

ULTRASONIC SENSORS

Links to further documents for this series:
[Installation guide](#)



UFA2-1500 SERIES

Key-Features:

- Measurement is independent of the targets material, surface, colour or transparency
- Teachable measurement range of 150...1500 mm
- Linearity <0.5 % of full scale
- Analog or switching output
- Operating temperature -25...+70 °C
- Protection class IP67
- Radial beam: reduced blind range, radial measurement

Content

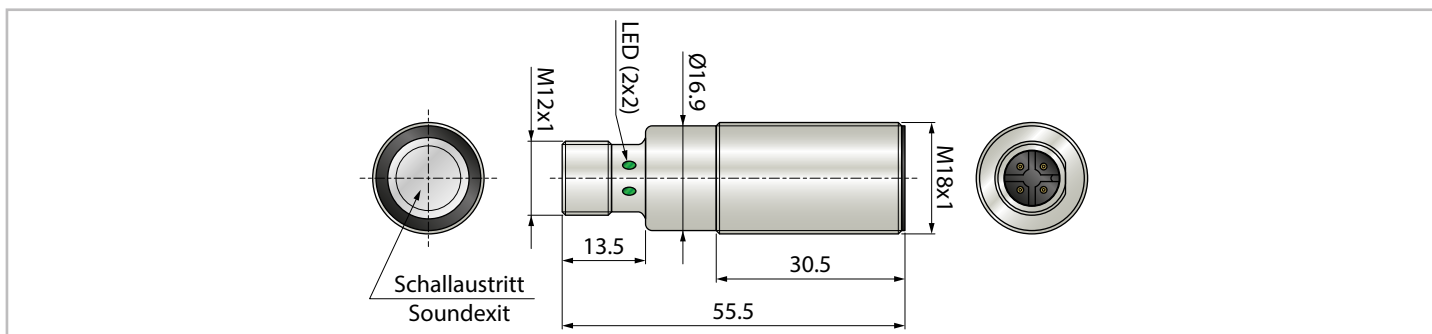
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TECHNICAL DATA

Measurement range ¹⁾	[mm]	150...1500	
Linearity max.	[%]	<0.5	-
Repeatability	[mm]	<1	
Resolution	[mm]	1	
Sound frequency	[kHz]	400	
Readiness delay	[ms]	300	
Output type		Analog output	Switching output
Analog output		0...10 V / 4...20 mA (switchable)	
Load resistance	[kΩ]	Voltage: >10 / Current: 0.4	
Measurement frequency	[Hz]	100	-
Switching output		-	Push pull, 150 mA, NO/NC, switchable
Switching current max.	[mA]	-	150
Switching hysteresis	[mm]	-	6
Switching frequency	[kHz]	-	<5
Supply	[VDC]	18...30	
No-load current at 24 VDC	[mA]	40	
Voltage drop	[V]	2	
Inverse-polarity protection		Yes (not pin 2)	Yes
Short circuit protection		Yes	
Isolation voltage	[V]	500	
Shock / vibration resistance		30 g, 11 ms / 10...55 Hz, 1 mm	
Connection		Connector M12, 4 pins	
Protection class		IP67	
Operating temperature		-25...+70 °C	
Temperature drift	[%/K]	0.2 (compensated)	
Mounting distance min. (sensor to sensor)	[mm]	700	
Housing		Nickel-plated brass, epoxy resin, PUR	
Weight	[g]	30	

¹⁾ based on a standardized measurement plate >200x200 mm

TECHNICAL DRAWING



ELECTRICAL CONNECTION

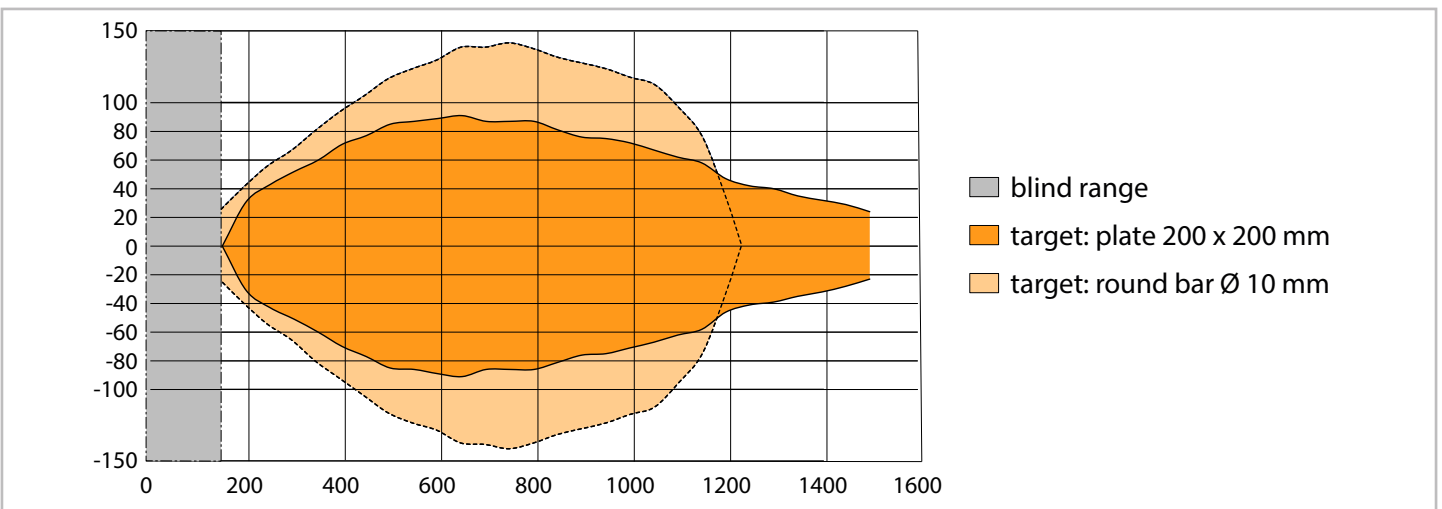
Pin	Analog output	Switching output
1	+V	+V
2	Analog	Teach
3	GND	GND
4	Teach	Switching output

connector M12, male

circuit diagram analog output

circuit diagram switching output

DETECTION BEAM



ACCESSORY RADIAL BEAM CAP

By means of the radial beam attachment UFA2-RB-M18 an axial measuring sensor becomes a radial measuring sensor. The UFA2-RB-M18 can be used for the standard version of the UFA2 with switching output or analog output.

By using the UFA2-RB-M18, the blind range is reduced by approx. 18 mm and the measuring range is deflected by 90°.

ORDER CODE

UFA2-1500 - - SA12**Output type**Analog output 0...10 V/4...20 mA
Switching outputA
PN

ACCESSORIES

Cable with mating connector M12 (female), 4 poles, shielded, IP67

K4P2M-S-M12	2 m, connector straight
K4P5M-S-M12	5 m, connector straight
K4P10M-S-M12	10 m, connector straight
K4P2M-SW-M12	2 m, connector angular
K4P5M-SW-M12	5 m, connector angular
K4P10M-SW-M12	10 m, connector angula

Digital displays for sensors with analog output, 2 channel

WAY-AX-S	touch screen, supply: 18...30 VDC
WAY-AX-AC	touch screen, supply: 115...230 VAC

For more information and options please refer to the [WAY-AX data sheet](#).**Mating connector M12 (female) for self assembly, 4 poles, IP67**

D4-G-M12-S	connector straight
D4-W-M12-S	connector angular

Deflection cap radial beam

UFA2-RB-M18	Deflection of 90°, blind range shortened
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Subject to change without prior notice.

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