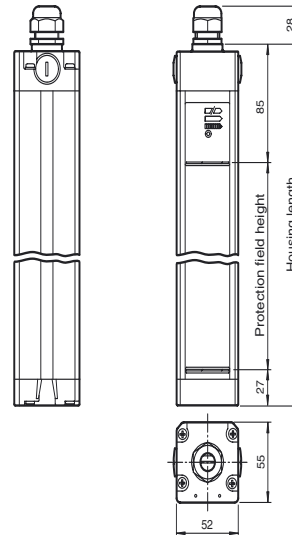


Dimensions



Model Number

SLC14-1350/130

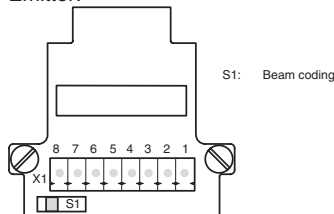
with 2 separate fail-safe semiconductor outputs

Features

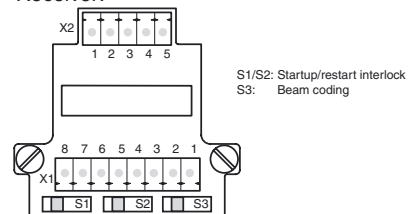
- Sensing range up to 5 m
- Resolution 14 mm (finger protection)
- Protective field height up to 1800 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Master/Slave detection, Plug and Play
- Start/Restart disable
- Very short response time
- Protection degree IP67
- Integrated function display
- Pre-fault indication
- Safety outputs OSSD in potential-separated semiconductor design or with monitored, compelled connection NC-contacts
- Optional with relay monitor (Option 129)
- Optional with ATEX certificates for zone 2 and 22 and protection degree IP66 (Option 133)

Electrical connection

Emitter:



Receiver:



| Terminal | Emitter | Receiver SLC...-R (semiconductor output) | Receiver SLC...-R/129 (Relay monitor) |
|----------|---------------------|--|---------------------------------------|
| X1:1 | Functional earth | Functional earth | Functional earth |
| X1:2 | | Test (input) | Relay monitor |
| X1:3 | | 0 V OSSD | 0 V OSSD |
| X1:4 | | 24 V OSSD | 24 V OSSD |
| X1:5 | | OSSD2 (output) | OSSD2 (output) |
| X1:6 | | OSSD1 (output) | OSSD1 (output) |
| X1:7 | 0 V AC/DC | 0 V DC | 0 V DC |
| X1:8 | 24 V AC/DC | 24 V DC | 24 V DC |
| X2:1 | | Start release (output) | Start release (output) |
| X2:2 | | Status OSSD (output) | Status OSSD (output) |
| X2:3 | Not placed on board | n.c. | n.c. |
| X2:4 | | n.c. | n.c. |
| X2:5 | | Startup readiness (input) | Startup readiness (input) |

Accessories

PG SLC-1350

Protective glass panes for SLC series

BA SLC

laser alignment aid for safety light curtains series SLC

Release date: 2012-07-11 10:01 Date of issue: 2012-07-11 119869_eng.xml

Technical data**General specifications**

| | |
|---------------------------------------|---|
| Effective detection range | 0.2 ... 5 m |
| Light source | IREDD |
| Light type | modulated infrared light |
| Approvals | TÜV, UL |
| Tests | IEC/EN 61496 |
| Safety type according to IEC/EN 61496 | 4 |
| Marking | CE |
| Width of protected area | 0.2 ... 5 m |
| Protection field height | 1350 mm |
| Number of beams | 144 |
| Operating mode | can be selected with or without start/restart disable |
| Optical resolution | 14 mm |
| 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 | 2.28 E-8 |
| Type | 4 |

Indicators/operating means

| | |
|----------------------|--|
| Operating display | 7-segment display in emitter |
| Diagnostics display | 7-segment display in receiver |
| Function display | in receiver: LED red: OSSD off LED green: OSSD on LED yellow: Protected area free, system start-ready |
| Pre-fault indication | LED orange |
| Controls | switch for start/restart disable, transmission coding |

