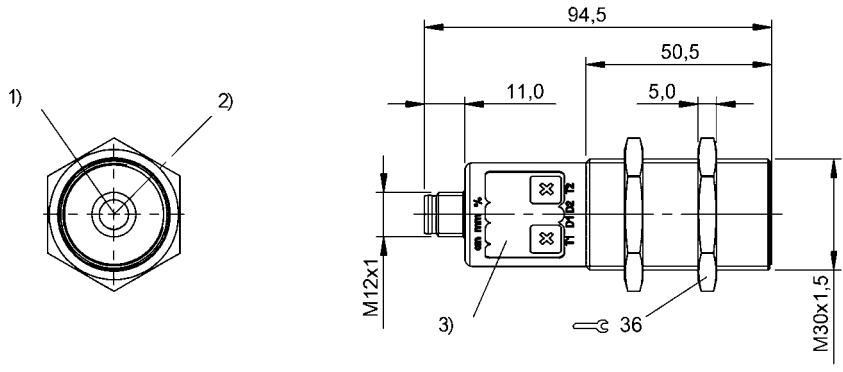


Ultrasonic Sensors  
BUS M30M1-PWX-03/025-S92K  
Order Code: BUS002R



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



Basic features

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

Display/Operation

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

Electrical connection

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

Electrical data

|                                  |                           |
|----------------------------------|---------------------------|
| Current draw max.                | 80 mA                     |
| Hysteresis H max.                | 3 mm                      |
| Input function                   | Synchronization signal    |
| Operating voltage $U_B$          | 9...30 VDC                |
| Output current max.              | 200 mA                    |
| Rated operating voltage $U_e$ DC | 24 V                      |
| Switching frequency              | 25 Hz                     |
| Synchronization                  | internal, max. 10 sensors |
| Ultrasonic Frequency             | 320 kHz                   |

Environmental conditions

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

Functional safety

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

Interface

|                  |                                              |
|------------------|----------------------------------------------|
| Switching output | 2x PNP normally open/normally closed (NO/NC) |
|------------------|----------------------------------------------|

Material

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

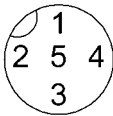
Mechanical data

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

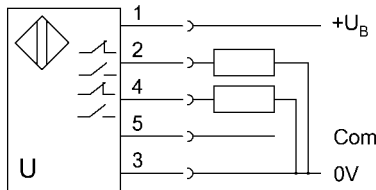
Range/Distance

|                                |             |
|--------------------------------|-------------|
| Measuring range                | 30...350 mm |
| Rated operating distance $S_n$ | 250 mm      |
| Repeat accuracy                | ± 0.15 %FS  |
| Resolution                     | ≤ 0.180 mm  |

Connector Drawings



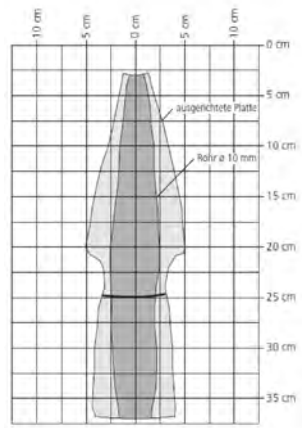
Wiring Diagrams



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Technical Drawings



Help Views

