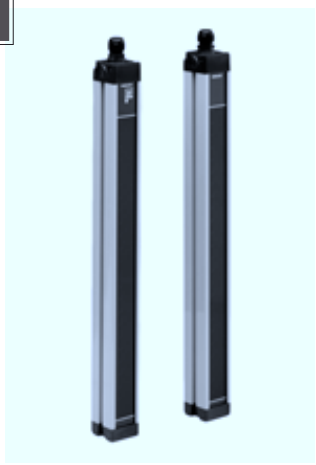
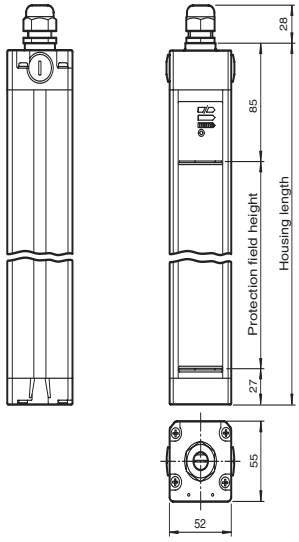


Dimensions



Model Number

SLC90-600/31

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

Features

- Sensing range up to 15 m
- Resolution 90 mm
- 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
- 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)

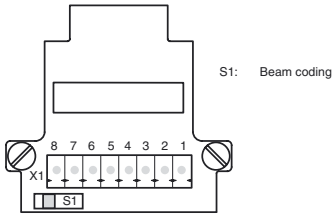
Accessories

PG SLC-600
Protective glass panes for SLC series

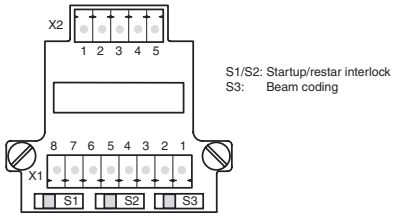
BA SLC
laser alignment aid for safety light cutrtains series SLC

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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PEPPERL+FUCHS SENSING YOUR NEEDS

Technical data

General specifications		
Effective detection range		0.2 ... 15 m
Light source		IRED
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 ... 15 m
Protection field height		600 mm
Number of beams		8
Operating mode		can be selected with or without start/restart disable
Optical resolution		90 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		1.35 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 %) / 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		30 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		710 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 2100 g
General information		
System components		
Emitter		SLC90-600-T
Receiver		SLC90-600-R/31
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

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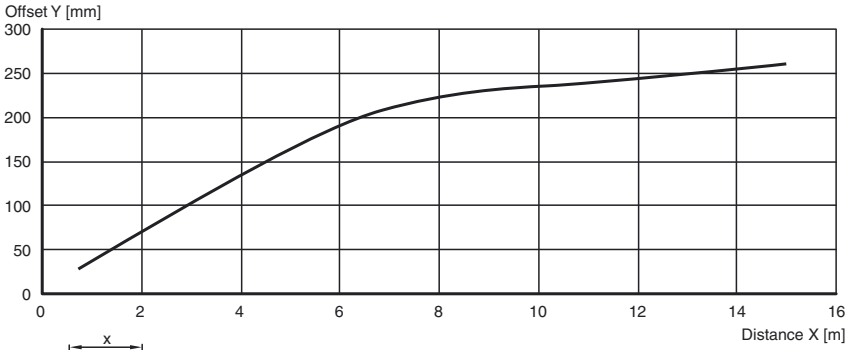
Approvals and certificates

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

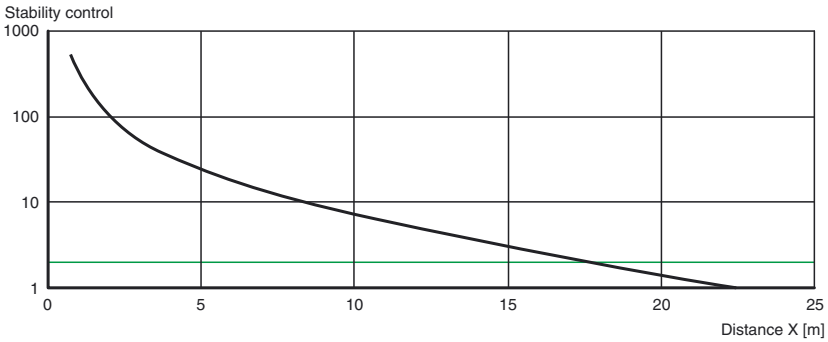
Characteristic response curve

SLC30 / SLC60 / SLC90



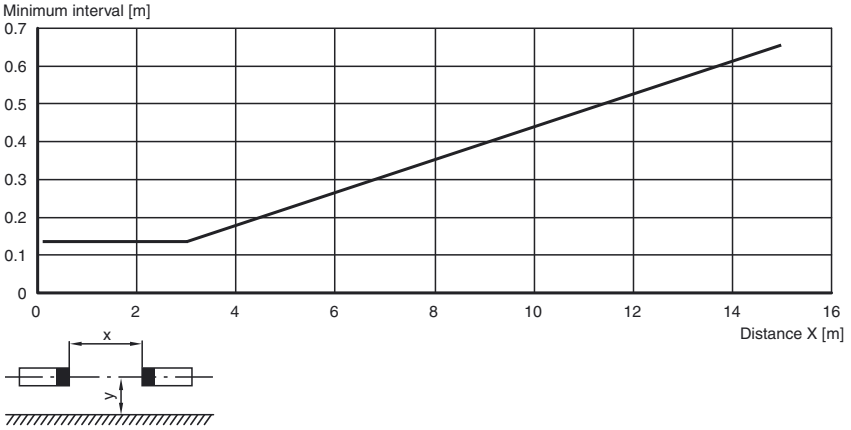
Relative received light strength

SLC30 / SLC60 / SLC90



Lateral interval to mirroring surfaces

SLC30 / SLC60 / SLC90



Notes

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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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