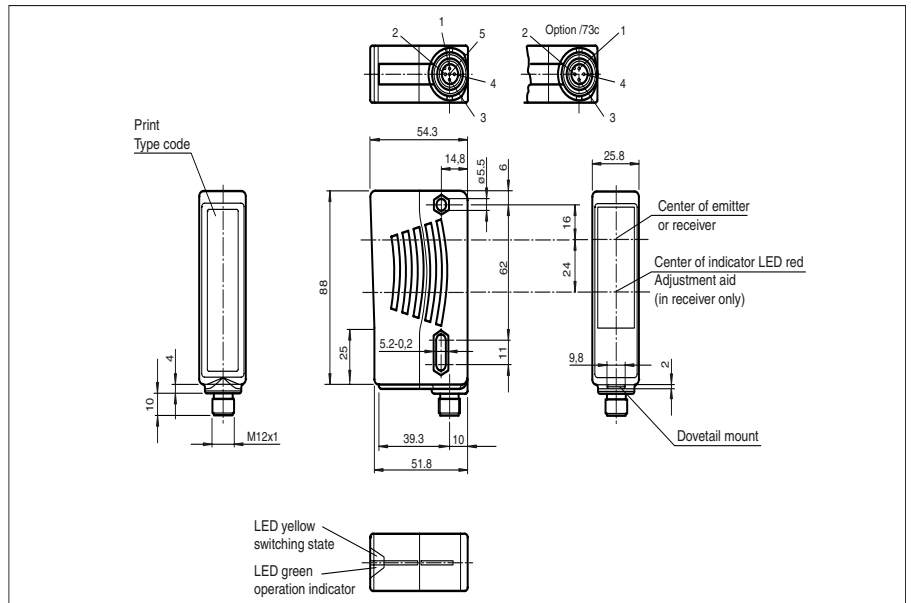




**Dimensions**



**Model Number**

**SLA29/35/105/106**

with 5-pin, M12 connector

**Features**

- Sensing range up to 65 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 on control units of SB4 (SafeBox)

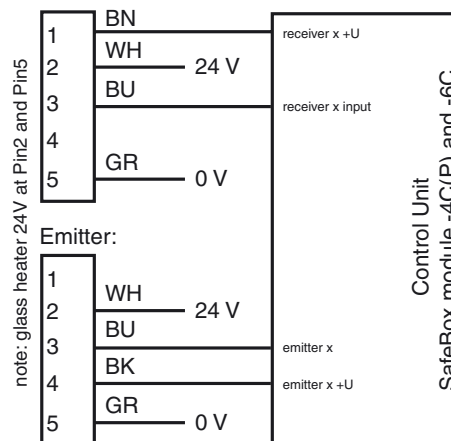
**Accessories**

- 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.

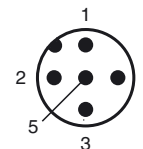
**Electrical connection**

Design with connector (Option /106)

Receiver:



**Pinout**



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**Technical data**

**System components**

Emitter	SLA29-T/35/105/106
Receiver	SLA29-R/35/105/106

**General specifications**

Effective detection range	6 ... 65 m
Threshold detection range	85 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 °

**Functional safety related parameters**

Safety Integrity Level (SIL)	SIL 3
Performance level (PL)	PL e
Category	Cat. 4
Mission Time (T <sub>M</sub> )	20 a
PFH <sub>d</sub>	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 <sub>B</sub>	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 ± 20 %/50 mA
Storage temperature	-20 ... 70 °C (-4 ... 158 °F)
Relative humidity	max. 95 %, not condensing

