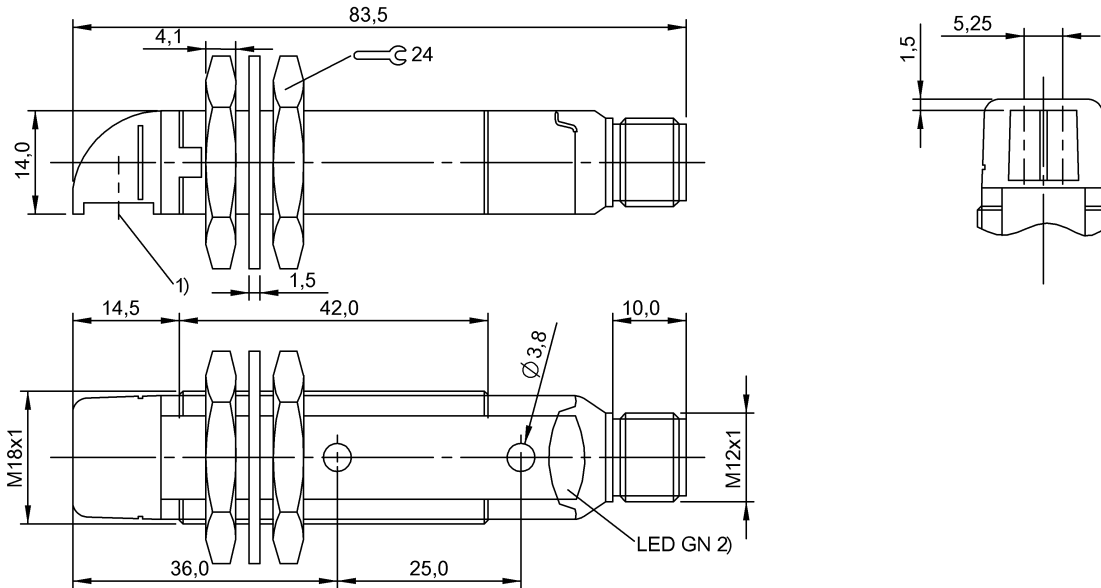
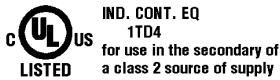


Photoelectric Sensors  
**BOS 18KW-PA-1XA-S4-C**  
**Order Code: BOS00M1**

**BALLUFF**



1) Optical axis, 2) Output function



**Basic features**

<b>Approval/Conformity</b>	CE cULus EAC 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

**Electrical data**

<b>No-load current <math>I_0</math> max. at <math>U_e</math></b>	35 mA
<b>Operating voltage <math>U_b</math></b>	10...30 VDC
<b>Rated insulation voltage <math>U_i</math></b>	75 V DC
<b>Rated operating current <math>I_e</math></b>	100 mA
<b>Rated operating voltage <math>U_e</math> DC</b>	24 V
<b>Ripple max. (% of <math>U_e</math>)</b>	8 %
<b>Switching frequency</b>	1000 Hz
<b>Turn-off delay <math>t_{off}</math> max.</b>	0.5 ms
<b>Turn-on delay <math>t_{on}</math> max.</b>	0.5 ms
<b>Voltage drop <math>U_d</math> max. at <math>I_e</math></b>	2 V

**Display/Operation**

<b>Display</b>	Output function- LED yellow
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**Electrical connection**

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

**Environmental conditions**

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

**Functional safety**

<b>MTTF (40 °C)</b>	838 a
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**Material**

<b>Housing material</b>	PBT
<b>Material sensing surface</b>	PMMA

Photoelectric Sensors  
**BOS 18KW-PA-1XA-S4-C**  
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**BALLUFF**

**Mechanical data**

Dimension	Ø 18 x 93.5 mm
Mounting	Screw M3 Nut M18x1
Tightening torque max.	1.5 Nm

**Optical features**

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

**Output/Interface**

Switching output	PNP normally open (NO) PNP NC Pins 4-2
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**Range/Distance**

Range	0...80 mm
Rated operating distance $S_n$	80 mm

**Remarks**

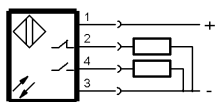
The sensor is functional again after the overload has been eliminated.  
Reference object (target): gray card, 100 x 100, 90 % remission, axial approach.  
For additional information, refer to user's guide.  
Order accessories separately.  
For more information about MTTF and B10d see MTTF / B10d Certificate

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**

