

# Safety light grid with integrated control unit

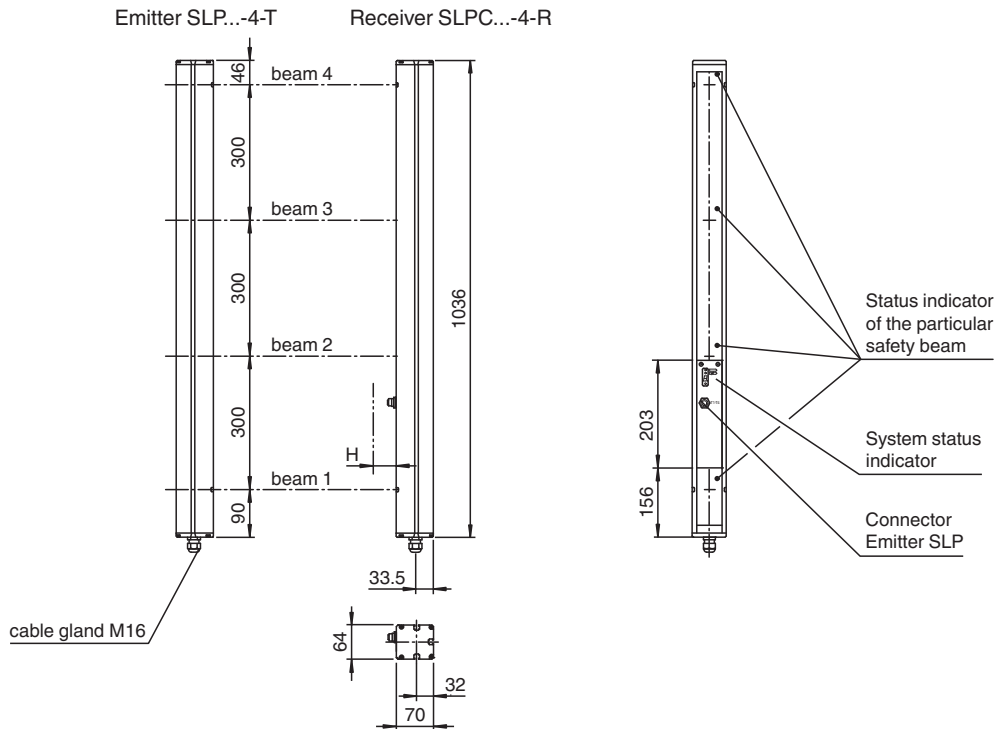


## SLPC10-4

- Sensing range up to 10 m
- 4-radial design
- Beam spacing 300 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Red transmission light
- Usable with or without start/restart disable
- Integrated relay monitor
- 7-segment diagnostic display
- Integrated function display
- Pre-fault indication
- OSSD outputs as semiconductor or relay outputs



## Dimensions



## Technical Data

### System components

Emitter	SLP10-4-T
Receiver	SLPC10-4-R

### General specifications

Effective detection range	0.2 ... 10 m
Light source	LED

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

Light type		modulated visible red light
Tests		IEC/EN 61496
Safety type according to IEC/EN 61496		4
Marking		CE
Target size		static: 32 mm dynamic: 50 mm (at v = 1.6 m/s of the obstacle)
Beam spacing		300 mm
Number of beams		4
Operating mode		Start/restart disable, relay monitor,
Angle of divergence		< 5 °
<b>Functional safety related parameters</b>		
Performance level (PL)		PL e
Category		Cat. 4
Mission Time (T <sub>M</sub> )		20 a
PFH <sub>d</sub>		3.54 E-9
Type		4
<b>Indicators/operating means</b>		
Diagnostics indicator		7-segment display
Function indicator		LED red: per receiver channel off: interruption flashes: receiver continuously on: reception with sufficient stability control on the front plate: LED red: OSSD off LED green: OSSD on
Pre-fault indicator		LED red next to receiver flashes
Control elements		10 DIP switch in receiver terminal compartment
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	24 V DC -15% / +25% , galvanically isolated
No-load supply current	I <sub>0</sub>	max. 250 mA
Protection class		III , IEC 61140
<b>Input</b>		
Activation current		approx. 10 mA
Activation time		0.03 ... 1 s
Test input		Reset-input for system test
Function input		Relay monitor, start release
<b>Output</b>		
Pre-fault indication output		1 PNP, +U <sub>B</sub> -2 V, max. 300 mA
Safety output		2 separated fail safe semiconductor outputs
Signal output		1 PNP each, max. 300 mA for start readiness, OSSD on, OSSD off
Switching voltage		Operating voltage -2 V
Switching current		max. 0.5 A
Response time		20 ms
<b>Conformity</b>		
Functional safety		ISO 13849-1
Product standard		EN 61496-1 ; IEC 61496-2
<b>Approvals and certificates</b>		
CE conformity		CE
Approvals		TÜV SÜD
<b>Ambient conditions</b>		
Ambient temperature		0 ... 50 °C (32 ... 122 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
Relative humidity		max. 95 % , not condensing
<b>Mechanical specifications</b>		
Degree of protection		IP65
Connection		M16 cable gland , terminal compartment with cage-terminals, M12-connector for emitter

