## Safety light curtain

Dimensions



8

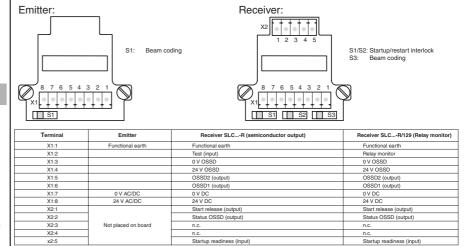
length

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 <sub>M</sub> )	20 a	
PFH <sub>d</sub>	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 <sub>B</sub> No-load supply current I <sub>0</sub>	24 V DC (-30 %/+25 %) Emitter: ≤ 100 mA receiver: ≤ 150 mA	
No-load supply current I <sub>0</sub> 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 <sup>2</sup>	
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		
TOV arEX 3G (nA)       TUV         ATEX 3G (nA)       Manual electrical apparatus for hazardous areas         Device etagory 3G (nA)       Or use in hazardous areas with gas, vapour and mist         Standard conformity       Standard conformity         Exidentification       11.3 G.E. nAc op is IIC 74         Installation, Comissioning       12.3 G.E. nAc op is IIC 74         Waintenance       Special conditions         Special conditions       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to sum apparatus are not permissible.         Special conditions       Special conditions         Maintenance       Sp 'C' (131 "F)         Protection from UV light       Sp 'C' (131 "F)         Protection or overvoltage       The cable and wire gland and end caps are to be protected from mechanical shock.         Other conditions       The cable and wire gland and end caps are to be protected from mechanical shock.         The endosure is to be grounded with hajo of the accompanying grounding terminal EC SLC EX via a vire with a cross section q4 mm <sup>2</sup> .         Other conditions       Do and concert when enrogical P biling a suitable sectematif strue, the connecting caps.         Other conditions       Do and concert when enrogical P biling a suitable sectematif strue, the connecting caps.         Directive conformity       Set CE III TP)         Protection from UV light </td <td>CE conformity</td> <td>CE</td>	CE conformity	CE
ATEX 3G (nA)         Manual electrical apparatus for hazardous areas           Device category 3G (nA)         for use in hazardous areas with gas, vapour and mist           Device category 3G (nA)         for use in hazardous areas with gas, vapour and mist           Device category 3G (nA)         EN 60079-02809, EN 60079-15:2010, EN 60079-028:2007           Existentiation         1.13 0 En Ace op is IIC 14           Installation, Comissioning	,	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.
Instruction     Manual electrical apparatus for hazardous areas       Instruction     For use in hazardous areas with gas, vapour and mist       Directive conformity     EN 80079-02009, EN 80079-15:2010, EN 80079-28:2007       Exidentification     III 3 G Ex nAc op is IIC T4       Installation, Comissioning     Laws and direngle database and datadrads governing the use or intended usage goal must be observed. By fitting a suitable external fixture, the connection cable is secured against the transmission of rotational movements and denside data on the connection. Alter opening the endipsue (connection cab) and connecting the wires, but before mourting the socies and is the advances. The cable and wires (connection) and the connection cable is secured against the transmission of rotation movements and tenside advances. The cable and wire gland and end caps are to be protected from mechanical shock.       Protection from mechanical danger     S5 °C (131 °F)       Protection from mechanical danger     The cable and wire gland and end caps are to be protected from mechanical shock.       Instruction     S5 °C (131 °F)       Protection for UV light     S6 °C (131 °F)       Protection for orvervoltage     The cable and wire gland and end caps are to be protected from mechanical shock.       Instruction     S6 °C (131 °F)       Protection for overvoltage     The cable and wire gland and end caps are to be protected from mechanical shock.       Instruction     S6 °C (131 °F)       Instruction     Maximum periods       Instruction     Don or opervoltage	TÜV approval	TÜV
Divice category 3G (nA)     For use in hazardous areas with gas, vapour and mist       Directive conformity     94/9/EG       Standard conformity     EN 80079-02009, EN 80079-152010, EN 80079-282007       Ex-Identification     -1/13 G Ex nAc op is 10 F14       Installation, Comissioning     -1/13 G Ex nAc op is 10 for the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is correctly filted and intract. Damaged seals are to be epidead.       Maintenance     No modifications must be protected against the connecting cable is secured against the seal is correctly filted and intract. Damaged seals are to be epidead.       Protection from Workingt     55 °C (131 °F)       Protection form mechanical diager     The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor incose.       Protection form UV light     The enclosure is to be grounded with help of the accompanying grounding terminal EC SLC EX via a wite with a cross section 04 mm <sup>2</sup> .       Protection of overvoltage     Protection a down must be induced to a mark against the transmission of rotational induce the connecting cap is secored by more than 40 % due to transmission cap, ensure the seal is correctly filted and intract. Damaged seals are to be protected to mark and seale loading on the connecting cap is secored by more than 40 % due to transmission of rotational movements and tensile loading on the connecting cap is secored by more than 40 % due to transmission of rotational movements and tensile loading on the connecting cap is secored against the transmission of rotational the connecting cap is secored against the transmission	ATEX 3G (nA)	
