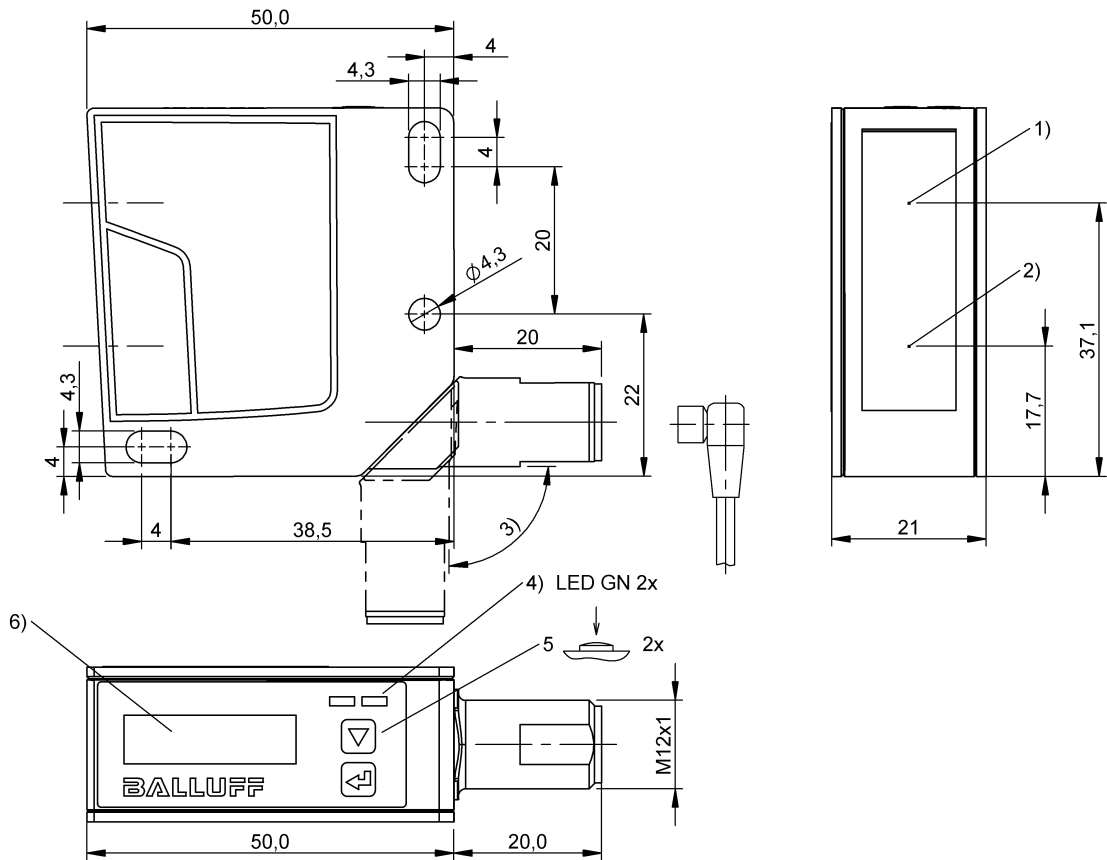




1) Optical axis emitter, 2) Optical axis receiver, 3) rotatable 180°, 4) LED green, 5) Operating button, 6) OLED Display



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
BOD 24K-LPI07-S4
Order Code: BOD002M

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
--------------	------

IO-Link

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

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
Repeatability	0.05 mm
Resolution	≤ 10 µm

Connector Drawings



Wiring Diagrams (Schematic)

