



Dimensions



Model Number

SLCT14 - Serie

Safety light curtain
with 2 separate fail-safe semiconductor outputs

Features

- Resolution 14 mm (finger protection)
- Protection field height up to 1200 mm
- Self-testing (type 2 as per IEC/EN 61496-1)
- SIL1 acc. to IEC 61508
- Degree of protection IP67
- Temperature range -35 ... 60°C (-31 ... 140 °F)
- Slim design, mounting on three sides

Description

The Safety light curtain consists of a transmitter and a receiver unit. The protected area is formed by infrared light beams transmitted from the transmitter unit to the receiver unit. The spacing between the individual light beams determines the minimum obstruction size (14 mm) that can be reliably detected within the entire protected area range.

Accessories

TR 14/30/50/60

Test rod for safety light curtain SLCT

AA SLCT-01

Profile alignment aid; simplified alignment of the SLCS and SLCT safety light curtains

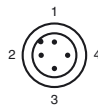
OMH-SLCT-100-1200

Mounting base for floor mounting and cover plate

Other suitable accessories can be found at www.pepperl-fuchs.com

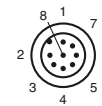
Electrical connection

Transmitter unit:



| Pin | Transmitter unit |
|-----|------------------|
| 1 | 24 V DC |
| 2 | Mode A/B |
| 3 | 0 V DC |
| 4 | Test |

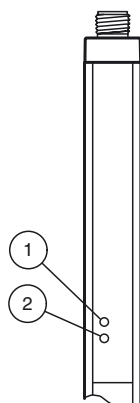
Receiver unit:



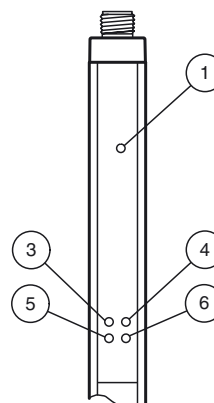
| Pin | Receiver unit |
|-----|------------------------|
| 1 | Restart Interlock (RI) |
| 2 | 24 V DC |
| 3 | Relay Monitor (RM) |
| 4 | Status / Select RI-RM |
| 5 | OSSD1 |
| 6 | OSSD2 |
| 7 | 0 V DC |
| 8 | Mode A/B |

Indicators/operating means

Transmitter unit



Receiver unit



| | | |
|---|------------------|--------|
| 1 | Power | green |
| 2 | Mode A/B, Status | yellow |
| 3 | OSSD OFF | red |
| 4 | OSSD ON | green |
| 5 | Restart/Status | yellow |
| 6 | Mode A/B | yellow |

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Technical data**General specifications**

| | |
|---------------------------|---|
| Effective detection range | 0.2 ... 8 m |
| Light source | IREd |
| Light type | modulated infrared light , 850 nm |
| Protection field height | see Table 1, max. 1200 mm |
| Operating mode | Startup/restart disable, deactivateable |
| Optical resolution | 14 mm |
| Angle of divergence | 5 ° |
| Ambient light limit | Not sensitive to ambient light in accordance with IEC 61496-2 |
| UL File Number | E215245 |

Functional safety related parameters

| | |
|--------------------------------|--|
| Safety Integrity Level (SIL) | SIL 1 |
| Performance level (PL) | PL c |
| Category | Cat. 2 |
| Mission Time (T _M) | 20 a |
| PFH _d | Depending on the protection field height; see Manual |
| Type | 2 |

Indicators/operating means

| | |
|---------------------|---|
| Operation indicator | green: Power on |
| Function indicator | Green: OSSD ON , Red: OSSD OFF |
| Status indicator | Transmitter unit: LED yellow: Mode, test or error Receiver: LED yellow: Start readiness, function reserve or error |

