



Model Number

SLPCM10-2-L/31

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

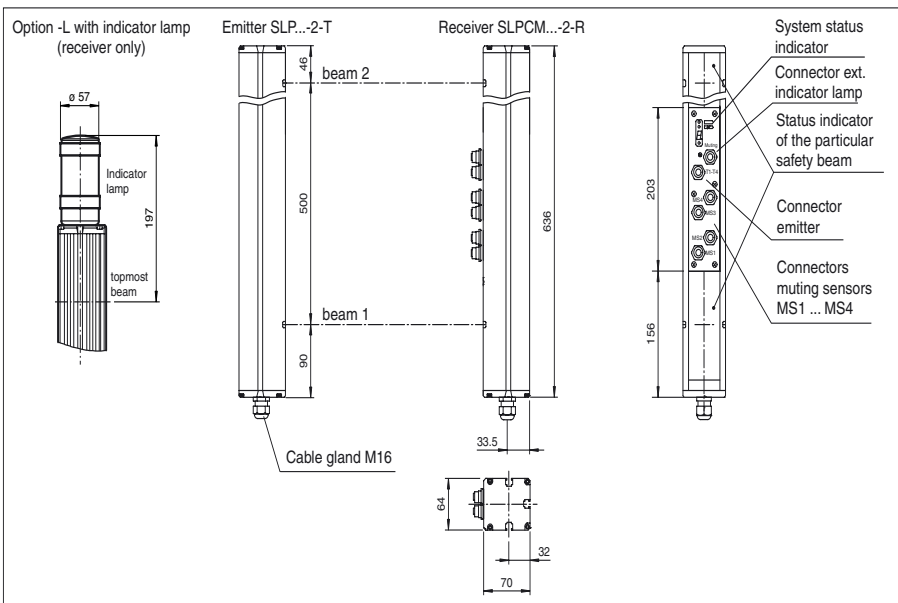
Features

- Sensing range up to 10 m
- 2-radial design
- Beam spacing 500 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Red transmission light
- Usable with or without start/restart disable
- Sequential and parallel muting in various operating modes
- Emergency muting for the correction of the material jam
- Integrated relay monitor
- 7-segment diagnostic display
- Integrated function display
- Pre-fault indication
- OSSD outputs as semiconductor or relay outputs

Accessories

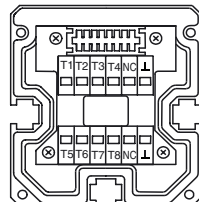
PG SLP-2
Protective glass panes for SLP series

Dimensions



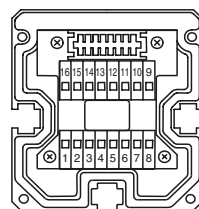
Electrical connection

Emitter SLP



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

Receiver SLPCM



| Receiver SLPCM (semiconductor outputs) | Receiver SLPCM/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 - PNP-output, Muting lamp |
| | 14 - PNP-output, Startup readiness |
| | 15 - PNP-output, Indicator OSSD OFF |
| | 16 - PNP-output, Indicator OSSD ON |

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Technical data**System components**

| | |
|----------|------------------|
| Emitter | SLP10-2-T |
| Receiver | SLPCM10-2-R-L/31 |

General specifications

| | |
|---------------------------------------|--|
| Effective detection range | 0.2 ... 10 m |
| Light source | LED |
| 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 | 500 mm |
| Number of beams | 2 |
| Operating mode | Start/restart disable, relay monitor, muting operating modes |
| Angle of divergence | < 5 ° |

Functional safety related parameters

| | |
|--------------------------------|-------------------------|
| Performance level (PL) | PL e |
| Category | Cat. 4 |
| Mission Time (T _M) | 20 a |
| PFH _d | 3.54 E-9 |
| B _{10d} | see instruction manuals |
| Type | 4 |

Indicators/operating means

| | |
|-----------------------|---|
| 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 LED yellow: types of muting operation |
| Muting indicator | Indicator lamp |
| Pre-fault indicator | LED red next to receiver flashes |
| Control elements | 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 , 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, muting sensors (max. 4) |

Output

| | |
|-----------------------------|---|
| Pre-fault indication output | 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 startup readiness, OSSD on, OSSD off, muting lamp, signals in parallel in the lamp socket |
| 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 |

Conformity

| | |
|-------------------|--------------------------|
| Functional safety | ISO 13849-1 |
| Product standard | EN 61496-1 ; IEC 61496-2 |

