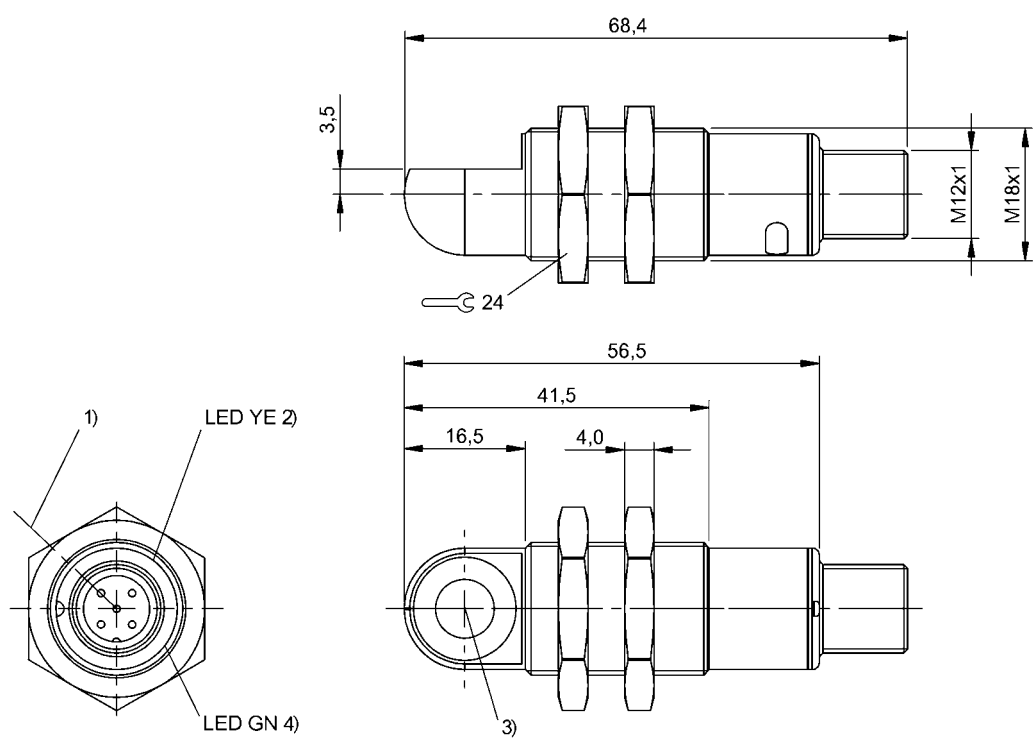


Ultrasonic Sensors  
BUS W18M1-XA-03/025-S92G  
Order Code: BUS0050



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



Basic features

|                     |                                   |
|---------------------|-----------------------------------|
| Application         | Distance measurement              |
| Approval/Conformity | cULus<br>CE<br>WEEE<br>UKCA       |
| Operating mode      | Analog measurement (output curve) |
| Series              | W18M1                             |

Display/Operation

|          |                                                  |
|----------|--------------------------------------------------|
| Adjuster | no                                               |
| Display  | LED green: Power<br>Object in range - LED yellow |

Electrical connection

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

Electrical data

|                                    |                                                                                                                                          |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Current draw max.                  | 40 mA                                                                                                                                    |
| Input function                     | Output curve rising/falling<br>Teach in the working range<br>Factory setting (Reset)<br>Synchronization on/off<br>Synchronization signal |
| Load resistance RL min. (Analog V) | 100 kOhm at UB > 15 V                                                                                                                    |
| Operating voltage Ub               | 15...30 VDC                                                                                                                              |
| Rated operating voltage Ue DC      | 24 V                                                                                                                                     |
| 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 |
|--------------|--------|

Interface

|                       |                          |
|-----------------------|--------------------------|
| Analog output         | Analog, voltage 0...10 V |
| Output characteristic | linear rising/falling    |

Material

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

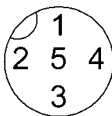
Mechanical data

|               |                |
|---------------|----------------|
| Dimension     | Ø 18 x 68.4 mm |
| Mounting part | Nut M18x1      |

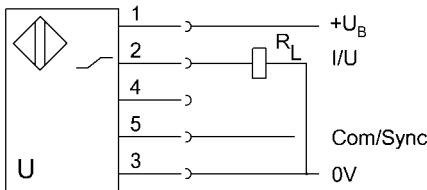
Range/Distance

|                             |             |
|-----------------------------|-------------|
| Measuring range             | 30...350 mm |
| Rated operating distance Sn | 250 mm      |
| Repeat accuracy             | ± 0.15 %FS  |
| Resolution                  | ≤ 0.070 mm  |

Connector Drawings



Wiring Diagrams



Ultrasonic Sensors  
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Technical Drawings

