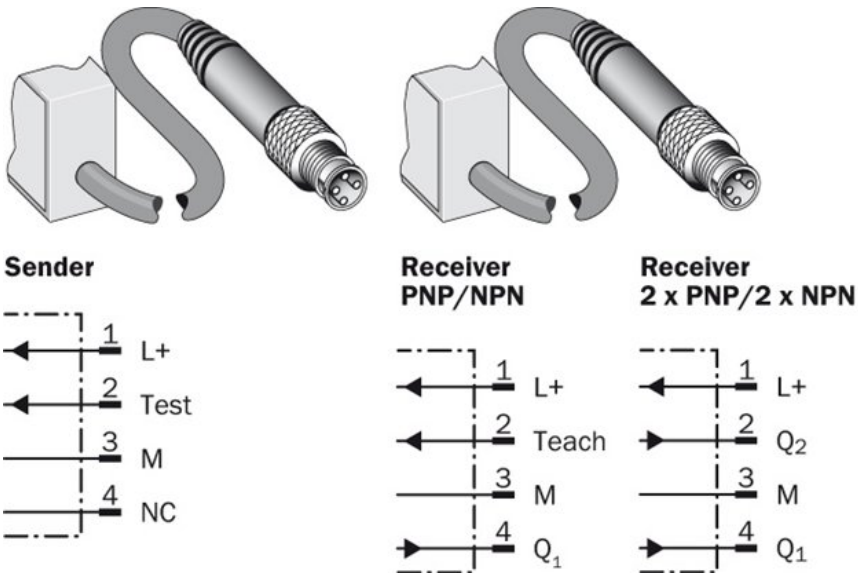


- |1| Last beam
- |2| Beam separation RM
- |3| DH - Detection height (n x 40 mm) - RM
- |4| First beam
- |5| Connection
- |6| Same distance
- |7| n = beam
- |8| m = mounting hole

## Adjustments



## Anschlussart und -schema



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