

ULTRASONIC SENSORS

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



UFA2-6000 SERIES

Key-Features:

- Measurement is independent of the targets material, surface, colour or transparency
- Teachable measurement range of 600...6000 mm
- Linearity ± 0.5 % of full scale
- Analog or switching output
- Operating temperature -25...+70 °C
- Protection class IP67

Content

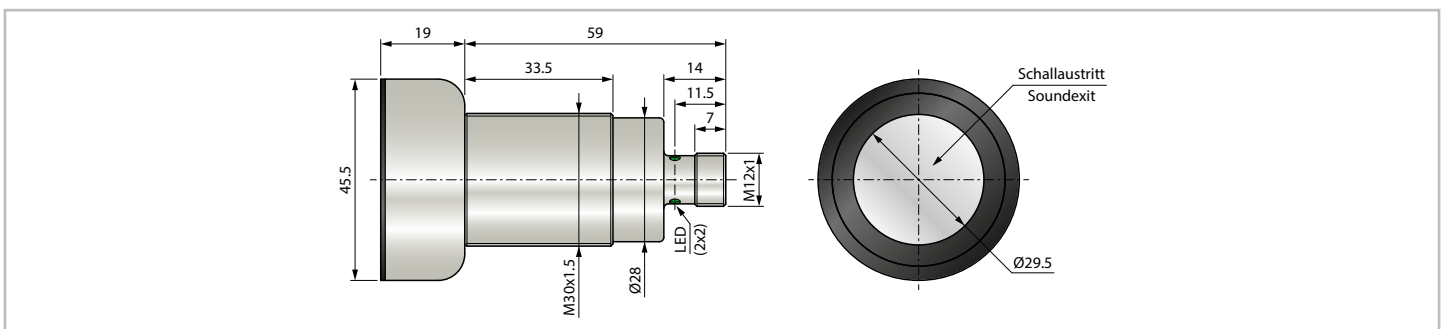
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TECHNICAL DATA

| | | | |
|---|-------|---------------------------------------|--------------------------------------|
| Measurement range ¹⁾ | [mm] | 600...6000 | |
| Linearity max. | [%] | ±0.5 | |
| Repeatability | [mm] | 4 | |
| Resolution | [mm] | 1 | |
| Sound frequency | [kHz] | 80 | |
| 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] | 17 | - |
| Switching output | | - | Push pull, 100 mA, NO/NC, switchable |
| Switching current max. | [mA] | - | 100 |
| Switching hysteresis | [mm] | - | 5 |
| Switching frequency | [Hz] | - | <2 |
| Supply | [VDC] | 18...30 | |
| No-load current at 24 VDC | [mA] | 45 | |
| 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] | 1400 | |
| Housing | | Nickel-plated brass, epoxy resin, PUR | |

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

TECHNICAL DRAWING



ELECTRICAL CONNECTION

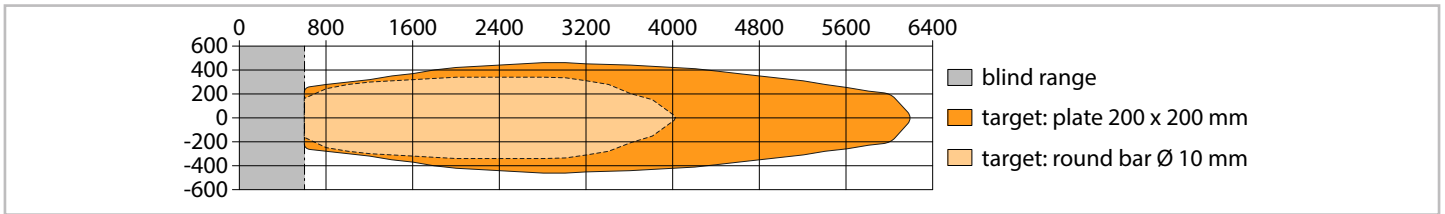
| Pin | Analog output | Switching output |
|-----|---------------|------------------|
| 1 | +V | +V |
| 2 | Analog | Teach |
| 3 | GND | GND |
| 4 | Teach | Switching output |

connector M12, male

circuit diagram analog output

circuit diagram switching output

DETECTION BEAM



ORDER CODE

UFA2-6000 - - SA12

Output type

Analog output 0...10 V/4...20 mA
Switching output

A
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 angular |

Mating connector M12 (female) for self assembly, 4 poles, IP67

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

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](#).

Subject to change without prior notice.

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