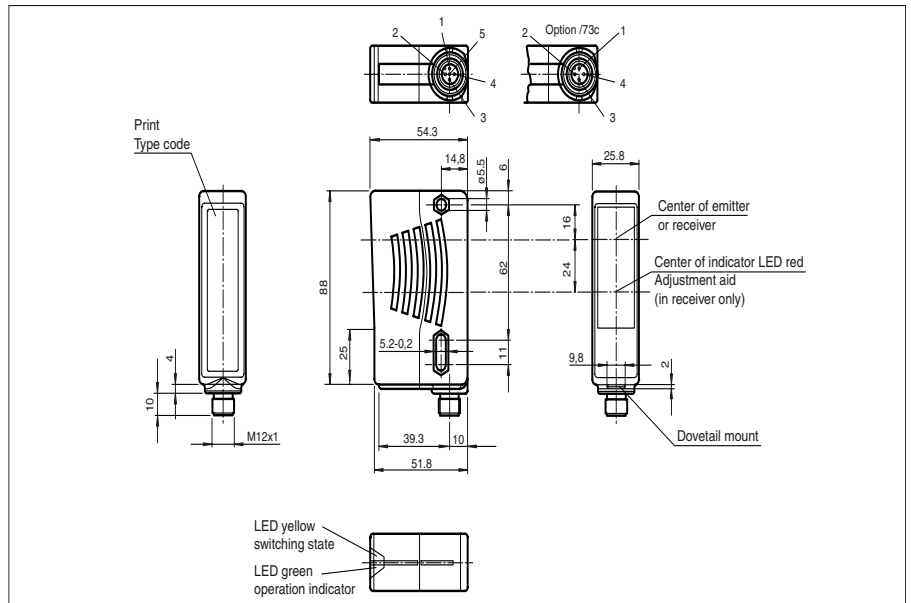




Dimensions



Model Number

SL29/105/106

Safety thru-beam sensor
with 5-pin, M12 connector

Features

- Detection range up to 30 m
- Test input (Type 2 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
- Protection degree IP67
- Extended temperature range up to -35 °C with heated front panel
- Operation on control units of series SC2-2

Electrical connection

Design with connector (Option /106)

Receiver:

1	BN	Rn
2	WH	24 V
3	BU	0 V
4	GY	0 V
5		

Emitter:

1	WH	24 V
2	BU	0 V
3	BK	Tn
4	GY	0 V
5		

Control Unit SC2-2

Release date: 2009-12-14 11:08 Date of issue: 2009-12-14 117346_ENG.xml

Technical data

General specifications

Effective detection range	0.2 ... 30 m
Threshold detection range	40 m
Light source	LED
Light type	red, modulated light
Approvals	TÜV
Tests	IEC/EN 61496
Safety type according to IEC/EN 61496	2
Marking	CE
Obstacle size	static: 30 mm dynamic: 40 mm (at v = 1.6 m/s of the obstacle)
Alignment aid	LED red
Angle of divergence	< 10 °

Functional safety related parameters

Safety Integrity Level (SIL)	SIL 2
Performance level (PL)	PL d
Category	Cat. 2
Mission Time (T _M)	20 a
PFH _d	1 E-7

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
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Ambient conditions

Ambient temperature	-35 ... 55 °C (238 ... 328 K) with heated optical face, fixed voltage 24 V DC ± 20 %/50 mA	
Storage temperature	-20 ... 70 °C (253 ... 343 K)	
Relative humidity	max. 95 %, not condensing	

