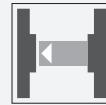




## Safety thru-beam sensor

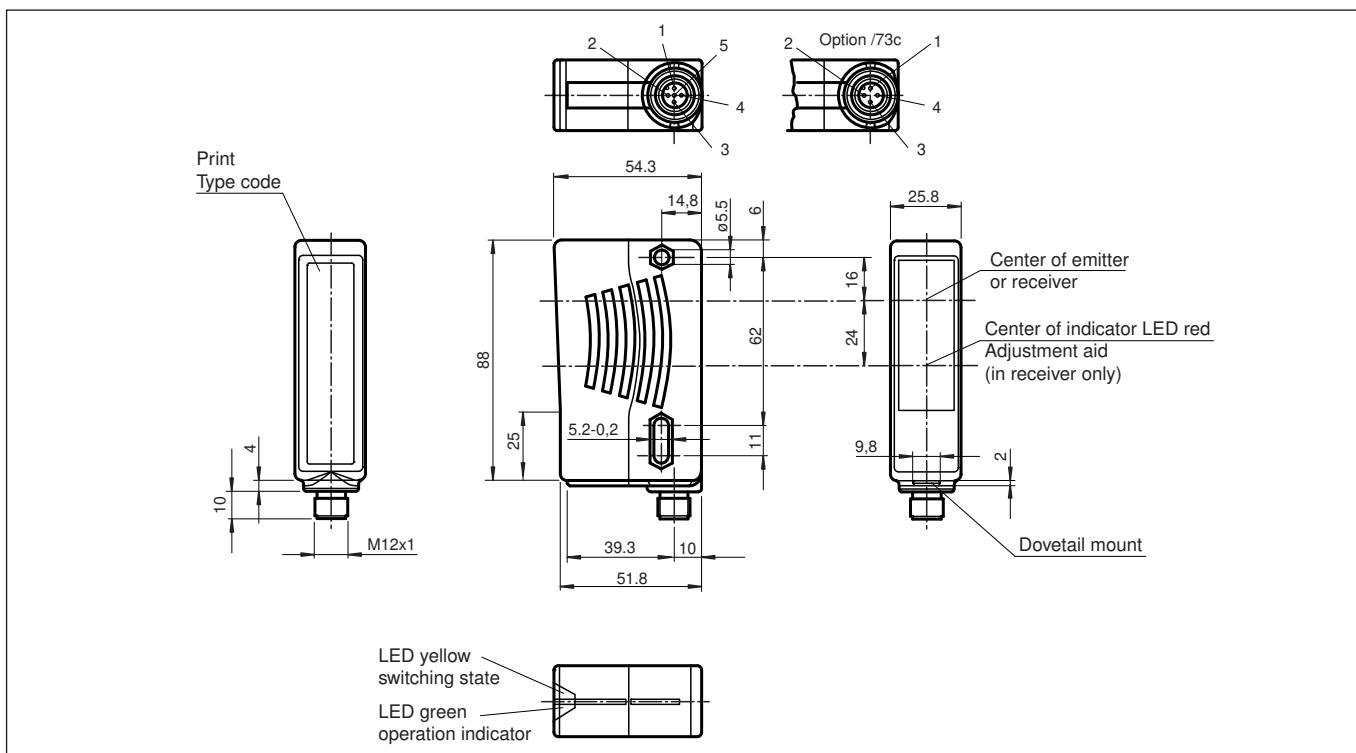
### SLA29/105/106



- Sensing range up to 30 m
- Self-monitoring (type 4 according to IEC/EN 61496-1)
- Extended temperature range up to -35 °C with heated front panel
- Red transmission light
- Integrated alignment aid
- Clearly visible LED functional display and pre-fault indicator on the receiver
- Operation of control units of Series SB4



## Dimensions



## Technical Data

Release date: 2024-06-24 Date of issue: 2024-06-24 Filename: 315750\_eng.pdf

### System components

Emitter	SLA29-T/105/106
Receiver	SLA29-R/105/106

### General specifications

Effective detection range	0.2 ... 30 m
Threshold detection range	40 m
Light source	LED
Light type	modulated visible red light
Target size	static: 30 mm dynamic: 40 mm (at $v = 1.6$ m/s of the obstacle)

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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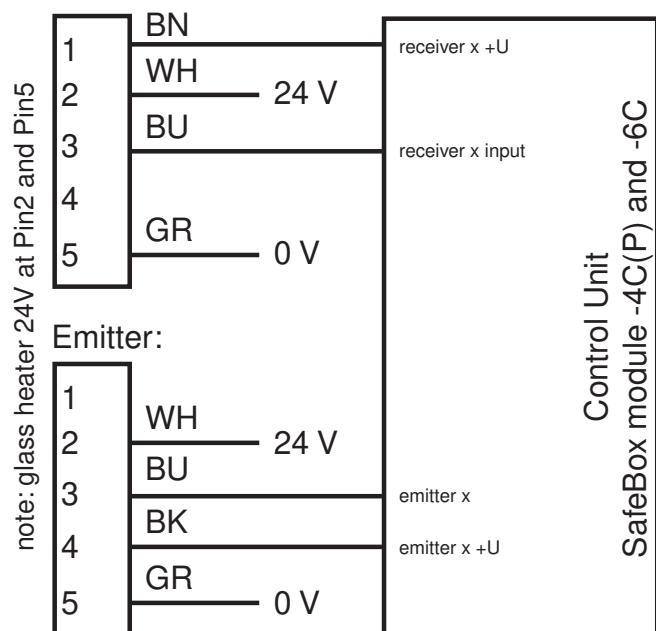
## Technical Data

