



Switching automation light grids SLG, SGS

SGS4-S140P7TC1W02



Model Name > [SGS4-S140P7TC1W02](#)
Part No. > [1213243](#)



At a glance

- Variable monitoring lengths from 120 mm up to 1,400 mm (in 160 mm increments)
- Maximum range 10 m
- Response time 18 ms
- 25 mm or 45 mm detection resolution with 40 mm or 80 mm beam spacing possible
- Order-picking with extra-bright job LEDs on the sender and receiver sides
- IP 65 protection for various environmental conditions
- Highly immune to sunlight at 150,000 lx

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 |
| Minimum detectable object (MDO): | Parallel beam, 45 mm |
| Beam separation: | 40 mm |
| Number of beams: | 36 |
| Detection height: | 1,400 mm |

| | |
|---------------------------|--------------------------------------------------|
| Optical light exit: | Slim |
| Configuration: | Without teach button with configuration software |
| Cross beam/parallel beam: | Parallel beam active |
| Output 1: | Output 1 inactive, if light beam interrupted |
| Automatic teach: | Automatic teach inactive |
| Alignment aid: | Without alignment aid |
| Muting function: | Muting function inactive |

Performance

| | |
|-------------------------------|-----------------------------------|
| Maximum range: | 10 m ¹⁾ |
| Minimum range: | Parallel beam: ≥ 0 mm |
| Working range: | 7 m |
| Response time ²⁾ : | Parallel beam coded version 38 ms |

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

Interfaces

| | |
|------------------------|---------------------------------------|
| Output type: | 1 x PNP |
| Electrical connection: | Short cable with connector M12, 4-pin |
| Inputs: | Teach input |

Mechanics/electronics

| | |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Wave length: | IR 950 nm |
| Supply voltage Vs: | DC 24 V, ± 20 % |
| Power consumption sender ¹⁾ : | 256 mA |
| Power consumption receiver ²⁾ : | 70 mA |
| 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 1,472.4 mm x 8 mm |
| Housing material: | PMMA |
| Indication: | LED |
| Circuit protection: | Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected |
| Weight: | 180 g |
| Switching frequency: | 250 kHz |
| Aluminum stabilizer: | Without stabilizer |
| Synchronization: | Optical |

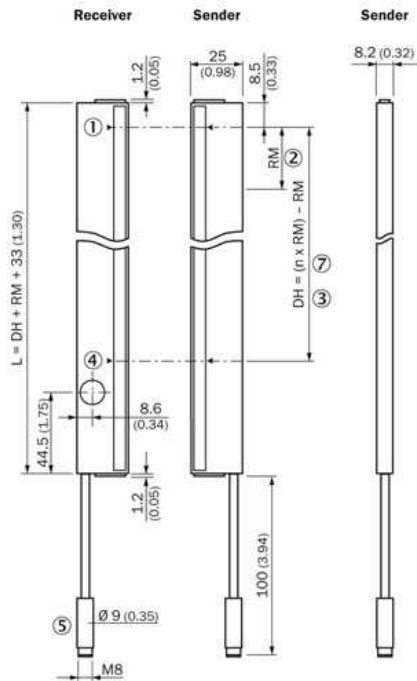
^{1) 2)} Without load

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 ¹⁾ |

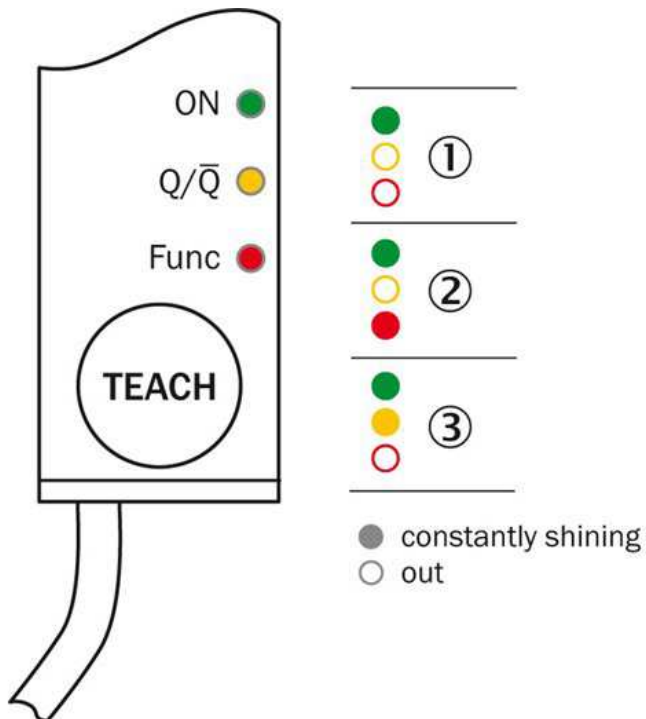
Dimensional drawing

Slim, without stabilizer



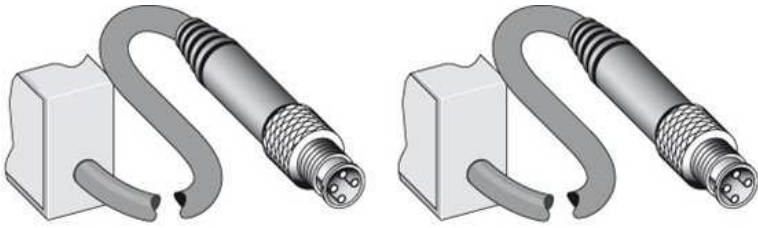
- |1| Last beam
- |2| Beam separation RM
- |3| DH - Detection height (n x 40 mm) - RM
- |4| First beam
- |5| Connection
- |6| n = beam

Receiver, LED indication

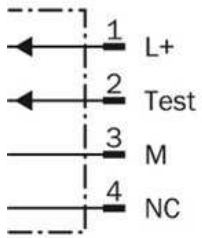


- |1| Supply voltage
- |2| Active, if teach-in button is pressed
- |3| No object in the light path

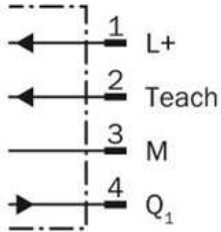
Connection type and diagram



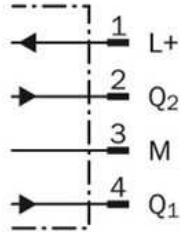
Sender



Receiver PNP/NPN



Receiver 2 x PNP/2 x NPN



Special functions

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Setting the switching threshold

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