

# AR41

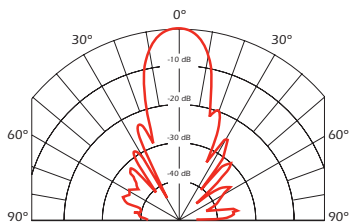


## SPECIFICATIONS

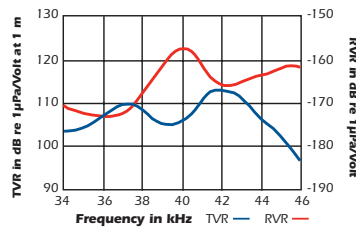
- Best Operating Frequency:** 41 kHz,  $\pm 4\%$
- Minimum Transmit Sensitivity at Best Transmit Frequency:** 110 dB, 1  $\mu\text{Pa/V}$  at 1 m
- Minimum Receive Sensitivity at Best Receive Frequency:** -160 dB re 1V/ $\mu\text{Pa}$
- Minimum Parallel Resistance:** 150  $\Omega$ ,  $\pm 30\%$
- Minimum and Maximum Sensing Range\*:** 30 cm to 20 m
- Typical Sensing Range:** 35 cm to 15 m
- Free (1 kHz) Capacitance:** 5,000 pF,  $\pm 500$  pF
- Beamwidth (@ -3 dB Full Angle):** 14°,  $\pm 2^\circ$
- Maximum Driving Voltage (2% Duty Cycle Tone Burst):** 1,800 V<sub>pp</sub>
- 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.

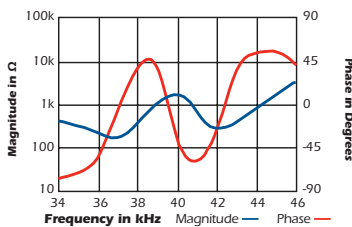
### Directivity Pattern



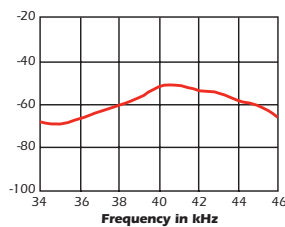
### Transmit & Receive Voltage Response



### Impedance Magnitude & Phase



### Figure of Merit (Sum of TVR & RVR)



## 41 kHz

AIRDUCER® Ultrasonic Transducer

### Applications

- Level measurement
- Proximity
- Obstacle avoidance
- Traffic control
- Flow measurement

### 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 K $\Omega$  thermistors are optional for temperature compensation
- FM approved

### Dimensions