Ambient conditions

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

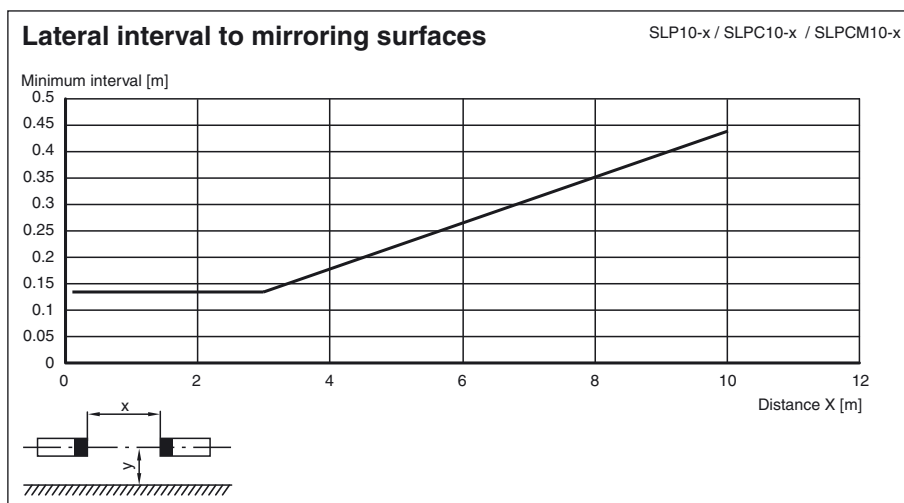
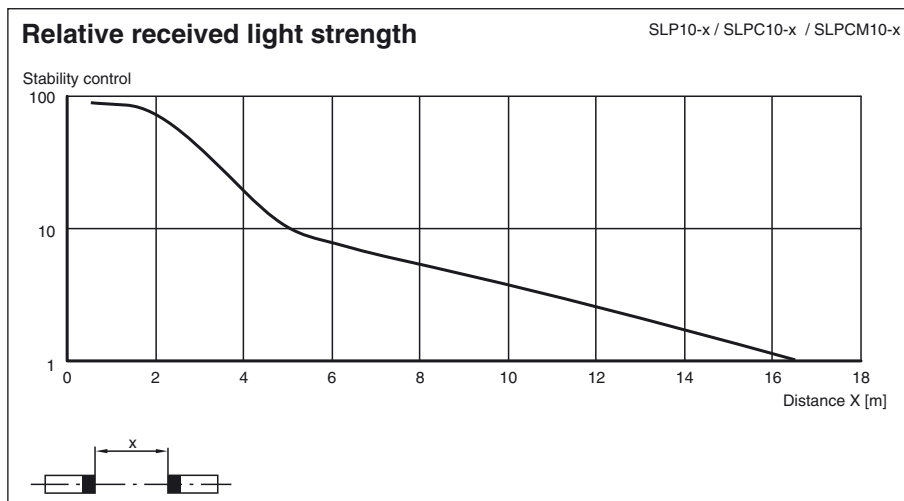
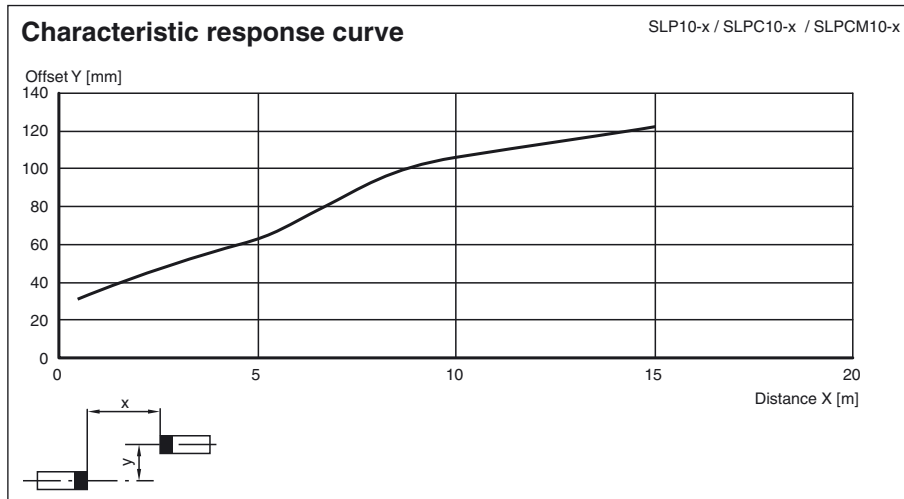
Mechanical specifications

| | |
|----------------------|---|
| Degree of protection | IP65 |
| Connection | M16 cable gland , terminal compartment with cage terminals, M12 connector for transmitters, muting lamp, etc., muting sensors, lamp socket for muting lamp, etc. |
| 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 2300 g |

Approvals and certificates

| | |
|---------------|--|
| CE conformity | CE |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

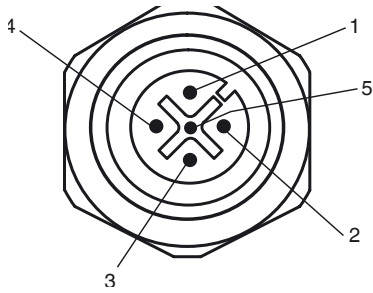
Curves/Diagrams




Additional information

Socket assignment on the front side of the device

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Indicator lamp control 

| Socket | Function |
|--------|-----------------------|
| 1 | OSSD on |
| 2 | OSSD off |
| 3 | 0 V |
| 4 | Readiness for startup |
| 5 | Muting (monitored) |

T1 - T4 transmitter control

| Socket | Function |
|--------|-----------------------|
| 1 | Transmitter channel 1 |
| 2 | Transmitter channel 2 |
| 3 | 0 V |

Muting sensor inputs MS1 - MS4

| Socket | Function |
|--------|---------------|
| 1 | + 24 V |
| 3 | 0 V |
| 4 | Sensor signal |

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 SLP-2-M