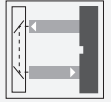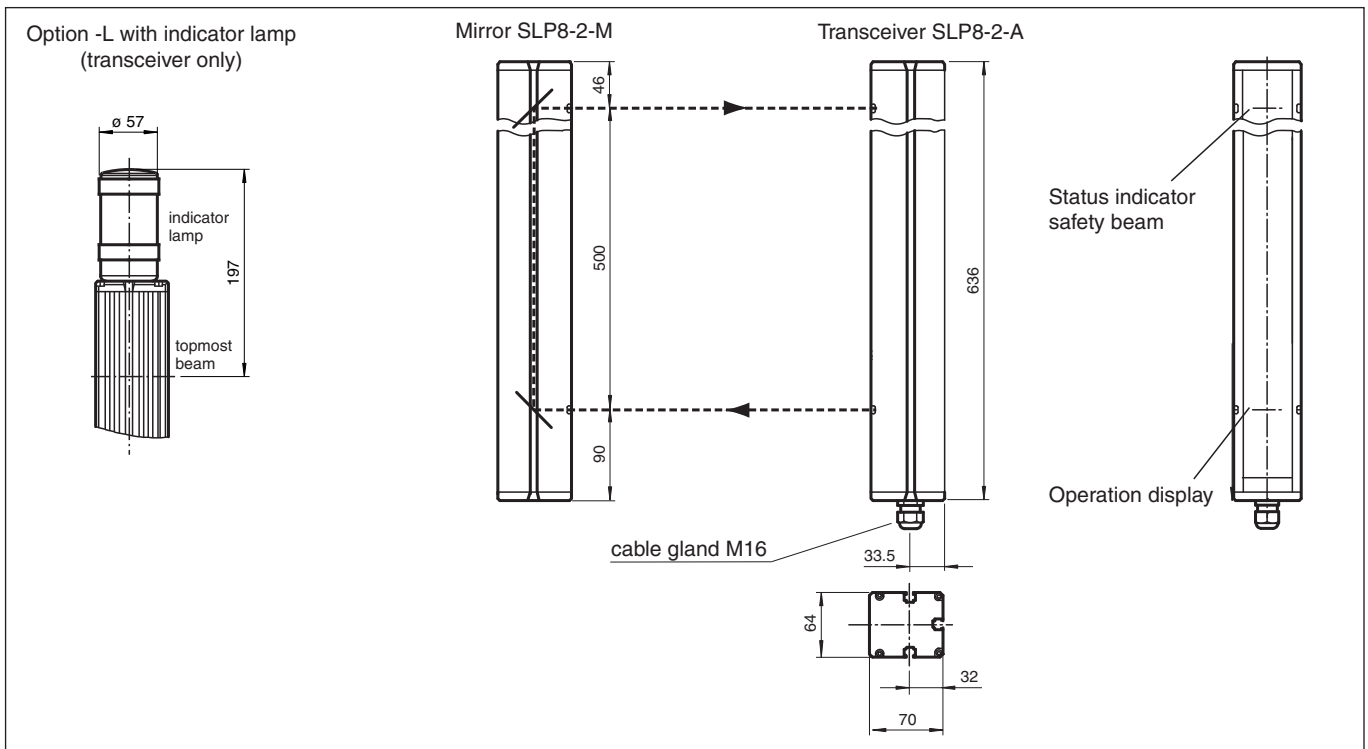# Safety light grid
# SLP8-2

- Sensing range 8 m
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- 2-radial design
- Beam spacing 500 mm
- Red transmission light
- Integrated function display
- Pre-fault indication
- Operation on control units of SB4 (SafeBox)

Safety light grid

CE   TÜV SÜD

## Dimensions

Option -L with indicator lamp (transceiver only)

