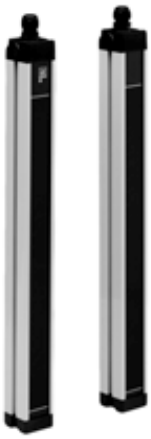
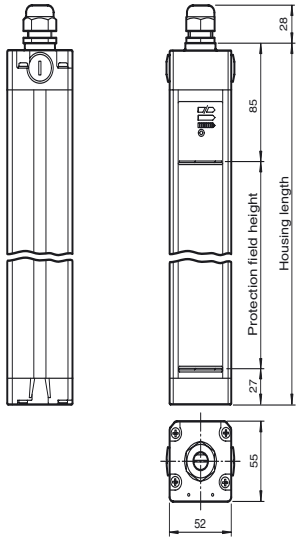


Dimensions



Model Number

SLC90-1500/133

Safety light curtain

with 2 separate fail-safe semiconductor outputs

Features

- ATEX-approval for zone 2 and zone 22
- Sensing range up to 15 m
- Resolution 90 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Safety outputs OSSD, external status displays OSSD
- Start/Restart disable
- Integrated function display
- Pre-fault indication
- Degree of protection IP66
- Further protection field height available (150 mm ... 1800 mm)

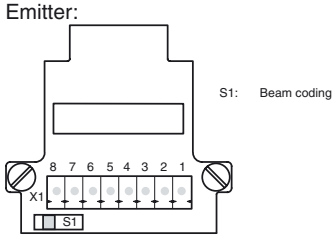
Accessories

PG SLC-1800
Protective glass panes for SLC series

BA SLC
laser alignment aid for safety light cutrtains series SLC

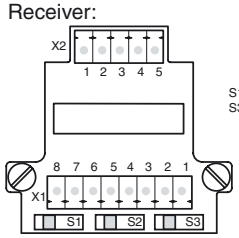
Electrical connection

Emitter:



S1: Beam coding

Receiver:



S1/S2: Startup/restart interlock
S3: Beam coding

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	Not placed on board	Start release (output)	Start release (output)
X2:2		Status OSSD (output)	Status OSSD (output)
X2:3		n.c.	n.c.
X2:4		n.c.	n.c.
x2:5		Startup readiness (input)	Startup readiness (input)

Release date: 2018-04-23 12:34 Date of issue: 2018-04-23 180025_eng.xml

Technical data

System components		
Emitter		SLC90-1500-T/133
Receiver		SLC90-1500-R/133
General specifications		
Effective detection range		0.2 ... 15 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 ... 15 m
Protection field height		1500 mm
Number of beams		20
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		1.5 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 %)
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		11 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		1610 mm
Degree of protection		IP66
Connection		M20 cable gland , terminal compartment with screw terminals, lead cross-section max. 1.5 mm^2
Material		
Housing		extruded aluminum profile, RAL 1021 (yellow) coated
Optical face		Plastic pane
Mass		Per 4800 g
General information		
Use in the hazardous area		see more details for the use in hazardous areas
Category		3G; 3D
Compliance with standards and directives		
Directive conformity		
Machinery Directive 2006/42/EC		EN ISO 13849-1:2008 ; EN 61496-1:2013
EMC Directive 2004/108/EC		EN 61000-6-4:2007+A1:2011
Standard conformity		
Standards		IEC 61496-2:2013
Approvals and certificates		
CE conformity		CE
CCC approval		CCC approval / marking not required for products rated ≤36 V
TÜV approval		TÜV

Release date: 2018-04-23 12:34 Date of issue: 2018-04-23 180025_eng.xml

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".
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@de.pepperl-fuchs.com
Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com
PEPPERL+FUCHS SENSING YOUR NEEDS

Equipment protection level Gc (nA)

ATEX marking	II 3 G Ex nAc op is IIC T4
Directive conformity	94/9/EG
Standards	EN 60079-0:2009 , EN 60079-15:2010 , EN 60079-28:2007
Special conditions	

