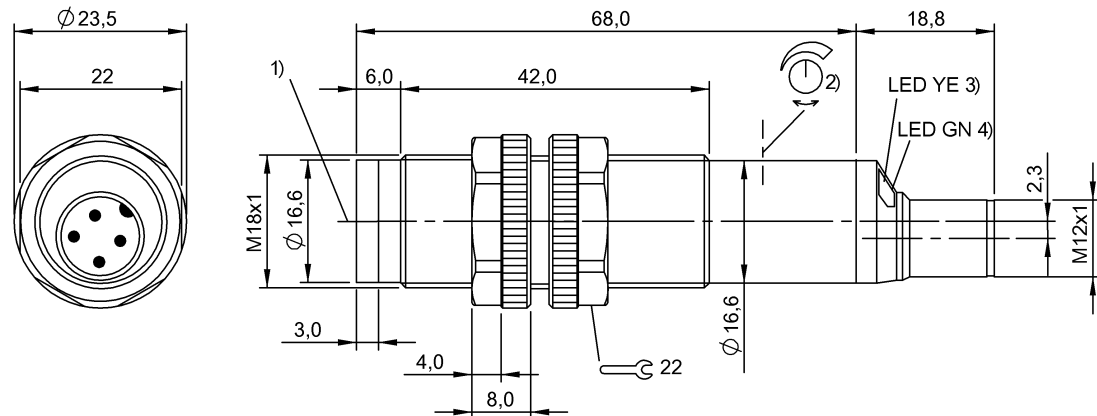


Photoelectric Sensors
BOS 18K-PS-1LQK-E5-C-S4
Order Code: BOS00H8

BALLUFF



1) Optical axis, 2) Sn, 3) Output function, 4) stability



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	18K
Style	Cylinder Straight optics

Display/Operation

Adjuster	Potentiometer 270°
Display	Output function- LED yellow Stability - LED green
Setting	Sensitivity (Sn)

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
No-load current Io max. at Ue	35 mA
Operating voltage Ub	10...30 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Residual current Ir max.	50 µA
Ripple max. (% of Ue)	8 %
Switching frequency	1500 Hz
Turn-off delay toff max.	0.33 ms
Turn-on delay ton max.	0.33 ms
Utilization category	DC -13
Voltage drop Ud max. at Ie	2 V

Environmental conditions

Ambient temperature	-10...50 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP67

Interface

Switching output	PNP normally open (NO) Pin 4
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Material

Housing material	ABS
Material sensing surface	PMMA

Mechanical data

Dimension	Ø 18 x 86.8 mm
Mounting part	Nut M18x1

Optical features

Ambient light max.	5000 Lux
Average power Po max.	390 µW
Blind zone	100 mm
Laser class per IEC 60825-1	1
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Switching function, optical	dark-on
Wave length	650 nm

Range/Distance

Range	0...12 m
Rated operating distance Sn	12 m, Adjustable
Temperature drift max. (% of Sr)	10 %

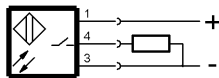
Remarks

The sensor is functional again after the overload has been eliminated.
Polarizing filters prevent spurious switching due to reflecting and shiny parts.
For additional information, refer to user's guide.
Order accessories separately.
Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

Connector Drawings



Wiring Diagrams



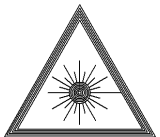
Opto Symbols



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Warning Symbols



LASER CLASS 1 per IEC 60825-1