

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



**Basic features**

<b>Application</b>	Object detection
<b>Approval/Conformity</b>	cULus LISTED CE EAC WEEE UKCA
<b>Operating mode</b>	Retro-reflector Reflectionlight scanner (switching point) Refl.light scanner (window)
<b>Series</b>	M30M1

**Display/Operation**

<b>Adjuster</b>	Key (2x)
<b>Setting</b>	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

**Electrical connection**

<b>Connection</b>	M12x1-Male, 5-pin
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

Ultrasonic Sensors  
**BUS M30M1-PPX-07/035-S92K**  
Order Code: **BUS005F**

**BALLUFF**

**Electrical data**

Current draw max.	80 mA
Hysteresis H max.	5 mm
Input function	Synchronization signal
Operating voltage U <sub>b</sub>	9...30 VDC
Output current max.	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Switching frequency	12 Hz
Synchronization	internal, max. 10 sensors
Ultrasonic Frequency	400 kHz

**Environmental conditions**

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

**Functional safety**

MTTF (40 °C)	1483 a
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**Interface**

Switching output	PNP normally open/normally closed (NO/NC)
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**Material**

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

**Mechanical data**

Dimension	Ø 30 x 94.5 mm
Mounting part	Nut M30x1.5

**Range/Distance**

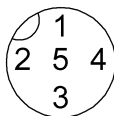
Range	65...600 mm
Rated operating distance S <sub>n</sub>	350 mm
Repeat accuracy	± 0.15 %FS
Resolution	≤ 0.025 mm

**Remarks**

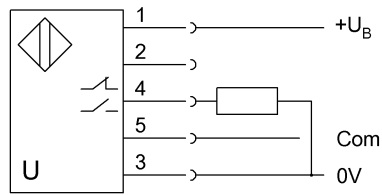
The sensor is functional again after the overload has been eliminated.  
Reference object for S<sub>n</sub>: tube Ø27mm. Max. range refers to the aligned plate.  
Do not press key using a pointed tool.  
Order accessories separately.  
For additional information, refer to user's guide.  
For more information 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.

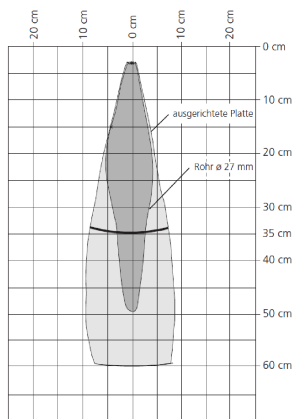
**Connector Drawings**



## Wiring Diagrams



## Technical Drawings



## Help Views

