



Basic features

Approval/Conformity	CE UKCA 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-RD20-S4
Order Code: BOS026P

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 Ue	0.2 μ F
No-load current I _o max. at Ue	30 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)	15 %
Switching frequency	800 Hz
Utilization category	DC -13
Voltage drop U _d max. at I _e	2.5 V

Environmental conditions

Ambient temperature	-5...55 °C
Contamination scale	3
IP rating	IP67

Functional safety

MTTF (40 °C)	889 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
LED group per IEC 62471	Exempt Group
Light type	LED, red light
Principle of optical operation	Diffuse sensor, energetic
Switching function, optical	Light-on dark-on
Wave length	645 nm

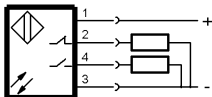
Range/Distance

Hysteresis H max.	10 %
Hysteresis H max. (% of S _r)	10.0 %
Range	1...500 mm
Rated operating distance S _n	500 mm

Connector Drawings



Wiring Diagrams



Opto Symbols

