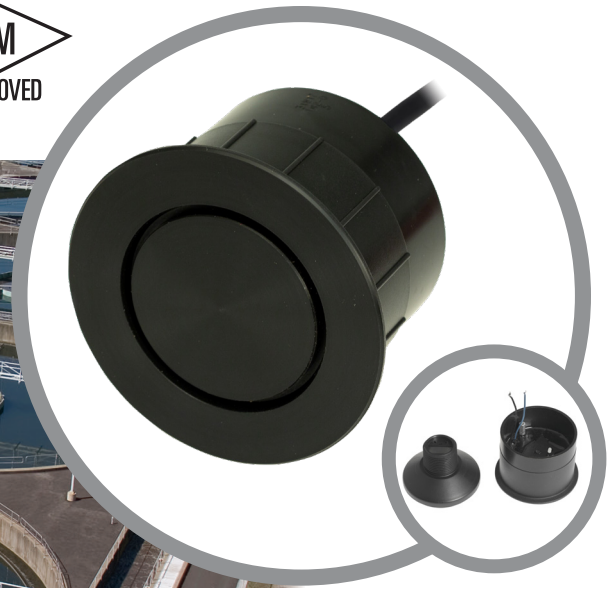


ARK50

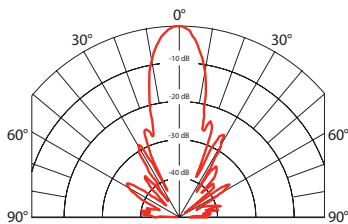


SPECIFICATIONS

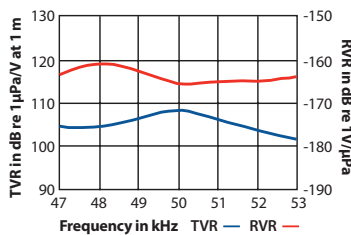
Best Operating Frequency: 50 kHz, $\pm 4\%$
Minimum Transmit Sensitivity at Best Transmit Frequency:
 105 dB re $1\mu\text{Pa/V}$ at 1 m
Minimum Receive Sensitivity at Best Receive Frequency: -170 dB re $1\text{V}/\mu\text{Pa}$
Minimum Parallel Resistance: 350 Ω , $\pm 30\%$
Minimum and Maximum Sensing Range*: 30 cm to 15 m
Typical Sensing Range: 35 cm to 10 m
Free (1 kHz) Capacitance: 5,000 pF, $\pm 20\%$ pF
Beamwidth (@ -3 dB Full Angle): 10° , $\pm 2^\circ$
Maximum Driving Voltage (2% Duty Cycle Tone Burst): 1,000 V_{pp}
Operating Temperature: -40°C to 90°C
Weight: 250 g
Housing Material: Kynar® 720
Acoustic Window: Kynar® 720

*Pulse-Echo Mode. Minimum and maximum ranges are best case scenarios. Actual range may vary, depending on drive circuitry and signal processing.

Directivity Pattern



Transmit & Receive Voltage Response



Impedance Magnitude & Phase

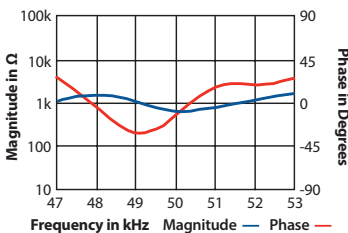
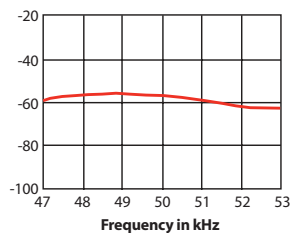


Figure of Merit (Sum of TVR & RVR)



50 kHz

AIRDUCER® Ultrasonic Transducer

Applications

- Level measurement in chemically aggressive environments
- Food and beverage processing
- Flow monitoring
- Proximity sensing

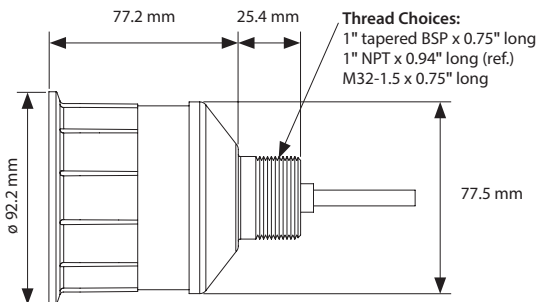
Features

- Rugged one-piece PVDF housing is U.S. FDA compliant
- Housing design will accommodate transceiver and signal processing electronics
- Standard internal shielding

Options

- Complete assembly available with standard cable lengths
- 10 K Ω thermistor available for temperature compensation
- FM approved
- Mounting cap available in BSP, NPT or M32 threads

Dimensions



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ARK50_rA 6/26/18

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