



Switching automation light grids SLG, SGS

SGS4-S140P7TS1W02



Model Name > [SGS4-S140P7TS1W02](#)
Part No. > [1213242](#)



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:	Parallel beam 19 ms

¹⁾ No reserve for environmental issue and deterioration of the diode

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:	500 kHz
Aluminum stabilizer:	Without stabilizer
Synchronization:	Optical

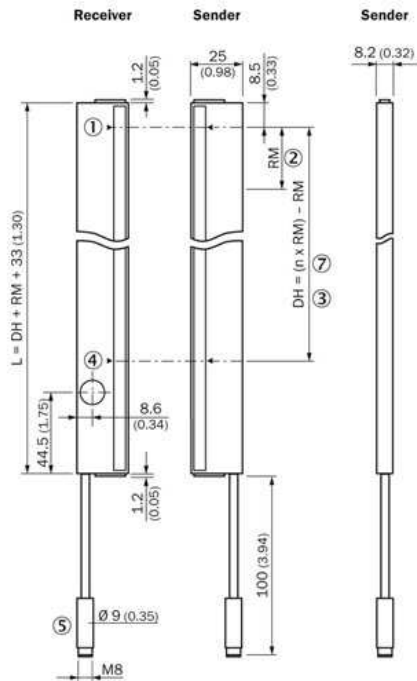
^{1) 2)} Without load

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⁾

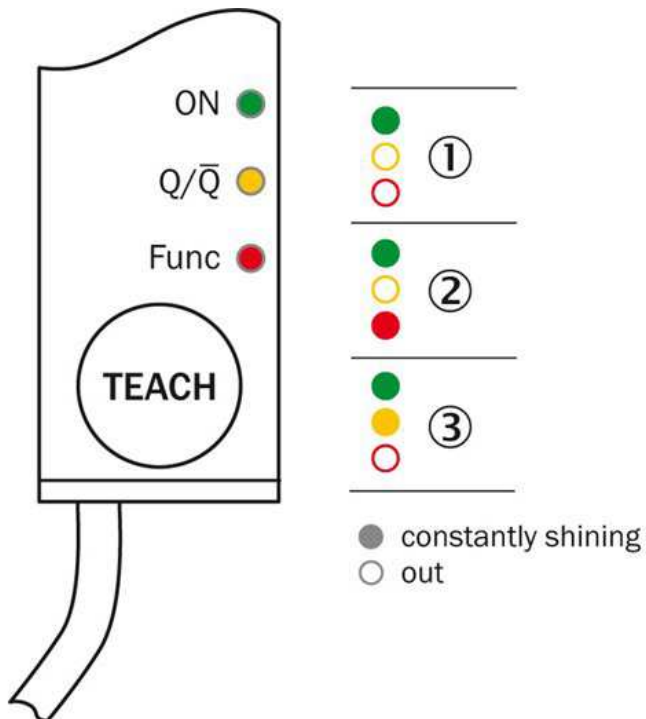
Dimensional drawing

Slim, without stabilizer



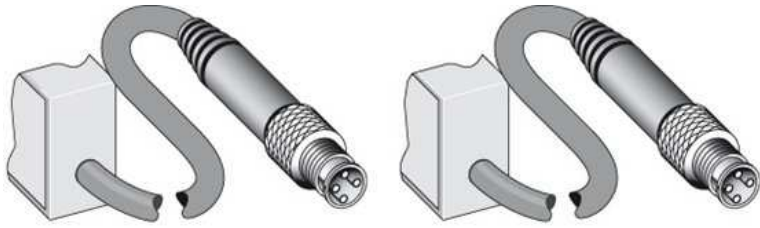
- |1| Last beam
- |2| Beam separation RM
- |3| DH - Detection height (n x 40 mm) - RM
- |4| First beam
- |5| Connection
- |6| n = beam

Receiver, LED indication

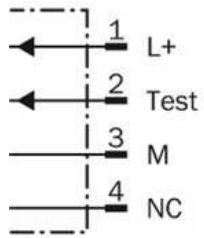


- |1| Supply voltage
- |2| Active, if teach-in button is pressed
- |3| No object in the light path

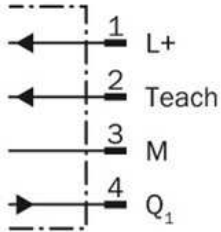
Connection type and diagram



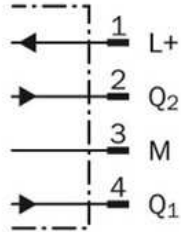
Sender



Receiver PNP/NPN



Receiver 2 x PNP/2 x NPN



Special functions

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Setting the switching threshold

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Configuration mode

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