

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



Basic features

Application	Object detection
Approval/Conformity	cULus CE WEEE UKCA
Operating mode	Reflectionlight scanner (switching point) Refl.light scanner (window) Retro-reflector
Series	M12M1

Display/Operation

Adjuster	no
Display	Run - LED green Switching state - LED yellow

Electrical connection

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

Electrical data

Current draw max.	25 mA
Hysteresis H max.	2 mm
Operating voltage Ub	10...30 VDC
Output current max.	200 mA
Rated operating voltage Ue DC	24 V
Switching frequency	25 Hz
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

Switching output	NPN normally open/normally closed (NO/NC)
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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 55.1 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 Ø10mm. Max. range refers to the aligned plate.

The sensor is functional again after the overload has been eliminated.

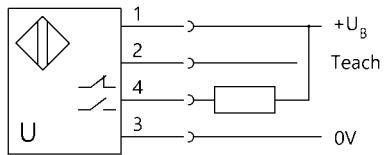
For more information about MTTF and B10d see MTTF / B10d Certificate

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



Technical Drawings

