Ultrasonic sensor

UCC2500-50GK-B26-V15-Y70117804

- Thread M50
- PTFE coated transducer
- Serial Interfaces
- Temperature compensation
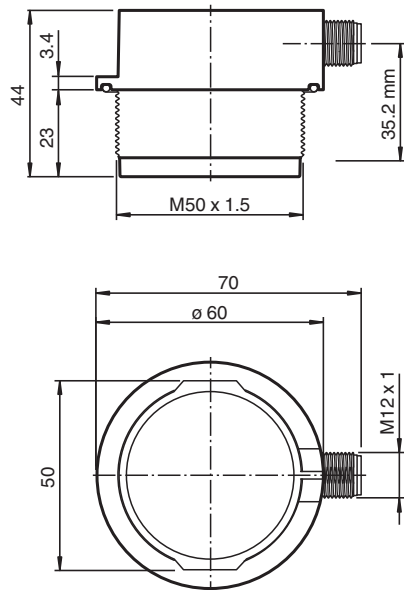- Customer-specific configuration

Single head system

CE UKCA

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

M50 x 1.5

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

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Technical Data

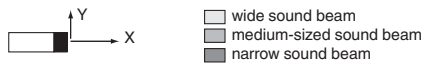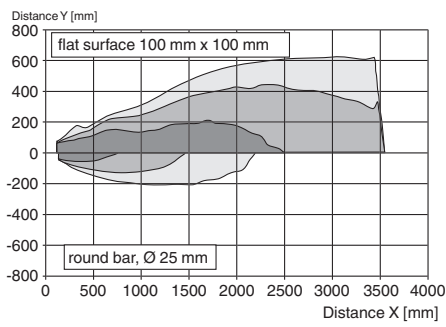|		
Operating voltage	U_B	3 ... 5.5 V DC
No-load supply current	I_0	≤ 70 mA at 3.3 V DC
Power consumption	P_0	≤ 250 mW in the measurement operating mode
Time delay before availability	t_v	≤ 70 ms
Interface		
Interface type		UART 3.3V
Transfer rate		19.2 kBit/s (8N1)
Cycle time		55 ms
Resolution		10 mm (corresponding to 1 LSB)
Temperature influence		4 % of full-scale value over the entire temperature range
Input		
Input type		Physical LIN interface
Function		for Software Update/s
Directive conformity		
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.
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 5-pin
Housing diameter		60 mm / 50 mm
Degree of protection		IP67
Material		
Housing		PBT
Transducer		epoxy resin/hollow glass bead mixture; Polyurethane foam, PTFE coated
Mass		115 g
Construction type		Cylindrical, thread M 50
Factory settings		
Default setting		Temperature compensation Address setting 7
General information		
Scope of delivery		Seal

Connection
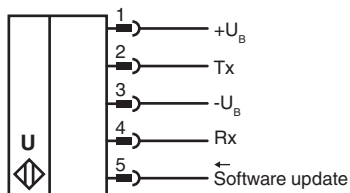
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Characteristic Curve

Characteristic response curve

Distance Y [mm]

flat surface 100 mm x 100 mm

round bar, Ø 25 mm

Distance X [mm]

Y

X

□ wide sound beam
□ medium-sized sound beam
■ narrow sound beam

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