

# 376M03 PHANTOM-POWERED MEASUREMENT MICROPHONE

for Acoustic and Electro-Acoustic Test and High Definition Recording



## APPLICATIONS

- Loudspeaker measurements
- Building acoustics
- Real-time analysis
- High definition recording

## HIGHLIGHTS

- Quickly and easily change between 1/2" and 1/4" IEC 61094-4 compliant microphone cartridges.
- 22 dB(A) noise floor, 40 kHz frequency response as configured. As low as 15.5 dB(A) noise floor, or 100 kHz frequency response when configured with alternative microphone cartridges.
- Uses standard XLR-terminated mic cables. Star-quad cabling and a differential microphone input can provide high immunity to incidental noise pickup.
- Includes a 079A49 microphone holder, threaded for a standard 5/8"-27 mic stand.

## STANDARDS COMPLIANCE

- IEC 61094-4 compliant microphone cartridge mounting (compatible with AP 377M31, 377M32 and 377M33 cartridges).
- Microphone complies with IEC 61672 requirements of a class 1 sound level meter.
- Calibration reference microphone traceable through an accredited national lab.
- A2LA, ILAC accredited, CE marked.

## 376M03 1/2" phantom-powered microphone system

Audio Precision offers a family of measurement microphones designed to provide ready solutions for our customers working in acoustic test. The Audio Precision model 376M03 is a calibrated microphone system, mounting a 377M32 cartridge to the 426M16 preamplifier in its 1/2" configuration. This system provides excellent low-noise performance coupled with a response past 40 kHz.

## Alternative Configurations

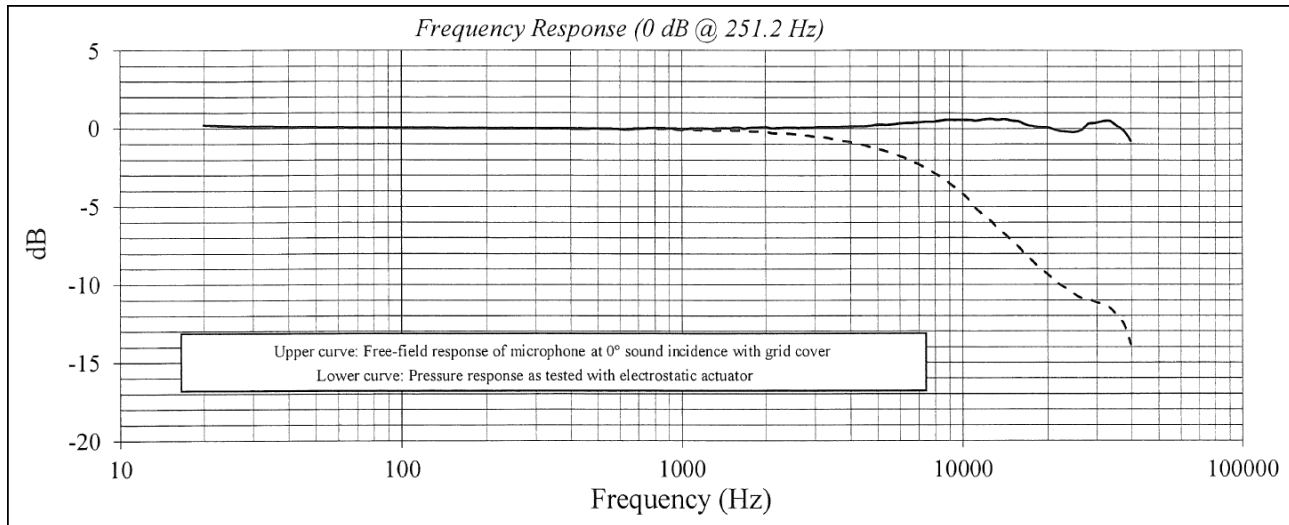
With the 376M03 microphone system, we are introducing the 426M16: a flexible, phantom-powered preamplifier that can mount either 1/2" or 1/4" standard IEC 61094-4 prepolarized microphone cartridges.



426M16 preamplifier components, which can be assembled for use with either 1/2" or 1/4" mic cartridges.

