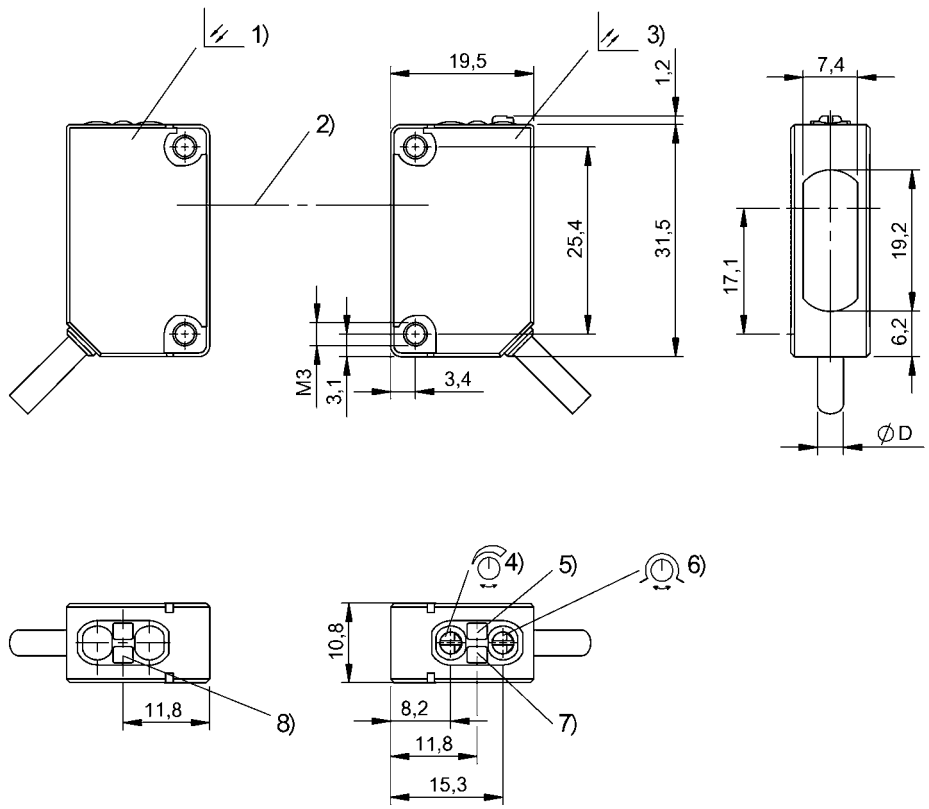


Photoelectric Sensors
BOS 5K-NU-LX10-02
Order Code: BOS01JL



1) Emitter, 2) Optical axis, 3) Receiver, 4) Sensitivity, 5) Output function, 6) Light-on/dark-on, 7) stability, 8) Operating voltage



Basic features		Electrical connection	
Approval/Conformity	cULus CE WEEE UKCA	Cable diameter D	3.50 mm
Basic standard	IEC 60947-5-2	Cable length L	2 m
Principle of operation	Photoelectric sensor	Conductor cross-section	0.20 mm ²
Series	5K	Connection	Cable, 2.00 m, PVC
Style	Square Connection 45°	Number of conductors	3
Trademark	Global	Polarity reversal protected	yes
		Short-circuit protection	yes
Display/Operation			
Adjuster	Potentiometer 270° (2x)		
Display	Output function- LED yellow LED green: Power Stability - LED green		
Setting	Light-on/dark-on Sensitivity (Sn)		

Photoelectric Sensors
BOS 5K-NU-LX10-02
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BALLUFF

Electrical data

No-load current I_0 max. at U_e	45 mA
Operating voltage U_b	10...30 VDC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ripple max. (% of U_e)	10 %
Switching frequency	2000 Hz
Turn-off delay t_{off} max.	0.25 ms
Turn-on delay t_{on} max.	0.25 ms
Voltage drop U_d max. at I_e	1.5 V

Environmental conditions

Ambient temperature	-10...55 °C
EN 60068-2-27, Shock	Half-sinus, 50 g _n , 11 ms, 3x10
EN 60068-2-6, Vibration	10...55 Hz, amplitude 1.5 mm, 3x2 h
IP rating	IP67

Functional safety

MTTF (40 °C)	3 a
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Interface

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

Housing material	PC
	PBT
Material jacket	PVC
Material sensing surface	PMMA

Mechanical data

Dimension	10.8 x 32.7 x 19.5 mm
Mounting part	Screw M3
Tightening torque max.	0.5 Nm

Optical features

Ambient light max.	5000 Lux
Average power P_o max.	390 µW
Beam characteristic	Divergent
Laser class per IEC 60825-1	1
Light spot size	Ø 5 mm at 3 m
Light type	Laser red light
Principle of optical operation	Through-beam sensor
Pulse duration t max.	1.4 µs
Pulse frequency	20 kHz
Pulse power P_p max.	4.5 mW
Switching function, optical	dark-on/light-on
Wave length	650 nm

Range/Distance

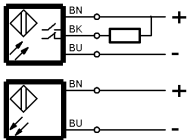
Range	0...30 m
Rated operating distance S_n	30 m Adjustable

Remarks

Order accessories separately.
For additional information, refer to user's guide.
Actuation object (target): gray card, 200 x 200, lateral approach.
When using as a UL product the ambient temperature T_a max. must not exceed 50°C.
To meet the EMC requirements of EN 60947-5-2 the mounting bracket must not be grounded.
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.

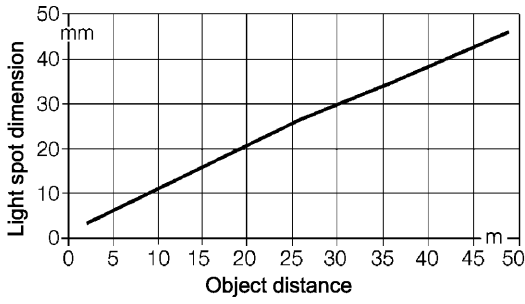
Wiring Diagrams



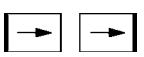
Photoelectric Sensors
BOS 5K-NU-LX10-02
Order Code: BOS01JL



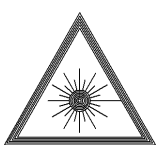
Technical Drawings



Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1