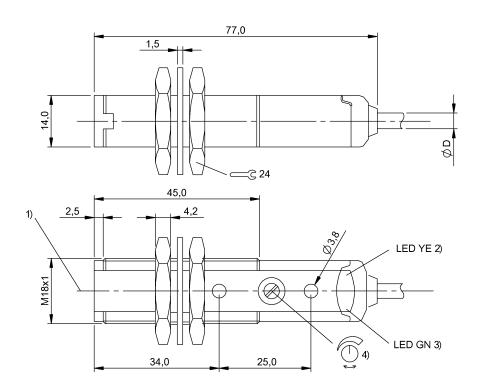
# BOS 18KF-PA-1QD-C-02 Order Code: BOS00K2

# **BALLUFF**



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







#### **Basic features**

Approval/Conformity	CE
	cULus
	WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference reflector	BOS R-1
Series	18KF
Style	Flat cylinder
	Straight optics
Trademark	Global

### Display/Operation

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

#### **Electrical connection**

Cable diameter D	4.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm <sup>2</sup>
Connection	Cable, 2.00 m, PVC
Number of conductors	4
Polarity reversal protected	yes
Short-circuit protection	yes

#### **Electrical data**

No-load current lo max. at Ue	35 mA
Operating voltage Ub	1030 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current le	100 mA
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	8 %
Switching frequency	1000 Hz
Turn-off delay toff max.	0.5 ms
Turn-on delay ton max.	0.5 ms
Voltage drop Ud max. at le	2 V

#### **Photoelectric Sensors**

# BOS 18KF-PA-1QD-C-02 Order Code: BOS00K2



Screw M3

#### **Environmental conditions**

 $\begin{tabular}{lll} Ambient temperature & -25...55 °C \\ EN 60068-2-27, Shock & Half-sinus, 30 g_n, 11 ms, 3x6 \\ EN 60068-2-6, Vibration & 10...55 Hz, amplitude 0.5 mm, \\ \end{tabular}$ 

3x30 min

IP rating IP67

**Functional** safety

MTTF (40 °C) 774 a

Interface

Switching output PNP normally closed (NC)

PNP normally open (NO) Pins 4-2

Material

Housing materialPBTMaterial jacketPVCMaterial sensing surfacePMMA

Mechanical data

DimensionØ 18 x 77 mmMounting partNut M18x1

Tightening torque max. 1.5 Nm

**Optical features** 

Ambient light max. 5000 Lux
Blind zone 100 mm
Light type LED, red light

Polarizing filter yes

Principle of optical operation Retroreflective sensor

Switching function, optical dark-on Wave length 660 nm

Range/Distance

**Range** 0...4.5 m **Rated operating distance Sn** 4.5 m Adjustable

Remarks

Polarizing filters prevent spurious switching due to reflecting and shiny parts.

For additional information, refer to user's guide.

Order accessories separately.

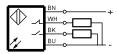
The sensor is functional again after the overload has been eliminated.

Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

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**



## **Opto Symbols**

