AIRMAR® TECHNOLOGY CORPORATION

Ultrasonic Air Transducer
Technical Data Sheet

Airmar ultrasonic transducers deliver the highest level of performance in the most challenging environments and they are the key component for our customers success and their applications. Our precision tuned air-ranging transducers are tried and true performers, even when used for difficult tasks. American-made from the highest quality materials, Airmar's ultrasonic transducers provide reliable, long-lasting excellence to any measurement system.

ART15

15 kHz

AIRDUCER® Ultrasonic Transducer

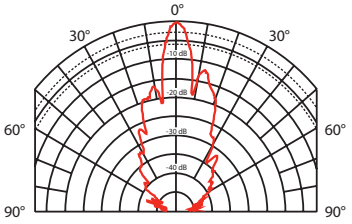
SPECIFICATIONS

Best operating frequency: 15 kHz +/-0.5 kHz
Minimum Transmit Sensitivity at Best Transmit Frequency: 123 dB re 1µPa/V at 1 m
Minimum Receive Sensitivity at Best Receive Freq.: -148 dB re 1V/µPa
Minimum Parallel Resistance @15kHz: 100 Ohm
Minimum and Maximum Sensing Range*: 1-60 m
Beamwidth (@ -3 dB Full Angle): 6° +/-2°
Maximum Driving Voltage (2% Duty Cycle Tone Burst): 900 V_{pp}
Operating Temperature: -30°C to 60°C
Thermistor Operating Range: -20°C to 60°C
Weight: 2.6 lbs / 1.18 kg
Cable Length: 10 m
Housing Material: Aluminum, static dissipative Kynar, static dissipative PE
Acoustic Window: LDPE

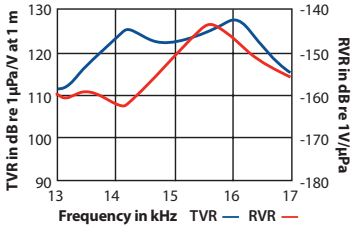
***Pulse-Echo Mode:** Minimum and maximum ranges are best case scenarios. Actual range may vary, depending on drive circuitry and signal processing.

Note: Optimally, performance measurements should be taken when the transducer reaches a steady state.

Directivity Pattern



Transmit & Receive Voltage Response



Impedance Magnitude & Phase

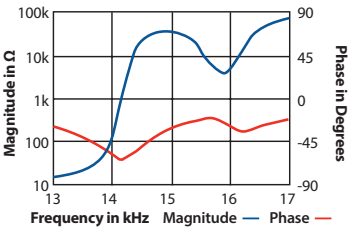
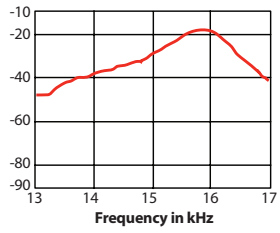


Figure of Merit (Sum of TVR & RVR)



Applications

- Silos
- Wells
- Wastewater facilities
- Large capacity tanks
- River crossings/bridges

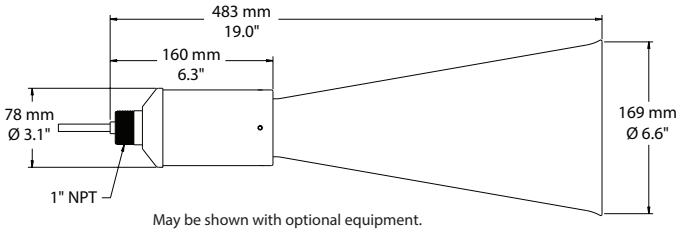
Features

- Delivers long range level measurements up to 60 m (197')
- Extended range without the cost of radar
- Built-in thermistor

Options

- Cable length can be customized
- Also available without thermistor
- Optional cable, cap and thermistor

Dimensions



May be shown with optional equipment.

Additional Resources

Theory of Operations

Applying Ultrasonic Technology

RoHS COMPLIANT

ISO CERTIFIED

www.airmar.com