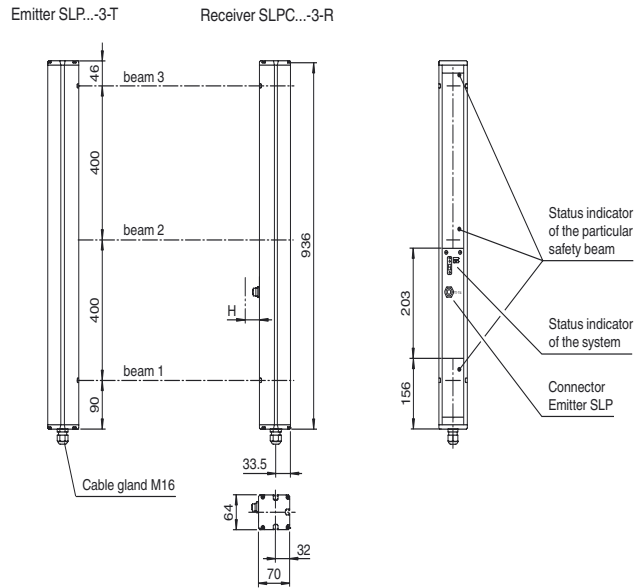


Dimensions



Model Number

SLPC10-3/31

with 2 relay outputs with two force-guided normally open contacts

Features

- Sensing range up to 10 m
- 3-radial design
- Beam spacing 400 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

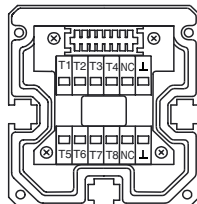
Accessories

PG SLP-3

Protective glass panes for SLP series

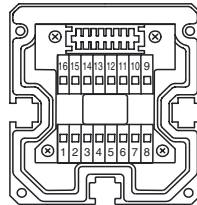
Electrical connection

Emitter SLP



- T1 - Emitter channel 1
- T2 - Emitter channel 2
- T3 - Emitter channel 3
- L - 0 V

Receiver SLPC



| Receiver SLPC (semiconductor outputs) | Receiver SLPC/31 (Relay outputs) |
|---------------------------------------|-------------------------------------|
| 4 - n.c. | 1 - Functional earth |
| 5 - - | 2 - 0 V |
| 6 - + | 3 - 24 V |
| 7 - OSSD 1 | 4 - [Relay symbol] |
| 8 - OSSD 2 | 5 - [Relay symbol] |
| | 6 - [Relay symbol] |
| | 7 - [Relay symbol] |
| | 8 - [Relay symbol] |
| | 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 |

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Technical data**General specifications**

| | |
|---------------------------------------|--|
| Effective detection range | 0.2 ... 10 m |
| Light source | LED |
| Light type | modulated visible red light |
| Approvals | TÜV |
| 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 | 400 mm |
| Number of beams | 3 |
| Operating mode | Start/restart disable, relay monitor, |
| Angle of divergence | < 5 ° |

Functional safety related parameters

| | |
|--------------------------------|----------|
| Safety Integrity Level (SIL) | SIL 3 |
| Performance level (PL) | PL e |
| Category | Cat. 4 |
| Mission Time (T _M) | 20 a |
| PFH _d | 3.54 E-9 |
| Type | 4 |

Indicators/operating means

| | |
|----------------------|--|
| Diagnostics display | 7-segment display |
| Function display | 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 indication | LED red next to receiver flashes |
| Controls | 10 DIP switch in receiver terminal compartment |

Electrical specifications

| | | |
|------------------------|----------------|---|
| Operating voltage | U _B | 24 V DC -15% / +25% , galvanically isolated |
| No-load supply current | I ₀ | max. 250 mA |
| Protection class | | III |

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

| | |
|------------------------------------|--|
| Output of the pre-fault indication | 1 PNP, +U _B -2 V, max. 300 mA |
| Safety output | 2 relay outputs, force-guided NO-contact |
| Signal output | 1 PNP each, max. 300 mA for start readiness, OSSD on, OSSD off |
| Switching voltage | 20 ... 60 V DC, 12 ... 25 V AC _{rms} |
| Switching current | 0.01 ... 2 A |
| Switching power | 100 VA |
| Response time | 40 ms |

Ambient conditions

| | |
|---------------------|-------------------------------|
| Ambient temperature | 0 ... 50 °C (32 ... 122 °F) |
| Storage temperature | -20 ... 70 °C (-4 ... 158 °F) |
| Relative humidity | max. 95 %, not condensing |

