

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



**Basic features**

<b>Approval/Conformity</b>	CE cULus WEEE
<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Photoelectric sensor
<b>Series</b>	18KW
<b>Style</b>	Flat cylinder Optics 90°
<b>Trademark</b>	Global

**Display/Operation**

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

**Electrical connection**

<b>Connection</b>	Connector, M12x1-Male, 4-pin
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

**Electrical data**

<b>No-load current I<sub>o max.</sub> at U<sub>e</sub></b>	35 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	100 mA
<b>Rated operating voltage U<sub>e DC</sub></b>	24 V
<b>Ripple max. (% of U<sub>e</sub>)</b>	8 %
<b>Switching frequency</b>	1000 Hz
<b>Turn-off delay t<sub>off max.</sub></b>	0.5 ms
<b>Turn-on delay t<sub>on max.</sub></b>	0.5 ms
<b>Voltage drop U<sub>d max.</sub> at I<sub>e</sub></b>	2 V

**Environmental conditions**

<b>Ambient temperature</b>	-25...55 °C
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6
<b>EN 60068-2-6, Vibration</b>	10...55 Hz, amplitude 0.5 mm, 3x30 min
<b>IP rating</b>	IP67

**Functional safety**

<b>MTTF (40 °C)</b>	774 a
---------------------	-------

**Interface**

<b>Switching output</b>	PNP normally closed (NC) PNP normally open (NO) Pins 4-2
-------------------------	---

Photoelectric Sensors  
**BOS 18KW-PA-1PD-S4-C**  
Order Code: BOS00LT

**BALLUFF**

**Material**

Housing material	PBT
Material sensing surface	PMMA

**Mechanical data**

Dimension	Ø 18 x 93.5 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 100 mm at 300 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...400 mm
Rated operating distance Sn	400 mm Adjustable

**Remarks**

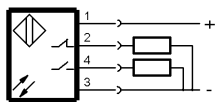
The sensor is functional again after the overload has been eliminated.  
Reference object (target): gray card, 200 x 200, 90 % remission, axial approach.  
For additional information, refer to user's guide.  
Order accessories separately.  
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

**Connector Drawings**



**Wiring Diagrams**



**Opto Symbols**

