



Model Number

SLA12-LAS-T/35/124

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

Features

- Sensing range 30 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 control units of SB4 (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

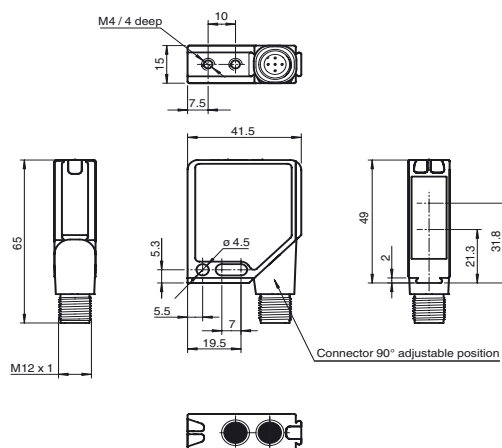
dove tail mounting clamp

V15-W-5M-PVC

Female cordset, M12, 5-pin, PVC cable

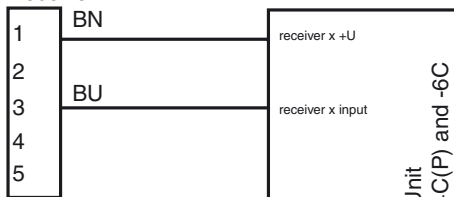
Other suitable accessories can be found at
www.pepperl-fuchs.com

Dimensions

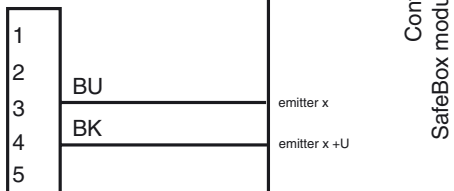


Electrical connection

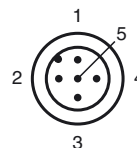
Receiver:



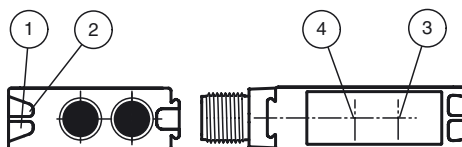
Emitter:



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/35/124 |
| Receiver | SLA12-R/124 |

General specifications

| | |
|---------------------------|-----------------------------|
| Effective detection range | 3 ... 30 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 |
|-------------------|----------------|-------------------------------|

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 |

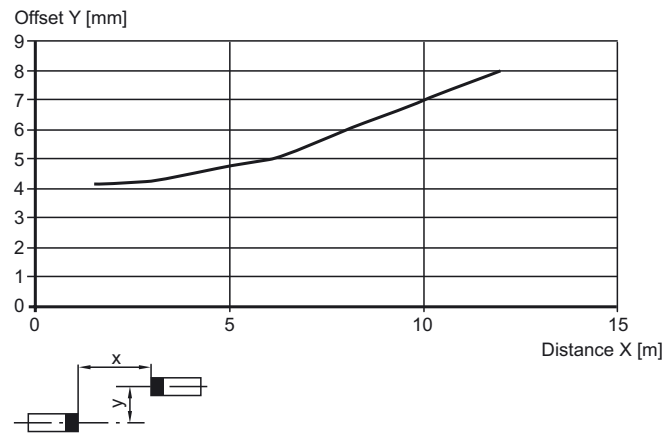
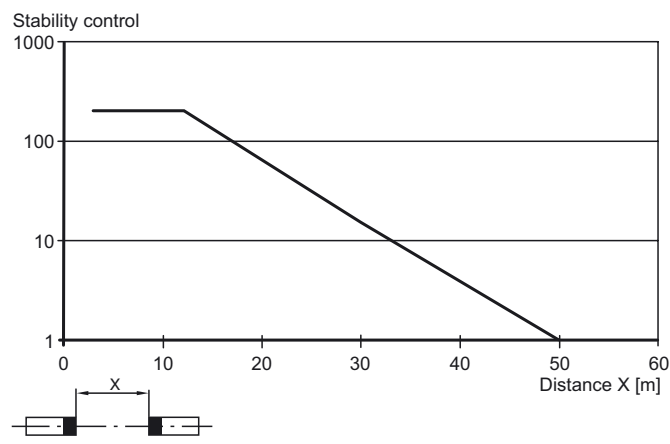
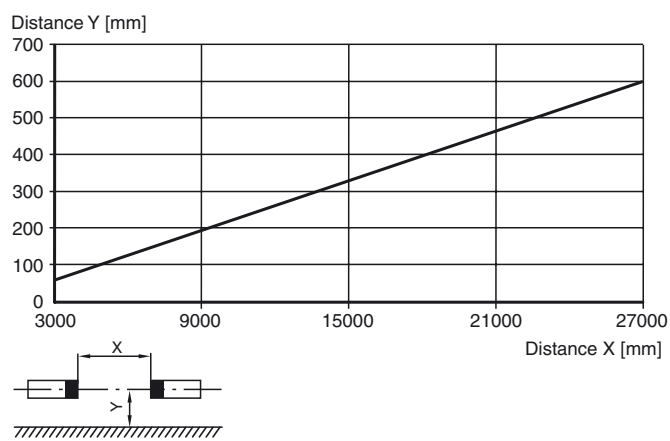
Material

| | |
|--------------|---|
| 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)