AR50

FM APPROVED

SPECIFICATIONS

Best Operating Frequency: 50 kHz, ±4%

Minimum Transmit Sensitivity at Best Transmit Frequency: 106 dB, 1µPa/V at 1 m

Minimum Receive Sensitivity at Best Receive Frequency: -162 dB re 1V/µPa

Minimum Parallel Resistance: 450 Ω, ±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°, ±2°

Maximum Driving Voltage (2% Duty Cycle Tone Burst): 1,500 V_{pp}

Operating Temperature: -40°C to 90°C

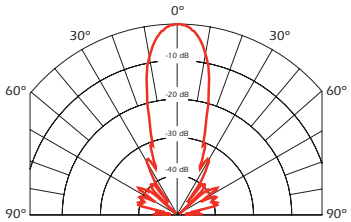
Weight: 560 g

Housing Material: Glass filled polyester

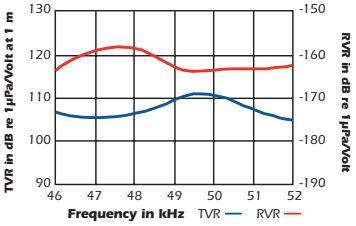
Acoustic Window: Glass reinforced epoxy

*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

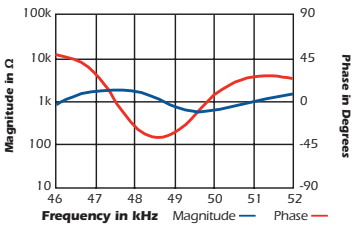
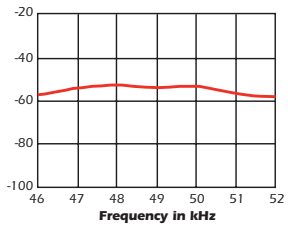


Figure of Merit (Sum of TVR & RVR)



50 kHz

AIRDUCER® Ultrasonic Transducer

Applications

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

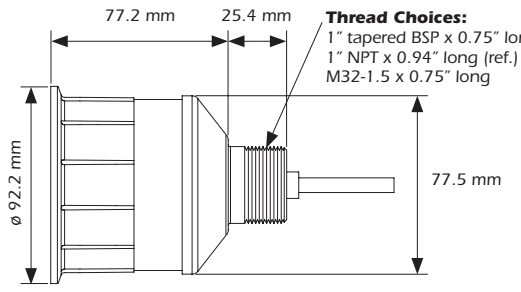
Features

- Rugged sealed construction
- Housing design will accommodate transceiver and signal processing electronics
- Mounting cap available in BSP, NPT, or M32 threads
- Standard internal shielding

Options

- Complete assembly available with standard cable lengths
- 10 KΩ thermistors are optional for temperature compensation
- Available in PVDF housing for use in chemically aggressive environments
- FM approved

Dimensions



AIRMAR® TECHNOLOGY CORPORATION

Sensing Technology

RoHS COMPLIANT

REGISTERED TO ISO 9001:2000

CE

AR50_rF 04/13/09

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