For example, if you require an extended frequency response (up to 100 kHz) coupled with high level capability (164 dB), the optional 1/4" Audio Precision 377M33 cartridge is the right choice. Or, if high sensitivity and quiet performance are paramount, the optional 1/2" Audio Precision 377M31 mic cartridge has a self-noise of only 15.5 dB(A). Excellent specifications, phantom powering and switchable cartridges make systems built around the 426M16 preamp an attractive approach for audio test, and also for recordists exploring high definition audio. This flexibility lets you select a cartridge with the performance required for a specific test, while leveraging the investment in a single universal preamplifier.

# AUDIO PRECISION MODEL 376M03 MEASUREMENT MICROPHONE



376M03 frequency response at factory calibration.



## SPECIFICATIONS

	376M03 SYSTEM	OPTIONAL CONFIGURATION #2	OPTIONAL CONFIGURATION #3
PREAMPLIFIER	426M16 preamplifier	426M16 preamplifier	426M16 preamplifier
MIC CARTRIDGE	377M32 mic cartridge	377M31 mic cartridge	377M33 mic cartridge
MIC CARTRIDGE DIAMETER	½" (12 mm)	½" (12 mm)	¼" (6 mm)
FREQUENCY RANGE ±2 dB	3.15 Hz to 31,500 Hz	3.75 Hz to 20,000 Hz	5 Hz to 80,000 Hz
FREQUENCY RANGE ±3 dB	3.15 Hz to 40,000 Hz	2.5 Hz to 22,500 Hz	4 Hz to 100,000 Hz
SENSITIVITY AT 250 Hz	12.6 mV/Pa	50 mV/Pa	2 mV/Pa
INHERENT NOISE	22 dB(A) re 20 µPa	15.5 dB(A) re 20 µPa	40 dB(A) re 20 µPa
OVERLOAD AT 3% THD	150 dB re 20 µPa	137 dB re 20 µPa	164 dB re 20 µPa
LENGTH WITH CARTRIDGE AND GRID	6.85" (174 mm)	7" (178 mm)	6.85" (174 mm)
DIAMETER AT XLR CONNECTOR		0.79" (20 mm)	
CARTRIDGE DIAPHRAGM MATERIAL		Stainless alloy	
OUTPUT VOLTAGE (BY PHANTOM VOLTAGE SUPPLY)		10 Vpp (48 V), 6 Vpp (24 V), 3 Vpp (12 V)	
OUTPUT POLARITY		XLR pin 2 high for positive pressure	
TEMPERATURE RANGE		-40°C to +65°C	
DIRECTIONAL PATTERN		Omnidirectional	

## ACCESSORIES

APx1701	Audio Precision Transducer Test Interface
CAB-XLR8	8' XLR-M to XLR-F balanced shielded cable
079A06	Foam windscreen for ½" microphones
079A07	Foam windscreen for ¼" microphones
CAL200	Sound level calibrator, 1 kHz, 94 and 114 dB SPL, for ½" diameter mics.
ADP024	CAL200 to ¼" microphone adapter
CAL250	Sound level calibrator, 250 Hz, 114 dB SPL, for 1" and ½" diameter mics.
ADP021	CAL250 to ¼" microphone adapter

## MICROPHONE CARTRIDGES

All of our Audio Precision branded microphone cartridges are compatible with the 426M16 preamplifier. Unlike the plastic diaphragms used in some pre-polarized microphones, Audio Precision brand cartridges use a stainless alloy which remains stable during temperature, humidity and atmospheric pressure changes, yielding more accurate test results. The stainless alloy diaphragm provides easy calibration over the entire frequency range of the cartridge and allows for the use of electrostatic actuators, which are common calibration devices. Avoid removing the grid cap. Do not touch the microphone diaphragm.

## CALIBRATION AND WARRANTY

Audio Precision measurement microphones are made in the United States. The microphones are manufactured to the highest standards, using a combination of systematic quality control, the finest materials, and clean-room assembly. The products are exposed to an extensive aging program in climate-controlled test chambers to ensure the most stable product. Factory assembled preamplifier/cartridge systems are qualified and come with a traceable calibration certification, and are backed by a five-year warranty.

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