ø 57

indicator lamp

197

topmost beam

Mirror SLP8-2-M

46

500

90

Transceiver SLP8-2-A

636

Status indicator safety beam

Operation display

cable gland M16

33.5

64

32

70

## Technical Data

| System components | |
|---|---|
| Transceiver | SLP8-2-A |
| Mirror pillar | SLP8-2-M |
| **General specifications** | |
| Effective detection range | 0.2 ... 8 m |
| Light source | LED |
| Light type | modulated visible red light |
| Tests | IEC/EN 61496 |
| Safety type according to IEC/EN 61496 | 4 |
| Marking | CE |

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

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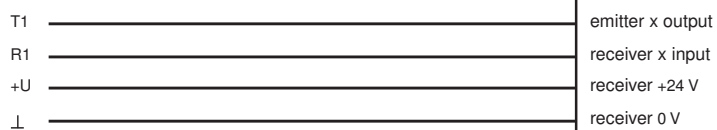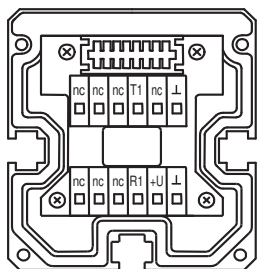fa-info@de.pepperl-fuchs.com

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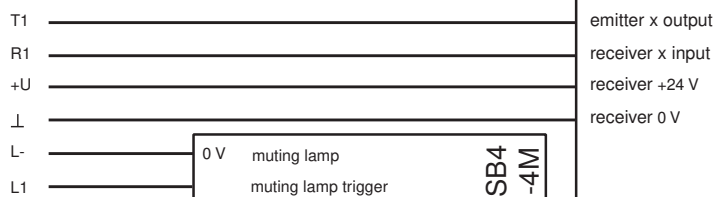fa-info@sg.pepperl-fuchs.com
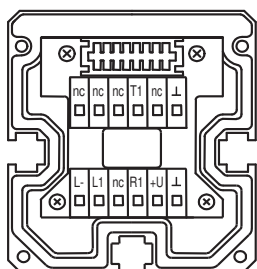
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1

## Technical Data

| | | |
|---|---|---|
| Target size | | static: 32 mm<br>dynamic: 50 mm (at v = 1.6 m/s of the obstacle) |
| Beam spacing | | 500 mm |
| Number of beams | | 2 |
| Angle of divergence | | < 5 ° |
| **Functional safety related parameters** | | |
| Performance level (PL) | | PL e |
| Category | | Cat. 4 |
| Mission Time ($T_M$) | | 20 a |
| $PFH_d$ | | 2.81 E-9 |
| Type | | 4 |
| **Indicators/operating means** | | |
| Operation indicator | | LED red in transceiver |
| Function indicator | | LED red: per receiver channel<br>off: Interruption<br>flashes: receiver<br>continuously on: reception with sufficient stability control |
| Pre-fault indicator | | Functional display flashing |
| **Electrical specifications** | | |
| Operating voltage | $U_B$ | Power supply via control unit |
| Protection class | | III , IEC 61140 |
| **Conformity** | | |
| Functional safety | | ISO 13849-1 |
| Product standard | | EN 61496-1 ; IEC 61496-2 |
| **Approvals and certificates** | | |
| CE conformity | | CE |
| Approvals | | TÜV SÜD |
| **Ambient conditions** | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | | -20 ... 70 °C (-4 ... 158 °F) |
| Relative humidity | | max. 95 %, not condensing |
| **Mechanical specifications** | | |
| Degree of protection | | IP65 |
| Connection | | M16 cable gland ,<br>terminal compartment |
| Connection options | | Further electrical connection options on request:<br>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 2100 g |

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## Transceiver SLP8-2-A

| Terminal | | |
|---|---|---|
| T1 | —————————————————— | emitter x output |
| R1 | —————————————————— | receiver x input |
| +U | —————————————————— | receiver +24 V |
| ⊥ | —————————————————— | receiver 0 V |

