



Safety light curtain

SLCS14

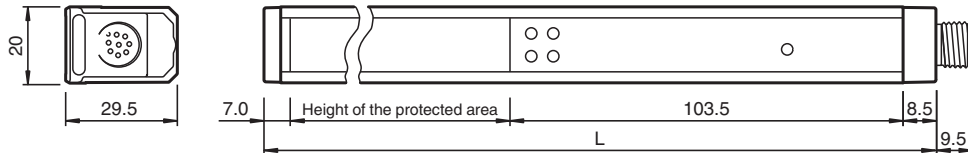


- Resolution 14 mm (finger protection)
- Protection field height up to 1200 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- SIL3 (IEC 61508)
- Degree of protection IP67
- Temperature range -35 ... 60°C (-31 ... 140 °F)
- Slim design, mounting on three sides

Safety light curtain



Dimensions



Technical Data

General specifications

Effective detection range	0.4 ... 8 m
Light source	IRED
Light type	modulated infrared light , 850 nm
Protection field height	see Table 1, max. 1200 mm

Release date: 2020-10-06 Date of issue: 2020-10-06 Filename: 270804_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

Operating mode	Startup/restart disable, deactivateable	
Optical resolution	14 mm	
Angle of divergence	< 5 °	
Ambient light limit	Not sensitive to ambient light in accordance with IEC 61496-2	
UL File Number	E215245	
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	Depending on the protection field height; see Manual	
Type	4	
Indicators/operating means		
Operation indicator	green: Power on	
Function indicator	Green: OSSD ON , Red: OSSD OFF	
Status indicator	Transmitter unit: LED yellow: Mode, test or error Receiver: LED yellow: Start readiness, function reserve or error	
Electrical specifications		
Operating voltage	U _B	24 V DC (-20%, +30%) ; Power supply with safe isolation: 24 V DC
No-load supply current	I ₀	Transmitter unit: ≤ 150 mA Receiver: ≤ 150 mA (without outputs)
Protection class	III , IEC 61140	
Power consumption	P ₀	Transmitter unit: 5 W Receiver: 15 W
Input 1		
Input type	Transmitter unit test	
Input format	Break contact	
Switching voltage	24 V DC	
Input current	5 mA	
Input 2		
Input type	Transmitter unit, mode A/B	
Function	Beam Code A: open or 0 V Beam Code B: 24 V DC, 5 mA	
Input 3		
Input type	Receiver unit relay monitor	
Input format	Break contact	
Switching voltage	24 V DC	
Input current	5 mA	
Input 4		
Input type	Receiver unit, start release	
Input format	Break contact	
Input current	5 mA	
Input 5		
Input type	Receiver unit, mode A/B (see transmitter unit, mode A/B)	
Output		
Response time	see Table 1, max. 54 ms	
Output 1		
Output type	Receiver unit OSSD	
Signal output	PNP semiconductor , monitored for short and cross circuits	
Switching voltage	ON: U _B - 2 V; OFF: < 1 V	
Switching current	ON: max. 0.1 A; OFF: < 5 μA	
Output 2		
Output type	Receiver signal output start readiness	
Signal output	PNP-semiconductor, short-circuit protected, 0.1A	

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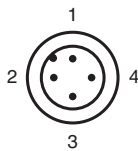
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Technical Data

Conformity	
Functional safety	ISO 13849-1 ; EN 61508 part1-4
Product standard	EN 61496-1 ; IEC 61496-2
Approvals and certificates	
CE conformity	CE
UL approval	cULus Listed
CCC approval	CCC approval / marking not required for products rated ≤36 V
TÜV approval	TÜV
Ambient conditions	
Ambient temperature	-35 ... 60 °C (-31 ... 140 °F)
Storage temperature	-35 ... 70 °C (-31 ... 158 °F)
Relative humidity	max. 95 %, not condensing
Mechanical specifications	
Housing length L	see table 2
Degree of protection	IP67 , For indoor use only
Connection	Transmitter unit: 4-pin, M12 x 1 connector Receiver: 8-pin, M12 x 1 connector Cable cross section min. 0.25 mm ² Max. cable length 50 m
Material	
Housing	extruded aluminum section , gold anodized
Optical face	Plastic pane , Transparent polycarbonate
Mass	see table 2
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

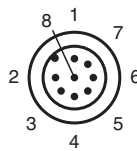
Connection

Transmitter unit:



