Dimensions

SL12/SLA12

M4 / 4 deep

10

15

7.5

41.5

65

M12x1

5.3

ø4.5

5.5

7

19.5

Connector 90° adjustable position

4

3

49

2

21.3

31.8

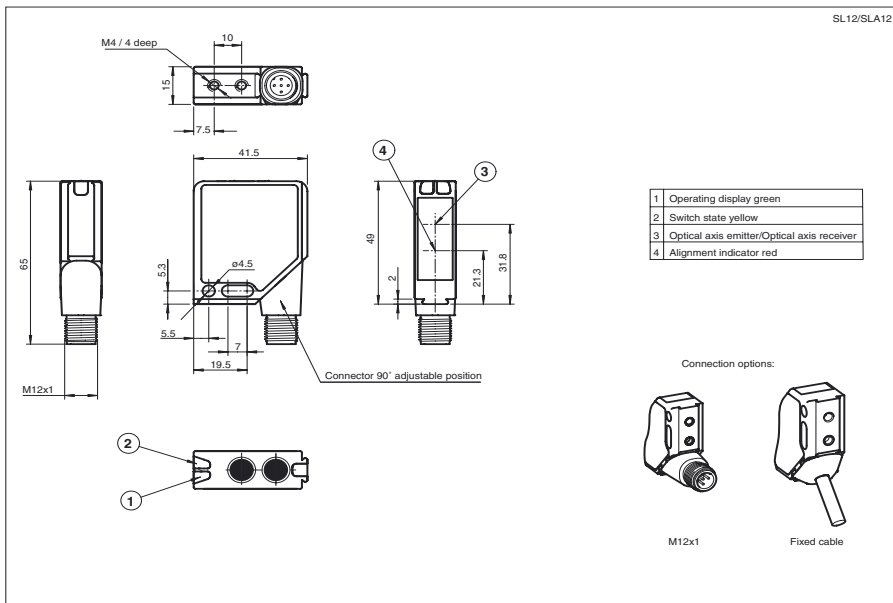| 1	Operating display green
2	Switch state yellow
3	Optical axis emitter/Optical axis receiver
4	Alignment indicator red

Connection options:

M12x1   Fixed cable

2

1

Model Number

SLA12/115

Safety thru-beam sensor
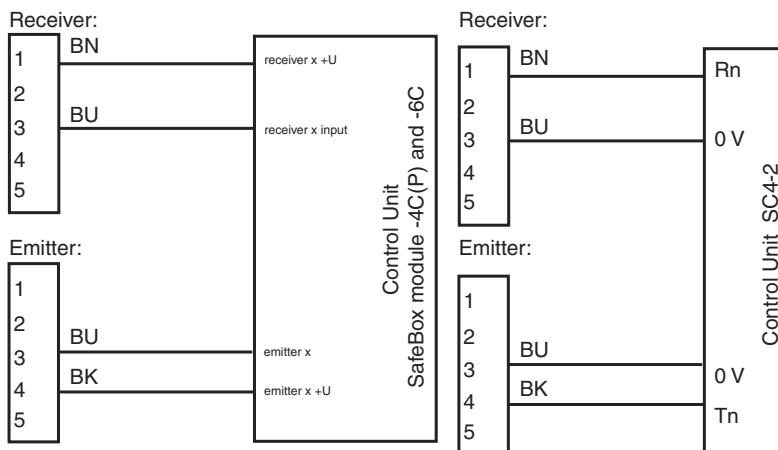with fixed cable

Features

- Detection 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, protection class IP67
- Operation on control units of series SB4 (SafeBox) and SC4-2

Accessories

SLA-1-M
Deviation mirror

OMH-06
Mounting aid

OMH-MLV12-HWG
Mounting aid

OMH-MLV12-HWK
Mounting aid

OMH-K01
Mounting aid

OMH-K02
Mounting aid

Additional accessories can be found in the Internet.

Electrical connection

Receiver:

1
2   BN
3   BU
4
5

Emitter:

1
2
3   BU
4   BK
5

Control Unit
SafeBox module -4C(P) and -6C

receiver x +U

receiver x input

emitter x

emitter x +U

Receiver:

1
2   BN
3   BU
4
5

Emitter:

1
2
3   BU
4   BK
5

Control Unit SC4-2

Rn

0 V

0 V

Tn

Subject to modifications without notice

Copyright Pepperl+Fuchs

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776-4411
fa-info@pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS
SENSING YOUR NEEDS

1

Technical data

General specifications

Effective detection range	0.2 ... 10 m
Threshold detection range	16 m
Light source	LED, 660 nm
Light type	red, modulated light
Approvals	TÜV
Tests	IEC/EN 61496
Safety type according to IEC/EN 61496	4
Marking	CE
Obstacle 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

Indicators/operating means

Operating display	LED green
Function display	LED yellow: 1. LED lits 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

