

Technical Data

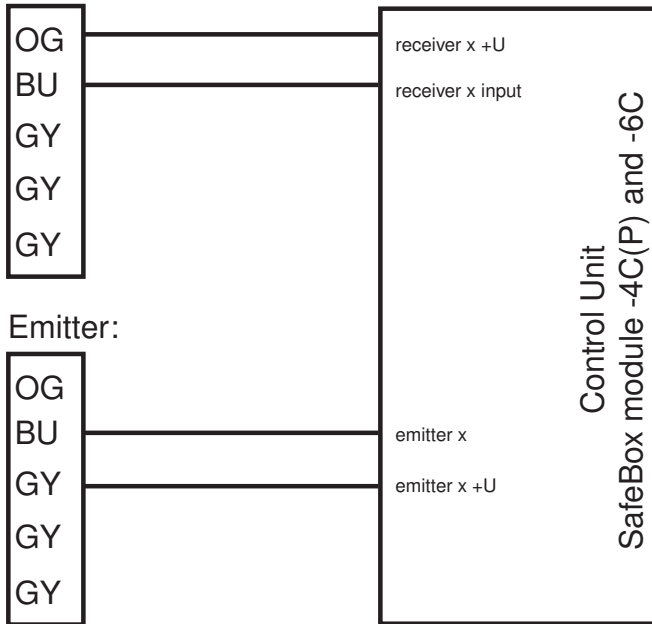
Light source		LED
Light type		modulated visible red light
Target size		static: 30 mm dynamic: 40 mm (at v = 1.6 m/s of the obstacle)
Alignment aid		LED red in receiver
Opening angle		< 5 °
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 3
Performance level (PL)		PL e
Category		Cat. 4
Mission Time (T _M)		20 a
PFH _d		4.4 E-10
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		-20 ... 60 °C (-4 ... 140 °F)
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		terminal compartment
Material		
Housing		ABS plastic, RLA 1021 (yellow) painted
Optical face		Plastic pane
Mass		per device 70 g

Release date: 2023-10-05 Date of issue: 2023-10-05 Filename: 118442_eng.pdf

Connection

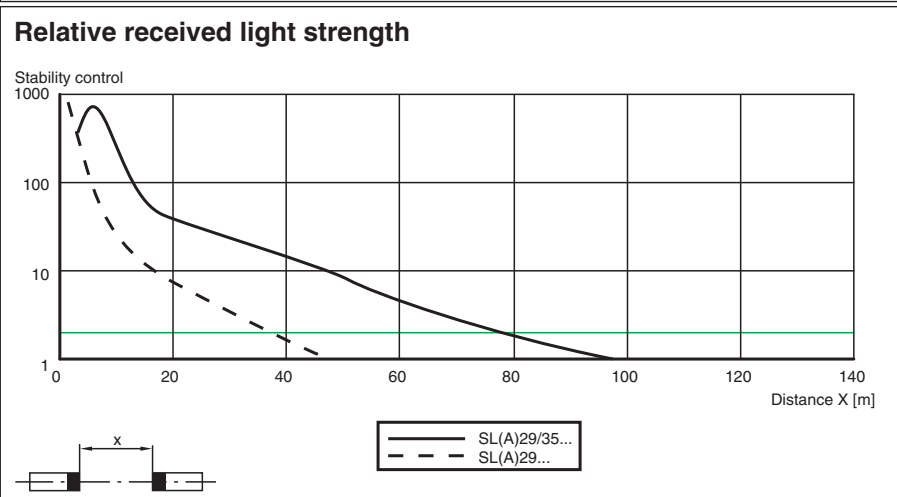
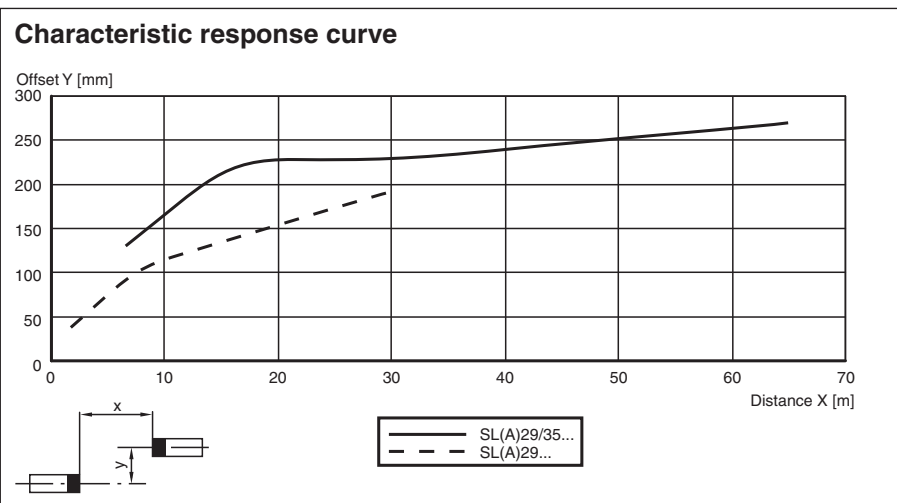
Design with terminal compartment

Receiver:



Emitter:

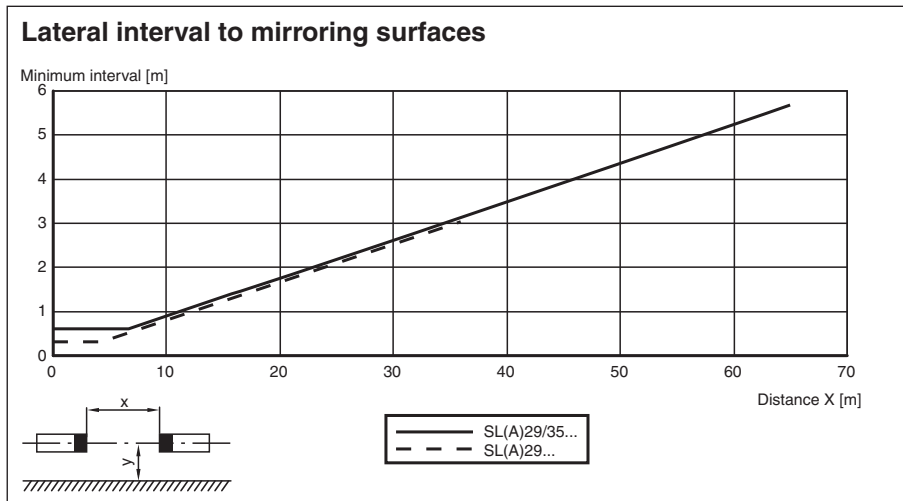
Characteristic Curve



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

Characteristic Curve







Matching System Components

	SC HDM-12 24V	Safety control unit
	SC HDM-10 24V	Safety control unit
	SB4-OI1-4CP-4C-4C-4C	Safety control unit
	SB4-OR-4CP	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-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

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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