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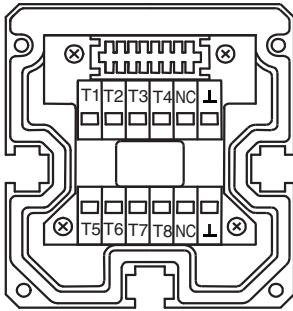
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**Technical Data**

Connection options	Further electrical connection options on request: Connector DIN 43 651 Hirschmann, emitter: 6-pin+PE, receiver: 11-pin+PE
Material	
Housing	extruded aluminum profile, RAL 1021 (yellow) coated
Optical face	Plastic pane
Mass	Per 3700 g

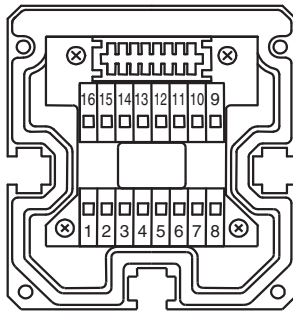
**Connection**

**Emitter SLP**



- T1 - Emitter channel 1
- T2 - Emitter channel 2
- T3 - Emitter channel 3
- T4 - Emitter channel 4
- 0 V

**Receiver SLPC**

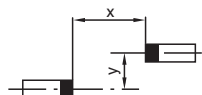
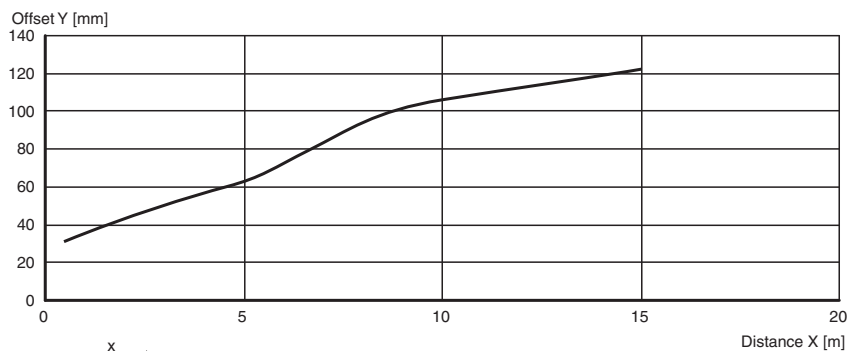


Receiver SLPC (semi-conductor outputs)	Receiver SLPC/31 (relay output)
	1 - Functional earth 2 - 0 V 3 - 24 V
4 - n.c. 5 - - 6 - + 7 - OSSD 1 8 - OSSD 2	
	4 - 5 - 6 - 7 - 8 -
	9 - Input, Relay monitor 10 - Input, Start release 11 - Input, Reset 12 - PNP-Output, Soiled optics 13 - n.c. 14 - PNP-Output, Startup readiness 15 - PNP-Output, Indicator OSSD OFF 16 - PNP-Output, Indicator OSSD ON

