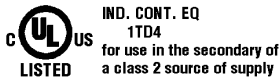


1) Optical axis, 2) Output function, 3) Sn



### Basic features

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

### 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	1500 Hz
Turn-off delay $t_{off}$ max.	0.33 ms
Turn-on delay $t_{on}$ max.	0.33 ms
Voltage drop $U_d$ max. at $I_e$	2 V

### Display/Operation

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

### Environmental conditions

Ambient temperature	-10...50 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
Protection degree	IP67

### Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

### Functional safety

MTTF (40 °C)	634 a
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### Material

Housing material	PBT
Material sensing surface	PMMA

Photoelectric Sensors  
**BOS 18KW-PA-1LQH-S4-C**  
 Order Code: BOS00LM



**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
Average power Po max.	390 µW
Blind zone	100 mm
Laser class per IEC 60825-1	1
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Pulse duration t max.	6.0 µs
Pulse frequency	25 kHz
Wave length	650 nm

**Output/Interface**

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

Range	0...9 m
Rated operating distance Sn	9 m Adjustable

**Remarks**

Order accessories separately.

For additional information, refer to user's guide.

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

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.

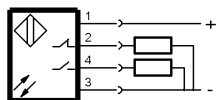
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

**Connector Drawings**



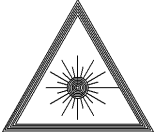
**Wiring Diagrams**



**Opto Symbols**



## Warning Symbols



LASER CLASS 1 per IEC 60825-1