



Safety thru-beam sensor

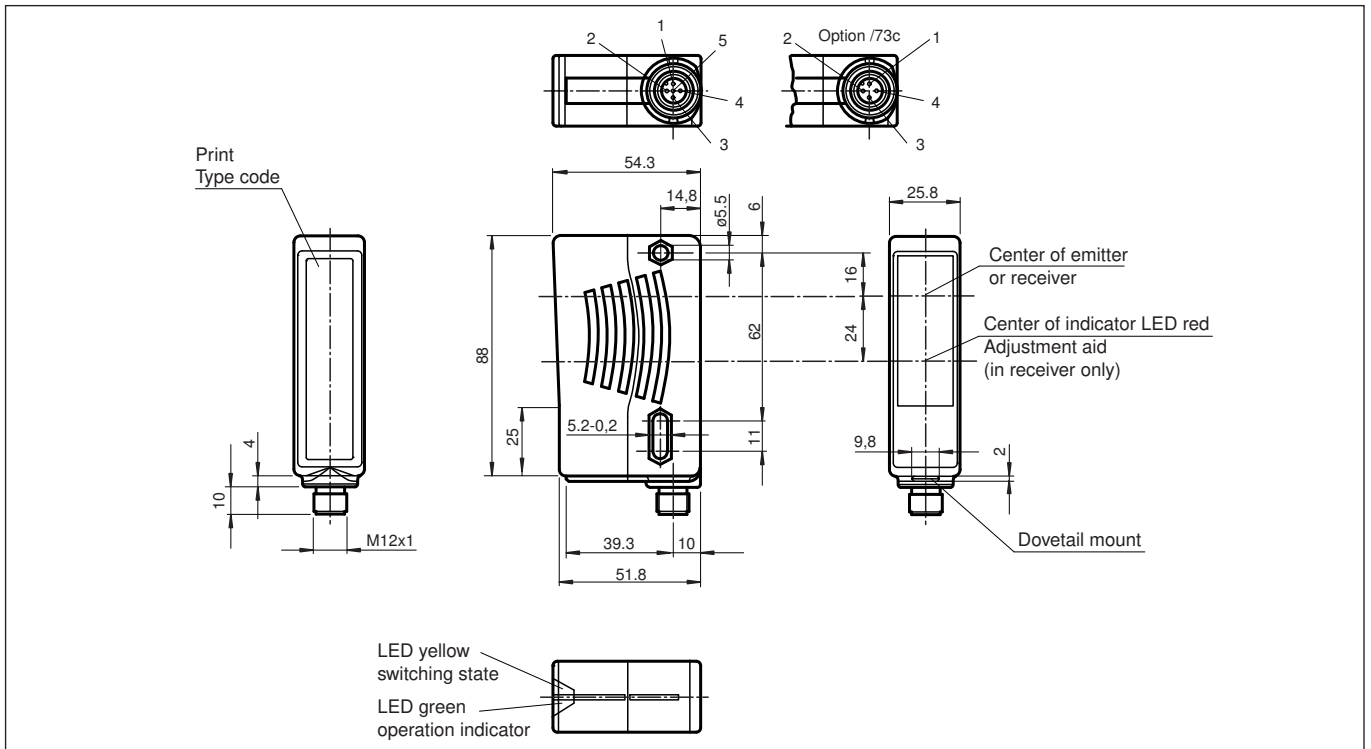
SLA29/105/106



- Sensing range up to 30 m
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Extended temperature range up to -35 °C with heated front panel
- Red transmission light
- Integrated alignment aid
- Clearly visible LED functional display and pre-fault indicator on the receiver
- Operation of control units of Series SB4



Dimensions



Technical Data

System components	
Emitter	SLA29-T/105/106
Receiver	SLA29-R/105/106
General specifications	
Effective detection range	0.2 ... 30 m
Threshold detection range	40 m
Light source	LED
Light type	modulated visible red light
Target size	static: 30 mm dynamic: 40 mm (at v = 1.6 m/s of the obstacle)
Alignment aid	LED red in receiver

