



Smart light grids SPL

SPL-F120PPS1W04



Model Name > [SPL-F120PPS1W04](#)
Part No. > [1046128](#)



At a glance

- Variable detection lengths from 120 mm up to 440 mm
- No commissioning necessary - Plug & Play operation
- Maximum range 3 m
- Response time 18 ms
- 25 mm resolution with 40 mm beam separation possible
- Highly visible job LEDs along the entire length of the sensor
- Green job LEDs for correct pick and red job LEDs for incorrect pick
- Can be connected to bus systems

Your benefits

- Highly visible job LEDs can be seen from any position
- Picking error display for order picking improves quality
- Plug & Play operation saves time
- Automatic teach-in when turned on
- Slim and flat models offer flexible mounting options and optimize shelf/bin space while reducing damage
- Quick, cost-effective installation thanks to optical synchronization - no need to wire the sender and receiver together
- Auto-muting, auto-teach and an alignment aid provide more uptime



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:	4
Detection height:	120 mm

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

Performance

Maximum range:	3 m ¹⁾
Minimum range:	Parallel beam: ≥ 0 mm ²⁾
Response time:	Parallel beam: ≥ 19 ms ³⁾
Working range:	1.5 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:	Job LED
Connection type:	Short cable with connector M8, 4-pin

Mechanics/electronics

Wave length:	IR 950 nm
Supply voltage Vs:	DC 24 V ... , ± 20 % ¹⁾
Power consumption sender:	50 mA ²⁾
Power consumption receiver::	50 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 192.4 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:	20 g
Power consumption:	50 mA ⁵⁾
Aluminum stabilizer:	Without stabilizer
Switching frequency:	500 kHz

¹⁾ Limit values ^{2) 3) 4) 5)} Without load

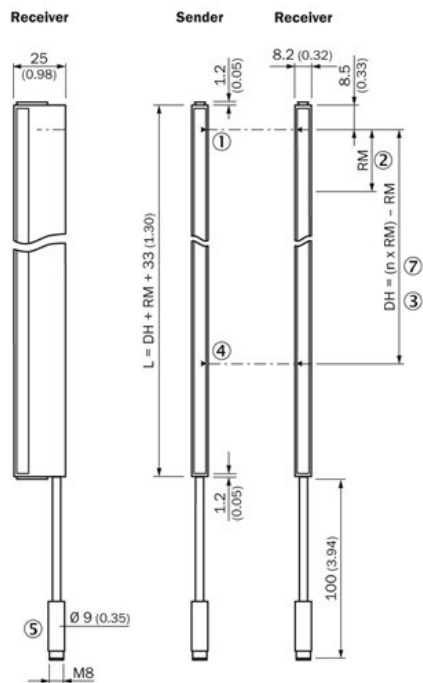
Ambient data

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

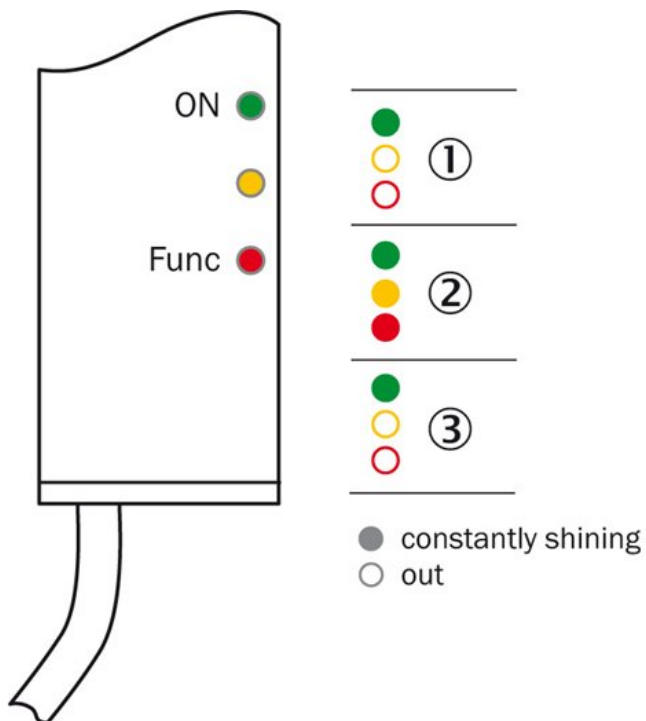
Dimensional drawing

Flat, without stabilizer

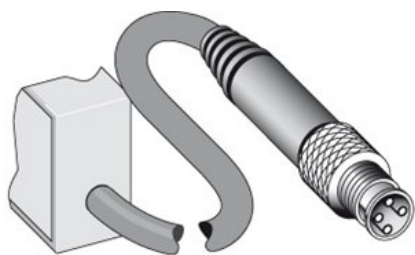


- |1| Last beam
- |2| Beam separation RM
- |3| DH - Detection height (n x 40 mm) - RM
- |4| First beam
- |5| Connection
- |6| Same distance
- |7| n = beam
- |8| m = mounting hole

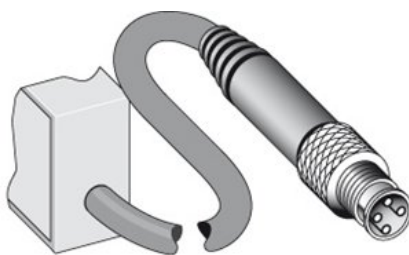
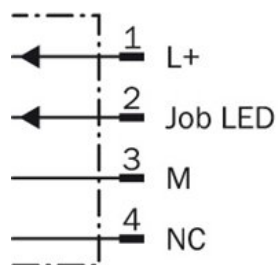
Adjustments



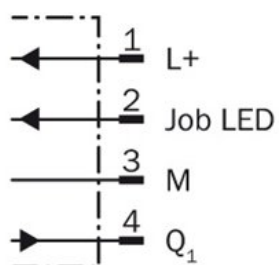
- |1| Supply voltage
- |2| Active, if teach procedure active
- |3| No object in the light path



Sender



Receiver



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