

Safety light curtain

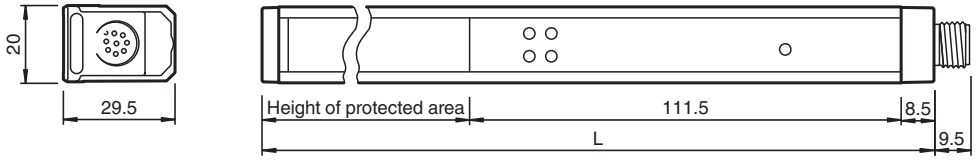
SLCT30

- Resolution 30 mm (hand protection)
- Protection field height up to 2400 mm
- Self-testing (type 2 as per IEC/EN 61496-1)
- SIL1 acc. to IEC 61508
- Degree of protection IP67
- Temperature range -35 ... 60°C (-31 ... 140 °F)
- Slim design, mounting on three sides

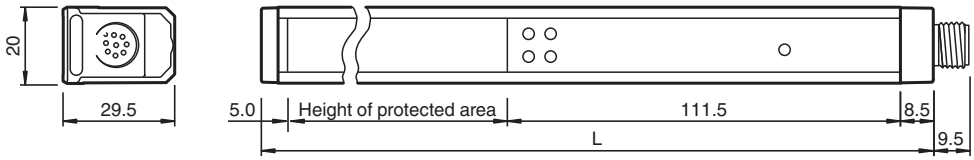
Safety light curtain

Dimensions

Lengths to 1200 mm



Lengths from 1300 - 2400 mm



Technical Data

General specifications	
Effective detection range	0.2 ... 8 m
Light source	IRED
Light type	modulated infrared light , 850 nm
Protection field height	see Table 1, max. 2400 mm

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Technical Data

Operating mode		Startup/restart disable, deactivateable
Optical resolution		30 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 1
Performance level (PL)		PL c
Category		Cat. 2
Mission Time (T_M)		20 a
PFH_d		Depending on the protection field height; see Manual
Type		2
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 (outputs open)
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. 38 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

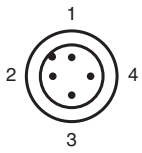
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Technical Data

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 , Silver 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.

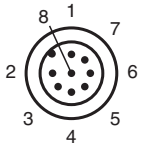
Connection

Transmitter unit:



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

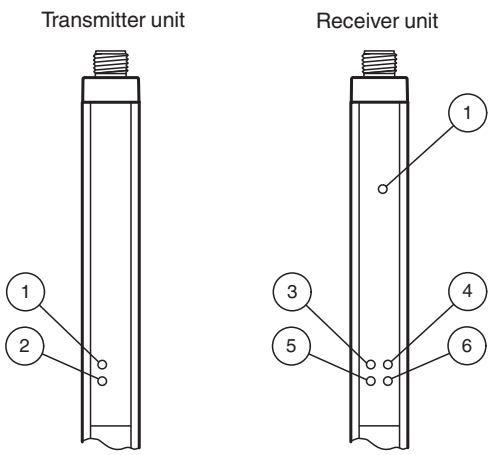
Receiver unit:



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

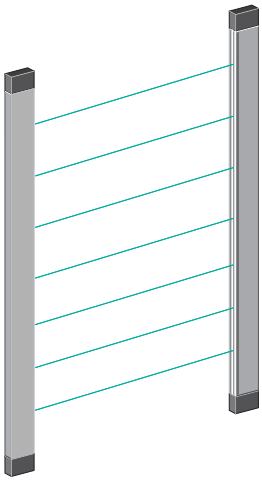
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Assembly



1	Power	green
2	Mode A/B, Status	yellow
3	OSSD OFF	red
4	OSSD ON	green
5	Restart/Status	yellow
6	Mode A/B	yellow

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-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

	**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-100-1500**	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
	**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

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Accessories

	**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
	**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

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Technical Features

Table 1 - Response time:

Height of the protected area [mm]	Response time [ms]
100	8
200	10
300	11
400	12
500	14
600	15
700	16
800	17
900	19
1000	20
1100	21
1200	23
1300	24
1400	25
1500	26
1600	28
1700	29
1800	30
1900	32
2000	33
2100	34
2200	35
2300	37
2400	38

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

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Height of the protected area [mm]	Total length of transmitter/receiver unit [mm]	Weight of transmitter/receiver unit [g]
1300	1425	820
1400	1525	880
1500	1625	940
1600	1725	990
1700	1825	1050
1800	1925	1100
1900	2025	1160
2000	2125	1210
2100	2225	1270
2200	2325	1320
2300	2425	1380
2400	2525	1440

Accessories

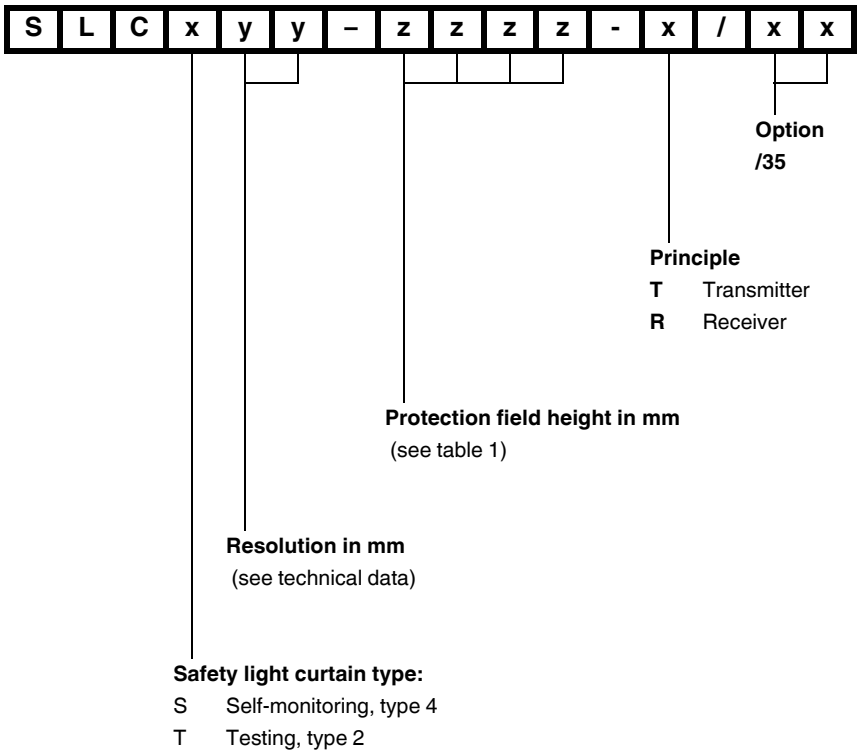
Other suitable accessories can be found at www.pepperl-fuchs.com

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 (30 mm) that can be reliably detected within the entire protected area range.

Type Code

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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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