

# ATK120

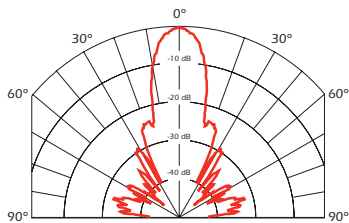


## SPECIFICATIONS

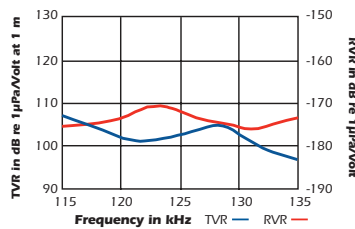
- Best Operating Frequency:** 125 kHz,  $\pm 4\%$
- Minimum Transmit Sensitivity at Best Transmit Frequency:** 102 dB, 1  $\mu\text{Pa}/\text{V}$  at 1 m
- Minimum Receive Sensitivity at Best Receive Frequency:** -172 dB re 1V/ $\mu\text{Pa}$
- Minimum Parallel Resistance:** 500  $\Omega$ ,  $\pm 30\%$
- Minimum and Maximum Sensing Range\*:** 15 cm to 5 m
- Typical Sensing Range:** 20 cm to 3 m
- Free (1 kHz) Capacitance:** 1,000 pF,  $\pm 200$  pF
- Beamwidth (@ -3 dB Full Angle):** 10°,  $\pm 2^\circ$
- Maximum Driving Voltage (2% Duty Cycle Tone Burst):** 800 V<sub>pp</sub>
- Operating Temperature:** -40°C to 90°C
- Weight:** 30 g
- Housing Material:** PVDF
- Acoustic Window:** PVDF

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

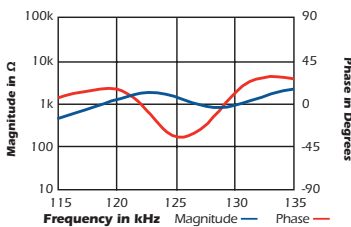
### Directivity Pattern



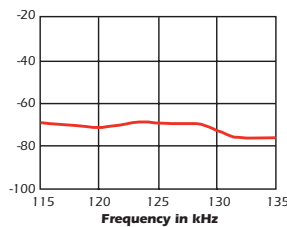
### Transmit & Receive Voltage Response



### Impedance Magnitude & Phase



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



## 125 kHz

AIRDUCER® Ultrasonic Transducer

### Applications

- Level measurement
- Automation control
- Food Processing
- Proximity
- Obstacle avoidance
- Robotics

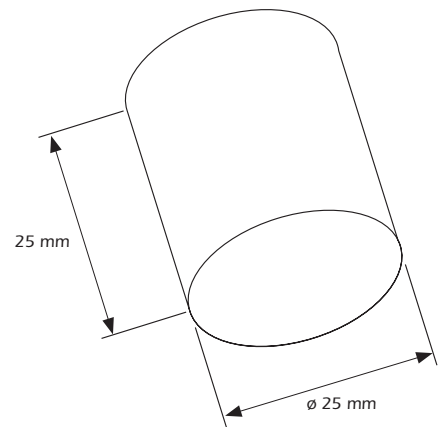
### Features

- Rugged one-piece PVDF housing
- Resistant to chemically aggressive environments
- Cylindrical design allows for installation in various applications
- Improved deadband

### Options

- Temperature sensor

### Dimensions



©Airmar Technology Corporation

ATK120\_rF 04/13/09

As Airmar constantly improves its products, all specifications are subject to change without notice. All specifications typical at 22°C. AIRDUCER® is a registered trademark of Airmar Technology Corporation. Other company or product names mentioned in this document may be trademarks or registered trademarks of their respective companies, which are not