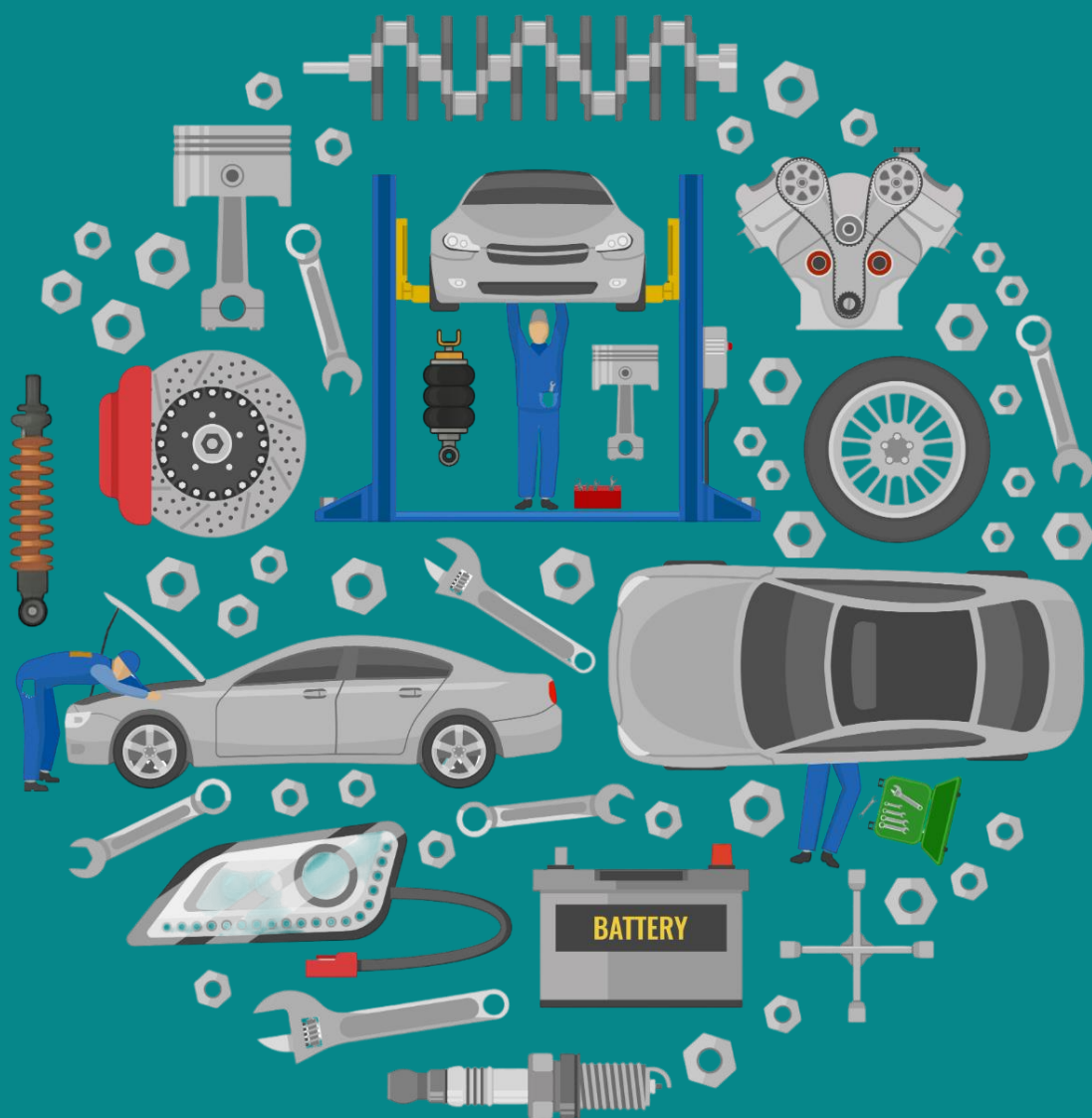



# Ultrasonic Air Transducers

## air spring applications



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 **Unictron**  
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Unictron's ultrasonic transducers have been implementing our in-house piezoceramics and acoustic matching layer as well as the patented technologies. This ultrasonic transducer is suitable for short-distance measurement in high-pressure environments with high reliability and stability. The transducer is housed with titanium alloy which is corrosion resistance and can operate under high pressure conditions.

Model Name	A200ML	Unit
Operation Frequency	200	kHz
Capacitance (@1 kHz, 1 Vrms)	500	pF
Directivity (Full Angle @ -3 dB)	10	degree
Maximum Driving Voltage ( 2% Duty Cycle Tone Burst )	500	Vpp
Max. Operation Pressure	17	bar
Sensing Range	5 - 150	cm
Housing Material	Titanium alloy	
Operating Temperature	-40°C to +85°C	