Ambient conditions

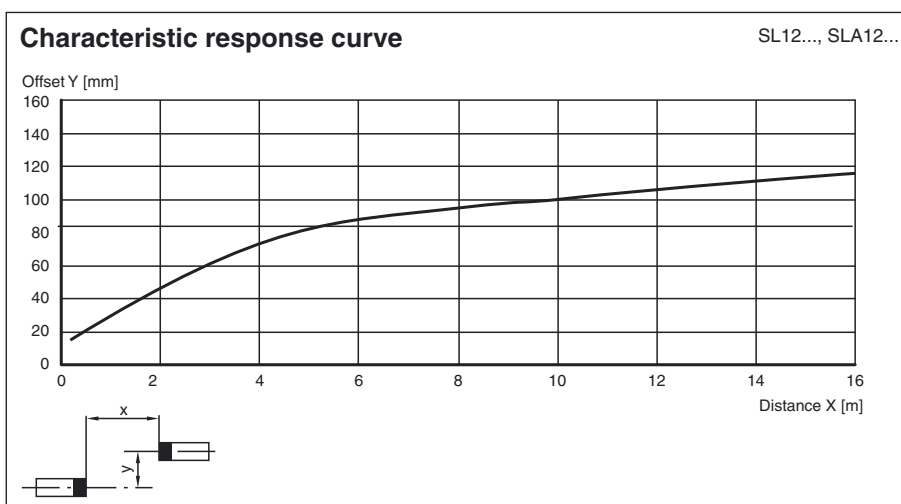|	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Storage temperature	-20 ... 70 °C (253 ... 343 K)
Relative humidity	max. 95 %, not condensing

Mechanical specifications

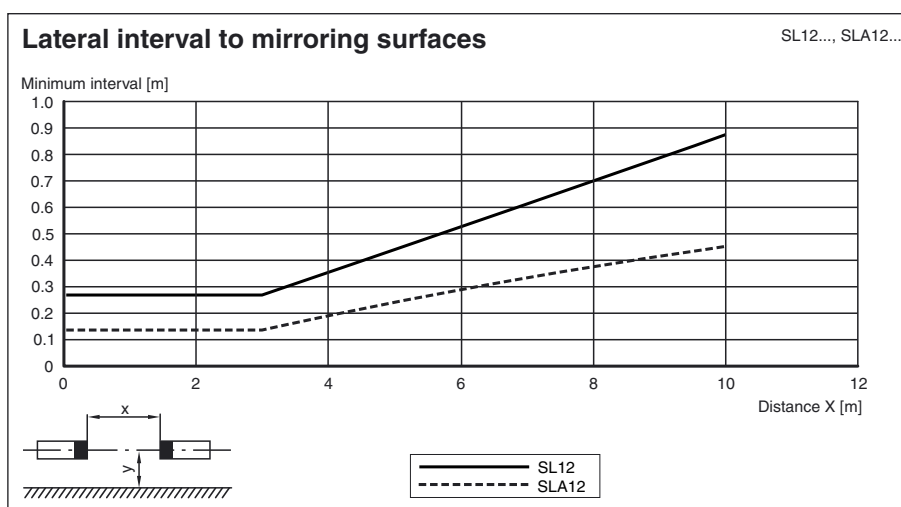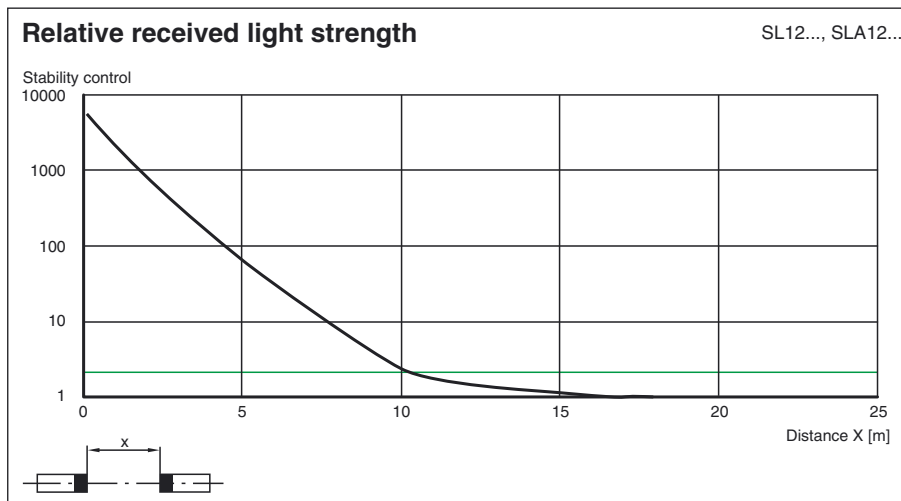|	
Protection degree	IP67 according to EN 60529
Connection	2.5 m fixed cable, 5-core, Euronorm
Material	
Housing	Frame: die-cast zinc, nickel-plated Laterals: plastic PC, glass-fiber reinforced RAL 1021 (yellow)
Optical face	Plastic pane
Mass	per device 60 g

General information

System components	
Emitter	SLA12-T/115
Receiver	SLA12-R/115

Curves/Diagrams

Characteristic response curve

SL12..., SLA12...

Relative received light strength — SL12..., SLA12...

Stability control

Lateral interval to mirroring surfaces — SL12..., SLA12...

Minimum interval [m]

	SL12
	SLA12

Additional information

For much easier alignment even for lond 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 (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

Subject to modifications without notice
Pepperl+Fuchs Group   USA: +1 330 486 0001   Germany: +49 621 776-4411   Singapore: +65 6779 9091
www.pepperl-fuchs.com   fa-info@us.pepperl-fuchs.com   fa-info@pepperl-fuchs.com   fa-info@sg.pepperl-fuchs.com

Copyright Pepperl+Fuchs

PEPPERL+FUCHS
SENSING YOUR NEEDS

3

OMH-06
OMH-MLV12-HWG
OMH-MLV12-HWK
OMH-K01
OMH-K02

Further accessories

Redirection mirror
SLA-1-M