

**LS 97/4D.E-S12.Y1**

**Throughbeam photoelectric sensor receiver**

en 01-2018/09 50138087

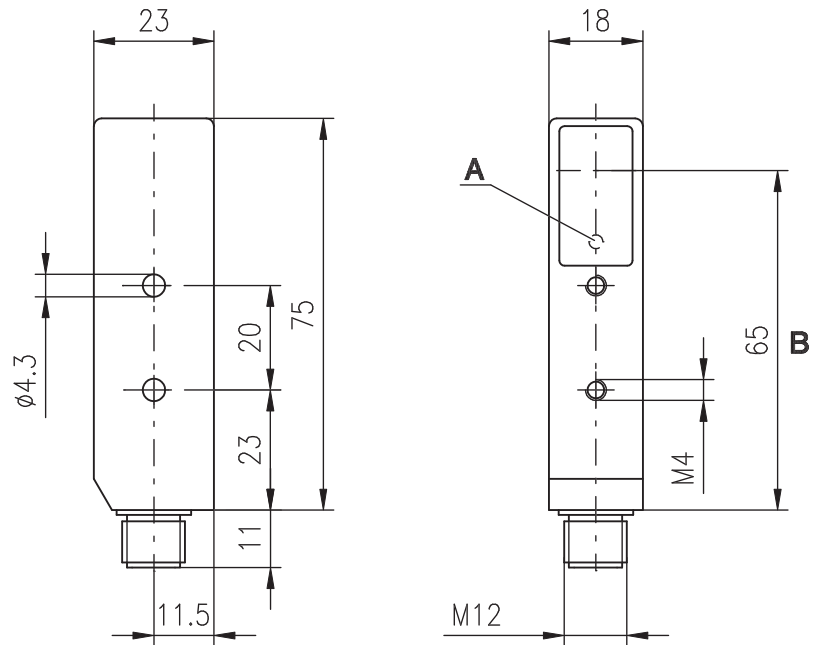


**4m**



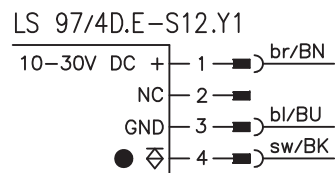
- Receiver with high resolution
- Together with LSSRL 8-S12.Y1 forms a light curtain with a detection range of approx. 12 mm
- Small construction with glass cover and robust metal housing for protection against environmental influences
- Connection via M12 connector
- Additional indicator diode on the front part (for exact alignment)

**Dimensioned drawing**



- A** Indicator diode
- B** Optical axis

**Electrical connection**



We reserve the right to make changes • PAL\_LS97\_4DES12Y1\_en\_50138087.fm



**Accessories:**

(available separately)

- M12 connectors (KD ...)
- Ready-made cables (KD ...)

**Specifications**

**Optical data**

Typ. operating range limit <sup>1)</sup>	0 ... 4.0m
Operating range <sup>2)</sup>	0 ... 3.0m
Light source transmitter	Laser class 2
Wavelength transmitter	655nm (visible red light)
Detection range	approx. 12mm
Resolution	≥ 6mm diameter (object size)

**Timing**

Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 100ms

**Electrical data**

Operating voltage U <sub>B</sub>	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U <sub>B</sub>
Bias current	≤ 40mA
Switching output	PNP transistor output
Function characteristics	dark switching
Signal voltage high/low	≥ (U <sub>B</sub> -2V)/≤ 2V
Output current	max. 100mA
Sensitivity	permanently set

**Indicators**

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

**Mechanical data**

Housing	diecast zinc
Optics cover	glass
Weight	85g
Connection type	M12 connector 4-pin, stainless steel

**Environmental data**



Ambient temp. (operation/storage)	-20°C ... +60°C/-30°C ...+70°C
Protective circuit <sup>3)</sup>	2, 3
safety class	III
Protection class	IP 67
Standards applied	IEC 60947-5-2

1) Typ. operating range limit: max. attainable range without performance reserve  
 2) Operating range: recommended range with performance reserve  
 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs

**Tables**

LS 97/4D.E-S12.Y1

0	3	4
---	---	---

 Operating range [m]  
 Typ. operating range limit [m]

**Diagrams**

**Order guide**

	<b>Designation</b>	<b>Part no.</b>
<b>With M12 connector</b>		
Receiver	LS 97/4D.E-S12.Y1	50137742
Dedicated Transmitter	LSSRL 8-S12.Y1	50137743

**Remarks**

<b>Operate in accordance with intended use!</b>
⚠ This product is not a safety sensor and is not intended as personnel protection.
⚠ The product may only be put into operation by competent persons.
⚠ Only use the product in accordance with the intended use.