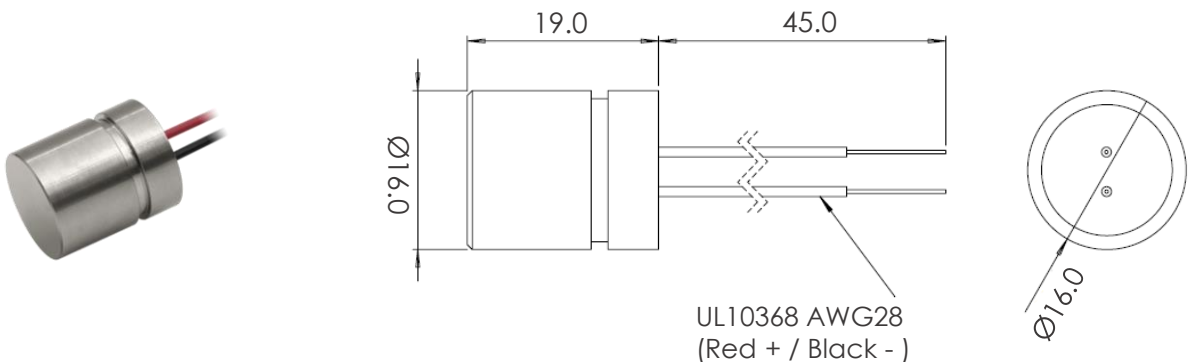
## Industries & Applications

- Proximity measurement
- Non-contact level detection
- Air spring level measurement

## Features

- High performance
- High reliability
- Low noise
- IP68
- Chemical resistance
- High pressure resistance
- Titanium alloy housing
- Patented technologies

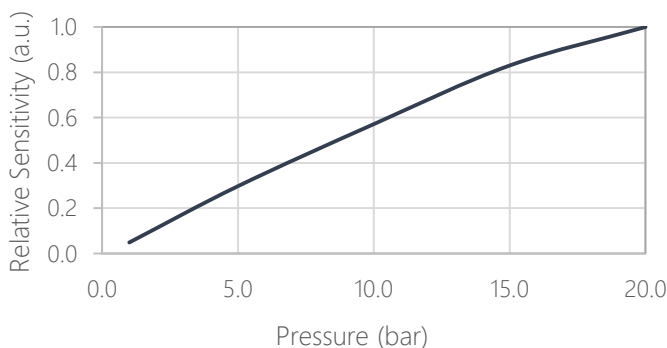
## Dimensions



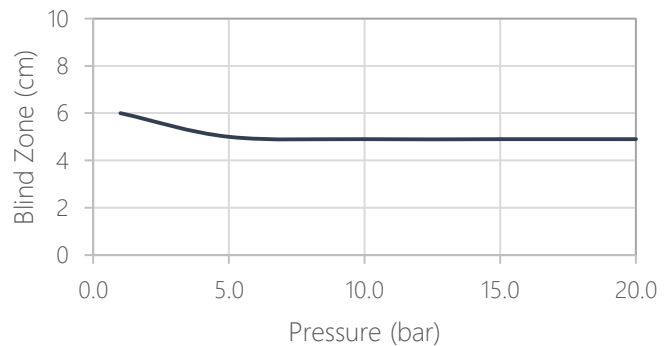


Air springs are one of the key components of the air suspension system, which can effectively isolate high-frequency vibrations, improve ride comfort, reduce noise and extend component life. Unictron's ultrasonic air transducers A200ML are designed to measure the height of air springs working in tough and high pressure environments with excellent stability and reliability.

Sensitivity vs Pressure

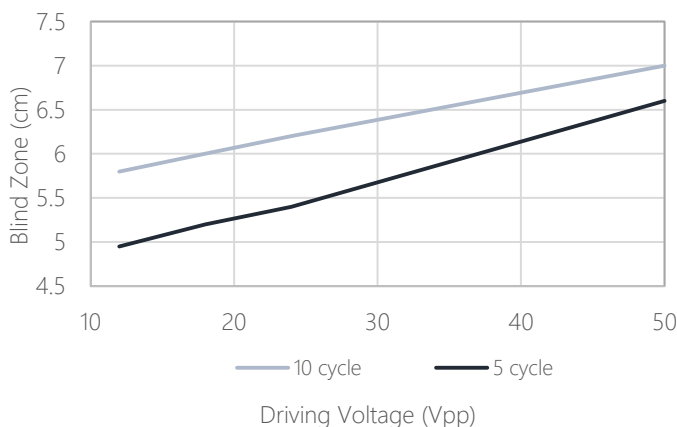


Blind Zone vs Pressure

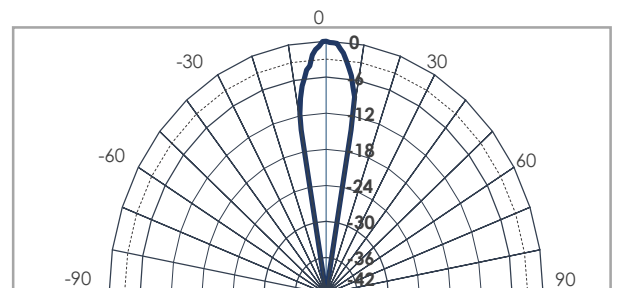


When the transducer operates in high pressure environment, the sensitivity increases as well, while the blind zone becomes shorter.

Blind Zone vs Driving Voltage



Directivity Diagram



The blind zone varies depending on the user's drive circuit settings as shown above, the less driving cycles (pulses), the shorter blind zone.