



Model Number

SLA29/105/106

with 5-pin, M12 connector

Features

- 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

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

OMH-MLV11-K

dove tail mounting clamp

MS SLP/SLA28

Fixing plate

MS SLPCM

Mounting bracket

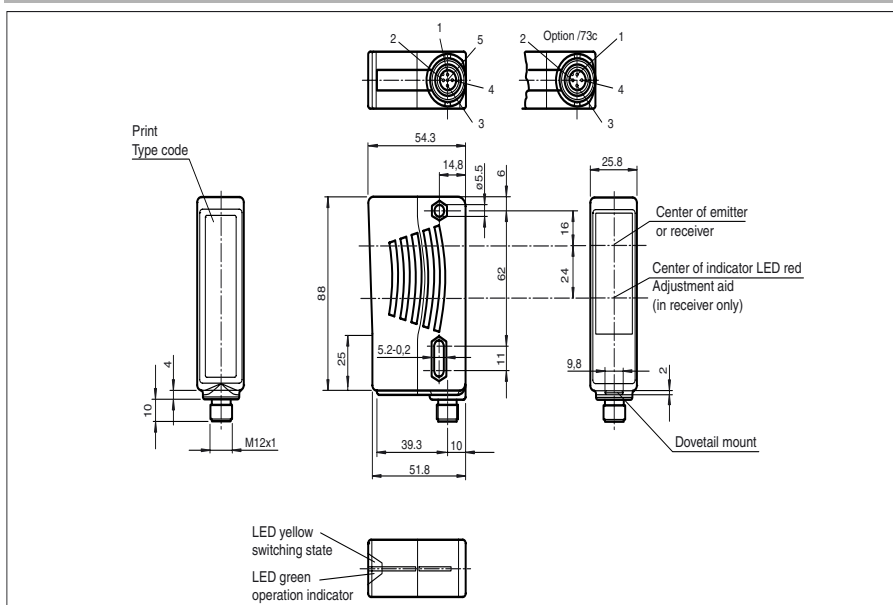
SLA-1-M

Deviation mirror

BA SLA25

Additional accessories can be found in the Internet.

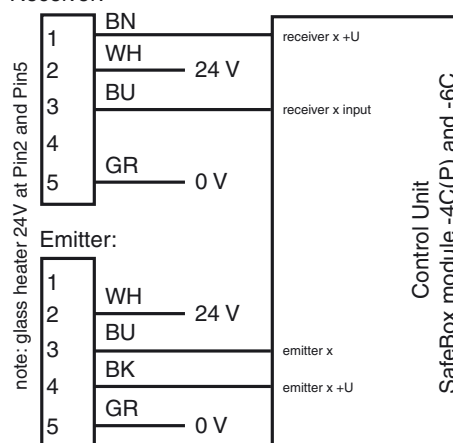
Dimensions



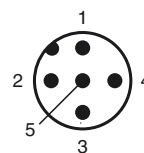
Electrical connection

Design with connector (Option /106)

Receiver:



Pinout



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
Angle of divergence	$< 5^\circ$

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 $> 2 \times$ switching point (function reserve) 2. LED flashes: signal between $1 \times$ switching point and $2 \times$ switching point 3. LED off: signal $<$ switching point

Electrical specifications

Operating voltage	U_B	Power supply via control unit
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Conformity

Functional safety	ISO 13849-1
Product standard	EN 61496-1 ; IEC 61496-2

Ambient conditions

Ambient temperature	-35 ... 55 °C (-31 ... 131 °F) with heated optical face, fixed voltage 24 V DC $\pm 20\%$ /50 mA
Storage temperature	-20 ... 70 °C (-4 ... 158 °F)
Relative humidity	max. 95 %, not condensing

