

1) Output function 2) Power/Analog output 3) Optical axis emitter 4) Optical axis receiver 5) Teach-In switching output 6) Teach-in Analog output 7) rotatable 270°











Display/Operation

Adjuster Display Key (2x)

Analog output - LED yellow Output function- LED yellow LED green: Power

Setting

Measuring range QA Key disable on/off Output curve rising / falling Switching output Q

Electrical connection

Connection
Polarity reversal protected
Short-circuit protection

Connector, M12x1-Male, 5-pole

yes yes

Electrical data

Load capacitance max. at Ue
Load resistance RL min. (Analog V)
No-load current lo max. at Ue
Operating voltage Ub
Protection class
Rated operating current le
Rated operating voltage Ue DC

0.1 μF 4 kOhm

60 mA 18...30 VDC

II 100 mA 24 V

www.balluff.com +49 (0) 7158 173-0, 173-370 1-800-543-8390 +86 (0) 21-50 644131 Ripple max. (% of Ue) 10 %
Switching frequency 250 Hz
Turn-off delay toff max. 1.2 ms
Turn-on delay ton max. 1.2 ms
Voltage drop Ud max. at le 2 V

Environmental conditions

Ambient temperature -40...60 °C
EN 60068-2-27, Shock Half-sinus, 30 gn, 11 ms, 3x6

EN 60068-2-6, Vibration 55 Hz, amplitude 1 mm, 3x30 min

IP rating per DIN 40050 IP69K
Protection degree IP67

Functional safety

MTTF (40 °C) 156 a

General data

Application Distance measurement

For definitions of terms, see main catalog Subject to change without notice [235063]

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Photoelectric Sensors

BOD 23K-LA01-S92

Ordercode: BOD001N



Approval/Conformity

CE cULus EAC Ecolab

WEEE

Basic standard Principle of operation IEC 60947-5-2, IEC 60947-5-7 Photoelectric distance sensor

Series

23K

Style Square

Connection can be rotated

Material

Housing material Material sensing surface ABS **PMMA**

Mechanical data

Dimension Mounting

Tightening torque max.

51 x 23 x 52.4 mm

Screw M4 1.5 Nm

Optical data

Ambient light max. Beam characteristic

Laser class per IEC 60825-1

Light spot size Light type

Principle of optical operation

Pulse duration t max.

5000 Lux

Collimated

5.5 x 7 mm at 5 m Laser red light Light time-of-flight

0.008 µs

Pulse frequency Pulse power Pp max.

Switching function, optical

Wave length

45 kHz 930.0 mW

Light/dark switching

655 nm

Output/Interface

Analog output Output characteristic

Switching output

Analog, voltage 0...10 V

linear rising/falling

PNP/NPN/Auto-Detect normally

open/normally closed (NO/NC)

Range/Distance

Accuracy Hysteresis H max. (% of Sr)

Range

Rated operating distance Sn

Repeat accuracy Resolution

±0.6 %FS 0.3 %

100...5000 mm

5 m Adjustable 0.024 %FS

≤ 5.0 mm

Remarks

For additional information, refer to user's guide.

period for defect claims or affect it in any way.

Order accessories separately.

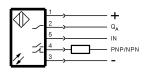
For more information about MTTF and B10d see MTTF / B10d Certificate

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

Connector view



Wiring Diagram



Symbols for Optoelectronic Sensors



Photoelectric Sensors BOD 23K-LA01-S92 Ordercode: BOD001N **BALLUFF**

Warning Symbols



LASER CLASS 1 per IEC 60825-1