High Temperature Probe Microphone and Preamplifier

Recommended for testing sound pressure measurements in high temperature environments and confined areas.

Applications
- Exhaust testing for Automotive & Aerospace
- Testing in confined areas
- Speaker diaphragm testing
- Acoustic impedance measurements
- Telephone analysis
- Musical instrument analysis
- Leak detection in Industrial Settings

Features
- Sensitivity: 2.15 mV/Pa
- Frequency: 2 Hz – 20 kHz
- Cartridge noise: 45 dBA
- Max amplitude: 164 dB
- Temperature: -40 to +800°C
- Polarization: prepolarized (0V)
- Small form factor

Microphone Components and Performance
Model 377B26 is comprised of a 1/4” (6mm) prepolarized microphone and preamplifier within a protective housing that incorporates an impedance tube to minimize reflections and ensure accuracy. The probe comes with a 20mm, 40mm, 80mm and 160mm stainless steel tips; each acting as a low pass filter. The shorter tips will have the highest frequency capability. The longer tips allow for temperatures up to 800°C. Also included are a heat sink and a flexible probe tip. The 377B26 with a high dynamic range capability (164 dB) in combination with high temperature capability make it an excellent choice for exhaust testing.

Polarization Voltage (0V)
PCB® is the inventor of ICP® technology which is the very same technology modern prepolarized microphones are designed around. Model 377B26 operates on this very same ICP® sensor power, or any 2-20 mA constant current supply. This modern design is preferred for portable measurements or operation in high humidity applications. Design advantages include the ability to use coaxial cables as well as interchangeability with other ICP® sensors (accelerometers, pressure sensors, strain gages, etc.) resulting in set-up time savings and low channel cost.
Quality
All PCB® acoustic products are made from the highest quality materials and are used by a variety of end users: automotive, aerospace & defense, OEM’s, universities, consultants, computer, white goods (appliance) manufacturers and more. The PCB® advantage stems from our company owned state of the art in-house CNC manufacturing facility. This provides us capabilities which allows us to control all factors that affect quality and delivery. Several acoustic PhD’s are on staff for new product development and to assist you with your application. PCB® continues to invest heavily in ongoing employee training as well as our production and test equipment including multiple machining facilities, a new anechoic chamber and more. All our 377 series microphones are manufactured in clean rooms and go through an extensive aging program to provide the best stability even in tough applications where high humidity or wide temperatures exist. All are backed by our “Total Customer Satisfaction” (TCS) policy, which is a no risk policy.

Specifications - 1/4” Pressure Field Microphone Model 377B26

<table>
<thead>
<tr>
<th>Acoustic</th>
<th>377B26</th>
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<tbody>
<tr>
<td>Nominal Microphone Diameter</td>
<td>1/4” (6mm)</td>
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<tr>
<td>Polarization Voltage</td>
<td>0V (prepolarized)</td>
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<tr>
<td>Open Circuit Sensitivity (at 250 Hz)</td>
<td>2.15 mV/Pa</td>
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<tr>
<td>Open Circuit Sensitivity (in 1 V/Pa)</td>
<td>-54 dB (+/- 3 dB)</td>
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<tr>
<td>Frequency range 20mm tip (+/- 3 dB)</td>
<td>2 to 20,000 Hz</td>
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<tr>
<td>Distortion Limit (3% distortion)</td>
<td>184 dB</td>
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<tr>
<td>Cartridge Thermal Noise</td>
<td>45 dB(A)</td>
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Environmental

<table>
<thead>
<tr>
<th>Operating Temperature Range (40, 80 and 160 mm Probe Tip)</th>
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<tr>
<td>-40 to +1472 °F</td>
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<tr>
<td>-40 to +800 °C</td>
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Physical

| Housing Size (Diameter x Height) | 0.50 " x 4.4 " |
|----------------------------------|----------------|---------------|
|                                  | 12.7 - 111 mm  |
| Weight                           | 1.8 oz (51 gms) |
| Matting Cable Connectors         | BNC            |

Supplied Accessories:
- 012A10 - Coaxial cable, 10-ft BNC to BNC plug
- 100-11129-30 - File
- 100-11509-90 - Grease
- 51606-02 - Heat sink, probe removal tool
- 51607-01 - Calibration adapter for metal probe
- 51607-02 - Calibration adapter for flexible probe
- 53434-01 - 20mm probe tip
- 53434-02 - 40mm probe tip
- 53434-03 - 60mm probe tip
- 53434-04 - 160mm probe tip
- 54073-01 - Cleaning tube
- 55103-01 - Probes, tip trim tool
- 55454-01 - Flexible tubing
- 55455-01 - Flexible probe tip
- 56658-01 - Calibration coupler
- ACS-42 - microphone and preamplifier system calibration

Optional Accessories:
- CAL200 - Handheld calibrator
- CAL250 - Handheld calibrator