

Photoelectric Sensors
BOS 23K-PU-RD10-S4
Order Code: BOS016Z

BALLUFF

Electrical data

Input function	Key disable on/off Same function as button
No-load current I _{o max.} at U _e	30 mA
Operating voltage U _b	10...30 VDC
Protection class	II
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _{e DC}	24 V
Ready delay t _{v max.}	300 ms
Residual current I _{r max.}	50 µA
Ripple max. (% of U _e)	10 %
Switching frequency	600 Hz
Turn-off delay t _{off max.}	0.83 ms
Turn-on delay t _{on max.}	0.83 ms
Utilization category	DC -13
Voltage drop U _{d max.} at I _e	2 V

Environmental conditions

Ambient temperature	-20...60 °C
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP6x
IP rating per DIN 40050	IPx9K

Functional safety

MTTF (40 °C)	494 a
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Remarks

For additional information, refer to user's guide.
Order accessories separately.
The sensor is functional again after the overload has been eliminated.
Do not press key using a pointed tool.
Teach-in also possible when object is in motion.
Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.
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.

Interface

Switching output	PNP normally open/normally closed (NO/NC)
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Material

Housing material	PC ABS
Material sensing surface	PMMA

Mechanical data

Dimension	23 x 51 x 52.4 mm
Mounting part	Screw M4
Tightening torque max.	1.5 Nm

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Focus, typical at 500 mm
LED group per IEC 62471	Exempt Group
Light spot size	15 x 15 mm at focal point
Light type	LED, red light
Principle of optical operation	Diffuse sensor, energetic
Switching function, optical	Light/dark switching
Wave length	640 nm

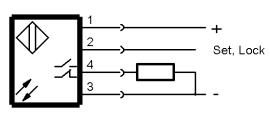
Range/Distance

Hysteresis H max. (% of Sr)	8.0 %
Range	0...2000 mm
Rated operating distance S _n	2 m Adjustable

Connector Drawings



Wiring Diagrams



Opto Symbols