Pin	Transmitter unit
1	24 V DC
2	Mode A/B
3	0 V DC
4	Test

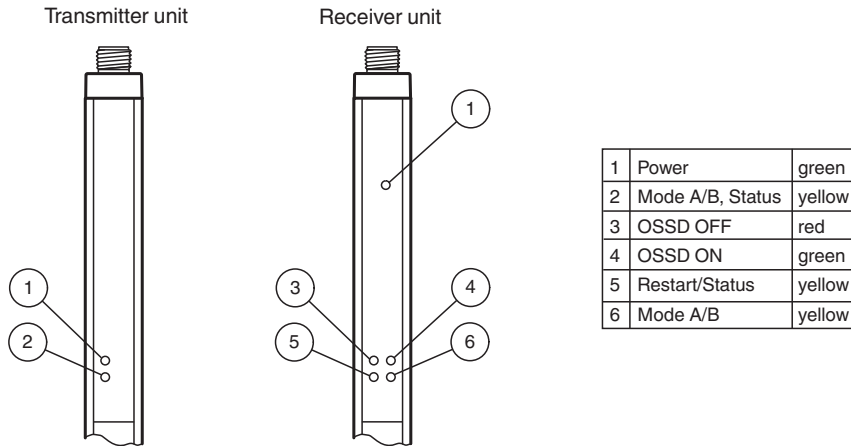
Receiver unit:



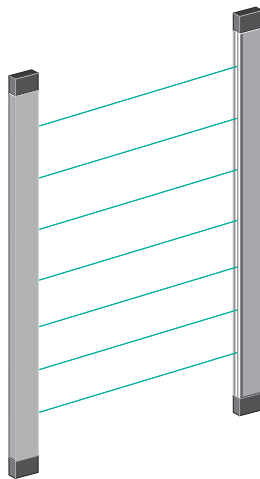
Pin	Receiver unit
1	Restart Interlock (RI)
2	24 V DC
3	Relay Monitor (RM)
4	Status / Select RI-RM
5	OSSD1
6	OSSD2
7	0 V DC
8	Mode A/B

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Assembly



Application










Matching system components

	SB4-OR-4XP-B-4159	Safety control unit
	SB4-OR-4XP	Safety control unit
	SB4-OR-4XP-B	SB4 series safety control unit with 1 optional module slot for functional enhancement
	SB4-OR-4XP-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4XP-B-4158	Safety control unit













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Matching system components














	SB4-OR-4XP-3819	Safety control unit
	SB4-OR-4XP-4M	Safety control unit
	SB4-OR-4XP-4MD	Safety control unit
	SB4-OR-4XP-4M-4136	Safety control unit of series SB4
	SB4-OR-4XP-4X	Safety control unit
	SB4-OR-4XP-4X-3819	Safety control unit
	SB4-OR-4XP-4136	Safety control unit of series SB4

Accessories

	OMH-SLCT-01	Quick clamp and adjustment system
	OMH-SLCT-02	Attachment aid for OMH-SLCT-01
	OMH-SLCT-03	Mounting bracket including adjustment
	OMH-SLCT-04	Mounting bracket including adjustment (with loose bearing)
	OMH-SLCT-05	Mounting bracket including adjustment
	OMH-SLCT-06	Swivel Bracket
	TR 14/30/50/60	Test rod for safety light curtain SLCT
	AA SLCT-01	Profile alignment aid; simplified alignment of the SLCS and SLCT safety light curtains
	OMH-SLCT-100-1200	Mounting base for floor mounting and cover plate
	OMH-SLCT-100-2100	Mounting base for floor mounting and cover plate
	OMH-SLCT-100-2500	Mounting base for floor mounting and cover plate
	OMH-SLCT-110-1200	Mounting base for floor mounting with rear panel and cover plate

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Accessories

	OMH-SLCT-110-1500	Mounting base for floor mounting with rear panel and cover plate
	OMH-SLCT-110-2100	Mounting base for floor mounting with rear panel and cover plate
	OMH-SLCT-120-1200	Side protection for mounting base
	OMH-SLCT-120-1500	Side protection for mounting base
	OMH-SLCT-120-2100	Side protection for mounting base
	OMH-SLCT-120-2500	Side protection for mounting base
	OMH-SLCT-200	Floor mount
	SLCT-M-01-1200	Inclined mirror for stable 90° deflection with cover plate
	SLCT-M-01-1500	Inclined mirror for stable 90° deflection with cover plate
	SLCT-M-01-2100	Inclined mirror for stable 90° deflection with cover plate
	OMH-SLCT-10	Clamp mounting suitable for 6 mm ... 11.5 mm groove
	OMH-SLCT-11	Reverse clamp mounting suitable for 8.5 mm ... 10.5 mm groove
	OMH-SLCT-12-500	Mounting bracket, muting arm with round rod d=12 mm

