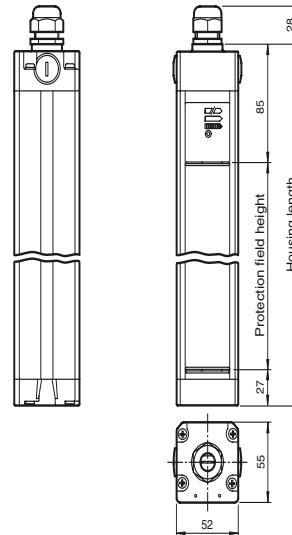


Dimensions



Model Number

SLC30-1650/133
 Safety light curtain
 with 2 separate fail-safe semiconductor
 outputs

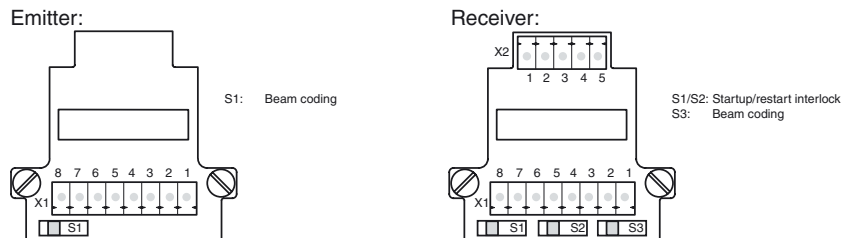
Features

- ATEX-approval for zone 2 and zone 22
- Sensing range up to 15 m
- Resolution 30 mm (hand protection)
- 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

Accessories

- PG SLC-1500**
Protective glass panes for SLC series
- BA SLC**
laser alignment aid for safety light curtains series SLC

Electrical connection



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		Start release (output)	Start release (output)
X2:2		Status OSSD (output)	Status OSSD (output)
X2:3	Not placed on board	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 185381_eng.xml

Technical data**System components**

Emitter	SLC30-1650-T/133
Receiver	SLC30-1650-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	1650 mm
Number of beams	88
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 %)
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, max. 100 mA for start readiness , short-circuit protected 1 PNP, max. 100 mA for OSSD status , short-circuit protected
Switching voltage	Operating voltage -2 V
Switching current	max. 0.5 A
Response time	28 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	1760 mm
Degree of protection	IP66
Connection	M20 cable gland , Cable diameter Ø5.5 ... 13 mm , 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 5250 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
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CCC approval
TÜV approval

CCC approval / marking not required for products rated ≤36 V
TÜV

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

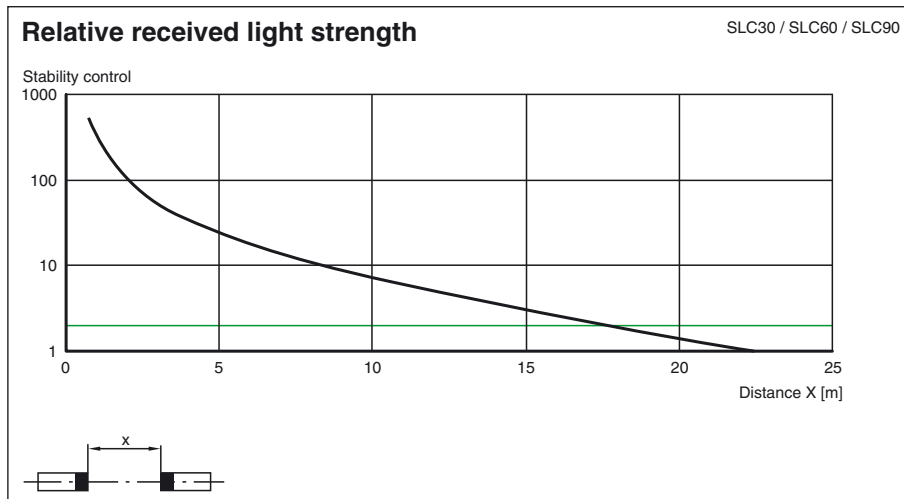
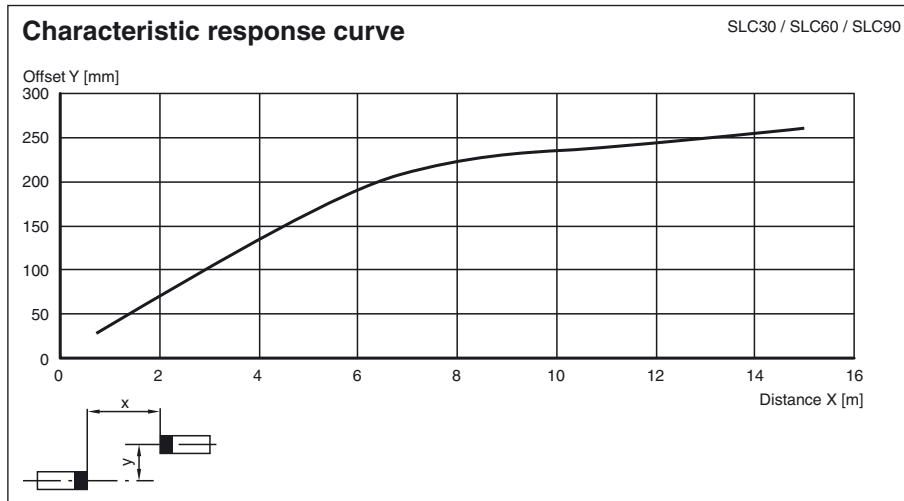
Special conditions

Equipment protection level Dc

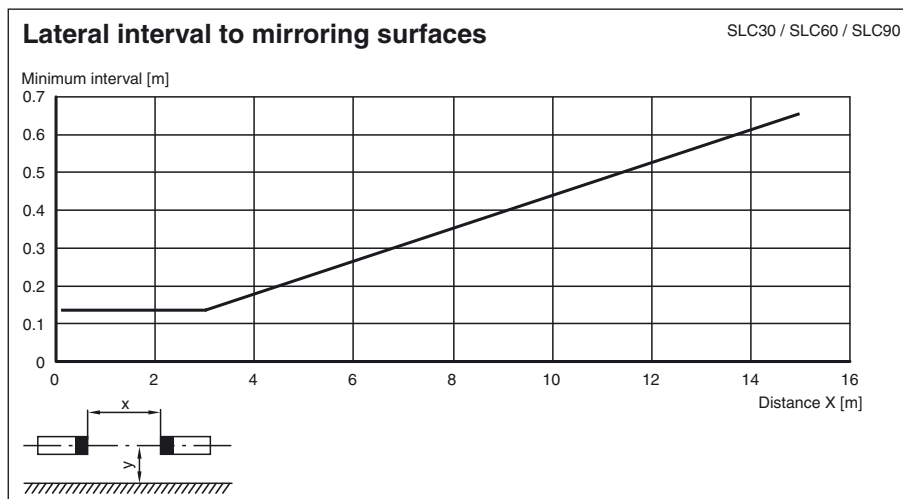
ATEX marking . II 3 D Ex tc IIIC T90 °C
 Directive conformity 94/9/EG
 Standards EN 60079-31:2009

Special conditions

Curves/Diagrams



Release date: 2018-04-23 12:34 Date of issue: 2018-04-23 185381_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