

1) Optical axis, 2) Operating voltage, 3) Light reception/limit area



Basic features

Approval/Conformity	cULus CE EAC WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference emitter	BOS 18M-...-IS26-..
Scope of delivery	Nut M18x1 (2x) User manual
Series	18M
Style	Cylinder Straight optics

Electrical data

Load capacitance max. at Ue	0.2 µF
No-load current I_o max. at Ue	14 mA
Operating voltage U_b	10...30 VDC
Protection class	II
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	20 ms
Residual current I_r max.	30 µA
Ripple max. (% of U_e)	15 %
Switching frequency	800 Hz
Turn-off delay t_{off} max.	0.63 ms
Turn-on delay t_{on} max.	0.63 ms
Utilization category	DC -13
Voltage drop U_d max. at I_e	2.5 V

Display/Operation

Adjuster	no
Display	LED green: Power Error - LED green, flashing LED yellow: Light received Limit range - LED yellow, flashing

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Environmental conditions

Ambient temperature	-5...55 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms, 3x6 Half-sinus, 100 g _n , 2 ms, 3x8000
EN 60068-2-6, Vibration	10...55 Hz, amplitude 1 mm, 3x30 min 10...2000 Hz, amplitude 1 mm, 30 g _n , 3x5 h
IP rating	IP67

Photoelectric Sensors
BOS 18M-PS-IE25-S4
Order Code: BOS025T

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Functional safety

MTTF (40 °C) 1208 a

Material

Housing material Brass, nickel plated
Housing material, surface protection nickel plated
Material sensing surface Glass, anti-glare
Surface protection nickel plated

Mechanical data

Dimension Ø 18 x 75 mm
Mounting Nut M18x1
Tightening torque max. 15 Nm
30 Nm

Optical features

Ambient light max. 5000 Lux
Light type Infrared
Principle of optical operation Through-beam sensor (receiver)
Switching function, optical dark-on

Output/Interface

Switching output PNP normally open (NO) Pin 4

Range/Distance

Range 0...100 m
Rated operating distance Sn 100 m

Remarks

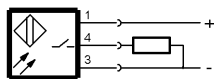
Order accessories separately.
For additional information, refer to user's guide.
The sensor is functional again after the overload has been eliminated.
For more information about MTTF and B10d see MTTF / B10d Certificate

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