Alignment aid	LED red in receiver	
Opening angle	< 5 °	
<b>Functional safety related parameters</b>		
Safety Integrity Level (SIL)	SIL 3	
Performance level (PL)	PL e	
Category	Cat. 4	
Mission Time (T <sub>M</sub> )	20 a	
PFH <sub>d</sub>	0.44 E-9	
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 <sub>B</sub>	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	-35 ... 55 °C (-31 ... 131 °F) with heated optical face, fixed voltage 24 V DC ± 20 %/50 mA	
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	M12 connector, 5 pin	
Material		
Housing	ABS plastic, RLA 1021 (yellow) painted	
Optical face	Plastic pane	
Mass	per device 70 g	
Dimensions		
Height	88 mm	
Width	25.8 mm	
Depth	54.3 mm	

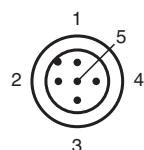
## Connection

Design with connector (Option /106)

Receiver:

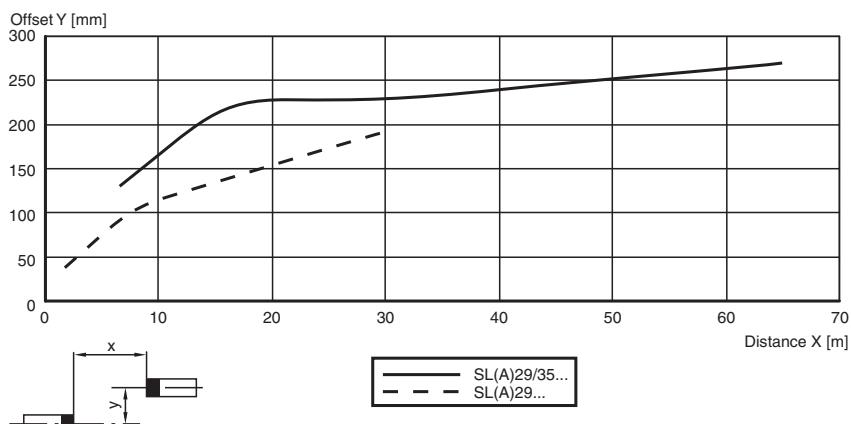


## Connection Assignment



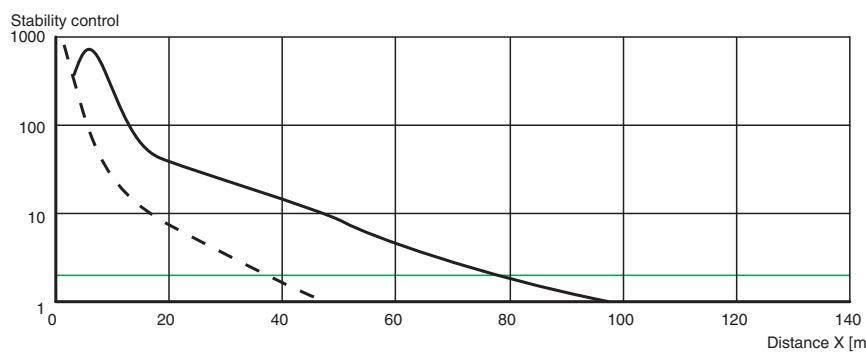
## Characteristic Curve

### Characteristic response curve

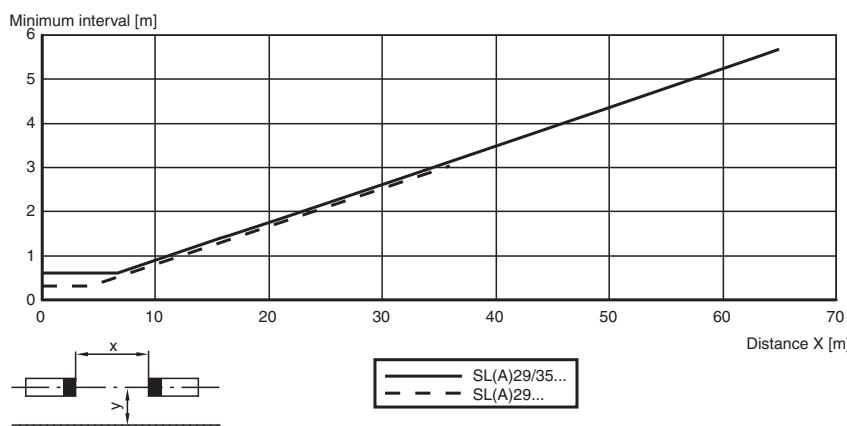


## Characteristic Curve

### Relative received light strength



### Lateral interval to mirroring surfaces



## 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

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:

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

Muting Set

MS SLP/SLA28

Redirection mirror

SLA-1-M