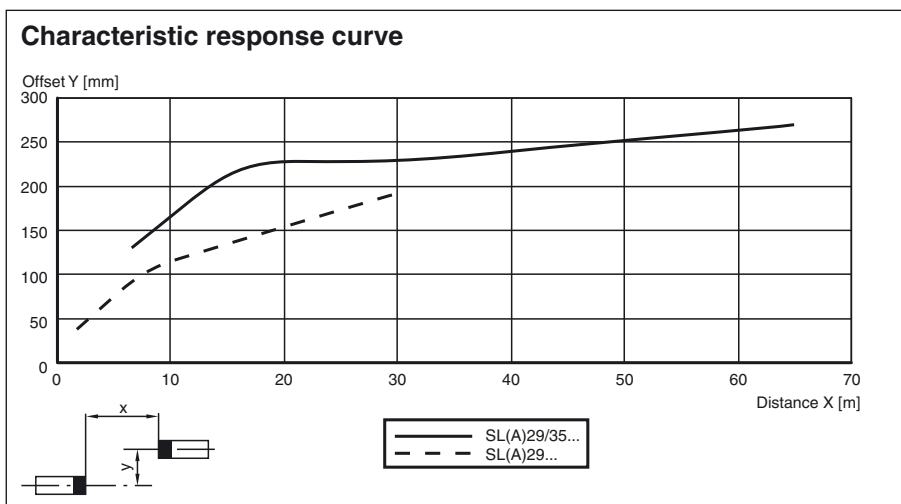
**Mechanical specifications**

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

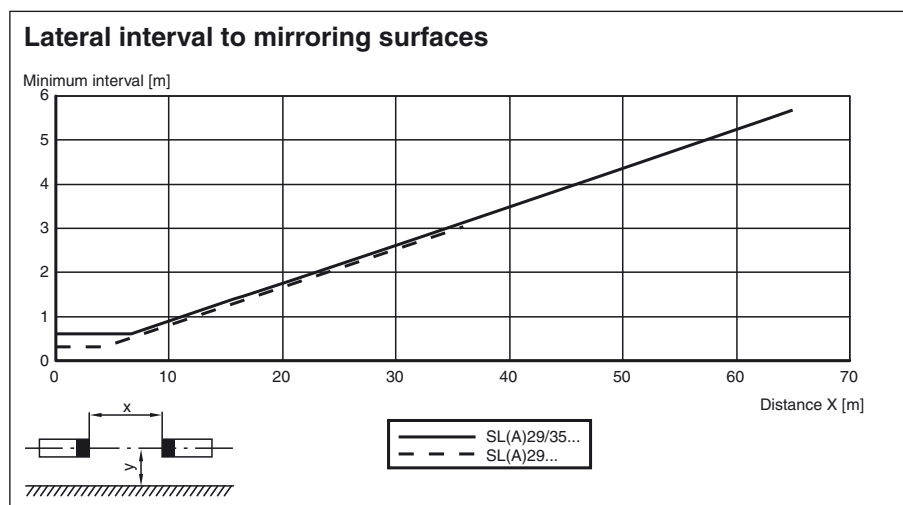
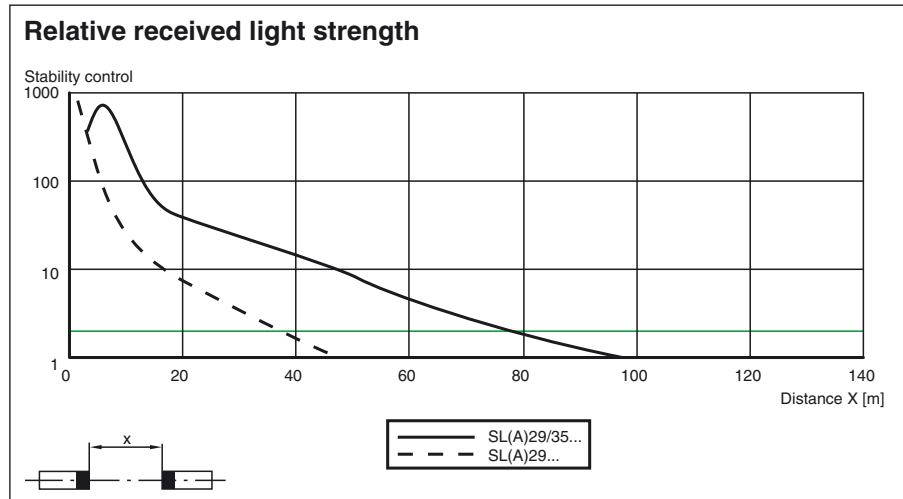
**Approvals and certificates**

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**



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## Additional information

For much easier alignment even for long distance applications, an additional red LED is located in the receivers 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:

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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