



Safety light curtain

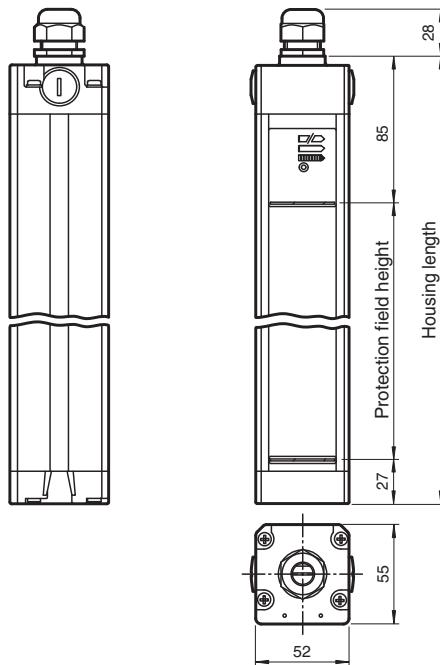
SLC30-1050/31



- Sensing range up to 15 m
- Resolution 30 mm (hand 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
- 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)



Dimensions



Technical Data

System components

Emitter	SLC30-1050-T
Receiver	SLC30-1050-R/31

General specifications

Effective detection range	0.2 ... 15 m
Light source	IRED
Light type	modulated infrared light
LED risk group labelling	exempt group

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

Technical Data

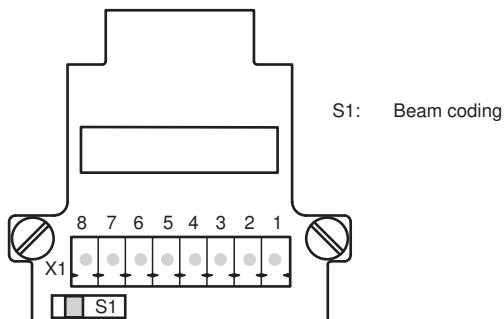
Tests	IEC/EN 61496	
Safety type according to IEC/EN 61496	4	
Width of protected area	0.2 ... 15 m	
Protection field height	1050 mm	
Number of beams	56	
Operating mode	can be selected with or without start/restart disable	
Optical resolution	30 mm	
Angle of divergence	< 5 °	
Functional safety related parameters		
Safety Integrity Level (SIL)	SIL 3	
Performance level (PL)	PL e	
Category	Cat. 4	
Mission Time (T _M)	20 a	
PFH _d	1.5 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	40 ms	
Conformity		
Functional safety	ISO 13849-1	
Product standard	EN 61496-1 ; IEC 61496-2	
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	
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	1160 mm	

Technical Data

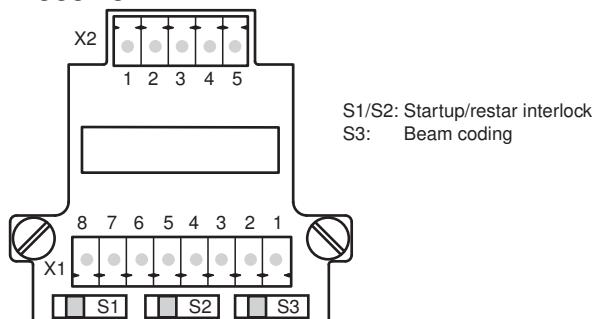
Degree of protection	IP67
Connection	M20 cable gland, terminal compartment with screw terminals, lead cross-section max. 1.5 mm ²
Connection options	Further electrical connection options on request: Connector M12, 8-pin Connector DIN 43 651 Hirschmann, 6-pin+PE Connector M26x11 Hirschmann, 11-pin+PE
Material	
Housing	extruded aluminum profile, RAL 1021 (yellow) coated
Optical face	Plastic pane
Mass	Per 3450 g

Connection

Emitter:

