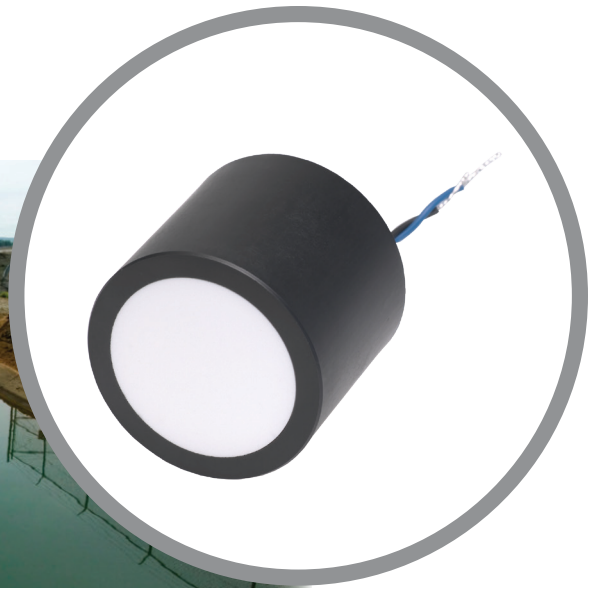


AT50

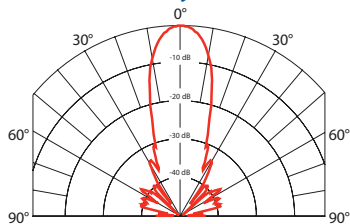


SPECIFICATIONS

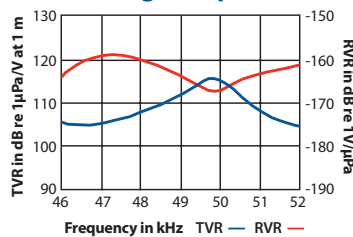
Best Operating Frequency: 50 kHz, $\pm 4\%$
Minimum Transmit Sensitivity at Best Transmit Frequency:
 106 dB re $1\mu\text{Pa/V}$ at 1 m
Minimum Receive Sensitivity at Best Receive Frequency: -162 dB re $1\text{V}/\mu\text{Pa}$
Minimum Parallel Resistance: 450 Ω , $\pm 30\%$
Minimum and Maximum Sensing Range*: 30 cm to 15 m
Typical Sensing Range: 35 cm to 10 m
Free (1 kHz) Capacitance: 5,700 pF, $\pm 20\%$ pF
Beamwidth (@ -3 dB Full Angle): 12° , $\pm 2^\circ$
Maximum Driving Voltage (2% Duty Cycle Tone Burst): 1,500 V_{pp}
Operating Temperature: -40°C to 90°C
Weight: 160 g
Housing Material: Glass filled polyester
Acoustic Window: Glass reinforced epoxy

*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

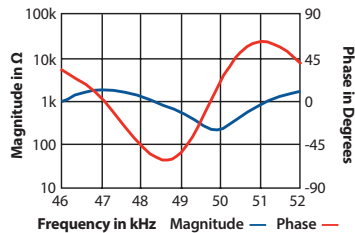
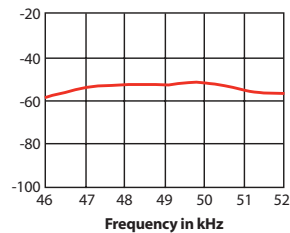


Figure of Merit (Sum of TVR & RVR)



50 kHz

AIRDUCER® Ultrasonic Transducer

Applications

- Level measurement
- Open channel flow
- Proximity
- Obstacle avoidance
- Robotics

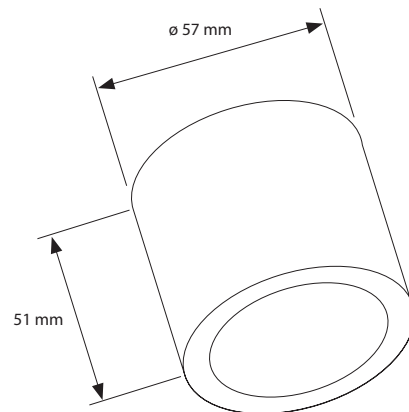
Features

- Rugged sealed construction
- Cylindrical design allows for installation in various applications

Options

- Available in PVDF housing for use in chemically aggressive environments
- 10 K Ω thermistor available for temperature compensation

Dimensions



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AT50_r0 06/26/18

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