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

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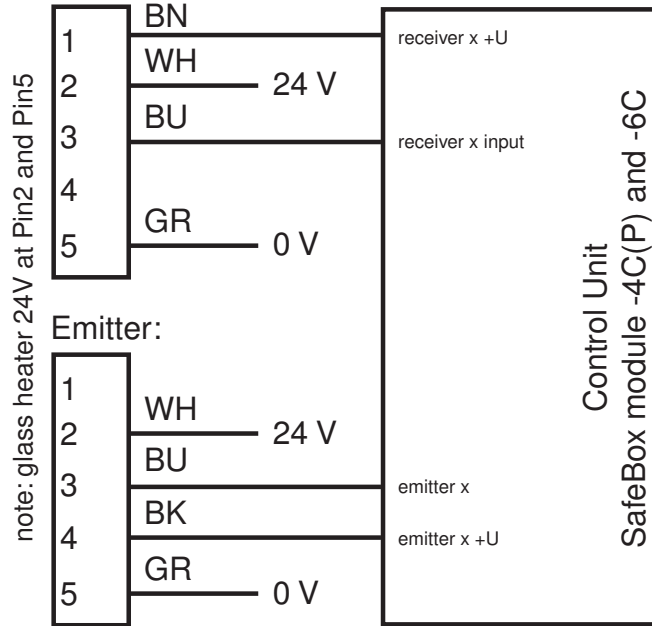
Technical Data

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		0.44 E-9
Type		4
Indicators/operating means		
Operation indicator		LED green
Function indicator		LED yellow: 1. LED lit constantly: signal > 2 x switching point (function reserve) 2. LED flashes: signal between 1 x switching point and 2 x switching point 3. LED off: signal < switching point
Electrical specifications		
Operating voltage	U _B	Power supply via control unit
Conformity		
Functional safety		ISO 13849-1
Product standard		EN 61496-1 ; IEC 61496-2
Approvals and certificates		
CE conformity		CE
CCC approval		CCC approval / marking not required for products rated ≤36 V
Approvals		TÜV; cULus (in operation with control unit SafeBox SB4)
Ambient conditions		
Ambient temperature		-35 ... 55 °C (-31 ... 131 °F) with heated optical face, fixed voltage 24 V DC ± 20 %/50 mA
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
Relative humidity		max. 95 %, not condensing
Mechanical specifications		
Degree of protection		IP67 according to EN 60529
Connection		M12 connector, 5 pin
Material		
Housing		ABS plastic, RLA 1021 (yellow) painted
Optical face		Plastic pane
Mass		per device 70 g

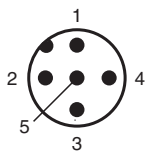
Connection

Design with connector (Option /106)

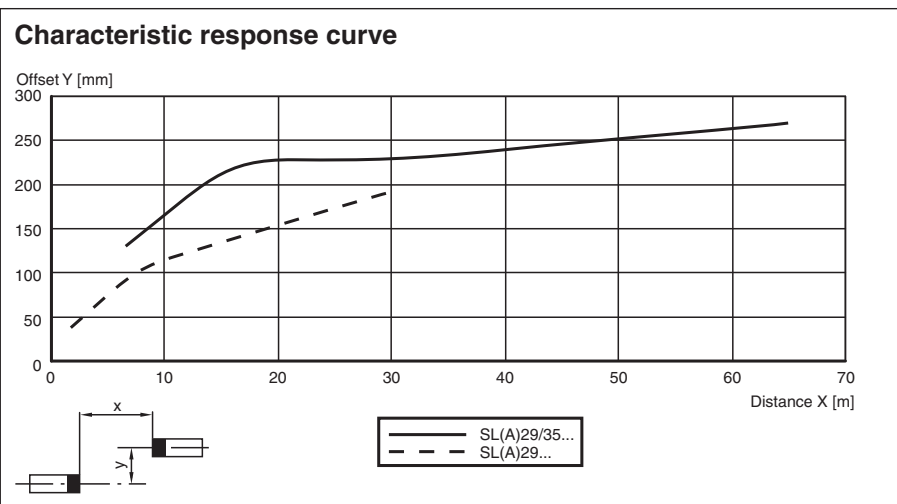
Receiver:



