



Switching automation light grids SLG, SGS

SGS4-F140P7PS1W00



Model Name > [SGS4-F140P7PS1W00](#)
Part No. > [1045014](#)



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
Task:	Switching light grid
Minimum detectable object (MDO):	Parallel beam, 45 mm
Beam separation:	40 mm
Number of beams:	36

Detection height:	1,400 mm
Optical light exit:	Flat
Configuration:	Without teach button with configuration software
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

Performance

Maximum range:	10 m ¹⁾
Minimum range:	Parallel beam: ≥ 0 mm ²⁾
Working range:	7 m
Response time:	Parallel beam 19 ms

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

Interfaces

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

Mechanics/electronics

Wave length:	IR 950 nm
Supply voltage V_s ¹⁾ :	DC 24 V, $\pm 20\%$
Power consumption sender ²⁾ :	256 mA
Power consumption receiver ³⁾ : ⁴⁾ :	70 mA
Ripple:	< 5 Vpp
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
Enclosure rating:	IP 65
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Weight:	180 g
Switching frequency:	500 kHz
Aluminum stabilizer:	Without stabilizer
Synchronization:	Optical

¹⁾ Limit values ²⁾ ³⁾ ⁴⁾ Without load

Ambient data

Protection class:	III
EMC:	EN 60947-5-2
Ambient temperature:	Operation: $-25 \dots +55$ °C Storage: $-25 \dots +70$ °C
Vibration resistance:	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)

Shock load:

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

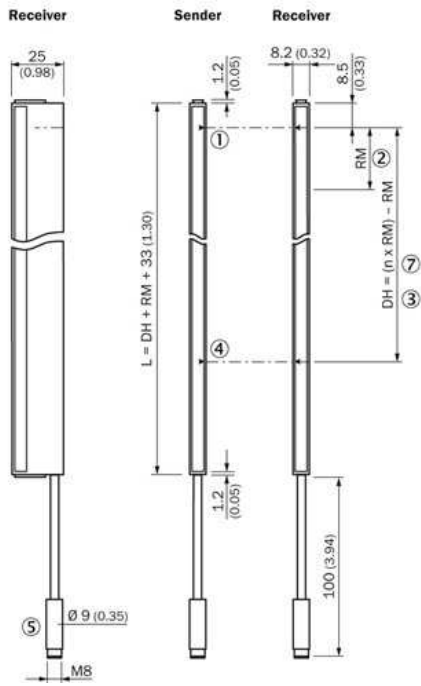
Ambient light immunity:

Direct: $\geq 100,000$ lx, Indirect: $\geq 150,000$ lx ¹⁾

1) Sunlight

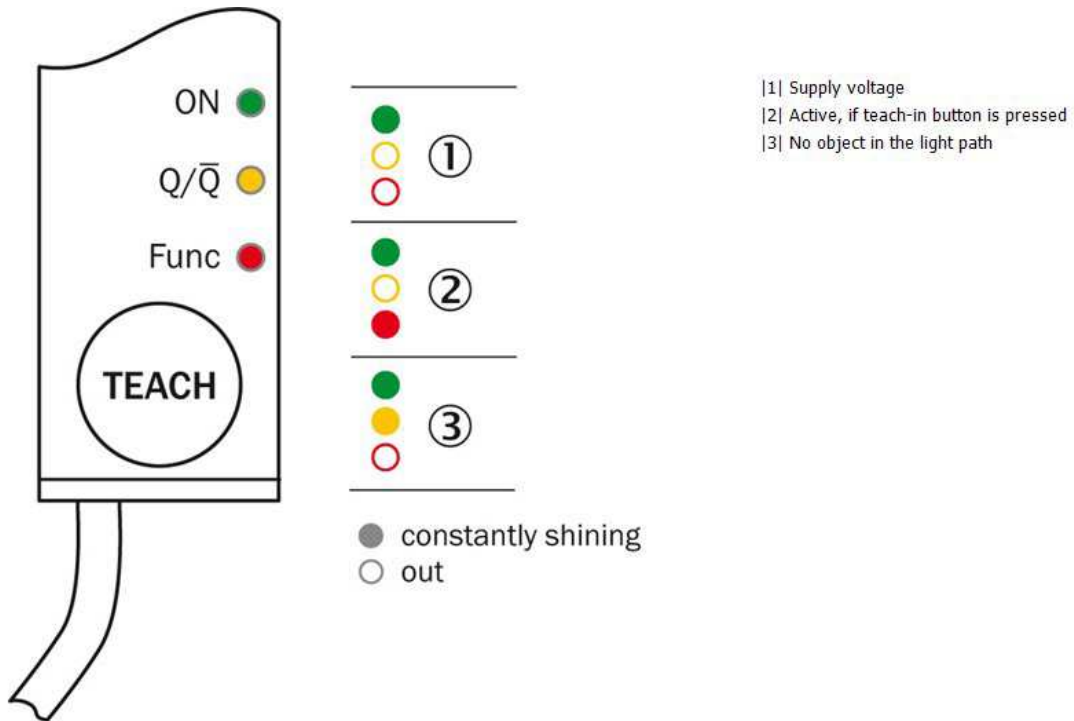
Dimensional drawing

Flat, without stabilizer

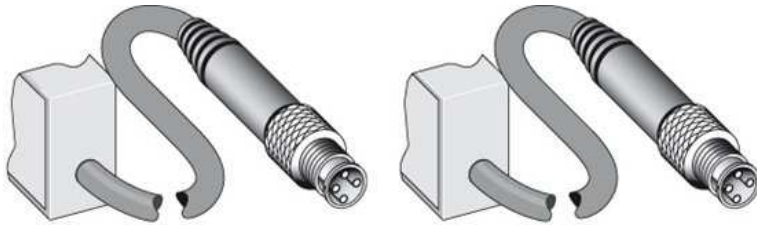


- |1| Last beam
- |2| Beam separation RM
- |3| DH - Detection height (n x 40 mm) - RM
- |4| First beam
- |5| Connection
- |6| n = beam

Receiver, LED indication



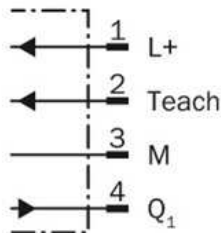
Connection type and diagram



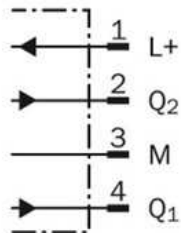
Sender



Receiver PNP/NPN



Receiver 2 x PNP/2 x NPN



Special functions

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Setting the switching threshold

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