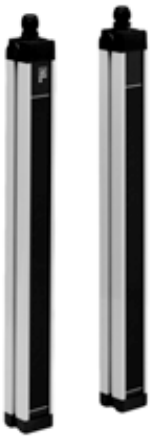
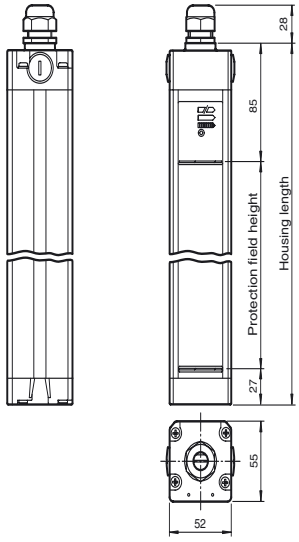


Dimensions



Model Number

SLC14-1350/31/130

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

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
- Degree of protection 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)

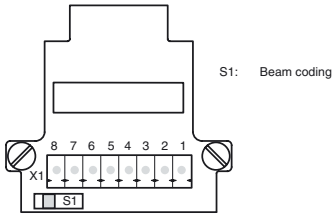
Accessories

PG SLC-1350
Protective glass panes for SLC series

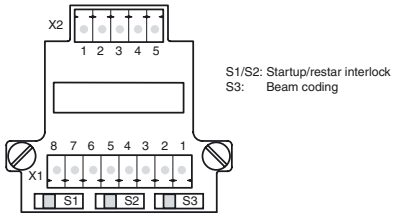
BA SLC
laser alignment aid for safety light cutrtains series SLC

Electrical connection

Emitter:



Receiver:



terminal	emitter	receiver SLC...-R/31 (relay output)	receiver SLC...-R/31 (Relay monitor)
X1:1	Functional earth	Functional earth	Functional earth
X1:2		test (input)	Relay monitor
X1:3		OSSD2.2 (output)	OSSD2.2 (output)
X1:4		OSSD1.2 (output)	OSSD1.2 (output)
X1:5		OSSD2.1 (output)	OSSD2.1 (output)
X1:6		OSSD1.1 (output)	OSSD1.1 (output)
X1:7	0 V AC/DC	0 V AC/DC	0 V AC/DC
X1:8	24 V AC/DC	24 V AC/DC	24 V AC/DC
X2:1	Not placed on board	Start release (output)	Start release (output)
X2:2		Status OSSD (output)	Status OSSD (output)
X2:3		24 V reference potential for I/O	24 V reference potential for I/O
X2:4		0 V reference potential for I/O	0 V reference potential for I/O
x2:5		Startup readiness (input)	Startup readiness (input)

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Technical data

System components		
Emitter		SLC14-1350-T/130
Receiver		SLC14-1350-R/31/130
General specifications		
Effective detection range		0.2 ... 5 m
Light source		IRED
Light type		modulated infrared light
LED risk group labelling		exempt group
Tests		IEC/EN 61496
Safety type according to IEC/EN 61496		4
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		2.42 E-8
Type		4
Indicators/operating means		
Operation indicator		7-segment display in emitter
Diagnostics indicator		7-segment display in receiver
Function indicator		in receiver: LED red: OSSD off LED green: OSSD on LED yellow: Protected area free, system start-ready
Pre-fault indicator		LED orange
Control elements		switch for start/restart disable, transmission coding
Electrical specifications		
Operating voltage	U_B	24 V DC (-30 %/+25 %) / 24 V AC (-20 %/+10 %)
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 relay outputs, force-guided NO-contact
Signal output		1 PNP each, max. 100 mA for start readiness and OSSD status
Switching voltage		50 V
Switching current		max. 2 A
Switching power		100 VA
Response time		48 ms
Conformity		
Functional safety		ISO 13849-1
Product standard		EN 61496-1 ; IEC 61496-2
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
Degree of protection		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
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

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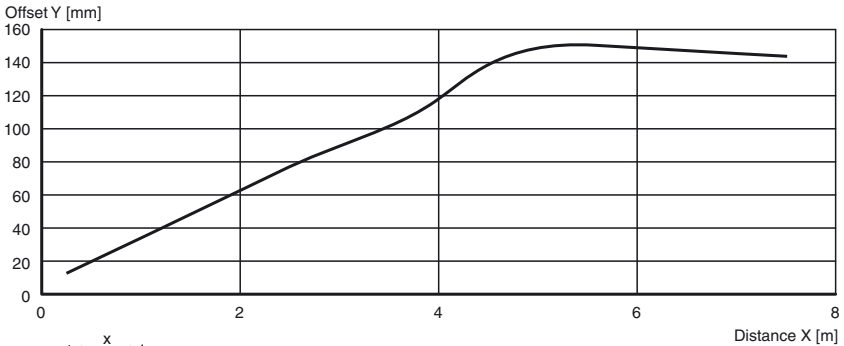
Curves/Diagrams

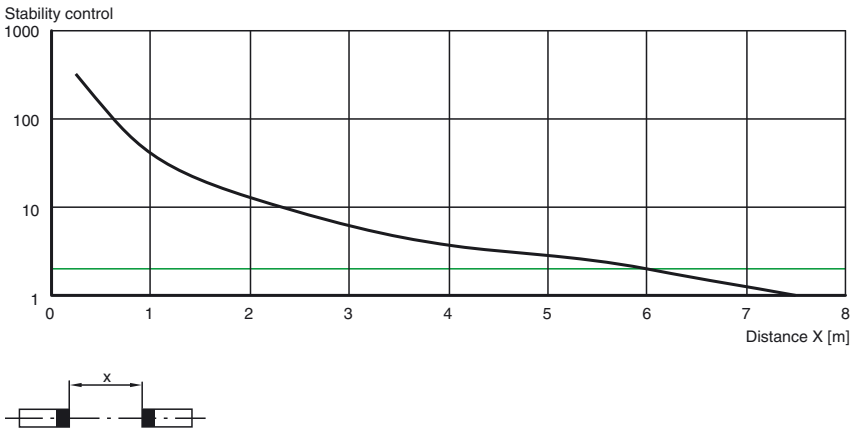
Characteristic response curve

SLC14



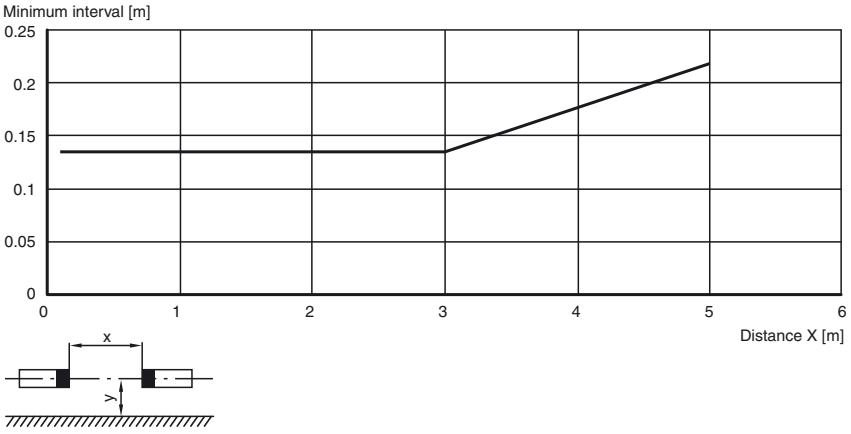
Relative received light strength

SLC14



Lateral interval to mirroring surfaces

SLC14



Note

Master-Slave operation

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

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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

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