

1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function



#### Basic features

Application	Distance measurement
Approval/Conformity	cULus CE WEEE UKCA
Operating mode	Analog measurement (output curve)
Series	M12M1

#### Display/Operation

Display	Run - LED green Object in range - LED yellow
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#### Electrical connection

Connection	M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

#### Electrical data

Current draw max.	30 mA
Load resistance RL min. (Analog V)	100 kOhm
Operating voltage Ub	15...30 VDC
Rated operating voltage Ue DC	24 V
Ultrasonic Frequency	380 kHz

#### Environmental conditions

Ambient temperature	-25...70 °C
IP rating	IP67
Storage temperature	-40...85 °C

#### Functional safety

MTTF (40 °C)	605 a
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#### Interface

Analog output	Analog, voltage 0...10 V
Output characteristic	linear rising/falling

#### Material

Housing material	Nickel-plated brass, nickel-plated PBT
Material sensing surface	PU foam/Epoxy resin/Glass
Surface protection	nickel-plated

#### Mechanical data

Dimension	Ø 12 x 60.1 mm
Mounting part	Nut M12x1

#### Range/Distance

Measuring range	20...250 mm
Rated operating distance Sn	150 mm
Repeat accuracy	± 0.15 %FS
Resolution	≤ 0.069 mm

Remarks

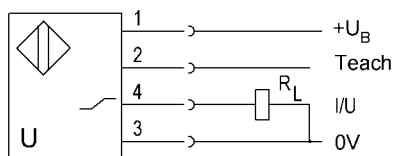
For additional information, refer to user's guide.  
Order accessories separately.  
Reference object for Sn: tube  $\varnothing 10\text{mm}$ . Max. range refers to the aligned plate.  
The sensor is functional again after the overload has been eliminated.  
For more information about MTTF and B10d see 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



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Technical Drawings