Directive conformity         94/9/EG           Standard conformity         EN 60079-0:2000, EN 60079-15:2010, EN 60079-28:2007           Exidentification         I.13 G Ex n/a op is IIC T4           Installation, Consissioning         Laws and/or regulations and standards governing the use or intended usage goal must be observed. By fitting a suitable octamal fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection. After opening the enclosure (connection cap, answer he seal is correctly fitted and finact. Damaged seals are to be epideed.           Maintenance         No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.           Protection from mechanical danger         The celeba end wire gland and end caps are to be protected from mechanical shock.           Protection from UV light         The enclosure is to be grounded with help of the accompanying grounding terminal EC SLC EX via           Protection of overvoltage         Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.           Other conditions         Do on open or disconnect when anergized By fitting a suitable external fiture, the connecting replaced.           Martesian         Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.           Other conditions         Do on open or disconnect when anergized By fitting a suitable external fiturue, the connecting replaced. <tr< td=""><td>Instruction</td><td>Manual electrical apparatus for hazardous areas</td></tr<>	Instruction	Manual electrical apparatus for hazardous areas
Standard conformity       EN 60079-0:2009, EN 60079-15:2010, EN 60079-28:2007         Evidentification       III3 G Ex rAc op is IC 74         Installation, Comissioning       Laws and/or regulations and standards governing the use or intended usage goal must be observed. By fitting a suitable external future, the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to service the seal as correctly fitted and intact. Damaged seals are to be protected from mechanical shock.         Protection from DV light       55 °C (131 °F)         Protection from DV light       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The enclosure (connect the relation). This can be achieved by using the sensor must be rotected against the transmission of tam?         Protection of overvoltage       The enclosure is to be grounded with help of the accompanying grounding terminal EC SLC EX via a ser indoors.         Other conditions       Do not open or disconnect then enclosure (connect) against the transmission of tational methanes.         Instruction       Maunul electrical apparatus for hazardous areas         Instruction       Maunul electrical apparatus for hazardous areas         Isolations       Do not open or disconnect then energized By fitting a suitable externel stat to reside adding or the connection cap) and connecting the virics, but before mounting the connection cap	Device category 3G (nA)	for use in hazardous areas with gas, vapour and mist
Exidentification       III 3 G Ex nAc op is IIC 74         Installation, Comissioning       Laws and/or regulations and standards governing the use or intended usage goal must be observed, by fiting a suitable external future, the connecting cable is secured against the transmission of rotational movements and tensible loading on the connections. After opening the enclosure is to use happaratus are to be protected from mechanical shock.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       55 °C (131 °F)         Protection from wechanical danger       The cable and wire glan and end ed caps are to be protected from mechanical shock.         Protection from UV light       55 °C (131 °F)         Protection from UV light       The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.         Other conditions       Detection of overvoltage       Predection for uvervoltage being exceeded by more than 40 % due to transient disturbances.         Instruction       Manual electrical apparatus for potentially explosive atmospheres       Duredte connecting the wires, but before mounting the connecting cable is secured against the transmission of radiational movements and tensile loading on the connection cap, and connecting the wires, but before mounting the connection cap, and connecting the wires, but before mounting the connection cap, and connecting the wires, but before mounting the connection cap, and connecti	Directive conformity	94/9/EG
Installation, Comissioning       Laws and/or regulations and standards governing the use or instended usage goal must be observerted by fitting a suitable extend fibrure, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cable. Insure the seal is correctly filted and intact. Damaged seals are to be protected from mechanical shock.         Special conditions       55 °C (131 °F)         Maximum permissible ambient temperature T <sub>Umax</sub> 55 °C (131 °F)         Protection from mechanical danger       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection of overvoltage       Protection from UV light       The each and wire sits to grounded with help of the accompanying grounding terminal EC SLC EX via a wire with a cross section of 4 mm <sup>2</sup> .         Protection for overvoltage       Do not open or disconnect the reale voltage being exceeded by more than 40 % due to transient disturbances.         Instruction       Manual electrical apparatus for potentially explosive atmospheres         Derache conformity	Standard conformity	EN 60079-0:2009, EN 60079-15:2010, EN 60079-28:2007
