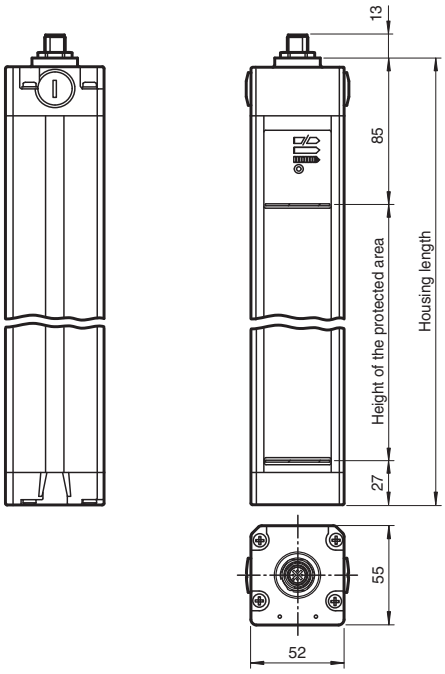
Safety light curtain

SLC14-900/129/151

- Sensing range up to 5 m
- Resolution 14 mm (finger protection)
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Master/Slave detection, Plug and Play
- Degree of protection IP67
- Integrated function display
- Pre-fault indication
- Connection via appliance socket M12 x b1
- Safety outputs OSSD in potential-separated semiconductor version
- Protective field height up to 1800 mm
- Start/Restart disable preset by Option /129

Dimensions



Technical Data

System components	
Emitter	SLC14-900-T/92
Receiver	SLC14-900-R/129/151
General specifications	
Effective detection range	0.2 ... 5 m
Light source	IRED
Light type	modulated infrared light
LED risk group labelling	exempt group

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Technical Data

Tests		IEC/EN 61496
Safety type according to IEC/EN 61496		4
Width of protected area		0.2 ... 5 m
Protection field height		900 mm
Number of beams		96
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 %)
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 (not for option /129)
Function input		Start release
Output		
Safety output		2 separated fail safe semiconductor outputs
Signal output		1 PNP, max. 100 mA for start readiness
Switching voltage		Operating voltage -2 V
Switching current		max. 0.5 A
Response time		30 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		1010 mm
Degree of protection		IP67

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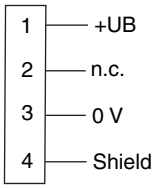
Technical Data

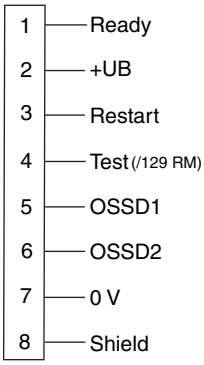
Connection	Emitter: M12 connector, 4-pin Receiver: M12 connector, 8-pin
Material	
Housing	extruded aluminum profile, RAL 1021 (yellow) coated
Optical face	Plastic pane
Mass	Per 3000 g
General information	
Note	Startup/restart disable preset

Connection Assignment

Emitter

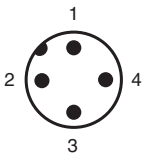


Receiver

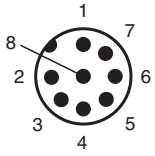


Connection Assignment

Emitter



Receiver



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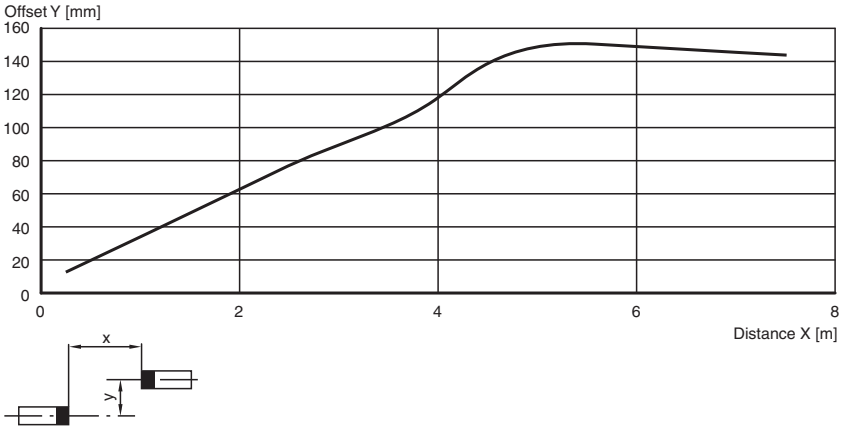
Characteristic Curve

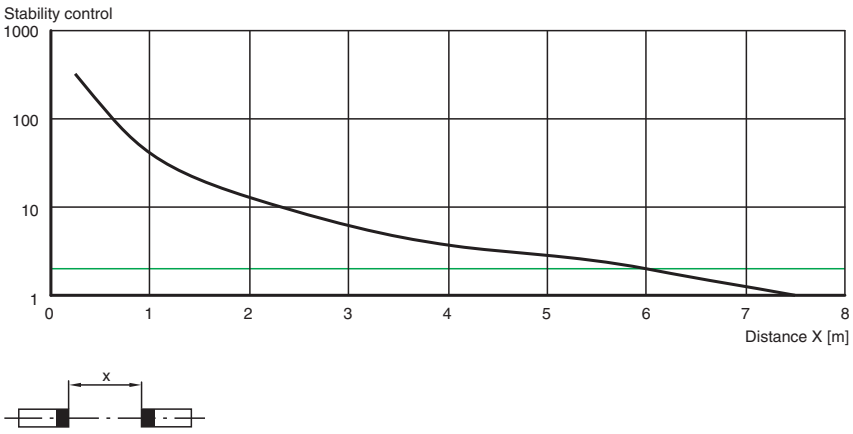
Characteristic response curve

SLC14



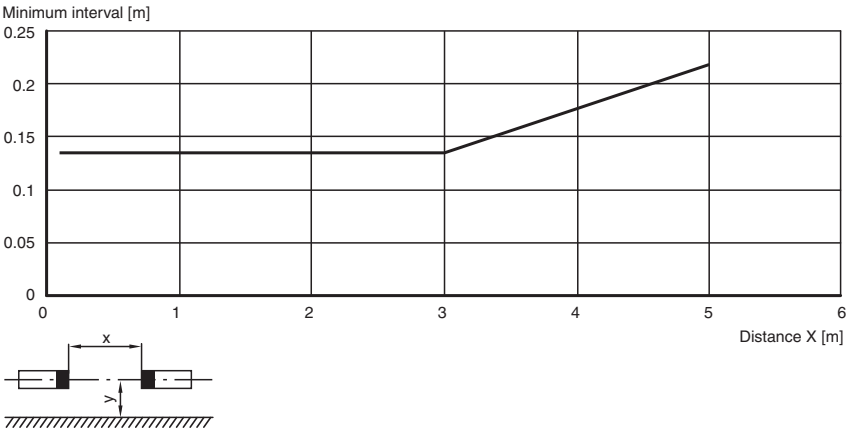
Relative received light strength

SLC14



Lateral interval to mirroring surfaces

SLC14



Matching system components

	**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

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Matching system components

	**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-B-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
	**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-900	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

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