Connection Assignment

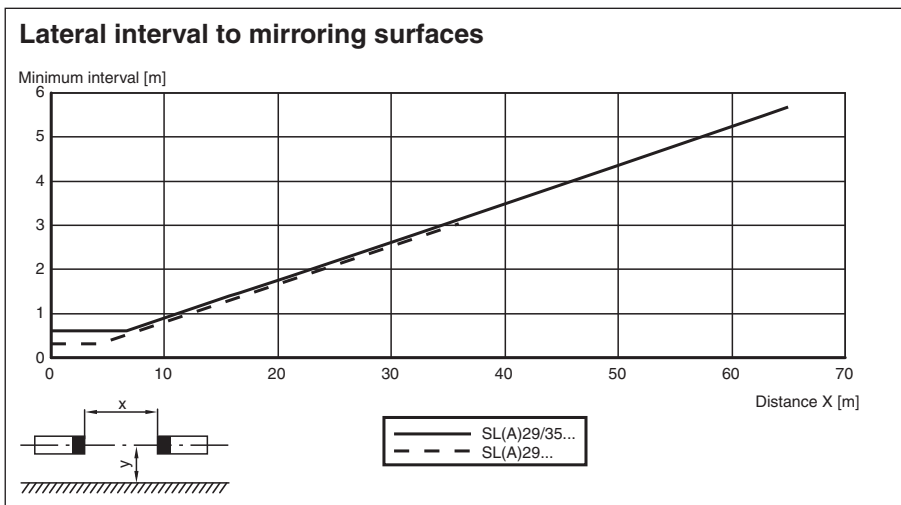
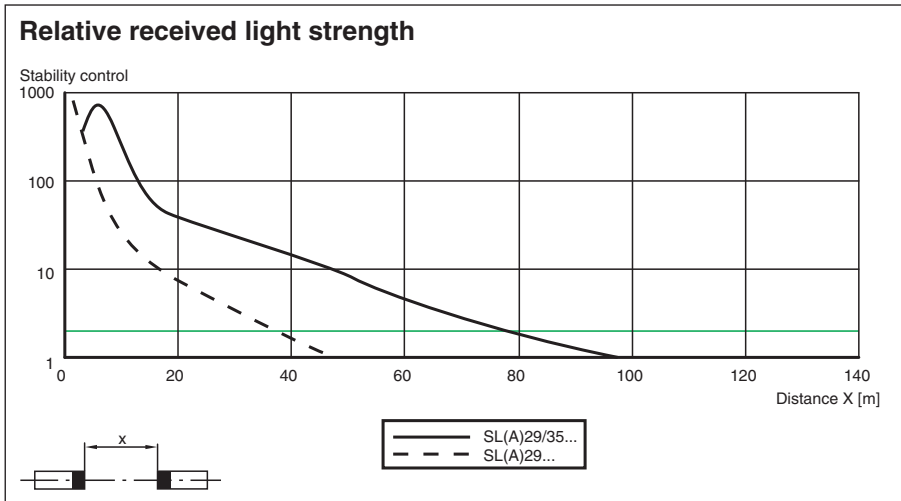


Characteristic Curve












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Matching System Components







	SB4-OR-4CP	Safety control unit
	SC HDM-10 24V	Safety control unit
	SB4-OI1-4CP-4C-4C-4C	Safety control unit
	SC HDM-12 24V	Safety control unit
	SB4-OR-4CP-B	SB4 series safety control unit with 1 optional module slot for functional enhancement
	SB4-OR-4CP-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4CP-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4CP-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	SB4-OR-4CP-B-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement

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Matching System Components

	SB4-OR-4CP-2E	Safety control unit
	SB4-OR-4CP-4C	Safety control unit
	SB4-OR-4CP-4C-2E	Safety control unit
	SB4-OR-4CP-4M	Safety control unit
	SB4-OR-4CP-4M-2E	Safety control unit

Accessories

	OMH-05	Mounting aid for round steel \varnothing 12 mm or sheet 1.5 mm ... 3 mm
	OMH-21	Mounting bracket
	OMH-22	Mounting bracket
	MS SLP/SLA28	Fixing plate
	MS SLPCM	Mounting bracket
	SLA-1-M	Deviation mirror

Indication

Additional information

For much easier alignment even for long distance applications, an additional red LED is located in the receiver's optics:

- LED constantly illuminated:
signal strength < switching level
- LED flashes:
signal strength is between 1-fold switching level and 2-fold switching level
- LED off:
signal strength < 2-fold switching level (function reserve)

System accessories

Control units

SC4-2

SB4 (SafeBox)

Cable sockets

Option /73c:

straight: V1-G-2M-PVC

V1-G-5M-PVC

V1-G-10M-PVC

angled: V1-W-2M-PVC

V1-W-5M-PVC

V1-W-10M-PVC

Option /105:

straight: V15-G-2M-PVC

V15-G-5M-PVC

V15-G-10M-PVC

angled: V15-W-2M-PVC

V15-W-5M-PVC

V15-W-10M-PVC

Option /116: no

Mounting aids

OMH-21

OMH-22

OMH-05

OMH-MLV11-K

Further accessories

Laser alignment aid

BA SLA28

Muting Set

MS SLP/SLA28

Redirection mirror

SLA-1-M