

1) Optical axis, 2) Operating voltage

### Basic features

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

### Display/Operation

<b>Adjuster</b>	no
<b>Display</b>	LED green: Power

### Electrical connection

<b>Connection</b>	Connector, M12x1-Male, 4-pin
<b>Contact, surface protection</b>	Gold plated
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes

### Electrical data

<b>Load capacitance max. at Ue</b>	0.2 µF
<b>Operating voltage Ub</b>	10...30 VDC
<b>Rated operating current Ie</b>	100 mA
<b>Rated operating voltage Ue DC</b>	24 V
<b>Ripple max. (% of Ue)</b>	15 %
<b>Switching frequency</b>	800 Hz

### Environmental conditions

<b>Ambient temperature</b>	-5...55 °C
<b>Contamination scale</b>	3
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 gn, 11 ms, 3x6
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	950 a
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### Material

<b>Housing material</b>	Brass, nickel-plated
<b>Housing material, surface protection</b>	nickel-plated
<b>Material sensing surface</b>	Glass
<b>Surface protection</b>	nickel-plated

### Mechanical data

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

### Optical features

<b>Beam characteristic</b>	Divergent
<b>LED group per IEC 62471</b>	Exempt Group
<b>Light type</b>	LED, red light
<b>Principle of optical operation</b>	Through-beam sensor (Emitter)
<b>Wave length</b>	645 nm

### Range/Distance

<b>Range</b>	0...20 m
<b>Rated operating distance Sn</b>	20 m

## Remarks

For additional information, refer to user's guide.

Order accessories separately.

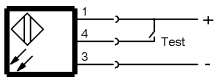
For more information about MTTF and B10d see MTTF / B10d Certificate

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