Electrical specifications

| | | |
|------------------------|----------------|--------------------------------------|
| Operating voltage | U _B | 24 V DC (-30 %/+25 %) |
| No-load supply current | I ₀ | Emitter: ≤ 100 mA receiver: ≤ 150 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 | Start release |

Output

| | |
|-------------------|---|
| Safety output | 2 separated fail safe semiconductor outputs |
| Signal output | 1 PNP each, max. 100 mA for start readiness and OSSD status |
| Switching voltage | Operating voltage -2 V |
| Switching current | max. 0.5 A |
| Response time | 28 ms |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | 0 ... 55 °C (32 ... 131 °F) |
| Storage temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Relative humidity | max. 95 %, not condensing |

Mechanical specifications

| | |
|--------------------|--|
| Housing length L | 1460 mm |
| Protection degree | IP67 |
| Connection | M20 cable gland , terminal compartment with screw terminals, lead cross-section max. 1.5 mm ² |
| Connection options | Further electrical connection options on request: Connector M12, 8-pin Connector DIN 43 651 Hirschmann, 6-pin+PE Connector M26x11 Hirschmann, 11-pin+PE |
| Material | |
| Housing | extruded aluminum profile, RAL 1021 (yellow) coated |
| Optical face | Plastic pane |
| Mass | Per 4350 g |

General information

| | |
|-------------------|-----------------------|
| System components | |
| Emitter | SLC 14 - 1350 -T/ 130 |
| Receiver | SLC 14 - 1350 -R/ 130 |

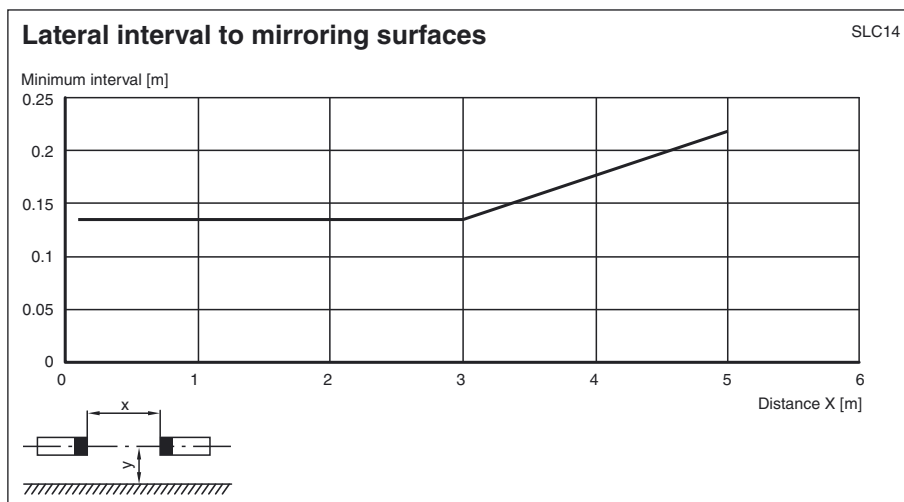
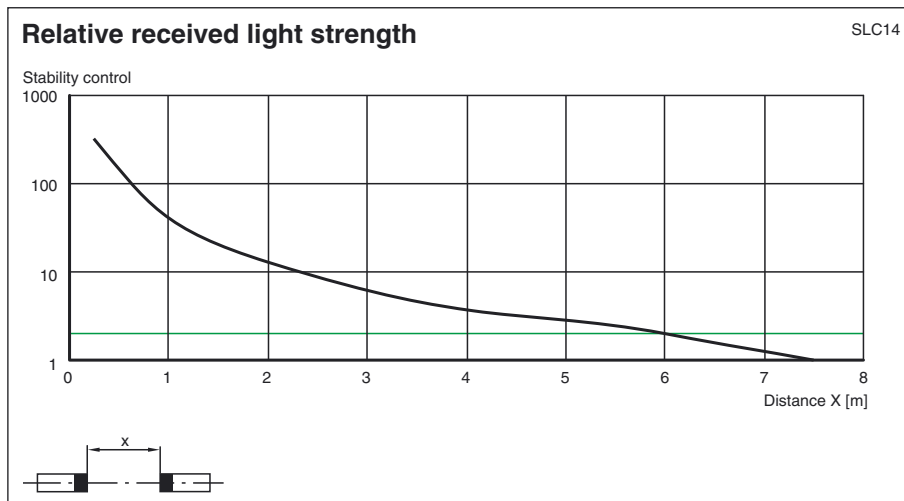
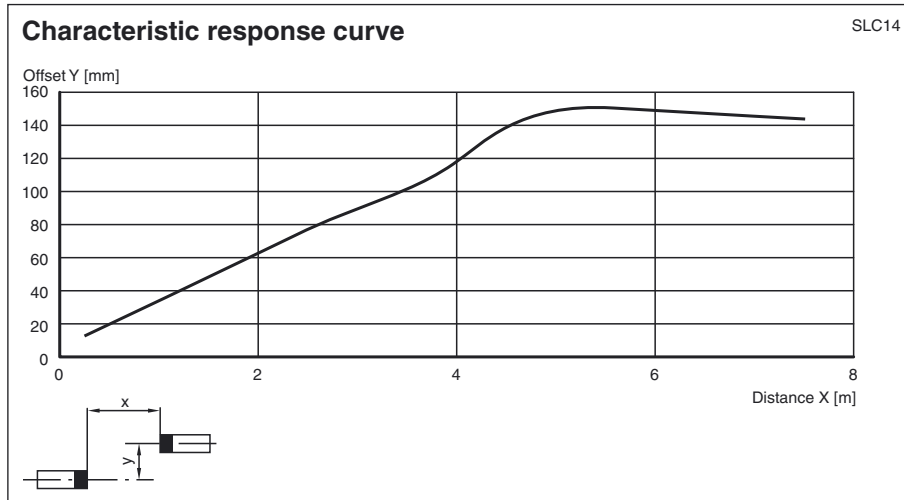
Compliance with standards and directives