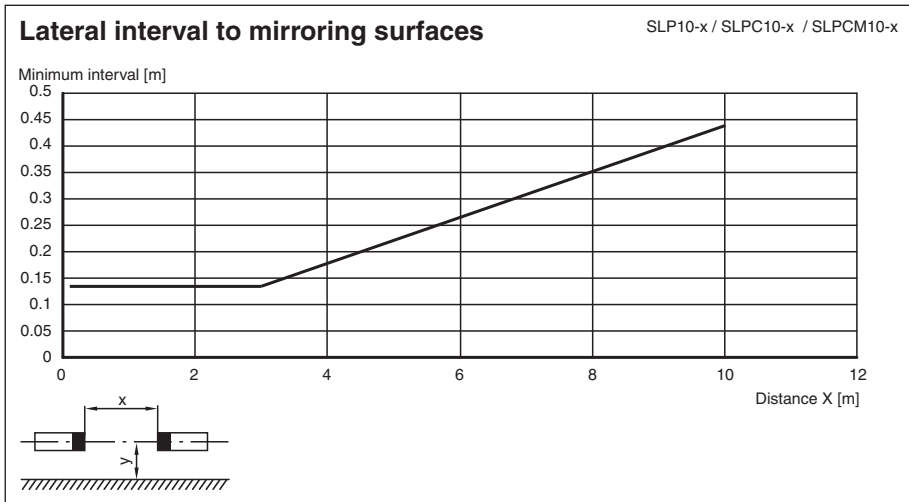
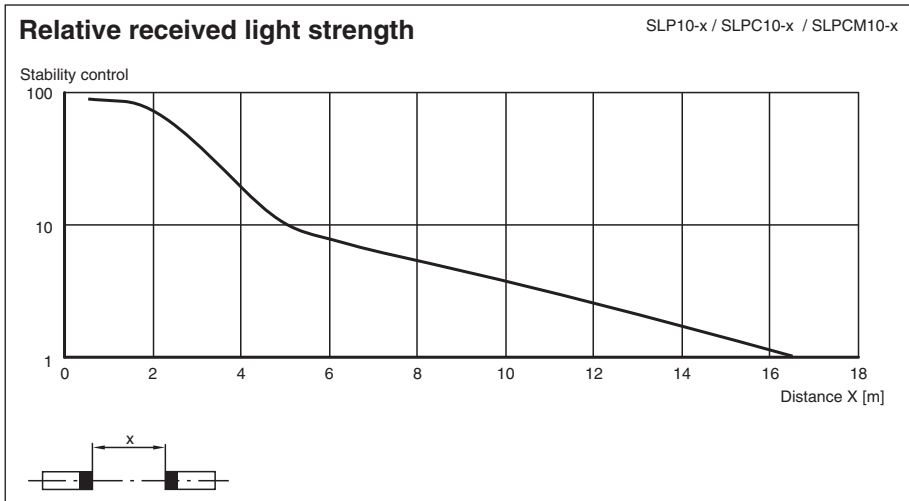
**Characteristic Curve**

**Characteristic response curve**


SLP10-x / SLPC10-x / SLPCM10-x



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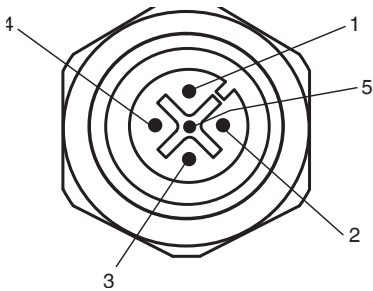
## Accessories

	<b>PG SLP-4</b>	Protective glass panes for SLP series
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## Additional information

### Socket assignment on the front side of the device



T1 - T4 transmitter control

Socket	Function
1	Transmitter channel 1
2	Transmitter channel 2
3	0 V
4	Transmitter channel 3
5	Transmitter channel 4

## System accessories

- Mounting set MS SLP
- Profile alignment aid PA SLP/SLC
- Laser alignment aid BA SLP
- Ground pillar UC SLP/SLC
- Housing for pillar Enclosure UC SLP/SLC
- Collision protector Damping UC SLP/SLC
- Redirection mirror for multi-side protection of hazardous areas SLP-4-M