



Smart light grids SGS

SGS4-F140P3PS1W00



Model Name > [SGS4-F140P3PS1W00](#)
Part No. > [1045012](#)



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:	Flat

Number of beams:	36
Detection height:	1,400 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:	Without teach button with configuration software

Performance

Maximum range:	4 m ¹⁾
Minimum range:	Parallel beam: ≥ 0 mm ²⁾
Response time:	Parallel beam: ≥ 19 ms ³⁾
Working range:	3 m

¹⁾ No reserve for environmental issue and deterioration of the diode ²⁾ Aperture $\pm 10^\circ$ ³⁾ 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 _{...} , $\pm 20\%$ ¹⁾
Power consumption sender:	256 mA ²⁾
Power consumption receiver::	70 mA ^{3) 4)}
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
Synchronization:	Optical
Enclosure rating:	IP 65
Circuit protection:	Output Q short-circuit protected, Interference suppression, VS connections reverse-polarity protected
Weight:	180 g
Power consumption:	256 mA ⁵⁾
Aluminum stabilizer:	Without stabilizer
Switching frequency:	500 kHz

¹⁾ Limit values ^{2) 3) 4) 5)} 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: $\geq 100,000$ lx, Indirect: $\geq 150,000$ lx ¹⁾
Vibration resistance:	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)

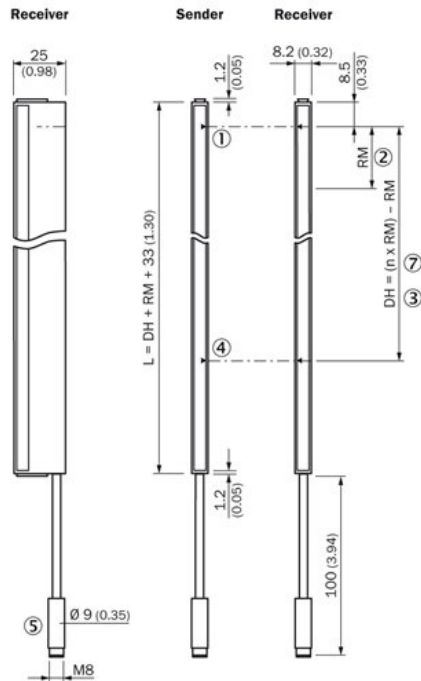
Shock load:

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

1) Sunlight

Dimensional drawing

Flat, without stabilizer

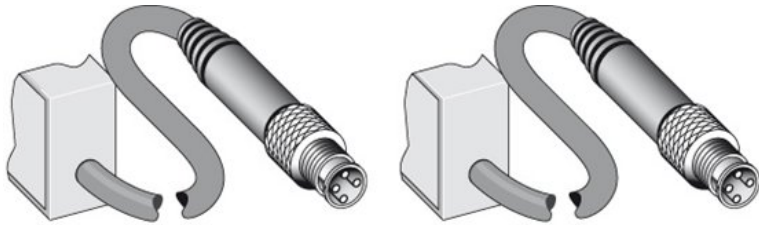


- [1] Last beam
- [2] Beam separation RM
- [3] DH - Detection height (n x 40 mm) - RM
- [4] First beam
- [5] Connection
- [6] Same distance
- [7] n = beam
- [8] m = mounting hole

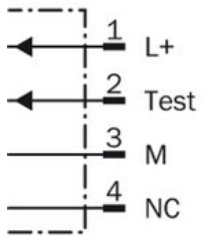
Adjustments



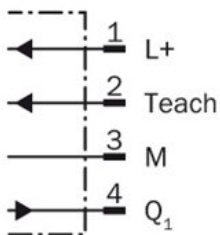
Anschlussart und -schema



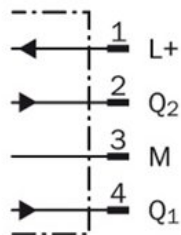
Sender



Receiver PNP/NPN



Receiver 2 x PNP/2 x NPN



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