

## SPL – Smart Pick-to-Light Sensors

Access monitoring with light grids

## SPL – Smart Pick-to-Light Sensors

### Clear and direct

Display, check, feedback – this is the principle of Pick-to-Light. Using integrated job LEDs, the light grids control operations in manual picking and assembly processes. The light grid prevents errors and incorrect interventions by the use of alarm messages or the blocking of subsequent bins. This system supports quality assurance and prevents customer complaints, rework and exchanges. The innovative slim and flat construction permits flexible, modular and easy-to-assemble installations. What's more, easy setup via automatic teach-in and optical synchronisation are both clear and direct.



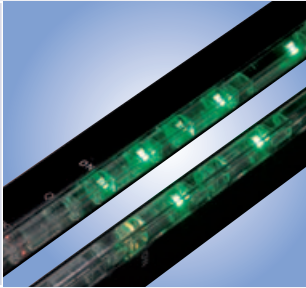
**SIC**  
Smart Pick-to



- Click and Go assembly concept
- Multiconnector for easy interlinking of several light grids
- Interfaces compatible with PNP industry standards



- Monitoring length 120 ... 440 mm
- Max. range: 2 metres
- Response time: < 20 ms
- Resolution: 40 mm
- Job LED



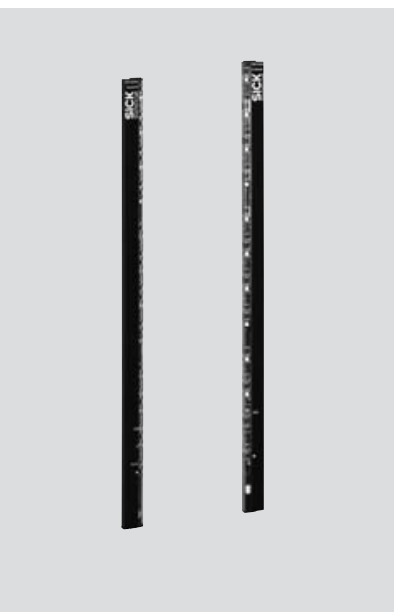
- Automatic teach-in
- Optical synchronisation
- Slim and flat construction



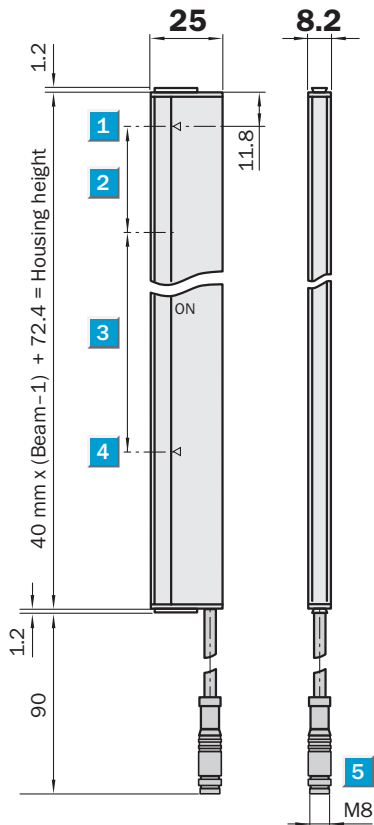
**Operating range**  
1.5 m

Through-beam light grid

- 40 mm beam spacing
- Optical synchronization
- Ultra slim housing for area saving installation
- Easy commissioning



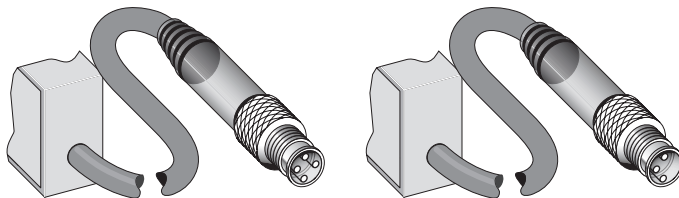
**Dimensional drawing sender**



- 1 Last beam
- 2 Beam spacing 40 mm
- 3 Detection height, 4-16 beams
- 4 First beam
- 5 Connection: cable with plug M8, 4-pin

