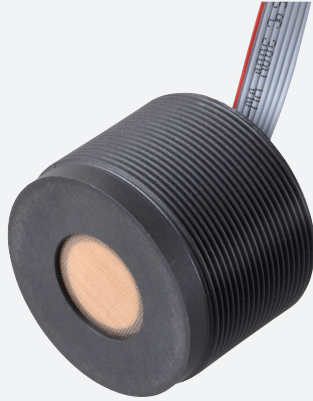




## Ultrasonic sensor UCC2500-50GK-B26-8MOL

- Thread M50
- PTFE coated transducer
- Power save mode
- PWM output
- Physical LIN interface
- Serial Interfaces
- Temperature compensation

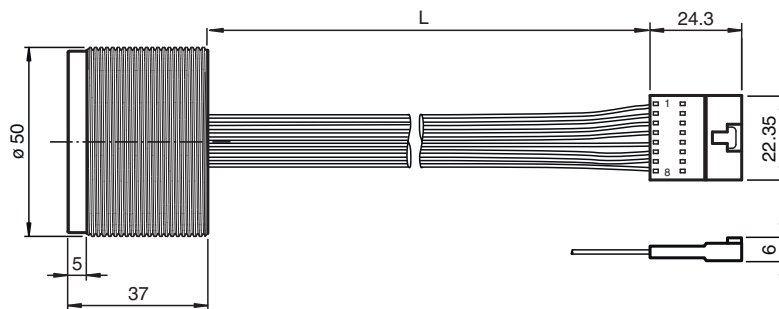
Single head system



### Function

The distance measurement is carried out over the runtime of the ultrasonic impulse. A measuring cycle is triggered by sending a start telegram. Once the measurement has been taken, the result is returned in 8-bit form.

### Dimensions



### Technical Data

#### General specifications

|                       |                 |
|-----------------------|-----------------|
| Sensing range         | 150 ... 2500 mm |
| Dead band             | 0 ... 150 mm    |
| Standard target plate | 100 mm x 100 mm |
| Transducer frequency  | approx. 120 kHz |

#### Electrical specifications

|                                |       |                                                                                                                                                                      |
|--------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating voltage              | $U_B$ | for UART and PWM operation:<br>$U_{UART/PWM} = 2.5 \dots 5 \text{ V DC}$ , typical 3.3 V<br>for LIN operation:<br>$U_{LIN} = 8 \dots 18 \text{ V DC}$ , typical 12 V |
| No-load supply current         | $I_0$ | $\leq 60 \text{ mA}$ at 3.3 V DC<br>$\leq 20 \text{ mA}$ at 12 V DC                                                                                                  |
| Quiescent current indication   |       | $< 3 \text{ } \mu\text{A}$ during standby mode at UART- and PWM operation                                                                                            |
| Power consumption              | $P_0$ | $\leq 250 \text{ mW}$ in the measurement operating mode                                                                                                              |
| Time delay before availability | $t_v$ | $\leq 70 \text{ ms}$                                                                                                                                                 |

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

### Interface 1

|                |                                |
|----------------|--------------------------------|
| Interface type | Physical LIN interface         |
| Transfer rate  | 19.2 kBit/s (8N1)              |
| Cycle time     | 55 ms                          |
| Resolution     | 10 mm (corresponding to 1 LSB) |

### Interface 2

|                |                                |
|----------------|--------------------------------|
| Interface type | UART 3.3V                      |
| Transfer rate  | 19.2 kBit/s (8N1)              |
| Cycle time     | 55 ms                          |
| Resolution     | 10 mm (corresponding to 1 LSB) |

### Input

|              |                  |
|--------------|------------------|
| Input type   | Standby active   |
| Signal level | low: 0 ... 0.8 V |

### Output

|                                |                                                           |
|--------------------------------|-----------------------------------------------------------|
| Output type                    | PWM output (PNP) , not short-circuit protected            |
| Resolution                     | pulse length 10 µs /cm                                    |
| Output rated operating current | max. 10 mA                                                |
| Temperature influence          | 3 % of full-scale value over the entire temperature range |

### Directive conformity

|                               |                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electromagnetic compatibility |                                                                                                                                                                                                                              |
| Directive 2014/30/EU          | EN 60947-5-2:2007+A1:2012 : chapter 8.6.2.1, 8.6.2.2, 8.6.3<br>The sensor is designed to be supplied by a battery. The sensor signals are further processed in a control unit, which is also responsible for EMC protection. |

### Ambient conditions

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |

### Mechanical specifications

|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| Connection type      | fixed cable with plug                                                 |
| Degree of protection | IP66 / IP67 ( connector excluded )                                    |
| Material             |                                                                       |
| Housing              | PBT                                                                   |
| Transducer           | epoxy resin/hollow glass bead mixture; Polyurethane foam, PTFE coated |
| Connector            | Molex connector 70107-0007                                            |
| Number of pins       | 8                                                                     |
| Cable                |                                                                       |
| Length               | L 276 mm ± 20 mm                                                      |
| Mass                 | 100 g                                                                 |

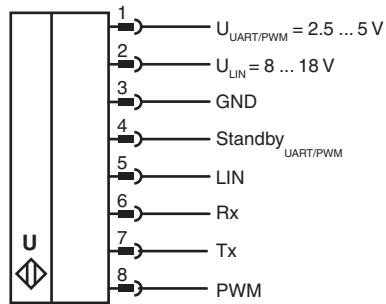
### Factory settings

|            |                                                                   |
|------------|-------------------------------------------------------------------|
| Output     | PWM output (PNP)<br>Temperature compensation<br>Address setting 7 |
| Beam width | wide                                                              |

### General information

|                   |                |
|-------------------|----------------|
| Scope of delivery | 2 nuts plastic |
|-------------------|----------------|

## Connection



## Characteristic Curve

### Characteristic response curve