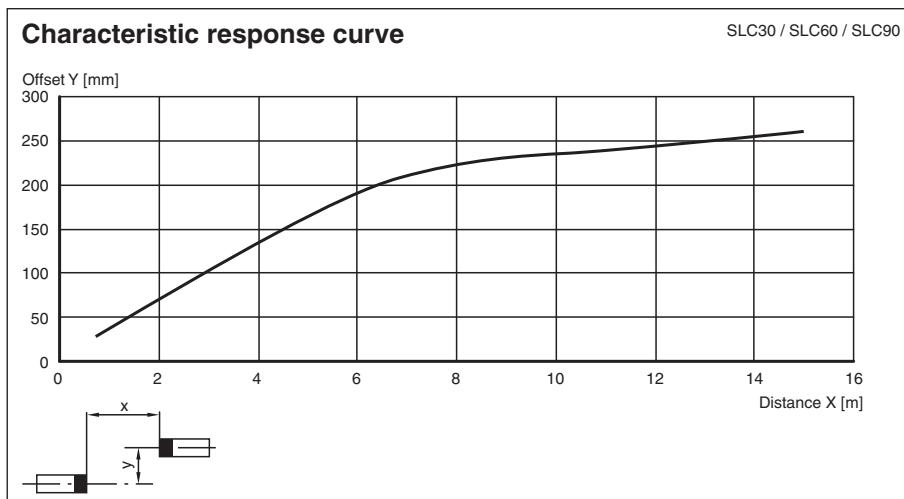


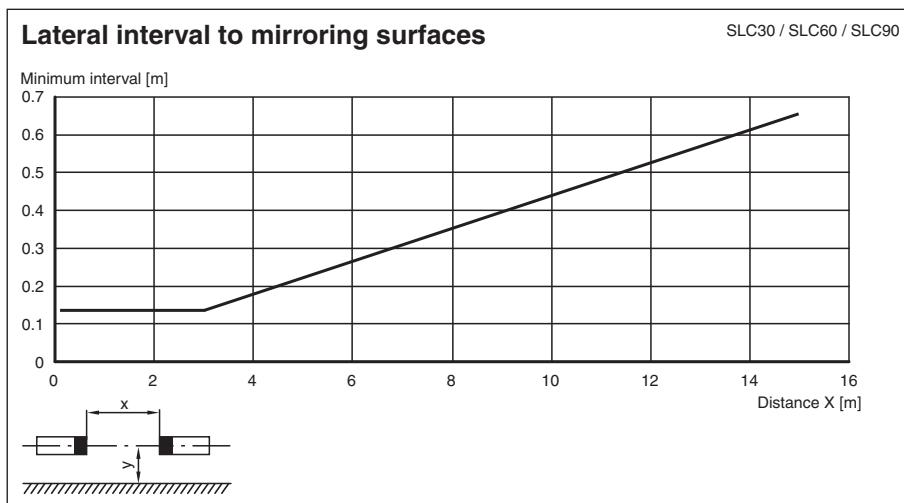
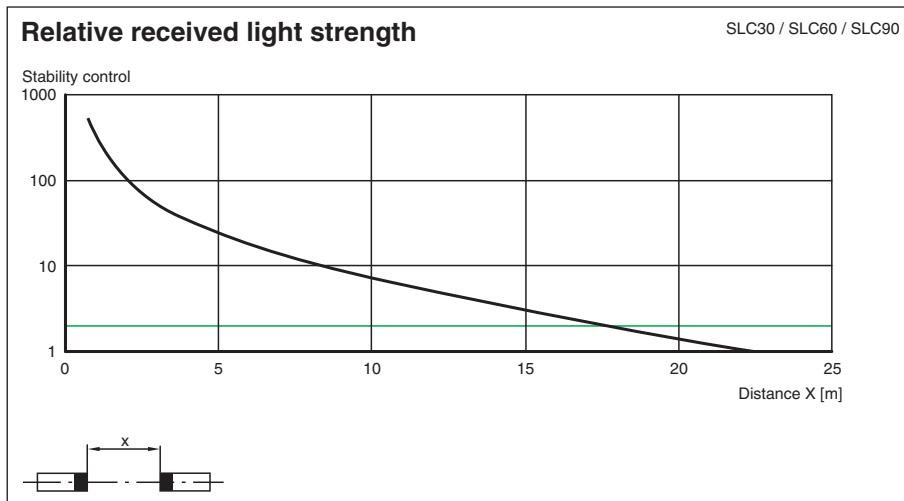
Receiver:



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)

Characteristic Curve





Matching system components

Release date: 2020-03-20 Date of issue: 2020-10-06 Filename: 417943_eng.pdf

	SB4-OR-4XP-B-4159	Safety control unit
	SB4-OR-4XP	Safety control unit
	SB4-OR-4XP-B	SB4 series safety control unit with 1 optional module slot for functional enhancement
	SB4-OR-4XP-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-4158	Safety control unit
	SB4-OR-4XP-3819	Safety control unit

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

Matching system components

	SB4-OR-4XP-4M	Safety control unit
	SB4-OR-4XP-4MD	Safety control unit
	SB4-OR-4XP-4M-4136	Safety control unit of series SB4
	SB4-OR-4XP-4X	Safety control unit
	SB4-OR-4XP-4X-3819	Safety control unit
	SB4-OR-4XP-4136	Safety control unit of series SB4

Accessories

	PG SLC-1050	Protective glass panes for SLC series
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Notes

Master slave mode

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

Using slaves makes it possible to lengthen protective fields or to form protective fields that lie in more than just one level. When you select slaves that can be connected, you should take into consideration that the maximum number of 96 light rays must not be exceeded.

There are slaves for transmitters and receivers. These may simply be connected to the master light curtain. As many as 2 slaves may be connected respectively to the transmitter and receiver unit.

Installation:

1. The end cap should be screwed off for the light curtain (without cable gland).
2. The plug-in jumper on the connectors of the printed circuit board, which is now visible, should be removed.
3. The slave is designed so that the cap located on the cable connector can be plugged directly onto the open end of the light curtain with the printed circuit board.
4. After you have screwed on the connection cap, the system is complete.

System accessories

- Mounting set SLC
- Test rods SLC14/SLC30/SLC60
- Protective glass pieces for SLC (to protect the optically functional surface)
- Lateral screwed connection SLC
- Profile alignment aid
- Laser alignment aid SLC
- Mirror for SLC (for securing hazardous areas on multiple sides)
- Ground pillar UC SLP/SLC
- Housing for pillar
Enclosure UC SLP/SLC
- Collision protector
- Damping UC SLP/SLC