Control Unit SafeBox Module 4X

nc nc nc T1 nc ⊥
nc nc nc R1 +U ⊥

## Transceiver SLP8-2-A-L

| Terminal | | |
|---|---|---|
| T1 | —————————————————— | emitter x output |
| R1 | —————————————————— | receiver x input |
| +U | —————————————————— | receiver +24 V |
| ⊥ | —————————————————— | receiver 0 V |
| L- | ——————— 0 V | muting lamp |
| L1 | ——————— | muting lamp trigger |

SB4 -4M

Control Unit SafeBox Module 4X

nc nc nc T1 nc ⊥
L- L1 nc R1 +U ⊥

## Characteristic Curve

### Characteristic response curve

SLP8



Offset Y [mm] vs Distance X [m]
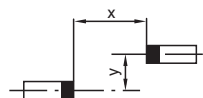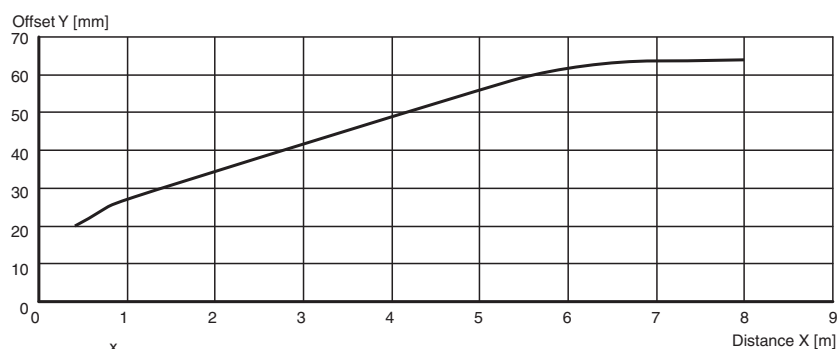
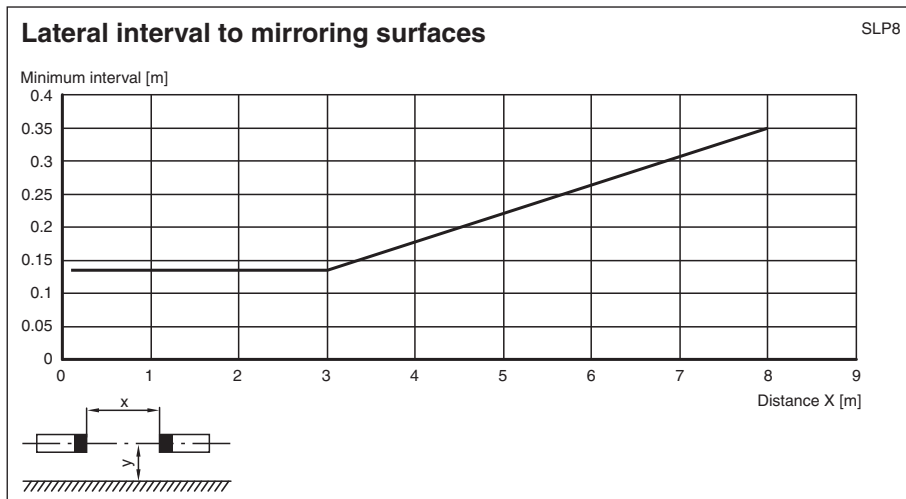### Relative received light strength

SLP8



Stability control vs Distance X [m]

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

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## Lateral interval to mirroring surfaces

SLP8

Minimum interval [m]



Distance X [m]
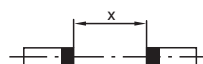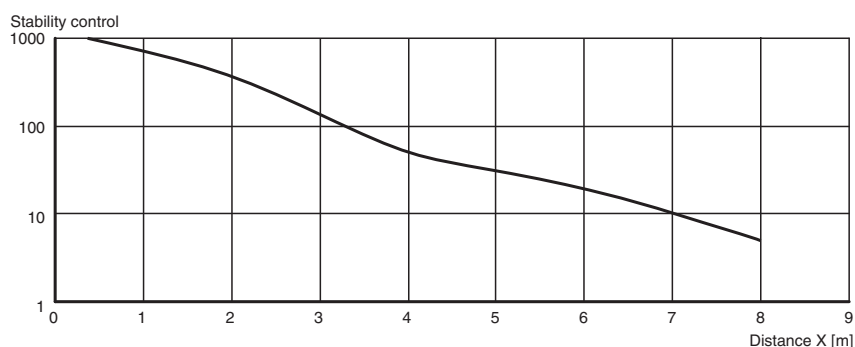
## Matching system components

