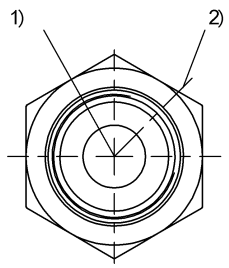
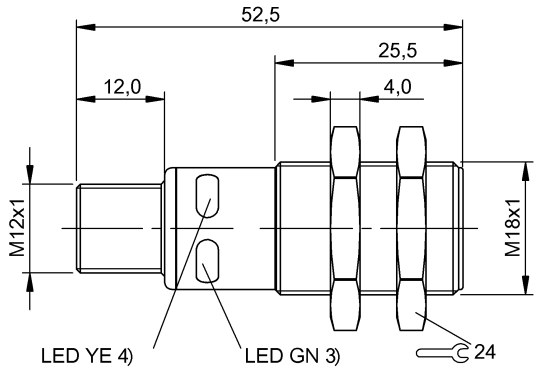
Ultrasonic Sensors

# BUS M18M1-GPXI-03/025-S92G-511
# Order Code: BUS007F




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

## Basic features

| | |
|---|---|
| Application | Distance measurement<br>Object detection |
| Approval/Conformity | cULus<br>CE<br>WEEE<br>UKCA |
| Operating mode | IO-Link<br>Reflectionlight scanner (switching point)<br>Refl.light scanner (window)<br>Retro-reflector |
| Series | M18M1 |

## Display/Operation

| | |
|---|---|
| Adjuster | no |
| Display | Output function- LED yellow<br>LED green: Power |

## Electrical connection

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

## Electrical data

| | |
|---|---|
| Current draw max. | 40 mA |
| Hysteresis H max. | 3 mm |
| Input function | Select operating mode<br>Factory setting (Reset)<br>Synchronization on/off<br>NO/NC<br>SIO mode/IO-Link mode<br>Teach switching distance, 2 values<br>Synchronization signal |
| Operating voltage Ub | 10...30 VDC |
| Output current max. | 100 mA |
| Rated operating voltage Ue 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) | 1134 a |

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## Interface

| | |
|---|---|
| **Interface** | IO-Link 1.1 |
| **Interface setting option** | Switch. point (2x for window)<br>SIO mode/IO-Link mode<br>Measured value filter<br>Hysteresis<br>Filter strength (10 levels)<br>Operating mode<br>Foreground suppression range<br>Normally open/Normally closed<br>Factory setting (Reset) |
| **Process data OUT** | Distance value<br>Switching state |
| **Process data cycle min.** | 8 ms |
| **Switching output** | PNP/NPN NO/NC push-pull |

## Material

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

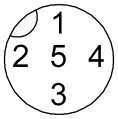
## Mechanical data

| | |
|---|---|
| **Dimension** | Ø 18 x 52.5 mm |
| **Mounting part** | Nut M18x1 |

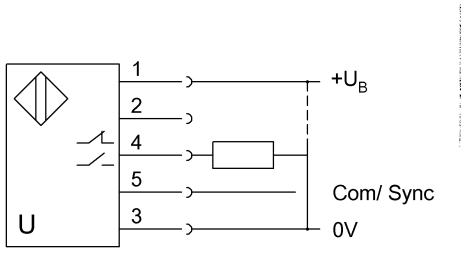
## Range/Distance

| | |
|---|---|
| **Measuring range** | 30...350 mm |
| **Rated operating distance Sn** | 250 mm |
| **Repeat accuracy** | ± 0.15 %FS |
| **Resolution** | ≤ 0.069 mm |

## Connector Drawings




## Wiring Diagrams (Schematic)



## Technical Drawings

