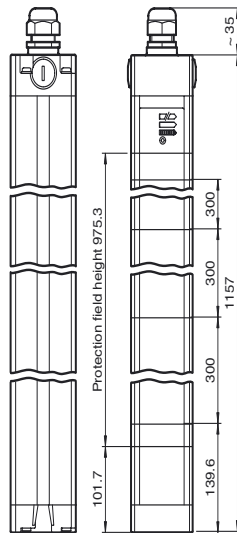
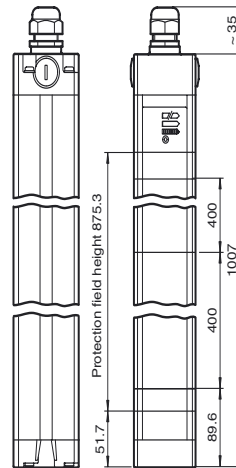


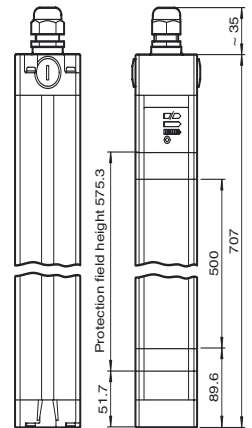
Dimensions



SLC-4



SLC-3



SLC-2

Model Number

SLC-4/31

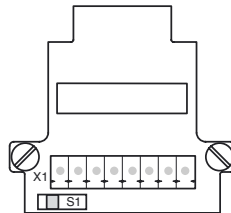
with 2 relay outputs with two force-guided normally open contacts

Features

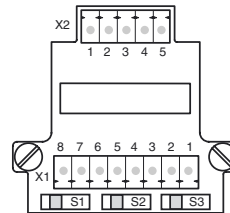
- Sensing range up to 20 m
- 2, 3, and 4-beam design
- Beam distance 300, 400 and 500 mm
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Start/Restart disable
- Protection degree IP67
- 7-segment diagnostic display
- Pre-fault indication
- Safety outputs OSSD in potential-separated semiconductor design or with monitored, compelled connection NC-contacts
- Optional with relay monitor (Option 129)

Electrical connection

Emitter:



Receiver:



terminal	emitter	receiver (relay output)	receiver (semiconductor output)
X1:1	Functional earth	Functional earth	Functional earth
X1:2		test (input)	Test (input)
X1:3		OSSD2.2 (output)	0 V OSSD
X1:4		OSSD1.2 (output)	24 V OSSD
X1:5		OSSD2.1 (output)	OSSD2 (output)
X1:6		OSSD1.1 (output)	OSSD1 (output)
X1:7	0 V AC/DC	0 V AC/DC	0 V DC
X1:8	24 V AC/DC	24 V AC/DC	24 V DC
X2:1		Start release (output)	Start release (output)
X2:2		Status OSSD (output)	Status OSSD (output)
X2:3	not placed on board	24 V reference potential for I/O	n. c.
X2:4		0 V reference potential for I/O	n. c.
x2:5		Startup readiness (input)	Startup readiness (input)

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Technical data**General specifications**

Effective detection range	0.2 ... 20 m
Light source	IREDD
Light type	modulated infrared light
Approvals	TÜV, cULus
Tests	IEC/EN 61496
Safety type according to IEC/EN 61496	4
Marking	CE
Target size	50 mm
Beam spacing	300 mm
Number of beams	4
Operating mode	can be selected with or without start/restart disable
Angle of divergence	< 5 °

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	5.8 E-9
Type	4

Indicators/operating means

Operating display	7-segment display in emitter
Diagnostics display	7-segment display in receiver
Function display	in receiver: LED red: OSSD off LED green: OSSD on LED yellow: Protected area free, system start-ready
Pre-fault indication	LED orange
Controls	switch for start/restart disable, transmission coding

Electrical specifications

Operating voltage	U _B	24 V DC (-30 %/+25 %) / 24 V AC (-20 %/+10 %)
No-load supply current	I ₀	Emitter: 100 mA , receiver 150 mA
Protection class		III

Input

Activation current	approx. 10 mA
Activation time	0.03 ... 1 s
Test input	Reset-input for system test
Function input	Start release

Output

Safety output	2 relay outputs, force-guided NO-contact
Signal output	1 PNP each, max. 100 mA for start readiness and OSSD status
Switching voltage	50 V
Switching current	max. 2 A
Switching power	100 VA
Response time	30 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

Protection degree	IP67
Connection	M20 cable gland , terminal compartment with screw terminals, lead cross-section max. 1.5 mm ²
Connection options	Further electrical connection options on request: Connector M12, 8-pin Connector DIN 43 651 Hirschmann, 6-pin+PE Connector M26x11 Hirschmann, 11-pin+PE
Material	
Housing	extruded aluminum profile, RAL 1021 (yellow) coated
Optical face	Plastic pane
Mass	Per 3450 g

