

Model Number

SLCS30 Series

Safety light curtain

with 2 separate fail-safe semiconductor outputs

Features

- Resolution 30 mm (hand protection)
- Protection field height up to 2400 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- SIL3 (IEC 61508)
- Temperature range -30 ... 60°C (-22 ... 140 °F)
- Slim design, mounting on three sides

Description

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.

Accessories

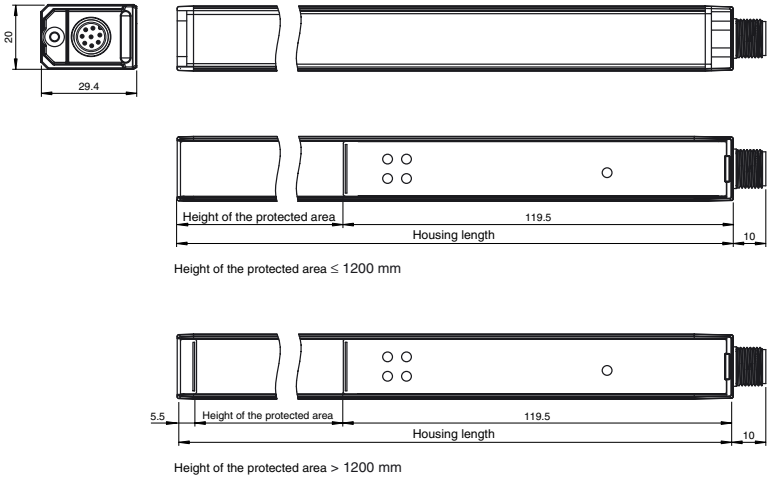
OMH-SLCT-100-1200
Mounting base for floor mounting and cover plate

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

Dimensions

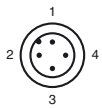


Height of the protected area ≤ 1200 mm

Height of the protected area > 1200 mm

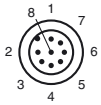
Electrical connection

Transmitter unit:



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

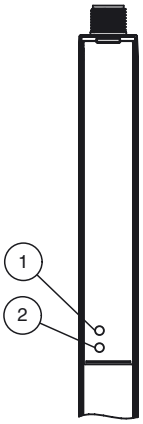
Receiver unit:



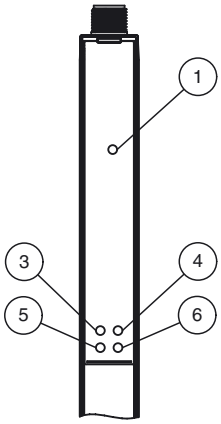
Pin	Receiver unit
1	Restart Interlock (RI)
2	24 V DC
3	Relay Monitor (RM)
4	Status / Select RI-RM
5	OSSD1
6	OSSD2
7	0 V DC
8	Mode A/B

Indicators/operating means

Transmitter unit



Receiver unit



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

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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. 2400 mm
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 EN 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. 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
Ambient conditions		
Ambient temperature		-30 ... 60 °C (-22 ... 140 °F)
Storage temperature		-30 ... 70 °C (-22 ... 158 °F)
Relative humidity		max. 95 %, not condensing
Mechanical specifications		
Housing length L		see table 2
Degree of protection		IP65 , 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

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Refer to “General Notes Relating to Pepperl+Fuchs Product Information”.
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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 61000-6-3:2007+A1:2010 ; EN 61000-6-4:2007+A1:2011
Standard conformity	
Functional safety	IEC 61508:2010 part 1-4
Standards	IEC 61496-2:2013
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

Additional information

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
1300	1425	820
1400	1525	880
1500	1625	940
1600	1725	990
1700	1825	1050
1800	1925	1100
1900	2025	1160

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Height of the protected area [mm]	Total length of transmitter/receiver unit [mm]	Weight of transmitter/receiver unit [g]
2000	2125	1210
2100	2225	1270
2200	2325	1320
2300	2425	1380
2400	2525	1440

System accessories

Mounting aid

OMH-SLCT-01	Press & Release quick clamp and adjustment system
OMH-SLCT-02	Attachment aid for Press &Release quick clamp and adjustment system
OMH-SLCT-03	Mounting aid with fixed bearing (long) for mounting or used to connect 2 light gids
OMH-SLCT-04	Mounting aid with loose bearing (narrow)

Other accessories

TR 14/30/50/60	Test rod for 14 mm, 30 mm, 50 mm or 60 mm resolution
AA SLCT-01	Alignment aid (box level to snapped into the lateral grooves), Angle error: < 1°

Connecting cable

V1-G-BK2M-PUR-U:	Cable, M12, 4-pin, 2 m, UL-connector
V1-G-BK5M-PUR-U:	Cable, M12, 4-pin, 5 m, UL-connector
V1-G-BK10M-PUR-U:	Cable, M12, 4-pin, 10 m, UL-connector
V19-G-BK2M-PUR-U:	Cable, M12, 8-pin, 2 m, UL-connector
V19-G-BK5M-PUR-U:	Cable, M12, 8-pin, 5 m, UL-connector
V19-G-BK10M-PUR-U:	Cable, M12, 8-pin, 10 m, UL-connector

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