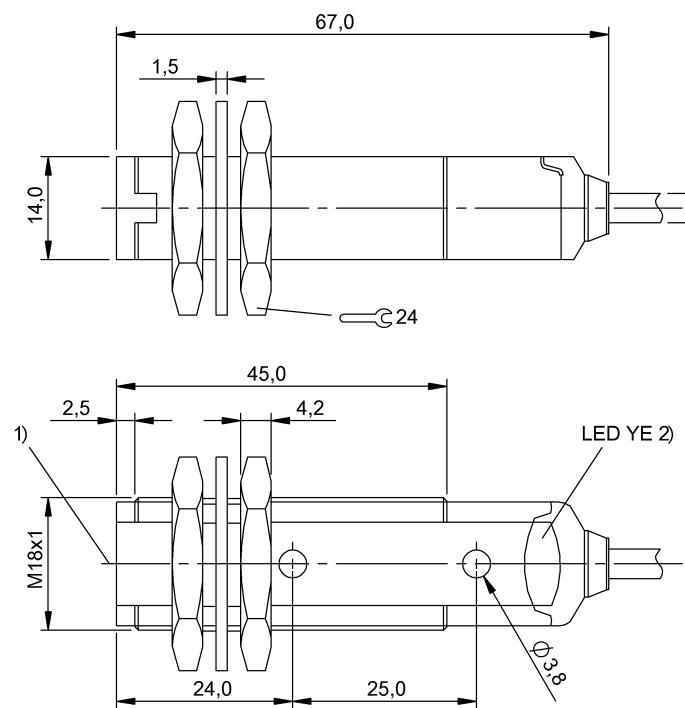




1) Optical axis, 2) Output function



Basic features

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

Display/Operation

Adjuster	no
Display	Output function- LED yellow

Electrical connection

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

Electrical data

No-load current I _o max. at U _e	35 mA
Operating voltage U _b	10...30 VDC
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Ripple max. (% of U _e)	8 %
Switching frequency	1000 Hz
Turn-off delay t _{off} max.	0.5 ms
Turn-on delay t _{on} max.	0.5 ms
Voltage drop U _d max. at I _e	2 V

Photoelectric Sensors
BOS 18KF-NA-1N1R-C-02
Order Code: BOS00HZ

BALLUFF

Environmental conditions

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, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	838 a
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Interface

Switching output	NPN normally closed (NC) NPN normally open (NO) Pins 4-2
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Material

Housing material	PBT
Material jacket	PVC
Material sensing surface	PMMA

Mechanical data

Dimension	Ø 18 x 67 mm
Mounting part	Screw M3 Nut M18x1
Tightening torque max.	1.5 Nm

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Focused
Light spot size	Ø 20 mm at 100 mm
Light type	LED, red light
Principle of optical operation	Diffuse sensor, triangulation
Special optical feature	Fixed background suppression
Switching function, optical	Light-on
Wave length	660 nm

Range/Distance

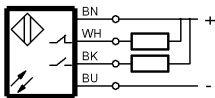
Range	5...100 mm
Rated operating distance Sn	100 mm

Remarks

Order accessories separately.
For additional information, refer to user's guide.
The sensor is functional again after the overload has been eliminated.
Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.
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 (Schematic)



Opto Symbols

