

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



Basic features

| | |
|---------------------|--|
| Application | Distance measurement Object detection |
| Approval/Conformity | cULus LISTED CE EAC WEEE |
| Operating mode | Refl.light scanner (window) Reflectionlight scanner (switching point) Retro-reflector Analog measurement (output curve) |
| Series | M30M1 |

Display/Operation

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

Electrical connection

| | |
|-----------------------------|-------------------|
| Connection | M12x1-Male, 5-pin |
| Polarity reversal protected | yes |
| Short-circuit protection | yes |

Ultrasonic Sensors
BUS M30M1-PPC-20/130-S92K
Order Code: BUS0038

BALLUFF

Electrical data

| | |
|------------------------------------|--|
| Current draw max. | 80 mA |
| Hysteresis H max. | 20 mm |
| Input function | Synchronization signal |
| Load resistance RL max. (Analog I) | 500 Ohm at UB 20 V 100 Ohm at UB 20 V |
| Load resistance RL min. (Analog V) | 100 kOhm at UB 15 V |
| Operating voltage Ub | 9...30 VDC |
| Output current max. | 200 mA |
| Rated operating voltage Ue DC | 24 V |
| Switching frequency | 8 Hz |
| Synchronization | internal, max. 10 sensors |
| Ultrasonic Frequency | 200 kHz |

Environmental conditions

| | |
|---------------------|-------------|
| Ambient temperature | -25...70 °C |
| Protection degree | IP67 |
| Storage temperature | -40...85 °C |

Functional safety

| | |
|--------------|--------|
| MTTF (40 °C) | 1483 a |
|--------------|--------|

Remarks

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

Material

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

Mechanical data

| | |
|-----------|----------------|
| Dimension | Ø 30 x 94.5 mm |
|-----------|----------------|

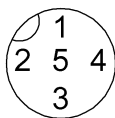
Output/Interface

| | |
|-----------------------|---|
| Analog output | Analog, voltage/Analog, current 0...10 V/4...20 mA |
| Output characteristic | linear rising/falling |
| Switching output | PNP normally open/normally closed (NO/NC) |

Range/Distance

| | |
|-----------------------------|---------------|
| Range | 200...2000 mm |
| Rated operating distance Sn | 1300 mm |
| Repeat accuracy | ± 0.15 %FS |
| Resolution | ≤ 0.180 mm |

Connector Drawings



Das Diagramm zeigt eine Kegelstump-Struktur auf einem Gitternetz. Die vertikale Achse ist mit 0,8 m, 0,4 m, 0 m, 0,4 m, 0,8 m und 2 m markiert. Die Struktur ist als 'ausgerichtete Platte' beschriftet. Die Bohrung ist als 'Rohr ø 27 mm' beschriftet.

3 stell. LED Anzeige

Taster T2

LED D2

LED D1

Taster T1

Messbereich

cm mm %