General information

System components	
Emitter	SLC-4-T
Receiver	SLC-4-R/31

Compliance with standards and directives

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

CE conformity	CE
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UL approval

cULus Listed

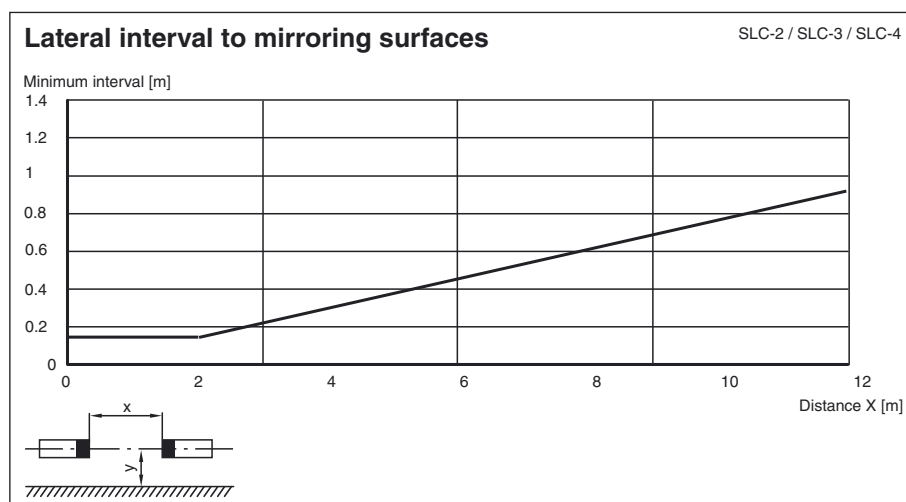
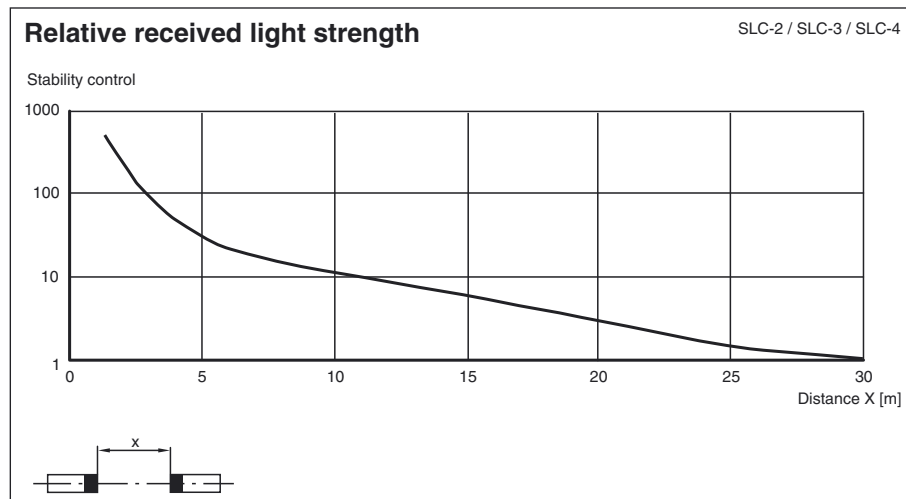
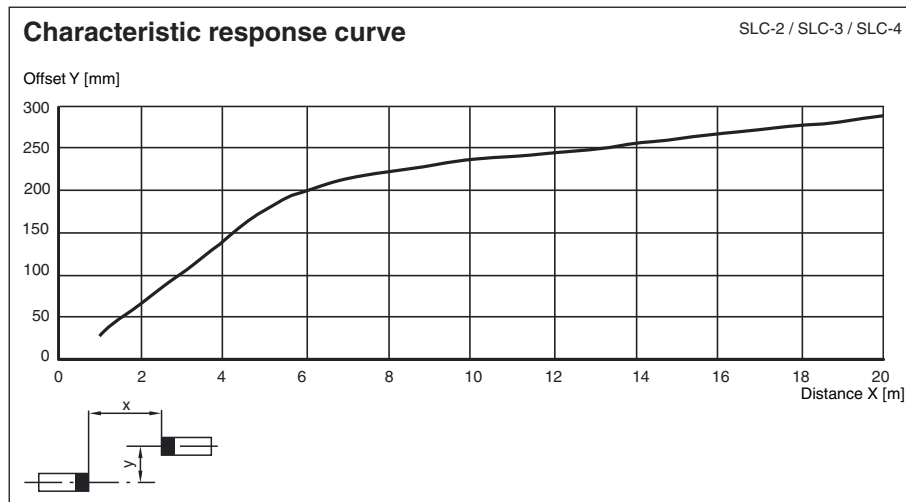
CCC approval

Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.

TÜV approval

TÜV

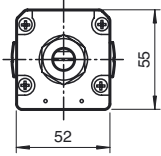
Curves/Diagrams



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Additional information

Profile dimensions, front view



System accessories

- Mounting set SLC
- Protective glass pieces for SLC (to protect the optically functional surface)
- Lateral screwed connection SLC
- Mirror 2, 3 or 4-beam for SLC (for multi-side securing of hazardous areas)
- Laser alignment aid BA SLC
- Profile alignment aid PA SLP/SLC
- Ground pillar UC SLP/SLC
- Housing for ground pillar Enclosure UC SLP/SLC
- Collision protector Damping UC SLP/SLC