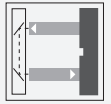




# Safety light grid with integrated control unit

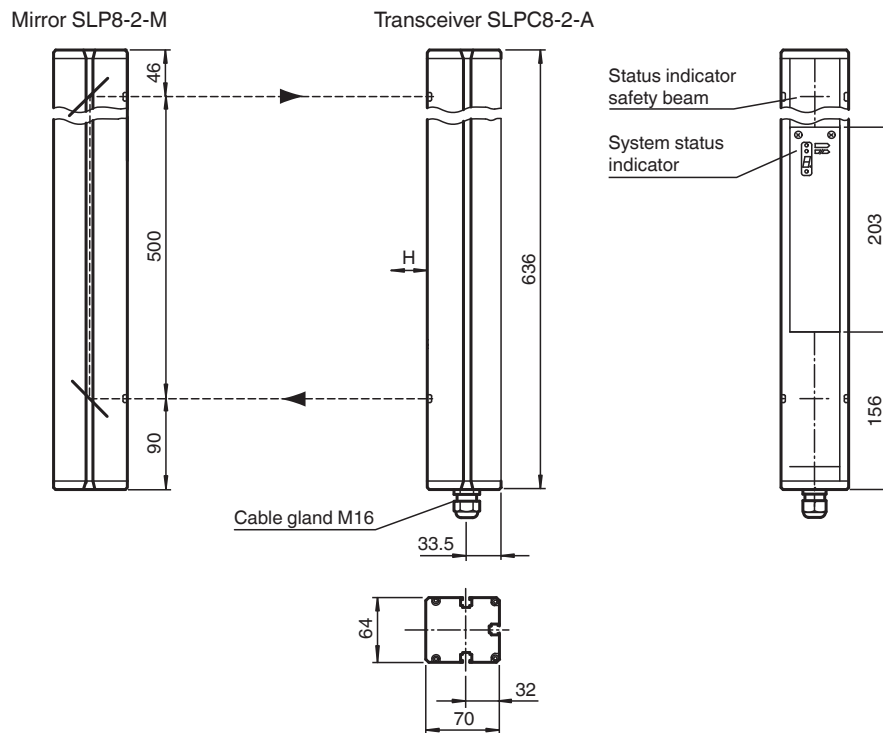


## SLPC8-2

- Sensing range up to 8 m
- 2-radial design
- Beam spacing 500 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Minimum wiring expense due to transceiver with passive mirror column
- Red transmission light
- Usable with or without start/restart disable
- Integrated relay monitor
- 7-segment diagnostic display
- Pre-fault indication
- OSSD outputs as semiconductor or relay outputs



## Dimensions



## Technical Data

### System components

|               |           |
|---------------|-----------|
| Transceiver   | SLPC8-2-A |
| Mirror pillar | SLP8-2-M  |

### General specifications

|                           |                             |
|---------------------------|-----------------------------|
| Effective detection range | 0.2 ... 8 m                 |
| Light source              | LED                         |
| Light type                | modulated visible red light |

## Technical Data

|                                       |                                                                                                                                                                                                        |                                                                  |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Tests                                 | IEC/EN 61496                                                                                                                                                                                           |                                                                  |
| Safety type according to IEC/EN 61496 |                                                                                                                                                                                                        | 4                                                                |
| Marking                               | CE                                                                                                                                                                                                     |                                                                  |
| 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                                                                |
| Operating mode                        | Start/restart disable, relay monitor,                                                                                                                                                                  |                                                                  |
| Angle of divergence                   |                                                                                                                                                                                                        | < 5 °                                                            |
| Functional safety related parameters  |                                                                                                                                                                                                        |                                                                  |
| 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                                                                |
| Indicators/operating means            |                                                                                                                                                                                                        |                                                                  |
| Diagnostics indicator                 |                                                                                                                                                                                                        | 7-segment display                                                |
| Function indicator                    | LED red: per receiver channel<br>off: interruption<br>flashes: receiver<br>continuously on: reception with sufficient stability control<br>on the front plate: LED red: OSSD off<br>LED green: OSSD on |                                                                  |
| Pre-fault indicator                   |                                                                                                                                                                                                        | LED red next to receiver flashes                                 |
| Control elements                      | 10 DIP switch in transceiver terminal compartment                                                                                                                                                      |                                                                  |
| Electrical specifications             |                                                                                                                                                                                                        |                                                                  |
| 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                                                                                                                                                                                        |                                                                  |
| Input                                 |                                                                                                                                                                                                        |                                                                  |
| Activation current                    | approx. 10 mA                                                                                                                                                                                          |                                                                  |
| Activation time                       |                                                                                                                                                                                                        | 0.03 ... 1 s                                                     |
| Test input                            | Reset-input for system test                                                                                                                                                                            |                                                                  |
| Function input                        |                                                                                                                                                                                                        | Relay monitor, start release                                     |
| Output                                |                                                                                                                                                                                                        |                                                                  |
| 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                                                                                                                                                                                                  |                                                                  |
| 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                   | 0 ... 50 °C (32 ... 122 °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 with cage-terminals    |

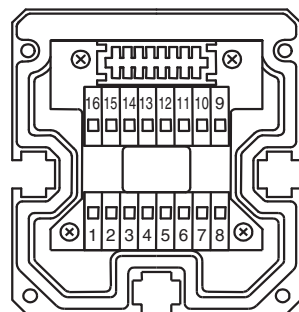
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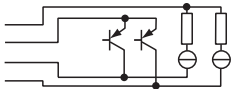
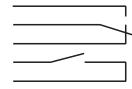
Technical Data

|                    |                                                                                                                              |              |
|--------------------|------------------------------------------------------------------------------------------------------------------------------|--------------|
| 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 2300 g                                                                                                                   |              |

