



Basic features

Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	18MR
Style	Cylinder Optics 90°

Display/Operation

Adjuster	Potentiometer 270°
Display	LED green: Power LED yellow: Light received
Setting	Rated switching distance (Sn)

Photoelectric Sensors
BOS 18MR-PA-RE20-S4
Order Code: BOS026M

BALLUFF

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

Electrical data

Load capacitance max. at U _e	0.2 µF
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
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

Environmental conditions

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

Functional safety

MTTF (40 °C)	1208 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	Brass, nickel-plated
Housing material, surface protection	nickel-plated
Material sensing surface	Glass
Surface protection	nickel-plated

Mechanical data

Dimension	Ø 18 x 92 mm
Mounting part	Nut M18x1
Tightening torque max.	15 Nm

Optical features

Ambient light max.	10000 Lux
Beam characteristic	Divergent
Light type	LED, red light
Principle of optical operation	Through-beam sensor (receiver)
Switching function, optical	Light-on dark-on
Wave length	645 nm

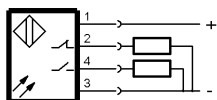
Range/Distance

Range	0...20 m
Rated operating distance S _n	20 m

Connector Drawings



Wiring Diagrams



Opto Symbols