| | | |
|---|---|---|
| | **SB4-OR-4XP-B-4159** | Safety control unit |
| | **SB4-OR-4XP** | Safety control unit |
| | **SB4-OR-4XP-B** | SB4 series safety control unit with 1 optional module slot for functional enhancement |
| | **SB4-OR-4XP-B-B** | SB4 series safety control unit with optional module slots for functional enhancement |
| | **SB4-OR-4XP-B-B-B** | SB4 series safety control unit with optional module slots for functional enhancement |
| | **SB4-OR-4XP-B-B-B-B** | SB4 series safety control unit with optional module slots for functional enhancement |
| | **SB4-OR-4XP-B-B-B-B-B** | SB4 series safety control unit with optional module slots for functional enhancement |
| | **SB4-OR-4XP-B-4158** | Safety control unit |
| | **SB4-OR-4XP-3819** | Safety control unit |
| | **SB4-OR-4XP-4M** | Safety control unit |
| | **SB4-OR-4XP-4MD** | Safety control unit |
| | **SB4-OR-4XP-4M-4136** | Safety control unit of series SB4 |
| | **SB4-OR-4XP-4X** | Safety control unit |
| | **SB4-OR-4XP-4X-3819** | Safety control unit |
| | **SB4-OR-4XP-4136** | Safety control unit of series SB4 |

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## Accessories

| | | |
|---|---|---|
| | **SLP-X-M** | Deviation mirror for SLP |
| | **MS SLP** | Mounting bracket for Light grid |
| | **PG SLP-X** | Protective glass panes for SLP series |
| | **PG HOLDER SLP** | Holders for SLP protective glass panes |
| | **PA SLP/SLC** | Alignment aid for SLP and SLC series profile light grids |
| | **UC SLP/SLC** | Floor stand for all series SLP/SLC devices |
| | **UC SLP/SLC 1530 mm** | Floor stand for all series SLP/SLC devices |
| | **Damping UC SLP/SLC** | Shock absorber as ramming protector for all series SLP/SLC devices |
| | **Enclosure UC SLP/SLC** | Housing for floor stand |
| | **MS SLP/SLA28** | Fixing plate |
| | **BINDER SLPC/M** | Cable tie for the secure laying and fixing of the connection leads, in particular for the muting sensors connected to safety light grids. |
| | **PG SLP-2** | Protective glass panes for SLP series |
| | **SLP8-2-M** | Deviation mirror |

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### Application

The SLP8-2-A and SLP8-2-M devices can be used to set up dual-beam access protection with a fixed beam gap of 500 mm in accordance with EN 999. The SLP8-2-A profile comprises a light source and a light receiver (active). This device must be connected to the SLVA-4K+ and SLVA-8K evaluation units or to SB4-series switching devices. The SLP8-2-A cannot be operated without an evaluation unit.

The SLP8-2-M profile includes two reflecting mirrors arranged in such a way that the light beam emitted from the transmitter on the SLP8-2-A is returned at a distance of 500 mm and is picked up by the receiver on the SLP8-2-A.

This safety thru-beam sensor system may only be used in accordance with its intended purpose as an **a**ctive opto-electronic **p**rotective **d**evice (AOPD) for securing hazardous areas.

If used for any other purpose, the intended function of the system cannot be guaranteed.

The applicable safety regulations, standards and provisions must be observed when operating the system, and the specific requirements of the application in question must be taken into consideration.

## Accessories

Additional accessories can be found in the Internet.