

# Ultrasonic sensor

## UCC2500-50GK-B26-8MOL-Y

- Thread M50
- PTFE coated transducer
- Power save mode
- Physical LIN interface
- Serial Interfaces
- Temperature compensation
- 3 m connection cable

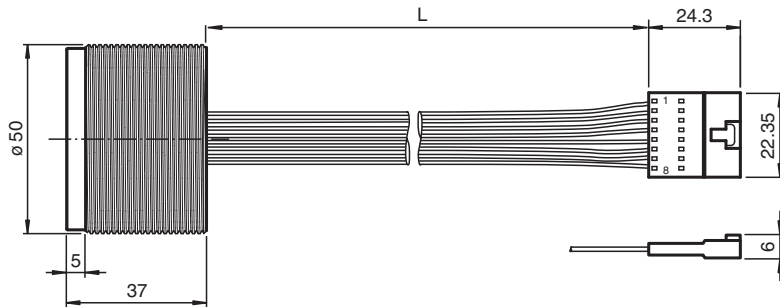
Single head system



### 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: $U_{UART/PWM} = 2.5 \dots 5 \text{ V DC}$ , typical 3.3 V for LIN operation: $U_{LIN} = 8 \dots 18 \text{ V DC}$ , typical 12 V
No-load supply current	$I_0$	$\leq 60 \text{ mA}$ at 3.3 V DC $\leq 20 \text{ mA}$ 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	$t_v$	$\leq 70 \text{ ms}$

#### 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)

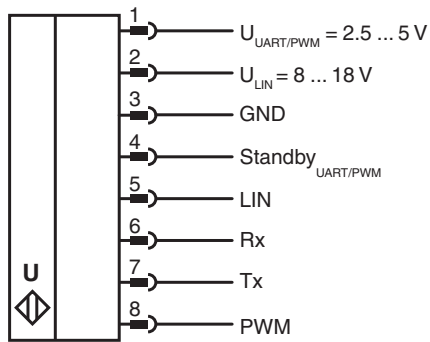
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## Technical Data

<b>Interface 2</b>		
Interface type		UART 3.3V
Transfer rate		19.2 kBit/s (8N1)
Cycle time		55 ms
Resolution		10 mm (corresponding to 1 LSB)
<b>Input</b>		
Input type		Standby active
Signal level		low: 0 ... 0.8 V
<b>Output</b>		
Output type		PWM output (PNP) , deactivated
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU		EN IEC 60947-5-2:2020 : chapter 8.2.6.2.2, 8.2.6.2.3, 8.2.6.3 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.
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
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	3000 mm ± 50 mm
Mass		142 g
Dimensions		
Height		37 mm
Width		50 mm
Length		50 mm
<b>Factory settings</b>		
Default setting		Address setting 7 Temperature compensation active
Output		PWM output (PNP) , deactivated
Beam width		wide
<b>General information</b>		
Scope of delivery		2 nuts plastic

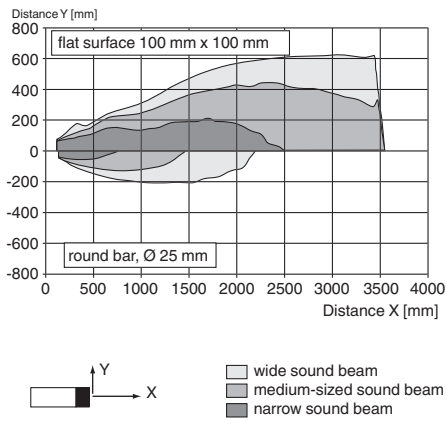
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## Connection Assignment



## Characteristic Curve

### Characteristic response curve



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