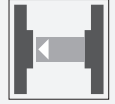


# Safety thru-beam sensor SLA12/124

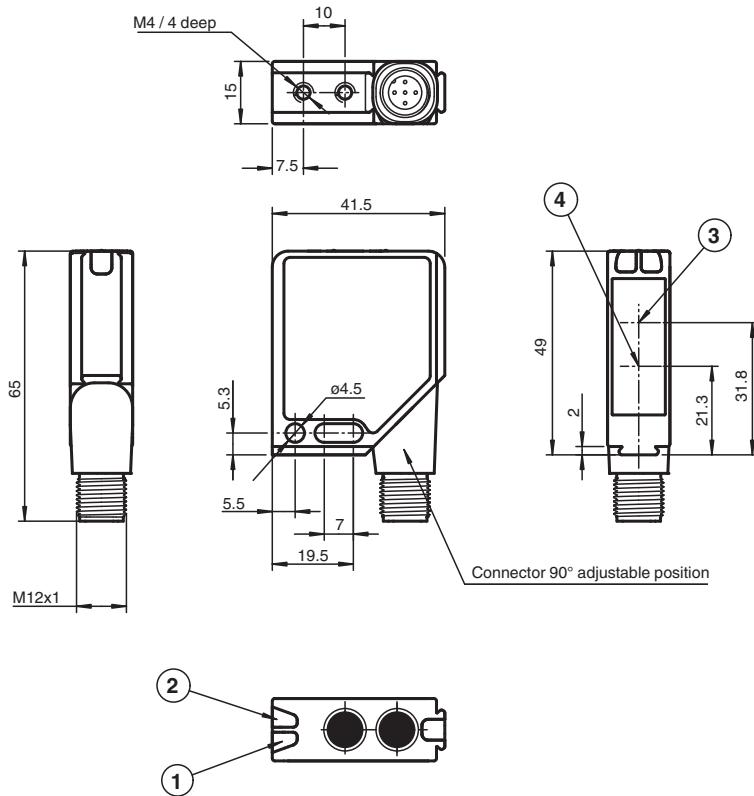


- Sensing range up to 10 m
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Red transmission light
- Integrated alignment aid
- Clearly visible LED functional display and pre-fault indicator on the receiver
- Sturdy housing
- Waterproof, degree of protection IP67
- Operation on control units of SB4 (SafeBox)



## Dimensions

SL12/SLA12

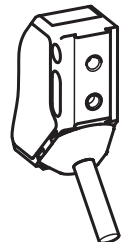


1	Operating display green
2	Switch state yellow
3	Optical axis emitter/Optical axis receiver
4	Alignment indicator red

Connection options:



M12x1



Fixed cable

## Technical Data

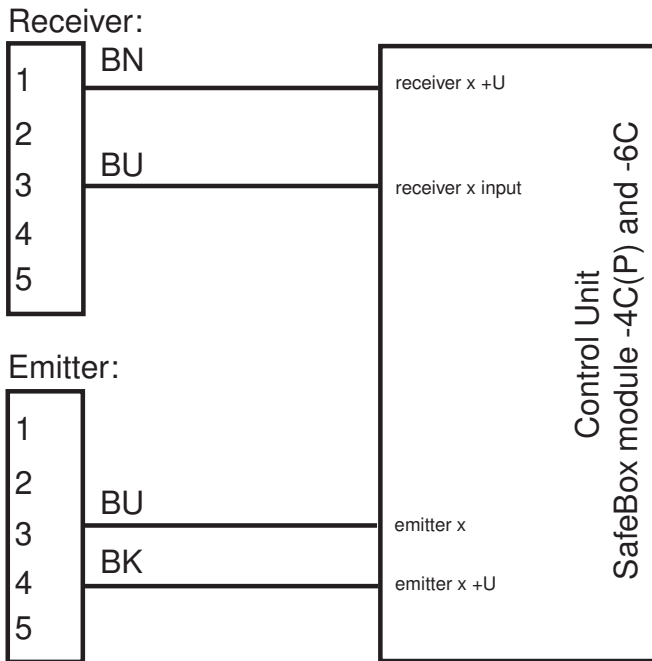
System components	
Emitter	SLA12-T/124
Receiver	SLA12-R/124
General specifications	
Effective detection range	0.2 ... 10 m
Threshold detection range	16 m

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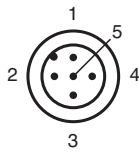
## Technical Data

Light source		LED, 660 nm
Light type		modulated visible red light
Target size		static: 10 mm dynamic: 30 mm (at $v = 1.6$ m/s of the obstacle)
Alignment aid		LED red
Opening angle		$< 5^\circ$
<b>Functional safety related parameters</b>		
Safety Integrity Level (SIL)		SIL 3
Performance level (PL)		PL e
Category		Cat. 4
Mission Time ( $T_M$ )		20 a
PFH <sub>d</sub>		4.4 E-10
Type		4
<b>Indicators/operating means</b>		
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
<b>Electrical specifications</b>		
Operating voltage	$U_B$	Power supply via control unit
Protection class		III, IEC 61140
<b>Conformity</b>		
Functional safety		ISO 13849-1
Product standard		EN 61496-1; IEC 61496-2
<b>Approvals and certificates</b>		
CE conformity		CE
UKCA conformity		UKCA
UL approval		cULus Listed
TÜV approval		TÜV SÜD
<b>Ambient conditions</b>		
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
<b>Mechanical specifications</b>		
Degree of protection		IP67 according to EN 60529
Connection		5-pin M12 x 1 connector with metal thread, 90° rotatable
<b>Material</b>		
Housing		Frame: nickel plated, die cast zinc, Laterals: glass-fiber reinforced plastic PC RAL 1021 (yellow)
Optical face		Plastic pane
Mass		per device 60 g
<b>Dimensions</b>		
Height		49 mm
Width		41.5 mm
Depth		15 mm