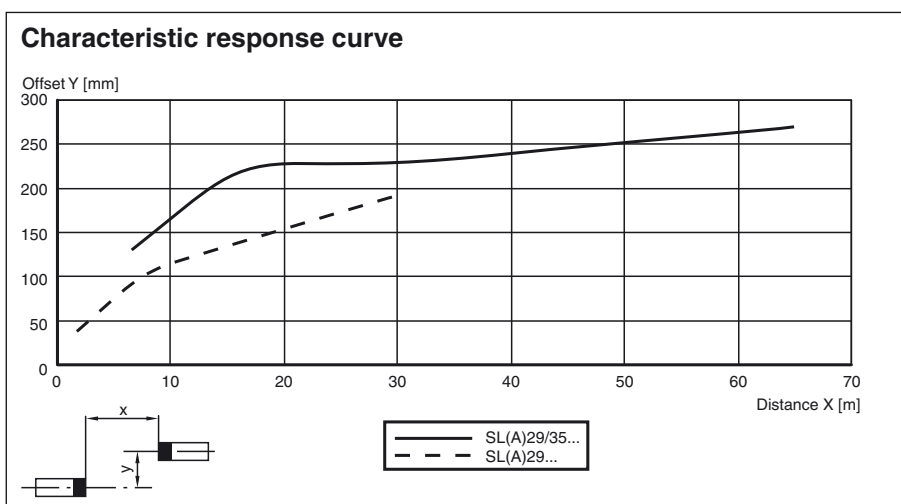
Mechanical specifications

Protection degree	IP67 according to EN 60529	
Connection	M12 connector, 5 pin	
Material	Housing: Plastic ABS, front part black, back part yellow (RAL1021) Optical face: Plastic pane	
Mass	per device 70 g	

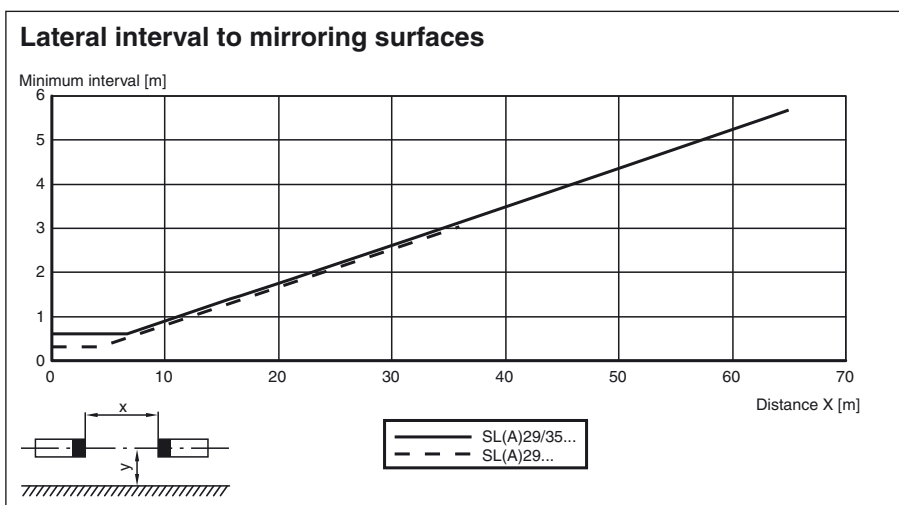
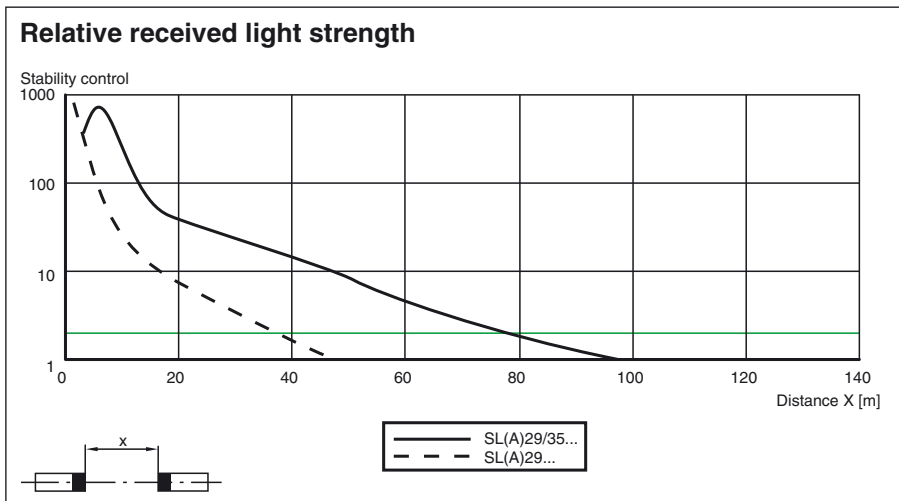
General information

System components	Emitter: SL29-T/105/106 Receiver: SL29-R/105/106	
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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

SC2-2

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

Redirection mirror
SLA-1-M