

# AT120

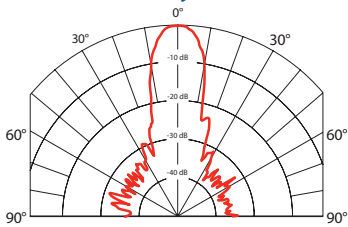


## SPECIFICATIONS

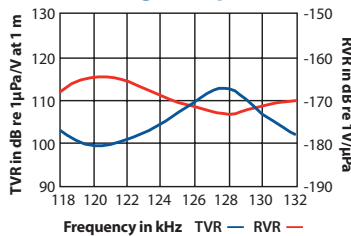
**Best Operating Frequency:** 125 kHz,  $\pm 4\%$   
**Minimum Transmit Sensitivity at Best Transmit Frequency:**  
 107 dB re  $1\mu\text{Pa}/\text{V}$  at 1 m  
**Minimum Receive Sensitivity at Best Receive Frequency:**  
 -169 dB re  $1\text{V}/\mu\text{Pa}$   
**Minimum Parallel Resistance:** 420  $\Omega$ ,  $\pm 30\%$   
**Minimum and Maximum Sensing Range\*:** 15 cm to 7 m  
**Typical Sensing Range:** 20 cm to 3 m  
**Free (1 kHz) Capacitance:** 1,000 pF,  $\pm 20\%$  pF  
**Beamwidth (@ -3 dB Full Angle):**  $12^\circ$ ,  $\pm 2^\circ$   
**Maximum Driving Voltage (2% Duty Cycle Tone Burst):** 800 V<sub>pp</sub>  
**Operating Temperature:** -40°C to 90°C  
**Weight:** 20 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.

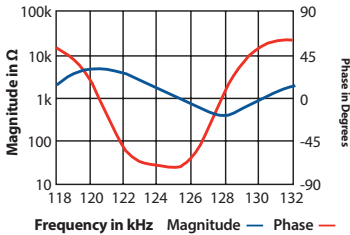
### Directivity Pattern



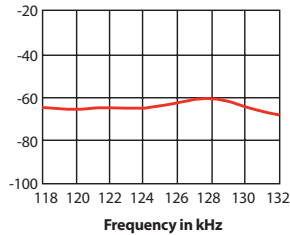
### Transmit & Receive Voltage Response



### Impedance Magnitude & Phase



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



## 125 kHz

### AIRDUCER® Ultrasonic Transducer

#### Applications

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

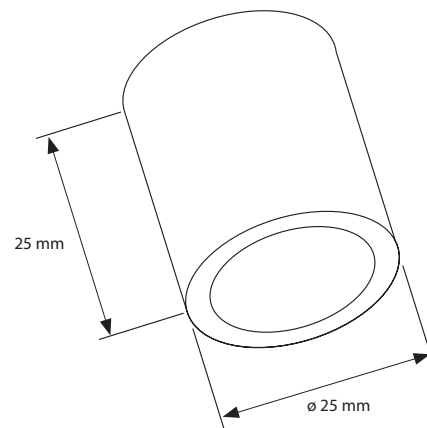
#### Features

- Rugged sealed construction
- Cylindrical design allows for installation in various applications

#### Options

- Available in PVDF housing for use in chemically aggressive environments
- 10 K $\Omega$  thermistor available for temperature compensation

#### Dimensions



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