**Connection types**

SPL-S440PPS1W04	SPL-S440PPS1W04
SPL-F440PPS1W04	SPL-F440PPS1W04

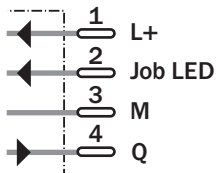


**Accessories**

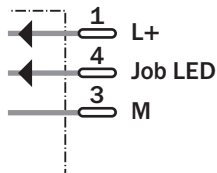
Cables and connectors

Mounting systems

Receiver  
M8, 4-pin



Sender  
M8, 3-pin



Technical data		SPL-	S440PP	F440PP								
			S1W04	S1W04								
<b>Operating range<sup>4)</sup></b>	0 ... 1.5 m											
Beam spacing	40 mm											
<b>Number of beams</b>	12											
Detection height	440 mm											
Input	Job LED on when IN active											
Switching output <sup>2)</sup>	PNP											
Switching mode <sup>3)</sup>	Light-switching											
<b>MDO<sup>4)</sup>/resolution</b>	25 mm/45 mm											
Profile type	Slim											
	Flat											
Light source	LED, infrared											
<b>Synchronization</b>	Optical											
<b>Voltage supply V<sub>s</sub><sup>5)</sup></b>	24 V DC ± 20 %											
Residual ripple	< 10 % within V <sub>s</sub> tolerances											
Current consumption sender	Typ. < 50 without Job LED											
Current consumption receiver	Typ. < 50 without Job LED											
Output current I <sub>A</sub> max.	≤ 100 mA											
Response time <sup>6)</sup>												
parallel beam/multiple scan	20 ms/60 ms											
Response time <sup>6)</sup> coded version	40 ms/120 ms											
Parallel beam/multiple scan												
initialisation period	1 s											
Output load	Capacitive load: 100 nF											
	Inductive load: 1 H											
<b>EMC test</b>	CE 60947-5-2/DIN 50121-3-2											
<b>High immunity to ambient light</b>	150,000 lx (sun light)											
Connection type sender	Plug, M8, 3-pin											
Connection type receiver	Plug, M8, 4-pin											
<b>VDE protection class</b>	ⓘ											
<b>Circuit protection<sup>7)</sup></b>	A, B, C											
<b>Enclosure rating</b>	IP 65											
<b>Ambient temperature</b>	Operation -25 °C ... +55 °C											
	Storage -40 °C ... +70 °C											
<b>Mechanical resistance</b>	Vibration: 5 g/10-55/s - IEC 68-2-6											
	Shock: 10 g/16 ms - IEC 68-2-29											
<b>Weight</b>	5 g/beam x 2											
<b>Material</b>	Housing: PMMA											
	Front lens: PMMA											

- <sup>1)</sup> Limiting scanning distance: 2 m  
<sup>2)</sup> NPN on request  
<sup>3)</sup> Q = active, when no light beam is interrupted

- <sup>4)</sup> Multiple scan/parallel beam  
<sup>5)</sup> Limit values  
<sup>6)</sup> With resistive load

- <sup>7)</sup> A = V<sub>s</sub>-connections reverse-polarity protected  
B = Outputs Q short-circuit protected  
C = Interference pulse suppression

LED display	Order information	
<ul style="list-style-type: none"> <li>Sender LED green, Power ON</li> <li>Receiver LED yellow, when no object</li> </ul>	<b>Type</b>	<b>Order no.</b>
	SPL-S440PPS1W04 <sup>*)</sup>	1046312
	SPL-F440PPS1W04 <sup>*)</sup>	1046314

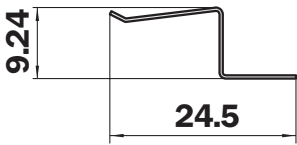
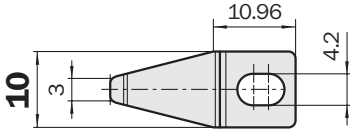
<sup>\*)</sup> Not a safety component according to EU machine regulations

## Dimensional drawings and order information

### Mounting systems

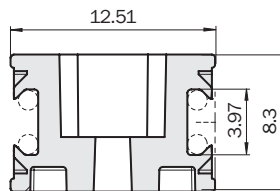
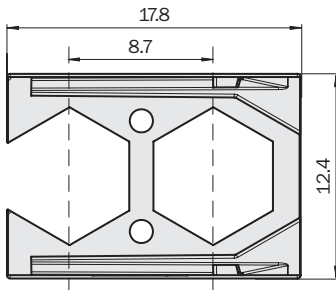
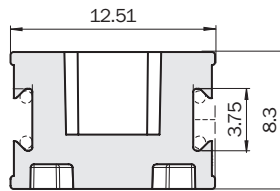
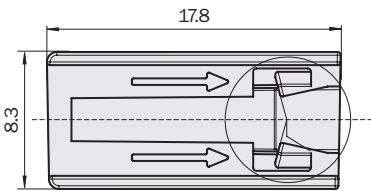
#### Retaining clip

Type	Order no.
Retaining clip VZA-SLG	2048519



#### Mounting bracket

Type	Order no.
BEF-SLG1	2048520

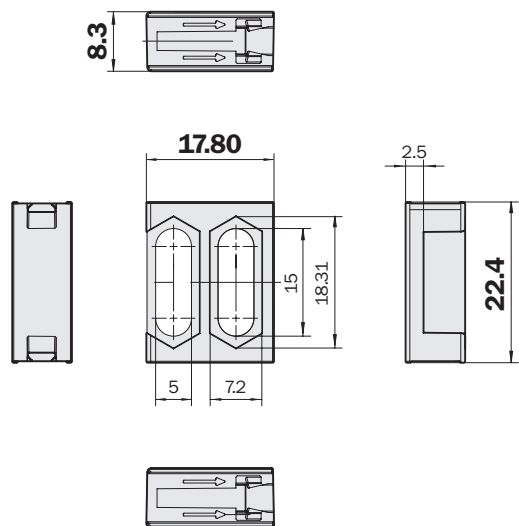


**Dimensional drawings and order information**

**Mounting systems**

**Mounting bracket**

<b>Type</b>	<b>Order no.</b>
BEF-SLG2	2048520



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