Electrical specifications

| | | |
|------------------------|----------------|--|
| Operating voltage | U _B | 24 V DC (-20%, +30%) ; Power supply with safe isolation: 24 V DC |
| No-load supply current | I ₀ | Transmitter unit: ≤ 150 mA Receiver: ≤ 150 mA (outputs open) |
| Protection class | | III , IEC 61140 |
| Power consumption | P ₀ | Transmitter unit: 5 W Receiver: 15 W |

Input 1

| | |
|-------------------|-----------------------|
| Input type | Transmitter unit test |
| Input format | Break contact |
| Switching voltage | 24 V DC |
| Input current | 5 mA |

Input 2

| | |
|------------|--|
| Input type | Transmitter unit, mode A/B |
| Function | Beam Code A: open or 0 V Beam Code B: 24 V DC, 5 mA |

Input 3

| | |
|-------------------|-----------------------------|
| Input type | Receiver unit relay monitor |
| Input format | Break contact |
| Switching voltage | 24 V DC |
| Input current | 5 mA |

Input 4

| | |
|---------------|------------------------------|
| Input type | Receiver unit, start release |
| Input format | Break contact |
| Input current | 5 mA |

Input 5

| | |
|------------|--|
| Input type | Receiver unit, mode A/B (see transmitter unit, mode A/B) |
|------------|--|

Output

| | |
|---------------|-------------------------|
| Response time | see Table 1, max. 54 ms |
|---------------|-------------------------|

Output 1

| | |
|-------------------|--|
| Output type | Receiver unit OSSD |
| Signal output | PNP semiconductor , monitored for short and cross circuits |
| Switching voltage | ON: U _B - 2 V; OFF: < 1 V |
| Switching current | ON: max. 0.1 A; OFF: < 5 μA |

Output 2

| | |
|---------------|--|
| Output type | Receiver signal output start readiness |
| Signal output | PNP-semiconductor, short-circuit protected, 0.1A |

Conformity

| | |
|-------------------|--------------------------------|
| Functional safety | ISO 13849-1 ; EN 61508 part1-4 |
| Product standard | EN 61496-1 ; IEC 61496-2 |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -35 ... 60 °C (-31 ... 140 °F) |
| Storage temperature | -35 ... 70 °C (-31 ... 158 °F) |
| Relative humidity | max. 95 %, not condensing |

Mechanical specifications

| | |
|----------------------|---|
| Housing length L | see table 2 |
| Degree of protection | IP67 , For indoor use only |
| Connection | Transmitter unit: 4-pin, M12 x 1 connector Receiver: 8-pin, M12 x 1 connector Cable cross section min. 0.25 mm ² Max. cable length 50 m |

Material

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| | |
|-----------------------------------|--|
| Housing | extruded aluminum section , Silver anodized |
| Optical face | Plastic pane , Transparent polycarbonate |
| Mass | see table 2 |
| General information | |
| Supplementary information | EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com . |
| Approvals and certificates | |
| CE conformity | CE |
| UL approval | cULus Listed |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |
| TÜV approval | TÜV |

Additional information

Table 1 - Response time:

| Height of the protected area [mm] | Response time [ms] |
|-----------------------------------|--------------------|
| 100 | 11 |
| 200 | 15 |
| 300 | 19 |
| 400 | 23 |
| 500 | 26 |
| 600 | 30 |
| 700 | 34 |
| 800 | 38 |
| 900 | 42 |
| 1000 | 46 |
| 1100 | 50 |
| 1200 | 54 |

Table 2 - Total length and weight:

| Height of the protected area [mm] | Total length of transmitter/receiver unit [mm] | Weight of transmitter/receiver unit [g] |
|-----------------------------------|--|---|
| 100 | 219 | 140 |
| 200 | 319 | 200 |
| 300 | 419 | 250 |
| 400 | 519 | 310 |
| 500 | 619 | 370 |
| 600 | 719 | 430 |
| 700 | 819 | 480 |
| 800 | 919 | 540 |
| 900 | 1019 | 600 |
| 1000 | 1119 | 650 |
| 1100 | 1219 | 710 |
| 1200 | 1319 | 760 |

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