Safety light curtain

Dimensions



8

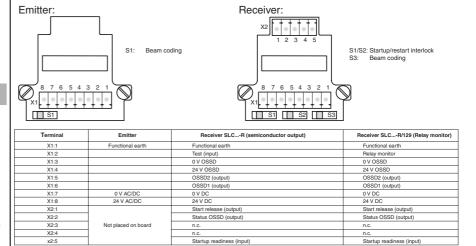
length

85

Protection field height Housing I

27





Model Number

SLC30-450/133

CE

Safety light curtain with 2 separate fail-safe semiconductor outputs

Features

- ATEX-approval for zone 2 and ٠ zone 22
- Sensing range up to 15 m ٠
- Resolution 30 mm (hand protection) ٠
- Self-monitoring (type 4 according to • IEC/EN 61496-1)
- Safety outputs OSSD, external status ٠ displays OSSD
- . Start/Restart disable
- Integrated function display •
- Pre-fault indication ٠

Accessories

PG SLC-1050

Protective glass panes for SLC series

BA SLC

laser alignment aid for safety light cutrtains series SLC



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Technical data		
System components		
Emitter	SLC30-450-T/133	
Receiver	SLC30-450-R/133	
General specifications		
Effective detection range	0.2 15 m	
Light source	IRED	
Light type	modulated infrared light	
Safety type according to IEC/EN 61496		
Width of protected area	0.2 15 m	
Protection field height	450 mm	
Number of beams	24	
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)	PLe	
Category	Cat. 4	
Mission Time (T _M)	20 a	
PFH _d	1.35 E-8 4	
Type	+ 	
Indicators/operating means	7 cogmont display in amittar	
Operating display	7-segment display in emitter	
Diagnostics display Function display	7-segment display in receiver in receiver:	
т анолон аврах	LED yellow: Protected area free, system start-ready	
Pre-fault indication	LED yenow. Protected area nee, system startheady	
Controls	switch for start/restart disable, transmission coding	
Electrical specifications	24 V DC (-30 %/+25 %)	
Operating voltage U _B No-load supply current I ₀	24 V DC (-30 %/+25 %) Emitter: ≤ 100 mA receiver: ≤ 150 mA	
No-load supply current I ₀ Protection class	Emitter: ≤ 100 mA receiver: ≤ 150 mA	
Input		
Activation current Activation time	approx. 10 mA 0.03 1 s	
Test input	Reset-input for system test Start release	
Function input	0(0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	
Output	2 constant fail sofo comission ductor outputs	
Safety output Signal output	2 separated fail safe semiconductor outputs 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	12 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	560 mm	
Protection degree	IP66	
Connection	M 00 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 1650 g	
General information		
System components		
Emitter	SLC30-450-T/133	
Receiver	SLC30-450-R/133	
Use in the hazardous area Category	see more details for the use in hazardous areas 3G; 3D	
Compliance with standards and direct	ti-	
ves		
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		
	SA: +1 330 486 0001 ©@us.pepperl-fuchs.com Germany: +49 621 776-4411 fa-info@pepperl-fuchs.com Germany: +49 621 776-4411 fa-info@pepperl-fuchs.com fa-info@sg.pepperl-fuchs.com Germany: +49 621 776-4411	

Safety light curtain

CE contorminy CE CCC approval Products with a maximum operating voltage of 350 V do not bear a CCC marking because they do not require approval. TUV approval TUV ATEX 3G (A) Instruction Instruction Manual electrical apparatus for hazardous areas Device category 3G (nA) For use in hazardous areas with gas, vapour and mist Standard conformity Standard conformity Exidentification III 30 Ex nAc op is IIC 74 Installation, Comissioning Laws and/or regulations and standards governing the use or intended usage goal must be observed. dy fitting a suitable external future, the connection as After opening the enclosure (connection cab) and connecting the wires, but bacters must be protected from mechanical shock. Anaintance No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to suit apparatus are not permissible. Special conditions 55 °C (131 °F) Protection from mechanical darger The cable and wire giand and end caps are to be protected from mechanical shock. Protection for mechanical darger The cable and wire giand and end caps are to be protected from mechanical shock. Protection for mechanical darger The cable and wire giand and end caps are to be protected from mechanical shock. Protection for mechanical darger		
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Installation, ComissioningLaws and/or regulations and standards governing the use or intended usage goal must be observed. By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connections. After opening the enclosure (connection cap) and connecting the wires, but before mounting the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.MaintenanceNo modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.Special conditionsThe cable and wire gland and end caps are to be protected from mechanical shock.Protection from mechanical dangerThe cable and wire gland and end caps are to be protected from mechanical shock.Protection from UV lightThe sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.Electrostatic chargingThe enclosure is to be grounded with help of the accompanying grounding terminal EC SLC EX via a wire with a cross section of 4 mm ² .Protection of overvoltagePrecautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	•	
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	Electrostatic charging	
	Protection of overvoltage	

Curves/Diagrams

SLC30 / SLC60 / SLC90 Characteristic response curve Offset Y [mm] 300 250 200 150 100 50 0 4 6 8 10 0 2 12 14 16 Distance X [m] >

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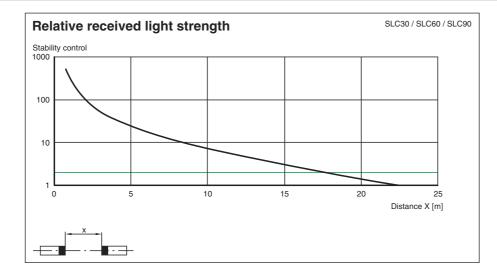
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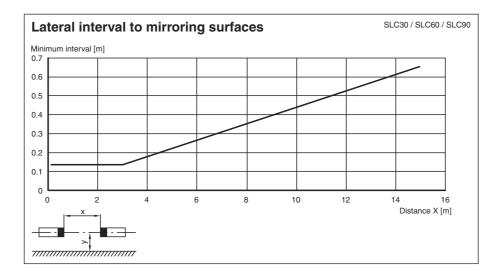
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SLC30-450/133

3





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

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- 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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