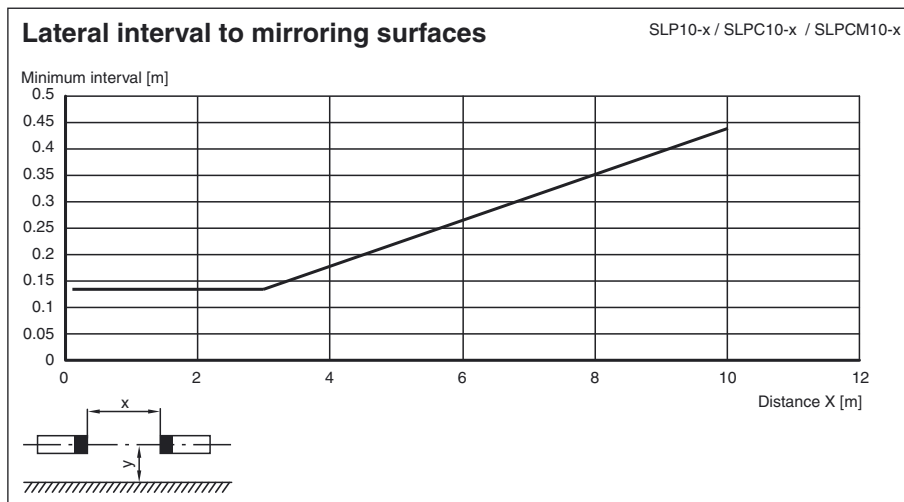
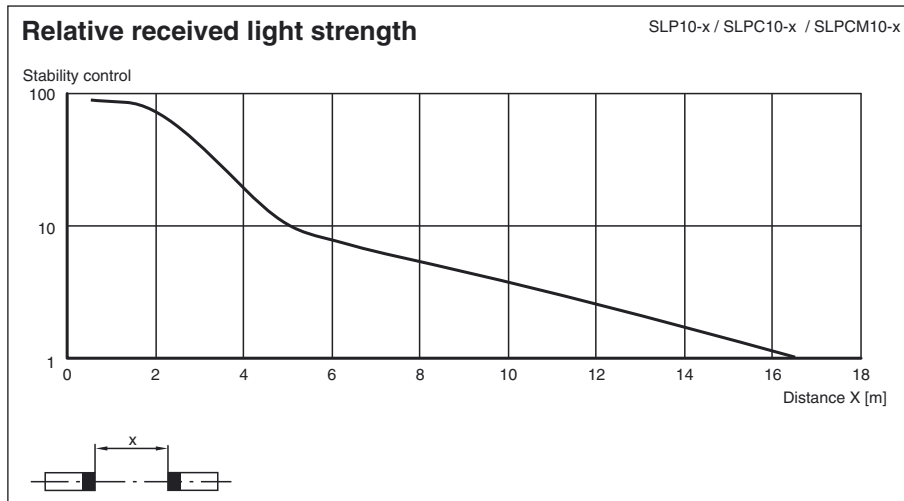
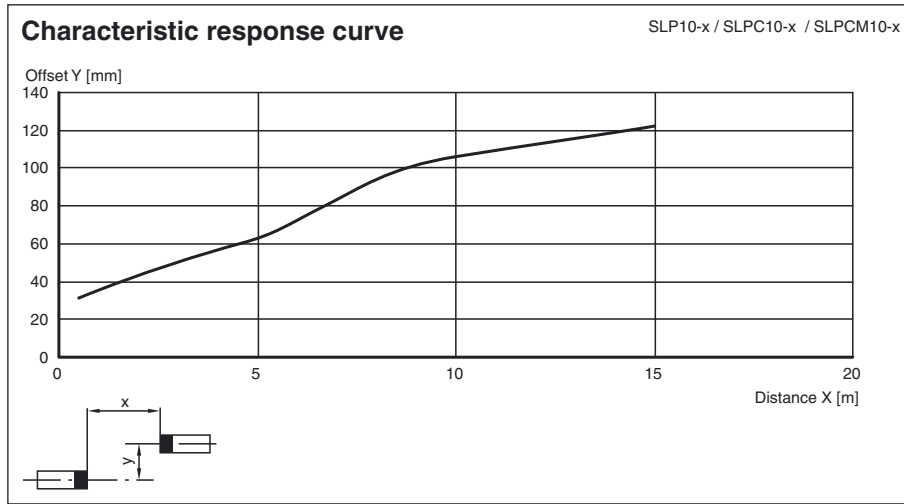
Mechanical specifications

| | |
|--------------------|--|
| Protection degree | IP65 |
| Connection | M16 cable gland , terminal compartment with cage-terminals, M12-connector for emitter |
| 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 3400 g |

General information

| | |
|-------------------|---------------|
| System components | |
| Emitter | SLP10-3-T |
| Receiver | SLPC10-3-R/31 |

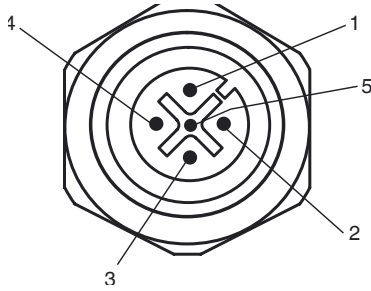
Curves/Diagrams



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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 |

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-3-M