Technical Features

Table 1 - Response time:

Height of the protected area [mm]	Response time [ms]
100	11
200	15
300	19
400	23
500	26
600	30
700	34
800	38
900	42
1000	46
1100	50
1200	54

Table 2 - Total length and weight:

Height of the protected area [mm]	Total length of transmitter/receiver unit [mm]	Weight of transmitter/receiver unit [g]
100	219	140
200	319	200
300	419	250
400	519	310
500	619	370
600	719	430
700	819	480
800	919	540
900	1019	600
1000	1119	650
1100	1219	710
1200	1319	760

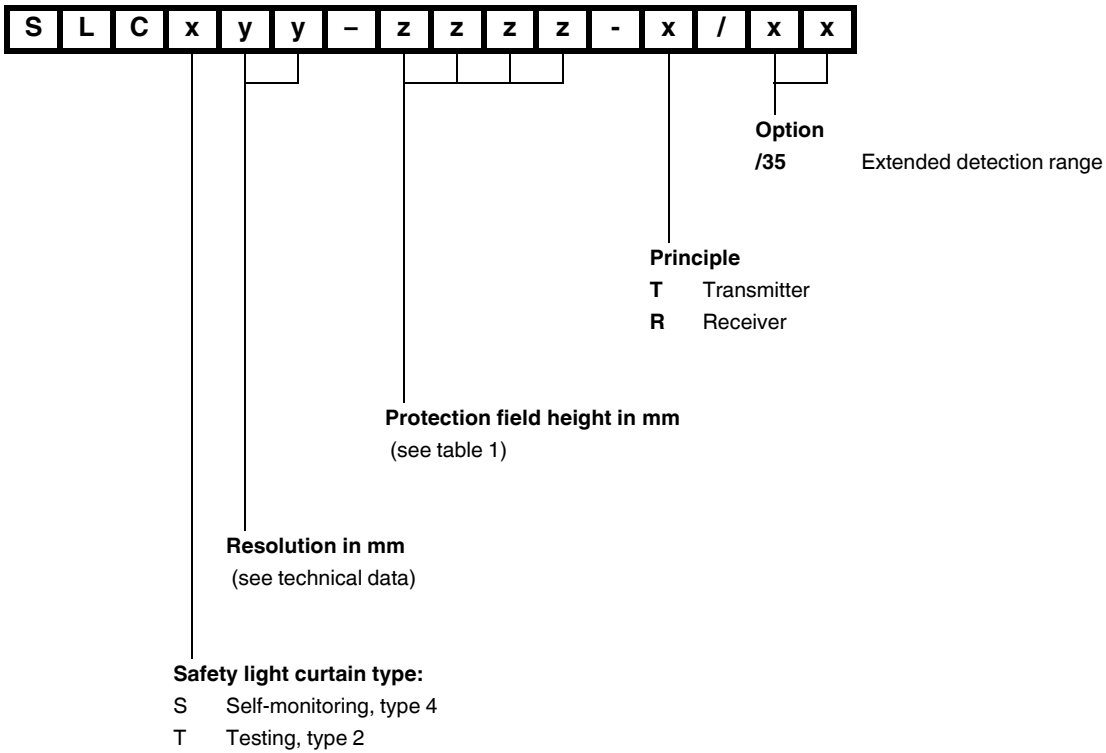
Accessories

Other suitable accessories can be found at www.pepperl-fuchs.com

Function

The Safety light curtain consists of a transmitter and a receiver unit. The protected area is formed by infrared light beams transmitted from the transmitter unit to the receiver unit. The spacing between the individual light beams determines the minimum obstruction size (14 mm) that can be reliably detected within the entire protected area range.

Type Code



Application

- Active opto-electronic protective device (AOPD) for protection of people in danger zones and high risk areas
- Hand protection from 30 mm resolution
- Finger protection from 14 mm resolution

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