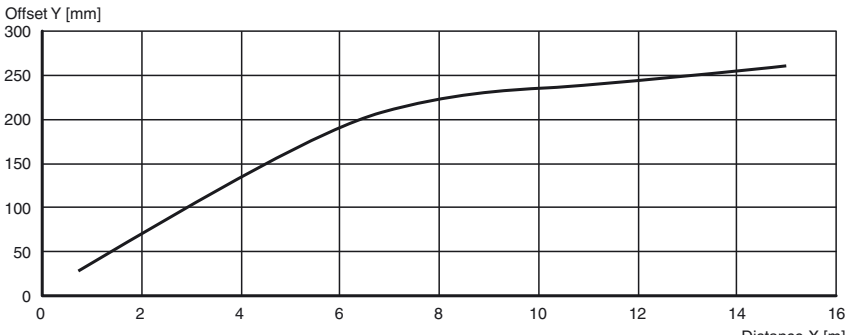
Equipment protection level Dc

ATEX marking	II 3 D Ex tc IIIC T90 °C
Directive conformity	94/9/EG
Standards	EN 60079-31:2009
Special conditions	

Curves/Diagrams

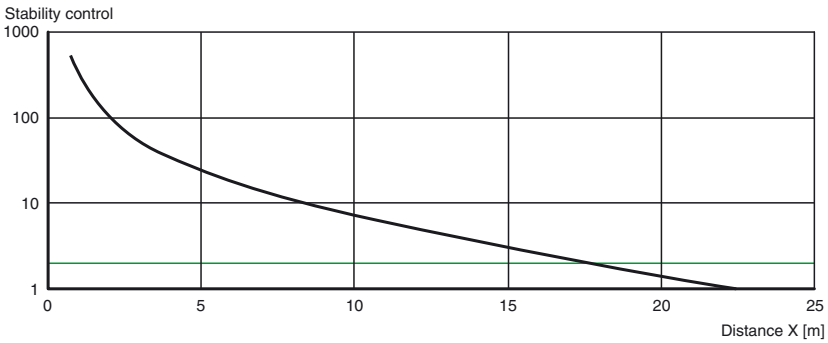
Characteristic response curve

SLC30 / SLC60 / SLC90

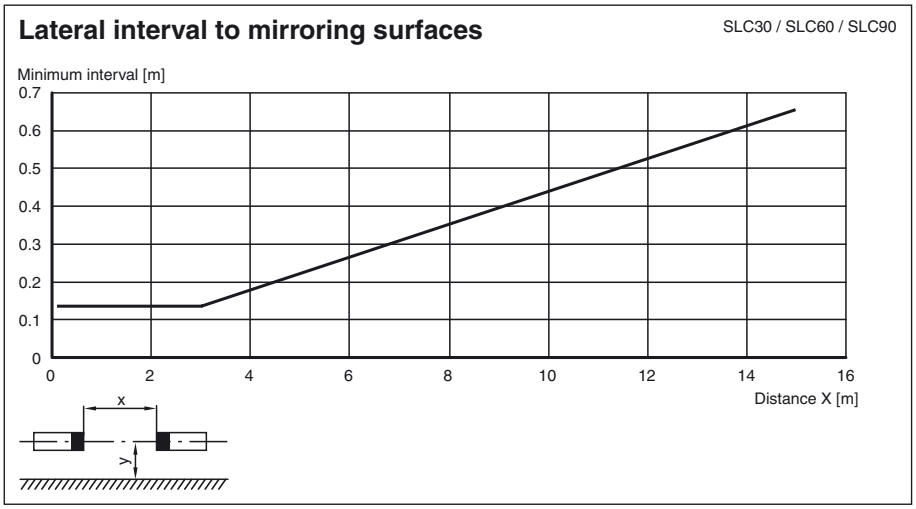


Relative received light strength

SLC30 / SLC60 / SLC90



Release date: 2018-04-23 12:34 Date of issue: 2018-04-23 180025_eng.xml



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

Release date: 2018-04-23 12:34 Date of issue: 2018-04-23 180025_eng.xml