ved. By fitting a suitable external fxture, the connections. After opening the enclosure (connection cap) and connecting the wires, but before mounting the enclosure (connection cap), ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       55 °C (131 °F)         Protection from mechanical danger       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from WV light       55 °C (131 °F)         Electrostatic charging       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.         Other conditions       Do to open or disconnect when energized By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotection. after opening the enclosure (connection cap, ensure the seal is correctly litted and intact. Damaged seals are to be replaced.         ATEX 3D       Instruction       Maintenance         Instruction       Manual electrical apparatus for patentially explosive atmospheres         Directive conformity       Electroal apparatus for potentially explosive atmospheres         Directive conformity       I S Ex to IIIC TS0 °C         Instatitation, Comissioning       I asol	Ex-identification	II 3 G Ex nAc op is IIC T4
b such apparatus are not permissible.         Special conditions         Maximum permissible ambient temperature T <sub>Umax</sub> Protection from mechanical danger         Protection from UV light         Detection from UV light         The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The 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 <sup>2</sup> .         Protection of overvoltage       Protection of overvoltage being exceeded by more than 40 % due to transient disturbances.         Other conditions       Do not open or disconnect when energized! By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is correctly lifted and intact. Damaged seals are to be protected usage seals are to be protected movements and tensile loading on the connection cap, ensure the seal is correctly lifted and intact. Damaged seals are to be replaced.         ATEX 3D       Manual electrical apparatus for hazardous areas         Directive conformity       Electrical apparatus for potentially explosive atmospheres         Directive conformity       Electrical apparatus and standards governing the use or intended usage goal must be observed. Not observed. By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, as unable external fixture, the connecting cable is secured against the	Installation, Comissioning	ved. 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 cor-
Maximum permissible ambient temperature T <sub>Umax</sub> 55 °C (131 °F)       Protection from mechanical danger     The cable and wire gland and end caps are to be protected from mechanical shock.       Protection from UV light     The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.       Electrostatic charging     The 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 <sup>2</sup> .       Protection of overvoltage     Protection of overvoltage and wire space adaption the transmit disturbances.       Other conditions     Do not open or disconnect when energized! By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.       ATEX 3D     Manual electrical apparatus for hazardous areas       Details for use in hazardous areas     Electrical apparatus for potentially explosive atmospheres       Directive conformity     EN 80079-31:2009       Exidentification	Maintenance	
Protection from mechanical danger       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indicors.         Electrostatic charging       The 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 <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.         Other conditions       Do not open or disconnact when energized! 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 protective conformity         Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Ex-identification       .113 D Ex to IIIC 190 °C         Installation, Comissioning       Laws and/or regulations and standards governing the set onnection cap, ensure the seal is correctly fitted and intaz. Damaged seals are to be replaced.         Special conditions       No modifications must be taken on apparatus, which is operated in hazardous areas.         Maintenance <td>Special conditions</td> <td></td>	Special conditions	
Protection from UV light       The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.         Electrostatic charging       The 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 <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.         Other conditions       Do not open or disconnect when energized! By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         ATEX 3D       Manual electrical apparatus for hazardous areas         Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Ex-identification       III 3 D Ex to IIIC 790 °C         Installation, Comissioning       Laws and/or regulations and standards governing the use or intended usage goal must be obser- ved. By riding a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is cor- rectly fitting a suitable external fixture, the connection cap, ensure the seal is cor- rectly fitting a suitable external fixture, the connection cap, ensure the seal is cor- rectly fitting a suitable external fixture, the connecting cable is	Maximum permissible ambient temp	erature T <sub>Umax</sub> 55 °C (131 °F)
Sor indoors.       Sor indoors.         Electrostatic charging       The 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 <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.         Other conditions       Do not open or disconnect when energized! By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, and connecting the wires, but before mounting the contestruct against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         ATEX 3D       Manual electrical apparatus for hazardous areas         Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       Ex tel IIC T90 "C         Installation, Comissioning       Laws and/or regulations and standards governing the use or intended usage goal must be observed. By fitting a suitable external future, the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       The cable and wire gland and end caps are to be protected from mechanical	Protection from mechanical danger	The cable and wire gland and end caps are to be protected from mechanical shock.
