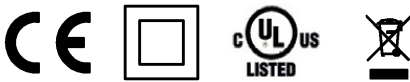


1) Optical axis, 2) Operating voltage



### 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>Reference receiver</b>	BOS 18MR-...-LE10-..
<b>Series</b>	18MR
<b>Style</b>	Cylinder Optics 90°

### Environmental conditions

<b>Ambient temperature</b>	-10...50 °C
<b>EN 60068-2-27, Shock</b>	Half-sinus, 50 gn, 500 ms, 3x3
<b>EN 60068-2-6, Vibration</b>	10...55 Hz, amplitude 0.5 mm, 3x30 min
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	1104 a
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### Display/Operation

<b>Display</b>	LED green: Power
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### Electrical connection

<b>Connection</b>	Connector, M12x1-Male, 4-pin
<b>Polarity reversal protected</b>	yes

### Electrical data

<b>Input function</b>	Test (Emitter off)
<b>No-load current I<sub>o</sub> max. at U<sub>e</sub></b>	30 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Protection class</b>	II
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Ripple max. (% of U<sub>e</sub>)</b>	8 %

### Material

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

### Mechanical data

<b>Dimension</b>	Ø 18 x 83.5 mm
<b>Mounting part</b>	Nut M18x1
<b>Tightening torque max.</b>	22 Nm

### Optical features

<b>Average power P<sub>o</sub> max.</b>	390 µW
<b>Laser class per IEC 60825-1</b>	1
<b>Light type</b>	Laser red light
<b>Principle of optical operation</b>	Through-beam sensor (Emitter)
<b>Pulse duration t max.</b>	6.0 µs
<b>Pulse frequency</b>	25 kHz
<b>Wave length</b>	650 nm

## Range/Distance

Range	0...50 m
Rated operating distance Sn	50 m Adjustable

## Remarks

For additional information, refer to user's guide.  
Order accessories separately.

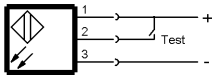
For more information about MTTF and B10d see MTTF / B10d Certificate

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



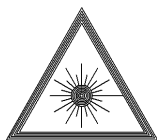
## Wiring Diagrams



## Opto Symbols



## Warning Symbols



LASER CLASS 1 per IEC 60825-1