



MODEL 377A15

1" LOW AMPLITUDE PRESSURE MICROPHONE

- Prepolarized (0V) design
- Inherent noise: 11.5 dB(A) (10 dB(A) typical)
- Max amplitude: 150 dB (3% distortion)

TYPICAL APPLICATIONS

- Precise sound level meter measurements
- For use with IEC 60318-3 couplers
- Audiometer calibration
- Calibration transfer standards

STANDARDS COMPLIANCE

- IEC 61094-4 WS1P compliant, and designed to be used in an IEC 61672 Class 1 compliant system for sound level meter use
- Calibration reference microphone traceable to NIST, PTB or DFM National Labs
- PCB calibration service accredited to ISO 17025, ANSI-Z540.3 by A2LA or ILAC



USE OF MODEL 377A15

Model 377A15 is a 1 in (25 mm) prepolarized microphone for pressure field applications where low amplitudes need to be accurately measured. The large diaphragm size and high sensitivity allows for low amplitudes to 10 dB(A) to be measured, making them an excellent choice for audiometer calibration, ear simulators, sound booth tests, and environmental testing.

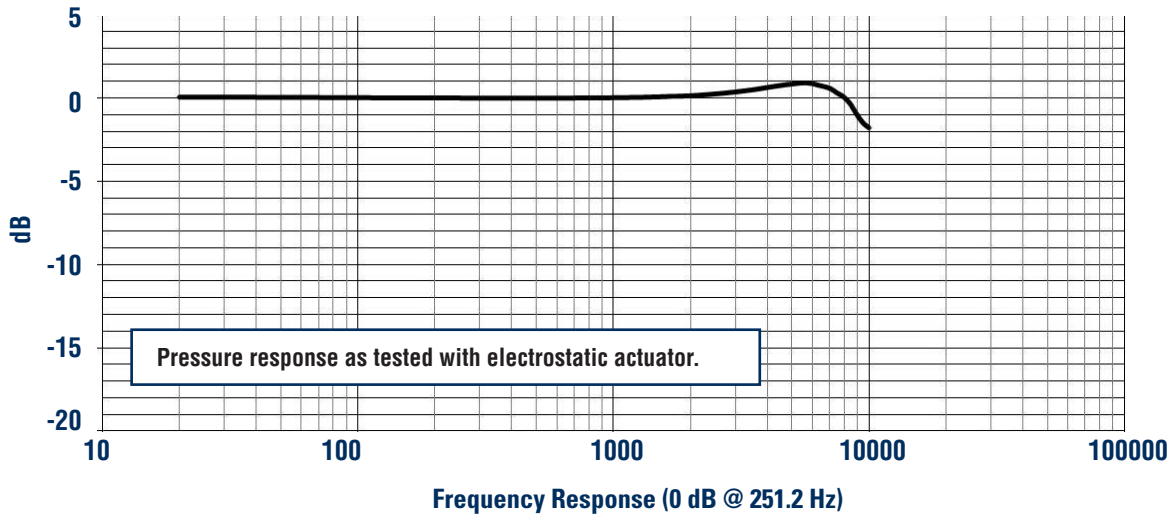
Pressure field response microphones are typically intended to be used in small closed couplers, confined spaces, or flush mounted to hard reflective surfaces.

POLARIZATION VOLTAGE – ICP® (0V) PREPOLARIZED

PCB® is the inventor of ICP® sensor power technology. All manufacturers of IEC 61094-4 compliant prepolarized (0V) microphones use the technology that PCB developed. Prepolarized microphones operate on 2-20 mA constant current supply and use coaxial cables resulting in significant per channel cost savings over the PCB 200V models. Other ICP® compatible sensors such as accelerometers, force, strain, and pressure sensors use the same power supplies and cables as prepolarized microphones, further reducing set-up time and initial investment costs.

PCB® QUALITY COMMITMENT

PCB is uniquely equipped with a state of the art, CNC machining facility, allowing control over quality, pricing, and delivery. Investments in clean rooms, anechoic, and environmental test chambers, combined with our rigorous testing and aging process, ensures our products will survive in demanding environmental conditions. PCB has the industry's best 5-year warranty with a "Total Customer Satisfaction" policy.



377A15 PREPOLARIZED PRESSURE MICROPHONE		
Sensitivity at 250 Hz (± 2 dB)	mV/Pa (dB re 1 V/Pa)	50 (-26)
Frequency Range ± 2 dB	Hz	5 - 8,000
Lower Limiting Frequency	Hz	1 - 3
Harmonic Distortion Limit: 3%	dB re 20 μ Pa	> 150
Inherent Noise	dB[A] re 20 μ Pa	< 11.5 (<10 typical)
Environmental Specifications		
Operating Temperature Range with 426E01 Preamp	$^{\circ}$ F ($^{\circ}$ C)	-40 to +176 (-40 to +80)
Operating Temperature Range with HT426E01 Preamp	$^{\circ}$ F ($^{\circ}$ C)	-40 to +248 (-40 to +120)
Electrical Specifications		
Polarization Voltage	V	0
Physical Specifications		
Diameter with Grid	in (mm)	0.94 (23.8)
Height with Grid	in (mm)	0.75 (19.0)

* all specifications typical unless otherwise noted

OPTIONAL ACCESSORIES

- 426E01 – 1/2" ICP® preamplifier
- HT426E01 – 1/2" preamplifier, high temperature (125° C)
- 079B25 – 1" microphone to 1/2" preamplifier adapter
- CAL250 – handheld calibrator
- ACS-20 – microphone calibration
- ACS-42 – microphone system calibration



Model 377A15 microphone shown with the 079B25 adapter and 426E01 preamplifier.



3425 Walden Avenue, Depew, NY 14043-2495 USA

Toll-Free in the USA: 800 828 8840

Phone: 1 716 684 0001 | Email: info@pcb.com

PCB Piezotronics, Inc. is a designer and manufacturer of microphones, vibration, pressure, force, torque, load, and strain sensors, as well as the pioneer of ICP® technology used by design engineers and predictive maintenance professionals worldwide for test, measurement, monitoring, and control requirements in automotive, aerospace, industrial, R&D, military, educational, commercial, OEM applications, and more. With a worldwide customer support team, 24-hour SensorLineSM, and a global distribution network, PCB® is committed to Total Customer Satisfaction. Visit www.pcb.com for more information. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corporation. Additional information on MTS can be found at www.mts.com.

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