

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
Series	18KF
Style	Flat cylinder Straight optics
Trademark	Global

Display/Operation

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

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 ₀ 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-PA-1PE-C-02
Order Code: BOS00K0



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)	774 a
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Interface

Switching output	PNP normally closed (NC) PNP 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 77 mm
Mounting part	Screw M3 Nut M18x1
Tightening torque max.	1.5 Nm

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Light spot size	Ø 200 mm at 600 mm
Light type	LED infrared
Principle of optical operation	Diffuse sensor, energetic
Switching function, optical	Light-on
Wave length	880 nm

Range/Distance

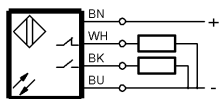
Range	0...700 mm
Rated operating distance Sn	700 mm Adjustable

Remarks

Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.
 The sensor is functional again after the overload has been eliminated.
 For additional information, refer to user's guide.
 Order accessories separately.
 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

