



Surface Microphone

Model 130B40 is recommended for measuring surface pressure and noise measurements in environments where wind is prevalent.

Applications

- Noise measurements in wind tunnels
- Auto and Aircraft wind noise
- Brake and tire noise
- Powertrain noise
- Environmental CAT (Clear Air Turbulence), tornado's, hurricanes, etc.
- Flush mounting applications
- Panel testing
- Measurements in confined places

Features

- Sensitivity: 8.5 mV/Pa
- Frequency: 20 Hz–10 kHz (+/- 3dB)
- Cartridge Noise: 32 dBA
- Max Amplitude: 142 dB
- Temperature: -40 to +80°C
- Preamplifier: Built-in
- Cable: 5 foot attached
- Mounting Pads: Standard
- TEDS: IEEE 1451.4
- Polarization: Prepolarized (OV)
- Water Resistant Grid



Model 130B40
Low Profile

CE Surface Microphone Pad



The PCB® surface microphone is cost effective for measuring true surface pressure. Through CFD modeling software, the microphone and pad design were able to be optimized for wind induced noise applications. The flexible front vented design allows for flush mounting or adhesive mounting on flat planar or curved surfaces. A low 1/8" (3 mm) profile height allows for noise measurements to be taken where traditional microphones would not fit. The water and dust resistant mesh grid cap makes it an excellent choice for tire well and other rough environments. The unit comes with a built-in preamplifier and attached 5 foot cable terminating in a 10-32 microdot coaxial connector. The vent for the microphone is at the surface for easy atmospheric pressure equalization. TEDS IEEE 1451.4 is supplied standard.



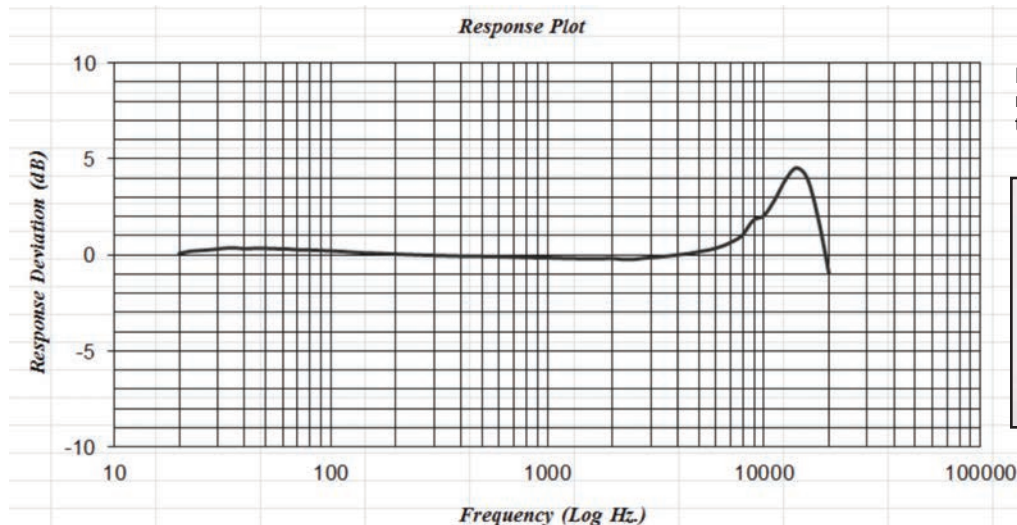
Polarization Voltage

Model 130B40 is a prepolarized model which is designed to operate on 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 are coaxial cables usage and interchangeability with other ICP® sensors (accelerometers, pressure sensors, force sensors, strain gages, etc.) resulting in set-up time savings and low channel cost. In fact PCB® is the founder of the ICP® technology. This is the same technology that IEC compliant test and measurement prepolarized microphones are designed around.

Quality

All PCB® acoustic products are made from the highest quality materials and are used in a variety of industry leading companies in: automotive, aerospace & defense, OEM's, universities, consultants, computers, white goods (appliance) manufacturers and more. PCB's in-house manufacturing capabilities allows us to control all the factors that affect quality, and delivery. PCB® knows what it takes to manufacture the best products and do not out-source parts to machine shops that do not fully understand sensor manufacturing and the effects of contamination. This is why PCB® has invested in clean rooms and machining facilities within our 300,000 sq. ft. facilities. This provides us full control over the quality of the components that are used in our acoustic products.

Each unit comes with a traceable Calibration certification showing its actuator pressure response. All are backed by our best in class 5 yr warranty and "Total Customer Service" (TCS) policy, which is a no risk policy.

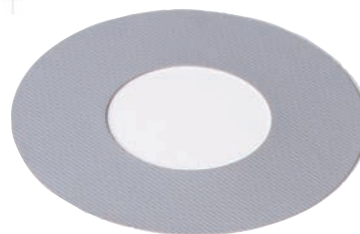


Model 130B40 pressure response microphone calibration, is shown to the left.



Specifications - Surface Microphone Model 130B40	
Acoustic	130B40
Polarization Voltage	0V (pre-polarized)
Open Circuit Sensitivity (at 250 Hz)	8.5 mV/Pa
Frequency Range (+/- 3 dB)	20 to 10,000 Hz
Frequency Range (+/- 6 dB)	20 Hz to 20,000 Hz
Cartridge Thermal Noise	32 dB(A)
Distortion Limit (3% distortion)	142 dB
Distortion Limit (Max before Clipping)	150 dB
Pressure Equalization Vent	Front Vented
Environmental	
Operating Temperature Range	-40 to +176 °F -40 to +80 °C
Physical	
Size (Diameter x Height (without fairing))	0.52" x 0.126" (13mm x 3mm)
Size (Diameter x Height (with fairing))	1.62" x 0.126" (41mm x 3mm)
Mating Cable Connectors	10-32 Microdot
Cable Length (attached)	5 foot (1.5m)

Top single-sided adhesive pad



Fairing



Microphone



Optional accessories:

CAL250 – handheld calibrator

Accredited initial calibration chart included.



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AS9100 CERTIFIED ■ ISO 9001 CERTIFIED ■ A2LA ACCREDITED to ISO 17025

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PCB Piezotronics Test & Measurement Acoustic products consists of microphones, preamplifiers, and accessories for noise testing, pressure mapping, holography, NVH, beamforming, arrays and general sound measurements. Additional Test & Measurement products include pressure, force, load, strain, torque, acceleration, shock, vibration, and electronics. PCB® products are used for product design and development, consumer product testing, quality assurance, civil structure monitoring, research and development, education and engineering applications. All products are backed by our Total Customer Satisfaction policy, which guarantees your satisfaction or your money refunded.

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