

1) Ultrasonic transducer axis 2) Exit direction 90° connector 3) Display and control panel



## Display/Operation

Adjuster	Key (2x)
Setting	Multiplex speed
	Synchronization on/off
	Synchronous/Multiplex mode
	Segment displ. bright/dark/off
	Filter strength (10 levels)
	Response delay 0 to 20 s
	Foreground suppression range
	Multiplex sensor address
	Sensor calibration
	Temperature comp. on/off
	Measured value filter
	Hysteresis
	Detection range (3 levels)
	Teach-in mode display/button
	Factory setting (Reset)
	Key disable on/off
	Operating mode
	Switching distance, 2 values
	Normally open/Normally closed

## Environmental conditions

Ambient temperature	-25...70 °C
IP rating per IEC 60529	IP67
Storage temperature	-40...85 °C

## Functional safety

MTTF (40 °C)	178 a
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## General data

Application	Object detection
Approval/Conformity	CE
Operating mode	Retro-reflector Reflectionlight scanner (switching point) Reflectionlight scanner (window)
Series	M30M1

## Electrical connection

Connection	M12x1-Male
Short-circuit protection	yes

## Electrical data

Current draw max.	80 mA
Hysteresis H max.	100 mm
Operating voltage $U_b$	9...30 VDC
Output current max.	200 mA
Polarity reversal protected	yes
Rated operating voltage $U_e$ DC	24 V
Switching frequency	3 Hz
Synchronization	internal, max. 10 sensors
Ultrasonic Frequency	80 kHz

## Material

Housing material	Brass PBT, TPU
Material sensing surface	PU foam Epoxy resin Glass
Surface protection	nickel plated

## Mechanical data

Fastening detail	Nut M30x1.5
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Resolution ≤ 0.180 mm

### Output/Interface

Input function	Synchronization signal
Switching output	2x PNP Normally open/Normally closed (NO/NC)

### Remarks

The sensor is functional again after the overload has been eliminated.  
 Reference object for Sn: Tube ø27mm. Max. range applies to aligned plate.  
 Do not press key using a pointed tool.  
 Order accessories separately.  
 For additional information, refer to users guide.

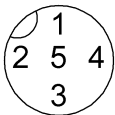
### Range/Distance

Measuring range	600...8000 mm
Range	600...8000 mm
Rated operating distance Sn	6000 mm
Repeat accuracy R	±0.15 % FS

For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

### Connector view



### Wiring Diagram

