



Model Number

SLA12-LAS-T/124

Safety thru-beam sensor with laser
with metal connector M12; 5-pin, 90°
convertible

Features

- Sensing range 12 m
- Visible red light, pulsed LASER light
- Laser class 1, eyesafe
- Performance Level PL e
- Clearly visible LED functional display and pre-fault indicator on the receiver
- Sturdy housing
- Waterproof, degree of protection IP67
- Operation on SB4-series control units (SafeBox)

Accessories

SLA-1-M

Deviation mirror

OMH-06

Mounting aid for round steel \varnothing 12 mm or
sheet 1.5 mm ... 3 mm

OMH-MLV12-HWG

Mounting bracket for series MLV12
sensors

OMH-MLV12-HWK

Mounting bracket for series MLV12
sensors

OMH-K01

dove tail mounting clamp

OMH-K02

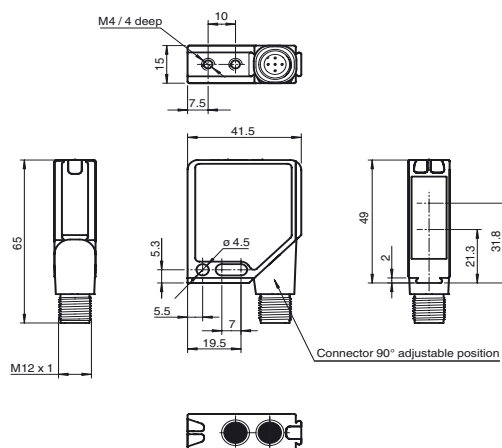
dove tail mounting clamp

V15-W-5M-PVC

Female cordset, M12, 5-pin, PVC cable

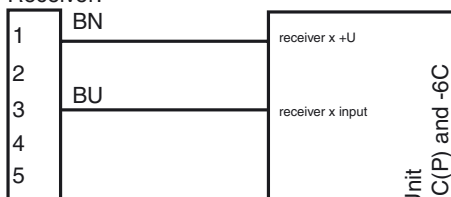
Other suitable accessories can be found at
www.pepperl-fuchs.com

Dimensions

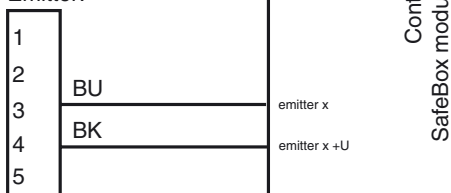


Electrical connection

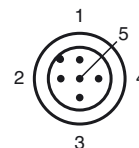
Receiver:



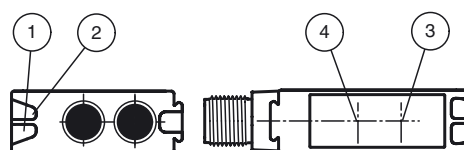
Emitter:



Pinout



Indicators/operating means



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

Technical data

System components

Emitter	SLA12-LAS-T/124
Receiver	SLA12-R/124

General specifications

Effective detection range	0.2 ... 12 m
Light source	laser diode
Light type	modulated visible red light
Laser nominal ratings	
Note	LASER LIGHT , DO NOT STARE INTO BEAM
Laser class	1
Wave length	650 nm
Beam divergence	1 mrad
Pulse length	35 µs
Repetition rate	200 Hz
Target size	static: 10 mm dynamic: 30 mm (at v = 1.6 m/s of the obstacle)
Alignment aid	LED red
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 _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
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Conformity

Functional safety	ISO 13849-1
Product standard	EN 61496-1 ; IEC 61496-2
Laser safety	IEC 60825-1:2007

Ambient conditions

Ambient temperature	0 ... 50 °C (32 ... 122 °F)
Storage temperature	-20 ... 70 °C (-4 ... 158 °F)
Relative humidity	max. 95 %, not condensing

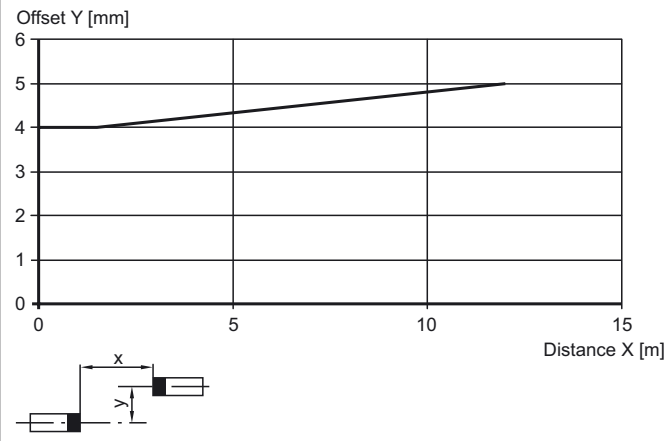
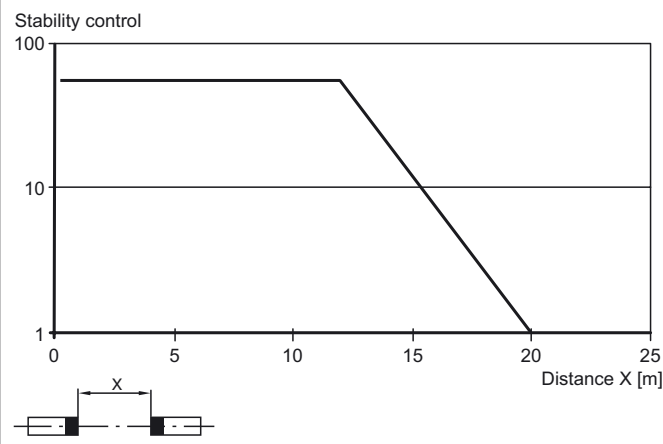
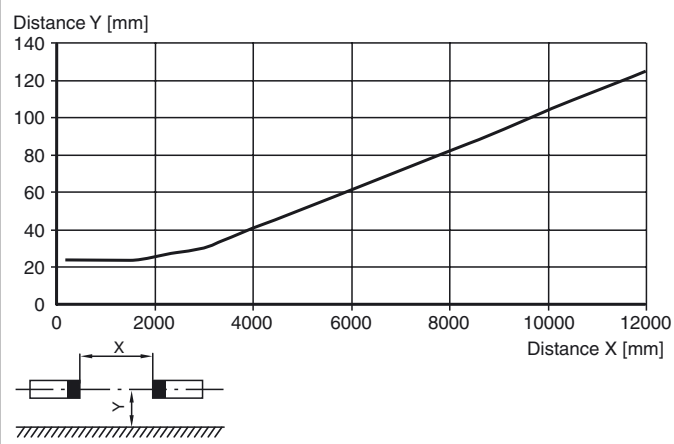
Mechanical specifications

Degree of protection	IP67 according to EN 60529
Connection	5-pin M12 x 1 connector with metal thread, 90° rotatable
Material	
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

Approvals and certificates

CE conformity	CE
CCC approval	CCC approval / marking not required for products rated ≤36 V
Approvals	TÜV

Curves/Diagrams

Characteristic response curve**Relative received light strength****Lateral interval to mirroring surfaces****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)