| | |
|--------------------------------|---|
| Directive conformity | |
| Machinery Directive 2006/42/EC | EN ISO 13849-1:2008 EN 61496-1:2004/A1:2008 |
| EMC Directive 2004/108/EC | EN 61000-6-4:2007 + A1:2011 |
| Standard conformity | |
| Standards | IEC 61496-2:2006 EN 50178:1997 |

Approvals and certificates

| | |
|---------------|--|
| CE conformity | CE |
| UL approval | cULus Listed |
| CCC approval | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |
| TÜV approval | TÜV |

Curves/Diagrams



Release date: 2012-07-11 10:01 Date of issue: 2012-07-11 119869_eng.xml

Note

Subject to modifications without notice

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776-4411
fa-info@pepperl-fuchs.com

Copyright Pepperl+Fuchs

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Master-Slave operation

Master: SLC..-... (semiconductor)
or SLC..-.../31 (relay)
Slave: SLC..-...-S

The use of slaves allows both the protection fields to be extended and protection fields to be created that do not all exist at a single level. When deciding which slaves to connect, remember that the total maximum of 96 beams must not be exceeded. Up to 192 beams are possible if the /130 option is selected.

Slaves exist for the transmitter and the receiver. These simply need to be connected to the master light curtain. Up to two slaves can be connected to both the transmitter and receiving units. Only one slave can be connected if the /130 option is selected.

Installation:

- 1 The end cap (no cable gland) on the light curtain is unscrewed and removed.
- 2 The plug-in jumper on the connectors of the now visible PCB is removed.
- 3 The slave is designed in such a way that the cap and PCB on the connecting cable plug directly onto the open end of the light curtain.
- 4 Once the end cap has been screwed on, the system is complete.

System accessories

- Mounting set SLC
- Test rods SLC14/SLC30/SLC60
- Protection glass for SLC (to protect the optical surface)
- Side cable gland SLC
- Profile alignment tool
- Beam alignment tool SLC
- Mirror for SLC (to protect danger areas on more than one side)
- Stands UC SLP/SLC
- Enclosure for stands
Enclosure UC SLP/SLC
- Start protection
Damping UC SLP/SLC