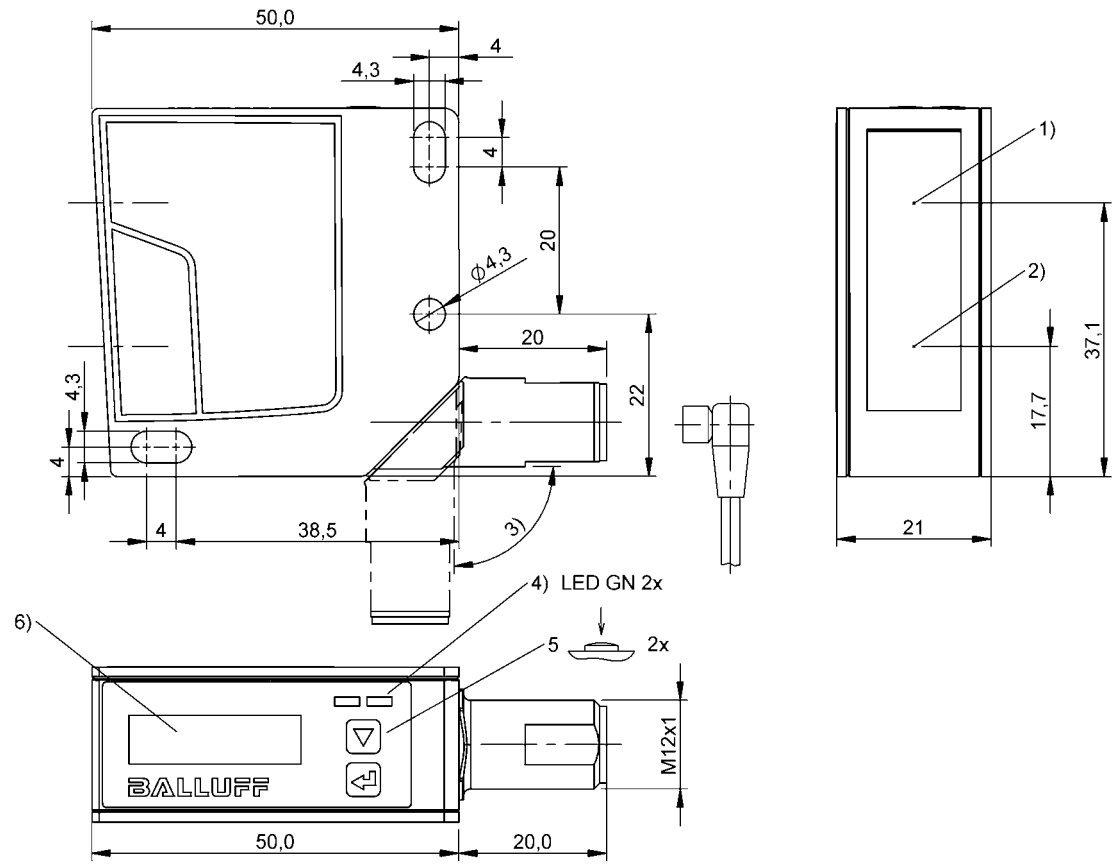
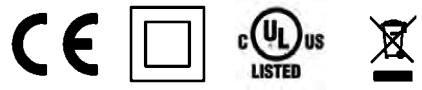


Photoelectric Sensors  
BOD 24K-LPI07-S4  
Order Code: BOD002M

**BALLUFF**



1) Optical axis emitter, 2) Optical axis receiver, 3) rotatable 180°, 4) LED green, 5) Operating button, 6) OLED Display



Basic features

Application	Distance measurement
Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	24K
Style	Square Connection can be rotated

Display/Operation

Adjuster	Key (2x)
Display	Error - LED green, flashing Teach-in - LED yellow/green, flashing LED green: Power Object in range - LED yellow
Power indicator	yes
Setting	Switching output PNP/NPN Normally open/Normally closed Light-on/dark-on Teaching switchpoints Factory setting (Reset) calibration mode Working range

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Photoelectric Sensors  
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**BALLUFF**

#### Electrical data

Load resistance RL max. (Analog I)	500 ohms
Load resistance RL min. (Analog V)	2 kOhm
No-load current Io max. at Ue	50 mA
Operating voltage Ub	18...30 VDC
Protection class	II
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	300 ms
Ripple max. (% of Ue)	15 %
Switching frequency	500 Hz
Turn-off delay toff max.	5 ms
Turn-on delay ton max.	5 ms

#### Environmental conditions

Ambient temperature	-20...50 °C
IP rating	IP67

#### Functional safety

MTTF (40 °C)	37 a
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#### IO-Link

IO-Link Profil IDs	0x0001 SSP0 0x000C SSP3.3 0x4000 Identification and Diagnosis
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#### Interface

Analog output	Analog, voltage/Analog, current selectable 4...20 mA 0...10 V
Interface	IO-Link 1.1
Switching output	2x PNP/NPN NO/NC push-pull

#### Remarks

For additional information, refer to user's guide.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

#### Material

Housing material	Plastic
Material sensing surface	Glass

#### Mechanical data

Dimension	50 x 21 x 50 mm
Mounting part	Screw M4

#### Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Laser class per IEC 60825-1	1
Light spot size	1 x 1 mm at 100 mm
Light type	Laser red light
Principle of optical operation	Triangulation
Pulse duration t max.	22 ns
Pulse power Pp max.	1.2 mW
Switching function, optical	Light/dark switching
Wave length	650 nm

#### Range/Distance

Accuracy	±0.5 %
Range	50...100 mm
Repeat accuracy	± 50 µm
Reproducibility	0.05 mm
Resolution	≤ 10 µm

#### Connector Drawings



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Wiring Diagrams

