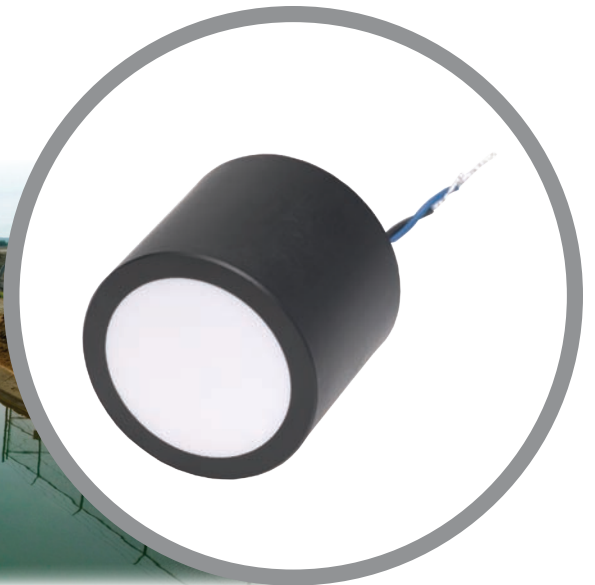


AR50CH

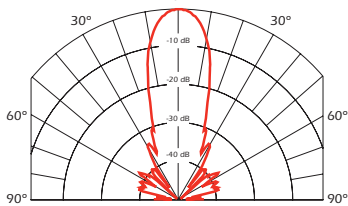


SPECIFICATIONS

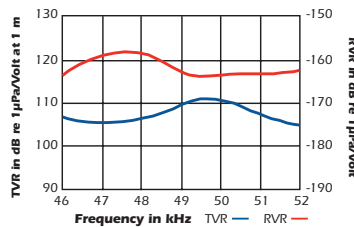
Best Operating Frequency: 50 kHz, $\pm 4\%$
Minimum Transmit Sensitivity at Best Transmit Frequency: 106 dB, 1 $\mu\text{Pa/V}$ at 1 m
Minimum Receive Sensitivity at Best Receive Frequency: -162 dB re 1V/ μPa
Minimum Parallel Resistance: 450 Ω , $\pm 30\%$
Minimum and Maximum Sensing Range*: 25 cm to 15 m
Typical Sensing Range: 30 cm to 10 m
Free (1 kHz) Capacitance: 5,700 pF, ± 500 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

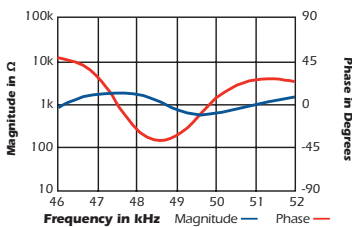
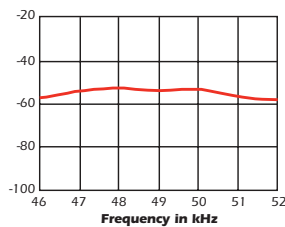


Figure of Merit (Sum of TVR & RVR)



50 kHz

AIRDUCER® Ultrasonic Transducer

Applications

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

Features

- Improved deadband performance as compared to AT50
- Rugged sealed construction
- Cylindrical design allows for installation in various applications

Dimensions

