



Ultrasonic sensor UMB800-18H40-U-2M

- Front of transducer and housing manufactured entirely from stainless steel
- Degree of protection IP68 / IP69K
- Short version: 55 mm
- Program input
- Temperature compensation
- Mounting bracket MH-18H-01 included in delivery

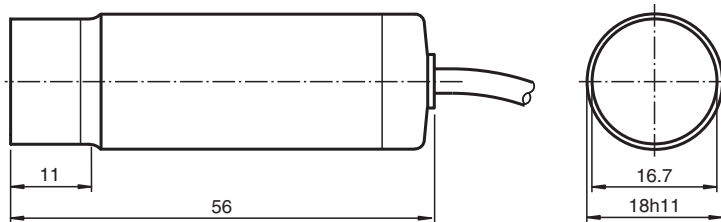
Single head system



Function

The enclosure and transducer of this ultrasonic sensor form a hermetically sealed unit. Therefore the sensor is suitable for all applications where a very high tightness is required. Since the sensor housing is made exclusively of V4A stainless steel and all seals are made of highly chemical-resistant materials, this sensor is also predestined for use in chemically aggressive environments. For reliable operation, due to the special design of this sensor, solely the enclosed mounting accessories must be used.

Dimensions



Technical Data

General specifications

Sensing range	70 ... 800 mm
Adjustment range	90 ... 800 mm
Dead band	0 ... 70 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 170 kHz
Response delay	approx. 100 ms

Electrical specifications

Operating voltage	U_B	15 ... 30 V DC
No-load supply current	I_0	≤ 15 mA

Input

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

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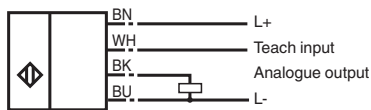
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Technical Data

Input type	1 program input operating distance 1: $-U_B \dots +1 \text{ V}$, operating distance 2: $+6 \text{ V} \dots +U_B$ input impedance: $> 4,7 \text{ k}\Omega$ program pulse: $\geq 1 \text{ s}$
Output	
Output type	1 analog output 0 ... 10 V , short-circuit/overload protected
Resolution	0.4 mm at max. sensing range
Deviation of the characteristic curve	$\pm 1 \%$ of full-scale value
Repeat accuracy	$\pm 0.5 \%$ of full-scale value
Load impedance	$> 1 \text{ k}\Omega$
Temperature influence	$\pm 1.5 \%$ of full-scale value
Compliance with standards and directives	
Standard conformity	
Standards	EN 60947-5-2:2007+A1:2012 IEC 60947-5-2:2007 + A1:2012 EN 60947-5-7:2003 IEC 60947-5-7:2003
Approvals and certificates	
CCC approval	CCC approval / marking not required for products rated $\leq 36 \text{ V}$
Ambient conditions	
Ambient temperature	$-25 \dots 85 \text{ }^\circ\text{C}$ ($-13 \dots 185 \text{ }^\circ\text{F}$)
Storage temperature	$-40 \dots 85 \text{ }^\circ\text{C}$ ($-40 \dots 185 \text{ }^\circ\text{F}$)
Mechanical specifications	
Connection type	cable PUR , 2 m , Polyether based
Core cross-section	4 x 0.19 mm ²
Degree of protection	IP68 / IP69K
Material	
Housing	stainless steel 1.4404 / AISI 316L
Transducer	Stainless steel 1.4435 / AISI 316L
Seal	Cable seal : TPU , Elastollan 1185 A10
Mass	90 g
Factory settings	
Output	evaluation limit A1: 90 mm evaluation limit A2: 800 mm Output mode: rising ramp

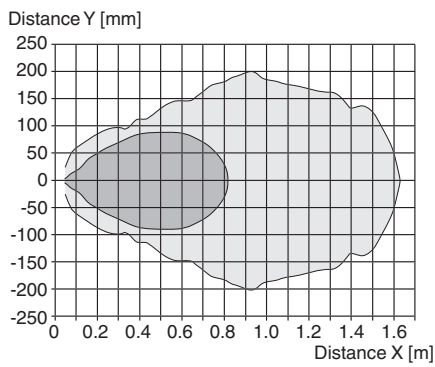
Connection



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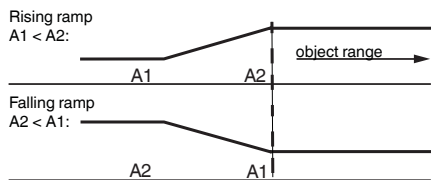
Characteristic Curve

Characteristic response curve




Programming

Programming the evaluation limits



Accessories

	MH-18H-01	Mounting aid, 18 mm
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Mounting

Mounting instructions



Comply with the minimum permissible bending radius of 70 mm, if you install the connecting cable!



The mounting accessories included with the sensor must be used in order to ensure reliable operation!

Adjustment Possibilities

The sensor is equipped with 1 analog output with 2 programmable limits. The programming of the limits and of the output mode is done using the teach-in input.

Further Documentation

For information on programming and synchronisation you may refer to the commissioning instruction.