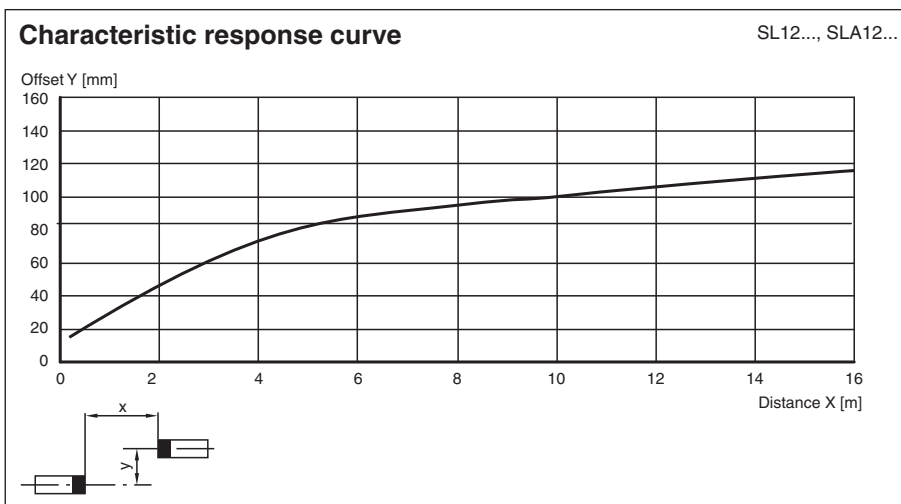
Connection



Connection Assignment

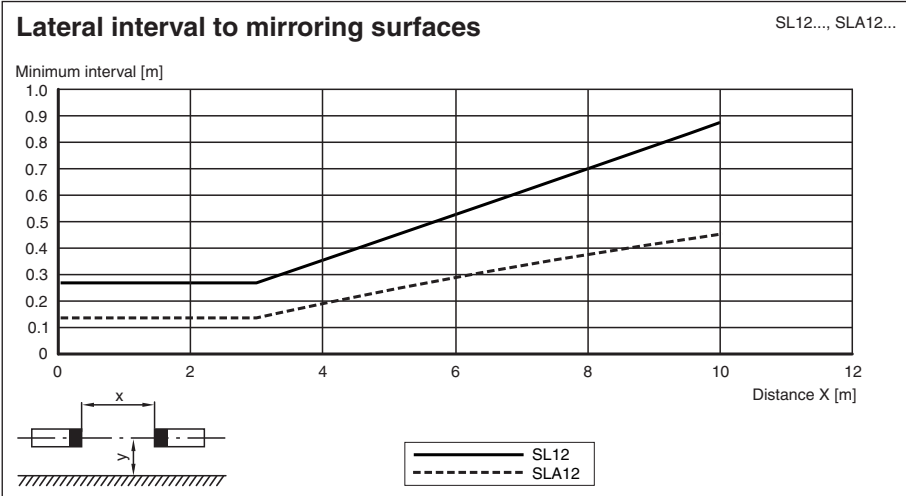
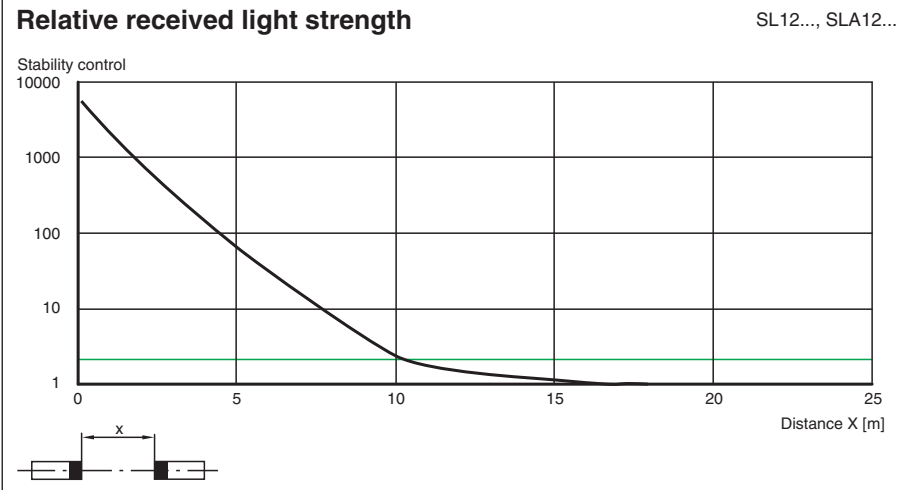


Characteristic Curve



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## 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** (not for option /115)

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

### Mounting aids

OMH-06

OMH-MLV12-HWG

OMH-MLV12-HWK

OMH-K01

OMH-K02

### Further accessories

Redirection mirror

SLA-1-M