



Safety thru-beam sensor

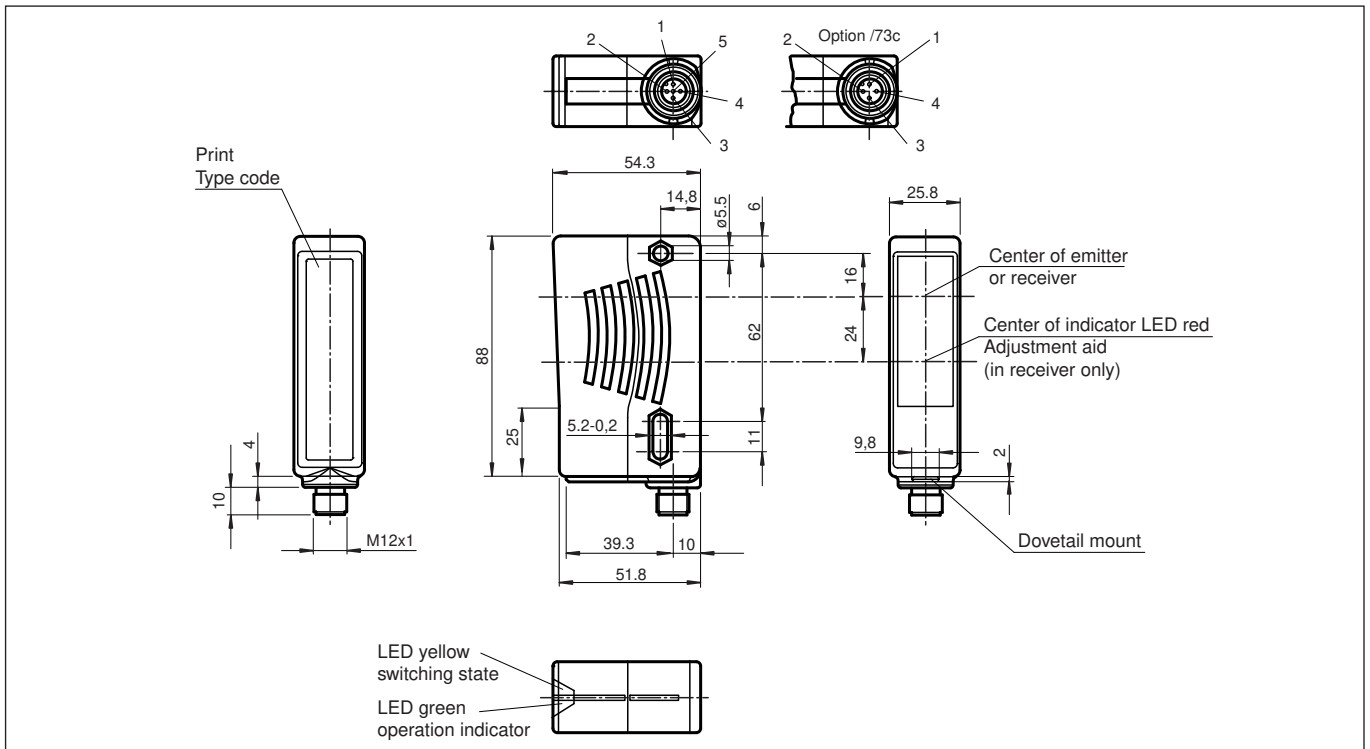
SLA29/105/106



- 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)

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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Technical Data

Alignment aid	LED red in receiver	
Opening angle	< 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
Protection class	III , IEC 61140	
Conformity		
Functional safety	ISO 13849-1	
Product standard	EN 61496-1 ; IEC 61496-2	
Approvals and certificates		
CE conformity	CE	
UKCA conformity	UKCA	
UL approval	cULus Listed	
TÜV approval	TÜV SÜD	
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	
Shock resistance	10 g , 16 ms ; stationary applications only	
Vibration resistance	1 mm , 10 ... 55 Hz ; stationary applications only	
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	

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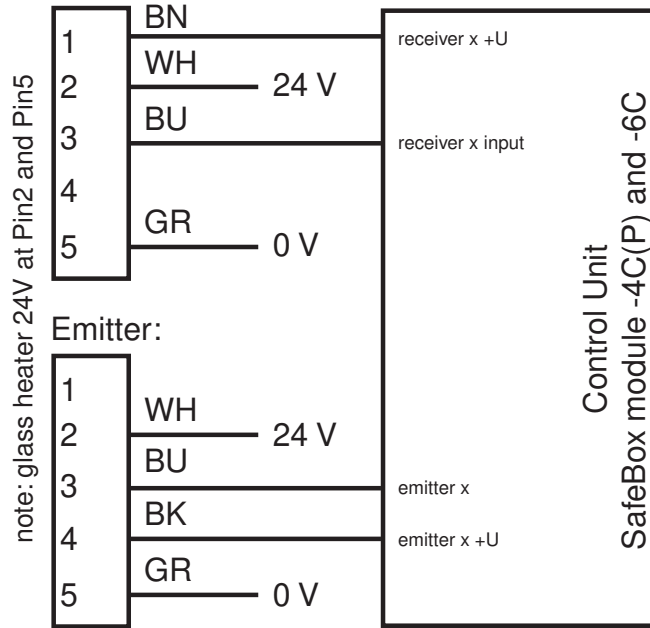
Pepperl+Fuchs Group
www.pepperl-fuchs.comUSA: +1 330 486 0001
fa-info@us.pepperl-fuchs.comGermany: +49 621 776 1111
fa-info@de.pepperl-fuchs.comSingapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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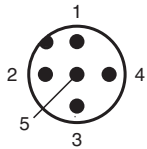
Connection

