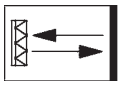
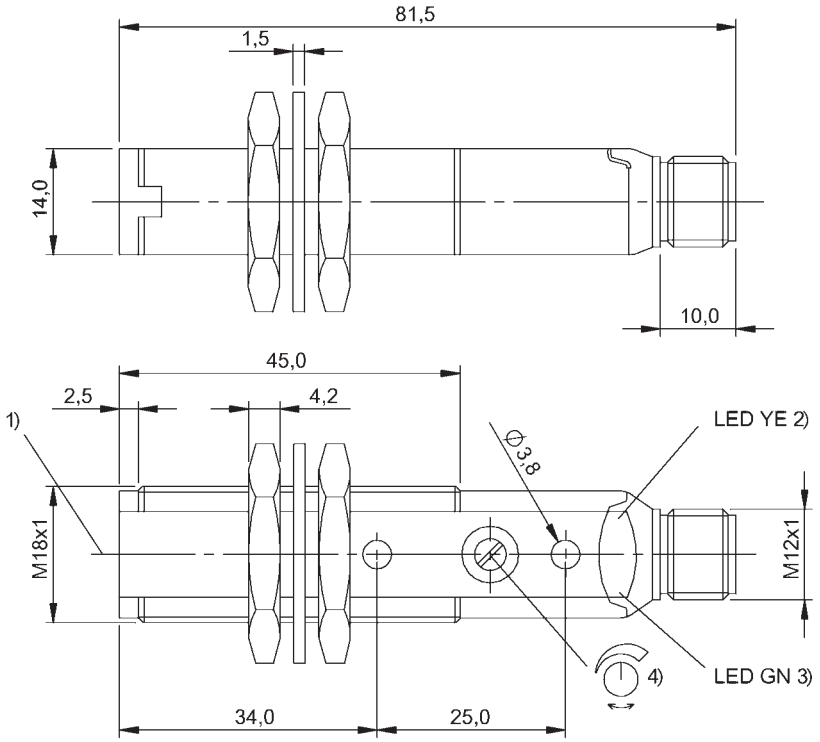
Photoelectric sensor

BOS 18KF-PA-1QD-S4-C
BOS00K3

BALLUFF
sensors worldwide





1) Optical axis 2) Output function 3) Stability 4) Sn

- **Photoelectric sensor**
- **Series 18KF**
- **LED, red light**
- **up to 5 m**

CE cULus LISTED IND. CONT. EQ. 1TD4 for use in the secondary of a class 2 source of supply

General attributes

Adjuster	Potentiometer 270° (1x)
Approvals / Conformity	CE
	cULus
Basic standard	IEC 60947-5-2
Enclosure Type per IEC 60529	IP67
Indicator	Stability - LED GN
	Output function - LED YE
Polarity reversal protected	yes
Reference reflector	BOS R-1
Series	Series 18KF
Setting	Sensitivity (Sn)
Short circuit protected	yes
Trademark	GLOBAL

Electrical attributes

Connection type	Connector
Eff. operating current Ie	100 mA
Eff. operating voltage Ue DC	24.0 V
Electrical version	DC, direct current
No-load current max. Io at Ue	35 mA
Operating voltage UB max. DC [V]	30.0 V
Operating voltage UB min. DC [V]	10.0 V
Rated insulation voltage Ui	75 V DC
Ripple max. (% of Ue)	8 %
Switching freq. f max. (at Ue)	1000 Hz
Switching function	NO-NC (pins 4-2)
Switching output	PNP (2x)
Turn on time ton max.	0.50 ms
Voltage drop Ud max. (at Ie)	2.0 V

Mechanical attributes

Ambient temperature Ta max.	55 °C
Ambient temperature Ta min.	-25 °C
Eff. operating distance Sr	4500 mm
Housing material	PBT
Length 1	Ø18.0 mm
Length 2	81.5 mm
Length 3	14.0 mm
Mounting type	Screw M3
	Nut M18x1
Operating range Ro	0...4.5 m
Range Sn	Sn = 4.5 m, adjustable
Sensing face material	PMMA
Style	Flat cylinder, straight optics
Tightening torque max.	1.5 Nm

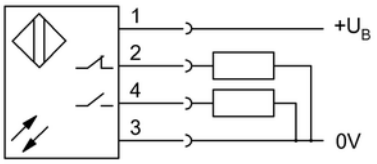
Optical attributes

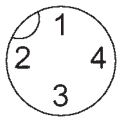
Light type	LED, red light
Polarizing filter	yes
Principle of optical operation	Retro-reflective sensor
Switching function, optical	NO dark-on - NC light-on
Wavelength	660 nm

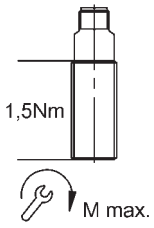
Additional text

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.
Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach,

direction of movement vertical to plane of lens axes.


1
2
4
3
+U_B
0V


1
2
4
3


1,5Nm
M max.