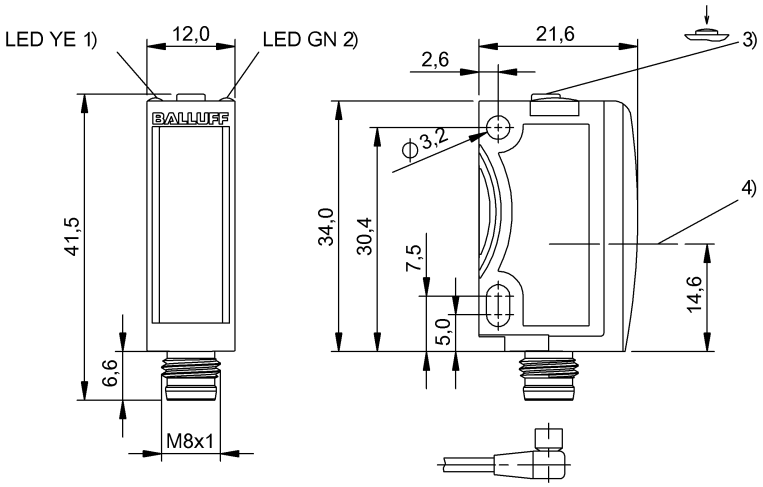
Photoelectric Sensors

BOS 6K-UI-LK10-S75
Order Code: BOS02F0



1) Output function, 2) Operating voltage, 3) Sensitivity, light/dark, 4) Optical axis

Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Operating mode	SIO Mode IO-Link Mode
Principle of operation	Photoelectric sensor
Reference reflector	BOS R-22
Series	6K
Style	Square Connection 90°

Display/Operation

Adjuster	button
Display	Output function- LED yellow supply voltage - LED green
Setting	Teach mode Stand./Dyn. Sensitivity (Sn) Light-on/dark-on

Electrical connection

Connection	Connector, M8x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Input function	Key disable on/off Same function as button
Operating voltage Ub	10...30 VDC
Protection class	II
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	10 %
Switching frequency	4000 Hz
Turn-on delay ton max.	0.125 ms
Voltage drop Ud max. at Ie	3.5 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	IP67, IP69
Storage temperature	-20...80 °C

IO-Link

IO-Link Profil IDs	0x0004 SSP2.1 0x0005 SSP2.2 0x0006 SSP2.3 0x4000 Identification and Diagnosis
IO-Link function classes	0x800C Transducer Disable 0x8101 Locator

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Interface

Baud rate	COM2 (38.4 kBaud)
Interface	IO-Link-Device 1.1.3
Process data IN	1 byte
Process data OUT	1 byte
Switching output	PNP/NPN/IO-Link NO/NC

Material

Housing material	ABS
Material sensing surface	PMMA

Mechanical data

Dimension	12 x 34 x 21.6 mm
Mounting part	Screw M3

Optical features

Ambient light max.	5000 Lux
Average power Po max.	390 µW
Laser class per IEC 60825-1	1
Light spot size	4 x 2 mm at 2 m
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor, Autocollimation
Pulse duration t max.	1 µs
Pulse frequency	18.2 kHz
Switching function, optical	dark-on/light-on
Wave length	650 nm

Range/Distance

Range	0...4 m
Rated operating distance Sn	4 m, Adjustable

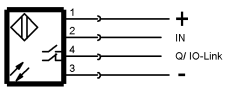
Remarks

The sensor is functional again after the overload has been eliminated.
Order accessories separately.

Connector Drawings



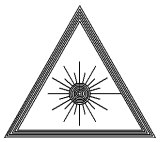
Wiring Diagrams (Schematic)



Opto Symbols



Warning Symbols



LASER CLASS 1 per IEC 60825-1