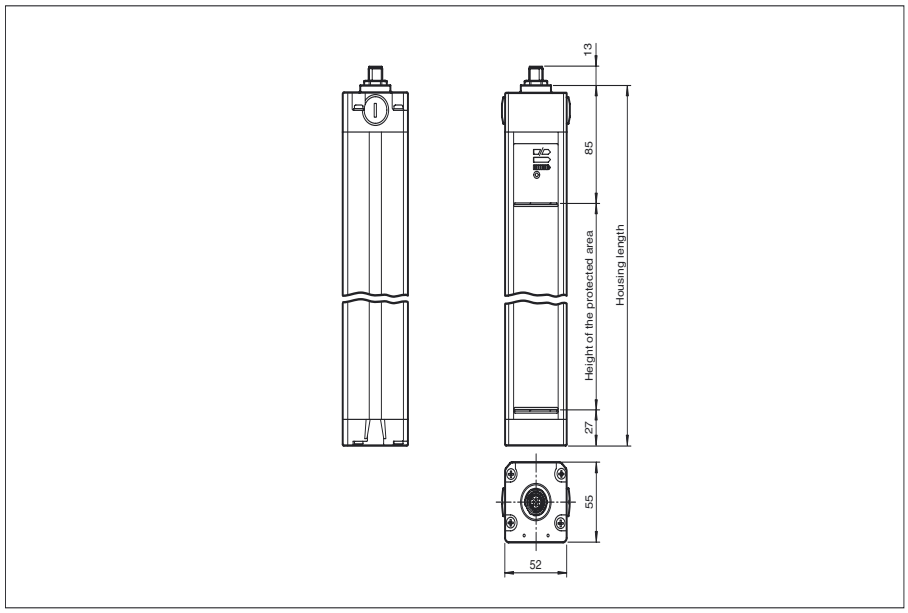
Dimensions



Model Number

SLC14-1800/130/151

with 2 separate fail-safe semiconductor outputs

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
- Protection degree IP67
- Integrated function display
- Pre-fault indication
- Optional with relay monitor (Option 129)
- Connection via appliance socket M12 x b1
- Safety outputs OSSD in potential-separated semiconductor version

Accessories

PG SLC-1800
Protective glass panes for SLC series

BA SLC
laser alignment aid for safety light cutrtains series SLC

Electrical connection

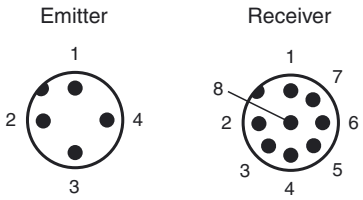
Emitter

1	+UB
2	n.c.
3	0 V
4	Shield

Receiver

1	Ready
2	+UB
3	Restart
4	Test (/129 RM)
5	OSSD1
6	OSSD2
7	0 V
8	Shield

Pinout



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Technical data

General specifications		
Effective detection range		0.2 ... 5 m
Light source		IRED
Light type		modulated infrared light
Approvals		TÜV, cULus
Tests		IEC/EN 61496
Safety type according to IEC/EN 61496		4
Marking		CE
Width of protected area		0.2 ... 5 m
Protection field height		1800 mm
Number of beams		192
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		2.28 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 %)
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		36 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		1910 mm
Protection degree		IP67
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 5700 g
General information		
System components		
Emitter		SLC 14 - 1800 -T/ 130 / 92
Receiver		SLC 14 - 1800 -R/ 130 / 151
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
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

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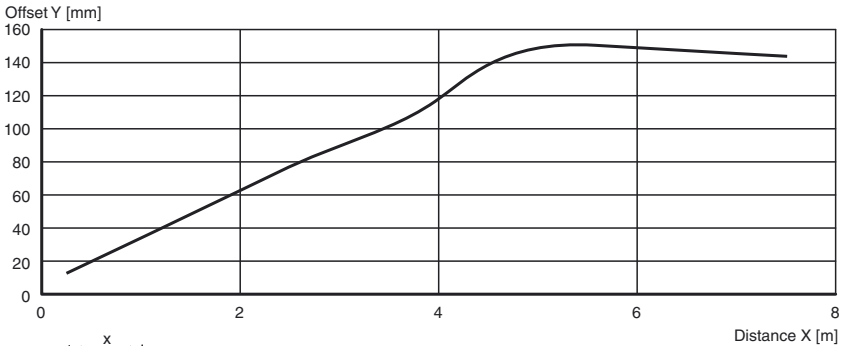
Curves/Diagrams

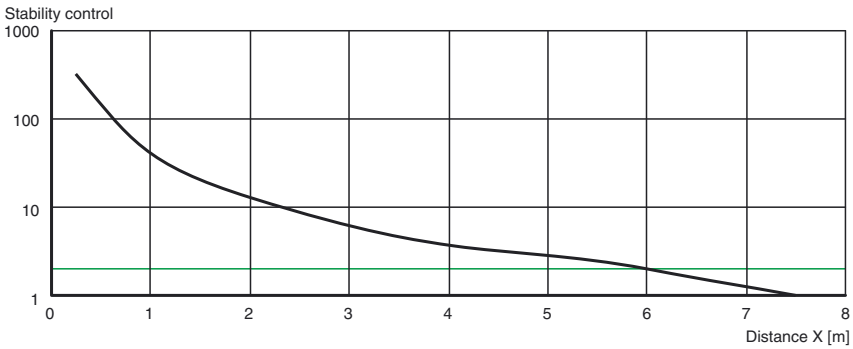
Characteristic response curve

SLC14



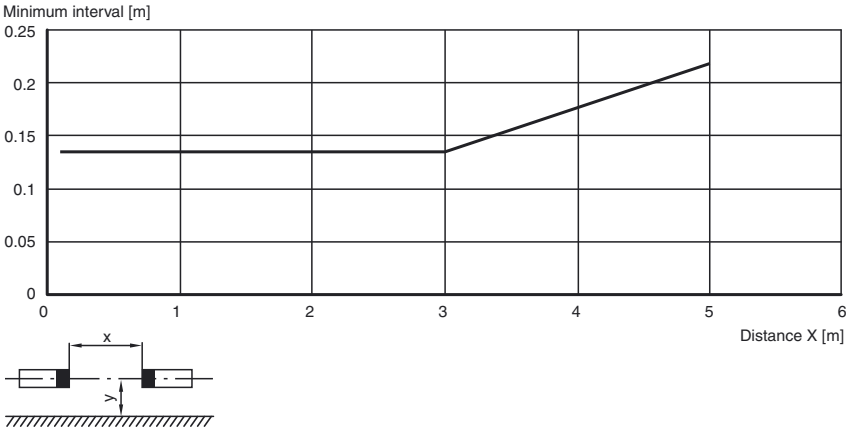
Relative received light strength

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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