USE OF MODEL 378A12

Model 378A12 is a 1/4 in (6 mm) prepolarized microphone and preamplifier system. Model 378A12’s 182 dB, 3% distortion rating, and 194 dB maximum before clipping specification, makes it a perfect sensor for very high amplitude measurements.

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.

**378A12 PREPOLARIZED PRESSURE MICROPHONE SYSTEM**

- **Nominal Microphone Diameter** in (mm) 1/4 (6)
- **Sensitivity at 250 Hz (± 3 dB)** mV/Pa (dB re 1 V/Pa) 0.25 (-72)
- **Frequency Range (± 2 dB)** Hz 5 - 20,000
- **Cartridge Thermal Noise (Microphone)** dB[A] re 20 μPa 60
- **Inherent Noise with 426B03 Preamp** dB[A] re 20 μPa 60
- **Distortion Limit with 426B03 Preamp** dB re 20 μPa 182
- **Maximum Sound Pressure Level (Peak)** dB re 20 μPa 194

**Environmental Specifications**

- **Operating Temperature Range**
  - Microphone°F (-40 to +248)
  - Operating Temp. with 426B03 Preamp°F (-40 to +158)
  - Operating Temp. with HT426E01 Preamp°F (-40 to +248)

**Electrical Specifications**

- **Polarization Voltage** V 0
- **Constant Current Excitation** mA 2 - 20

**Physical Specifications**

- **Size: (Diameter x Length with Grid)** in (mm) 0.28 x 2.07 (7.1 x 52.6)
- **Pressure Equalization Vent** Vented Rear
- **Connector** Coaxial 10-32 Jack

*all specifications typical unless otherwise noted

**OPTIONAL ACCESSORIES**

- 079A02 – 1/4” microphone to 1/2” preamplifier adapter
- HT426E01 – 1/2” preamplifier, high temperature (125° C)
- 079A07 – windscreen for 1/4” microphones
- 079B10 – microphone holder
- 079A15 – tripod microphone stand with boom arm
- 079B16 – miniature microphone stand
- 079A18 – clamp on flexible extension arm
- 079C20 – 1/4” nose cone for wind tunnel testing
- 079C23 – microphone holder with swivel mount
- CAL200 – handheld calibrator
- ADP024 – 1/4” adapter for CAL200
- ACS-63 – microphone system calibration