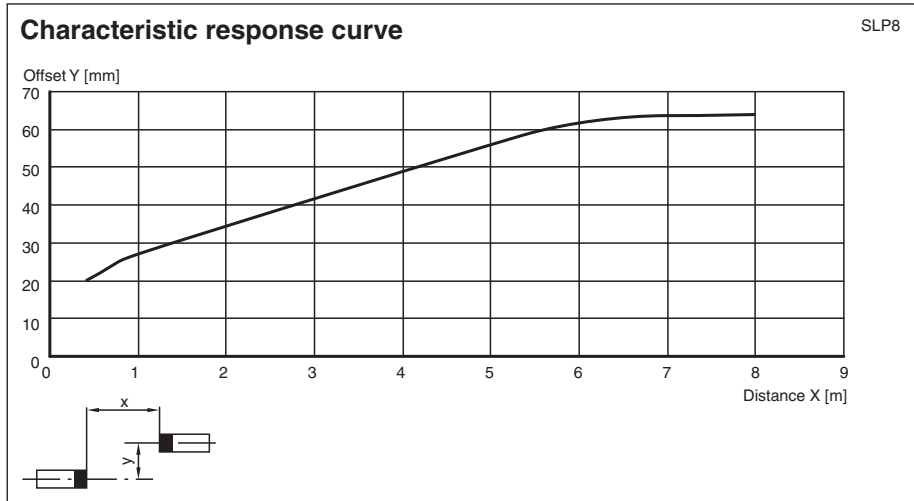
Connection

Transceiver SLPC8-2-A

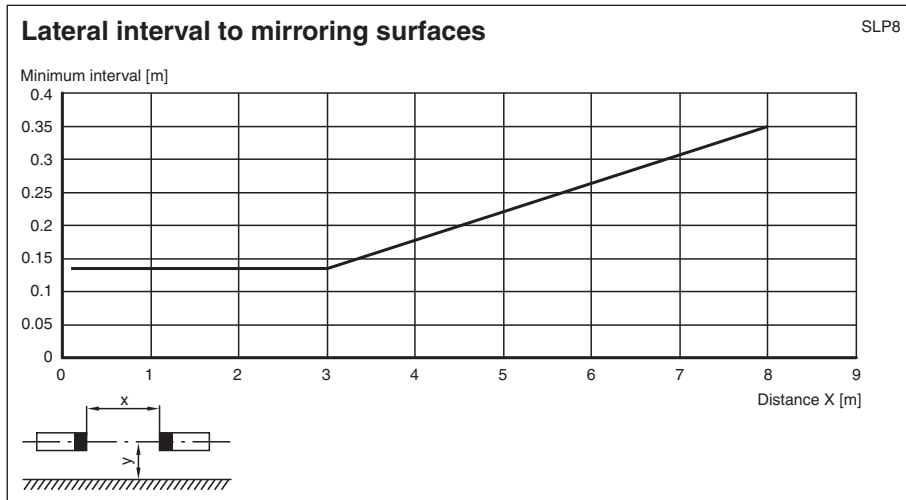
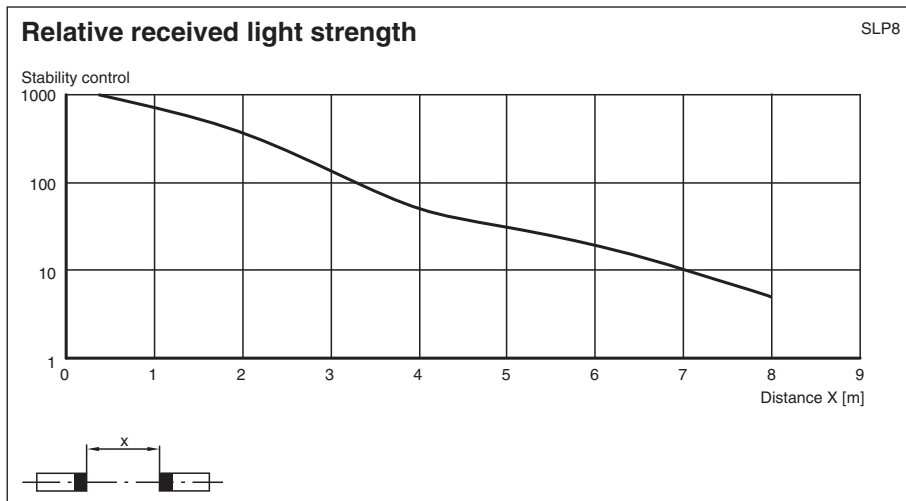


| Transceiver SLPC... (semiconductor output)                       |                                                                                   | Transceiver SLPC.../31 (relay output)                                                                                                              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

Characteristic Curve



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## Accessories

|                                                                                     |                             |                                                                    |
|-------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------|
|  | <b>PG SLP-2</b>             | Protective glass panes for SLP series                              |
|  | <b>PA SLP/SLC</b>           | Alignment aid for SLP and SLC series profile light grids           |
|  | <b>MS SLP</b>               | Mounting bracket for Light grid                                    |
|  | <b>Damping UC SLP/SLC</b>   | Shock absorber as ramming protector for all series SLP/SLC devices |
|  | <b>Enclosure UC SLP/SLC</b> | Housing for floor stand                                            |
|  | <b>UC SLP/SLC</b>           | Floor stand for all series SLP/SLC devices                         |
|  | <b>SLP-2-M</b>              | Deviation mirror for SLP                                           |