Design with connector (Option /106)

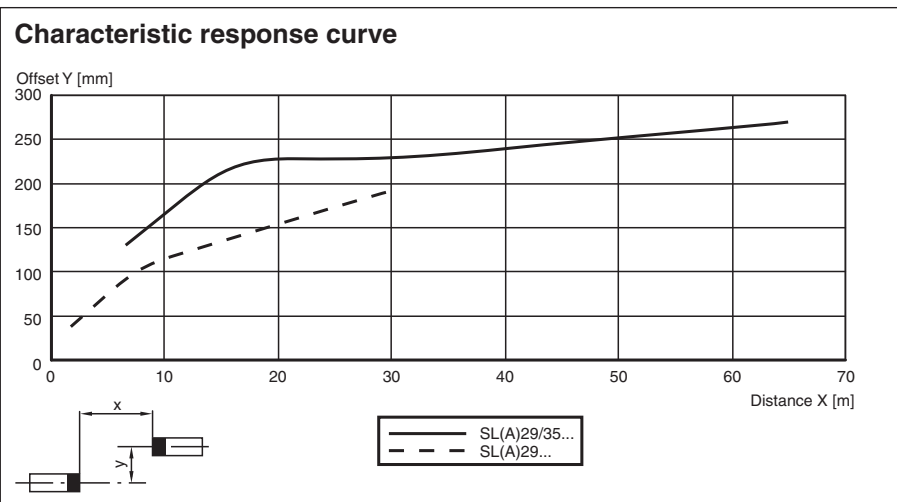
Receiver:



Connection Assignment



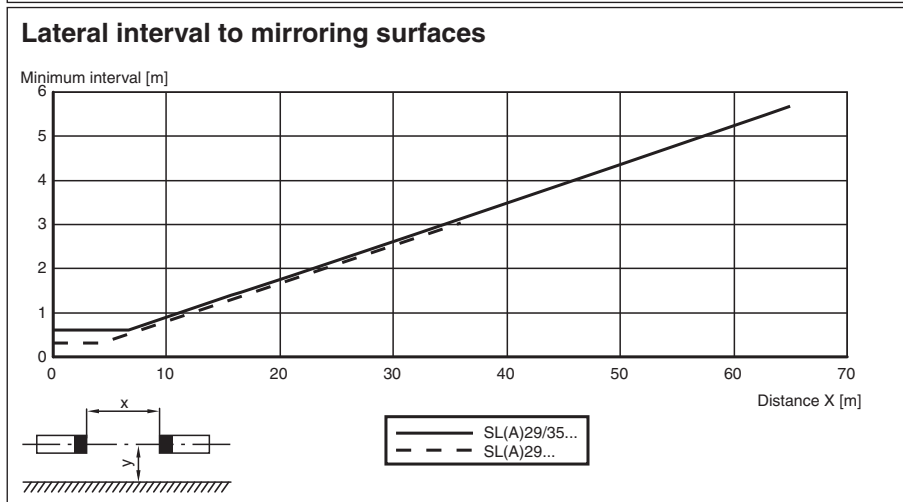
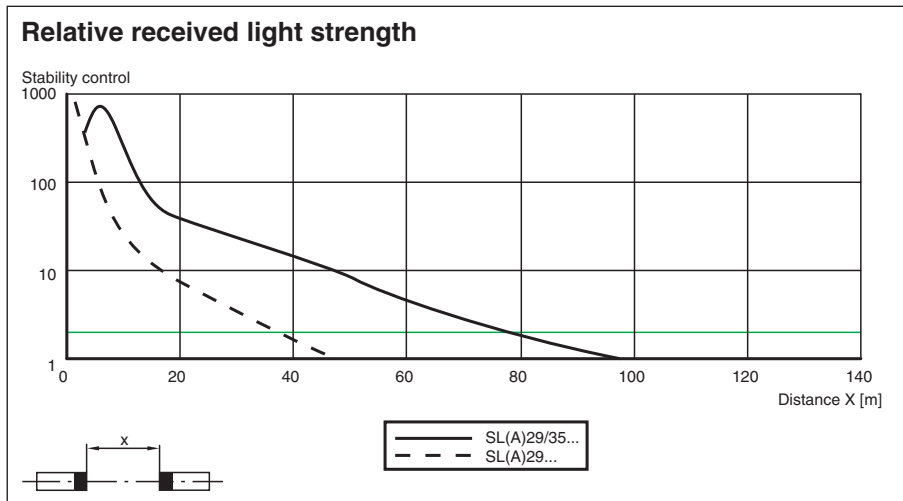
Characteristic Curve



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Characteristic Curve









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

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Matching System Components

	SB4-OR-4CP-B-B-B-B-B	SB4 series safety control unit with optional module slots for functional enhancement
	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: mounting aid for sensors in the RL* series
	OMH-22	Mounting aid for RL* series
	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