Mechanical specifications

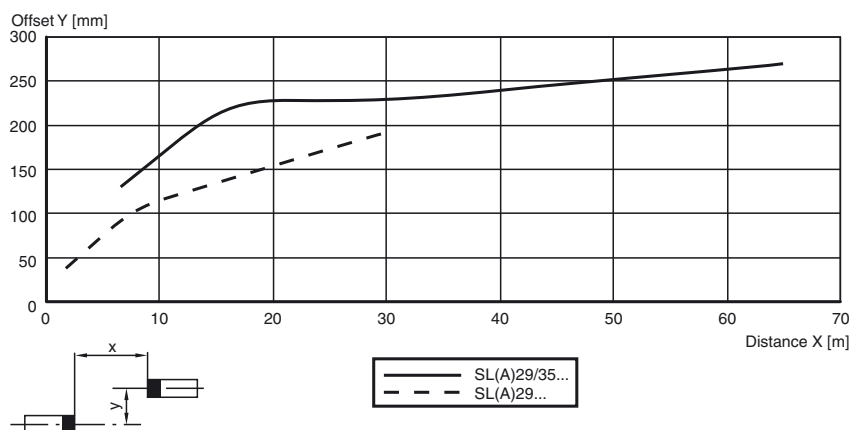
Degree of protection	IP67 according to EN 60529
Connection	M12 connector, 5 pin
Material	
Housing	ABS plastic, RLA 1021 (yellow) painted
Optical face	Plastic pane
Mass	per device 70 g

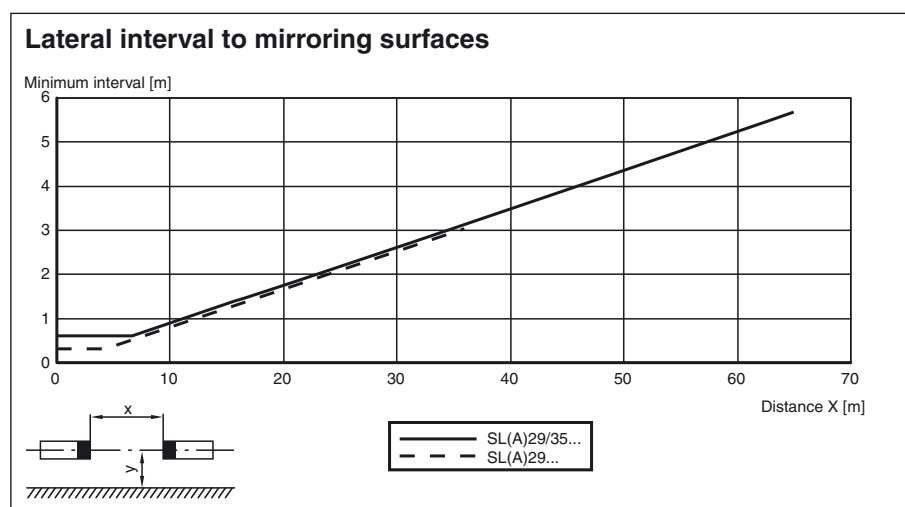
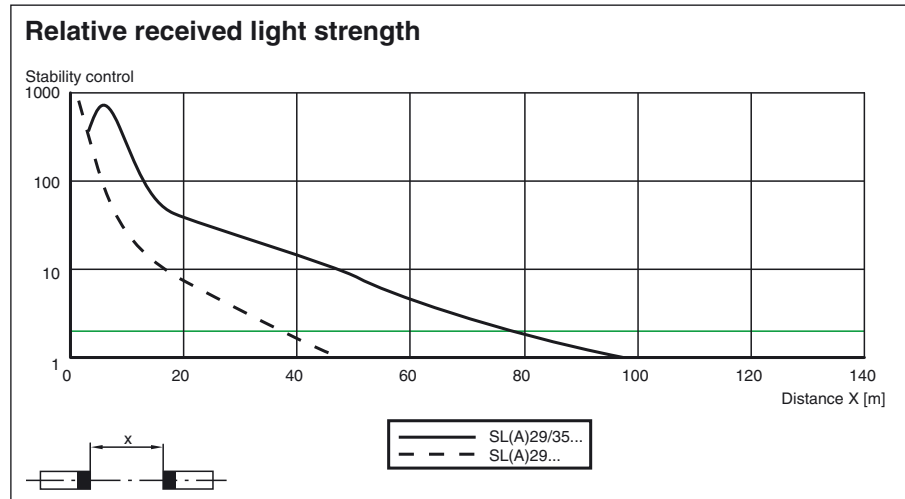
Approvals and certificates

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)

Curves/Diagrams

Characteristic response curve





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 $\geq$ 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