a wire with a cross section of 4 mm <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.         Other conditions       Do not open or disconnect when energized! By fitting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         ATEX 3D       Manual electrical apparatus for hazardous areas         Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Listallation, Comissioning	Protection from UV light	
Other conditions       Do not open or disconnect when energized! 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.         ATEX 3D       Manual electrical apparatus for hazardous areas         Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Exidentification       II 3 D Ex to IIIC T90 °C         Installation, Comissioning       Laws and/or regulations and standards governing the use or intended usage goal must be observed. By fitting a suitable external fixture, the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.         Electrostatic charging       The 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 <sup>2</sup> . <td>Electrostatic charging</td> <td></td>	Electrostatic charging	
cable is secured against the transmission of rotational movements and tensile loading on the on- nections. After opening the enclosure (connection cap) and connecting the wires, but before moun- ting the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         ATEX 3D       Manual electrical apparatus for hazardous areas         Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Excidentification	Protection of overvoltage	
InstructionManual electrical apparatus for hazardous areasDetails for use in hazardous areasElectrical apparatus for potentially explosive atmospheresDirective conformity94/9/EGStandard conformityEN 60079-31:2009Ex-identification.11 3 D Ex tc IIIC T90 °CInstallation, ComissioningVifting a suitable external fixture, the connecting cable is secured against the transmission of rotational movements and tensile loading on 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 UV lightThe sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indecounce is to be grounded with help of the accompanying grounding terminal EC SLC EX via a wire with a cross section of 4 mm <sup>2</sup> .Protection of overvoltagePrecautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	Other conditions	cable is secured against the transmission of rotational movements and tensile loading on the con- nections. After opening the enclosure (connection cap) and connecting the wires, but before moun- ting the connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be
Details for use in hazardous areas       Electrical apparatus for potentially explosive atmospheres         Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Ex-identification       .II 3 D Ex to IIIC T90 °C         Installation, Comissioning       Laws 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.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.         Electrostatic charging       The 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 <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	ATEX 3D	
Directive conformity       94/9/EG         Standard conformity       EN 60079-31:2009         Ex-identification       .II 3 D Ex tc IIIC T90 °C         Installation, Comissioning       Laws 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.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.         Electrostatic charging       The 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 <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	Instruction	Manual electrical apparatus for hazardous areas
Standard conformity       EN 60079-31:2009         Ex-identification       .II 3 D Ex to IIIC T90 °C         Installation, Comissioning       Laws 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 connection cap, ensure the seal is correctly fitted and intact. Damaged seals are to be replaced.         Maintenance       No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.         Special conditions       The cable and wire gland and end caps are to be protected from mechanical shock.         Protection from UV light       The sensor must be protected against hermful UV radiation. This can be achieved by using the sensor indoors.         Electrostatic charging       The 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 <sup>2</sup> .         Protection of overvoltage       Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	Details for use in hazardous areas	Electrical apparatus for potentially explosive atmospheres
Ex-identification.II 3 D Ex to IIIC T90 °CInstallation, 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 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 <sup>2</sup> .Protection of overvoltagePrecautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	Directive conformity	94/9/EG
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 <sup>2</sup> .Protection of overvoltagePrecautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	•	
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a wire with a cross section of 4 mm <sup>2</sup> . Protection of overvoltage Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to	Protection from UV light	
	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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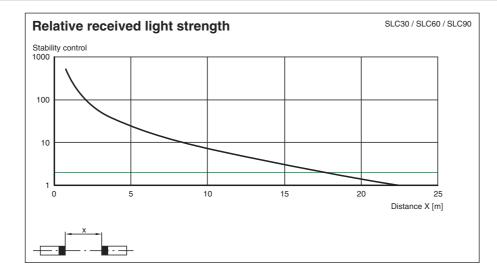
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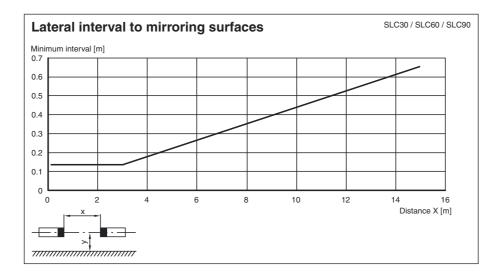
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SLC30-450/133

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#### 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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