

# 40PP Production-Line Test Microphone

## Product Data

The G.R.A.S. 40PP Production-Line Test Microphone is a robust, cost-effective microphone designed for use in production-line testing of loudspeakers and acoustic transducers. It has a wide frequency range reaching up to 20 kHz (Fig. 2) and a large dynamic range from <math><30\text{ dB(A)}</math> to 135 dB.

The cost-effectiveness of the 40PP is a key consideration when setting up multiple production lines. Close manufacturing tolerances provide the 40PP with a high degree of interchangeability – a major advantage when used in production-line test setups.

The robust standard BNC connector of the 40PP ensures an easy-to-handle setup and supports the use of standard RG58 cables all the way from the microphone to the input module.

The integrated CCP<sup>1</sup> preamplifier requires a constant-current power supply, such as the G.R.A.S. 12AL 1-Channel CCP Power Module with A-Weighting filter, or any other CCP compatible power supply or input module. The built-in TEDS<sup>2</sup> chip provides information about the microphone that can be used by systems designed for use with TEDS.

Calibration is easy with a G.R.A.S. pistonphone, such as the 42AA, together with a ¼" microphone adapter.



Fig. 1 The 40PP Production-Line Test Microphone with integrated CCP preamplifier and BNC connector.

## Typical Applications

- Production-line testing of drivers, receivers, and microspeakers
- Sound-scape recording in array configurations
- Multichannel measurements (analysis)

<sup>1</sup> Constant Current Power

<sup>2</sup> Transducer Electronic Data Sheet according to IEEE 1451.4.

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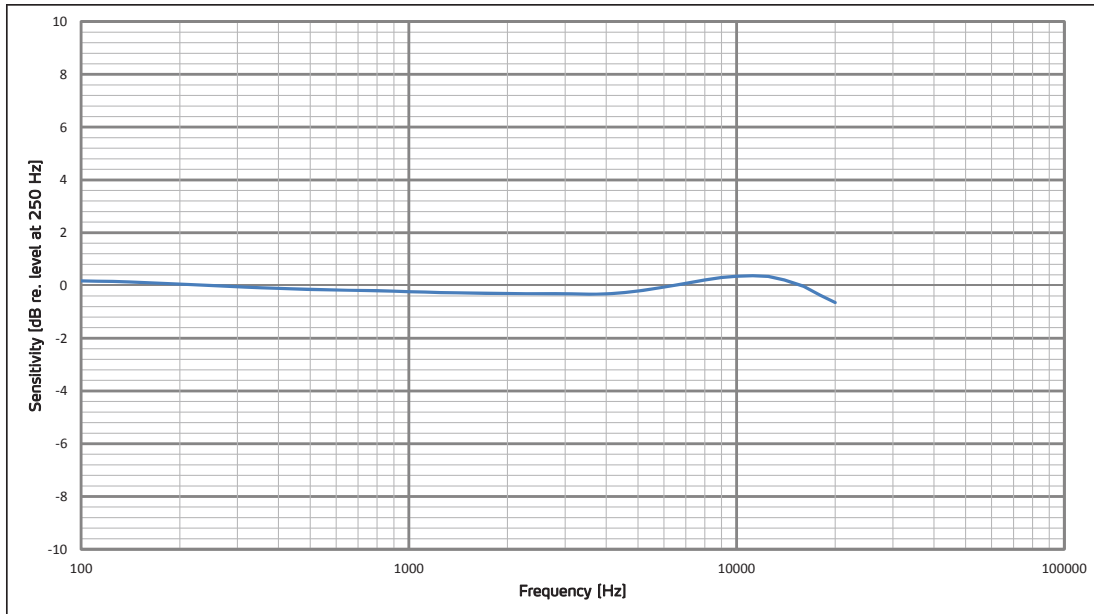


Fig. 2 Typical frequency response for the 40PP.

## Specifications

### Frequency response

20 Hz – 10 kHz ..... ±1 dB  
 10 Hz – 20 kHz ..... ±2 dB

### Nominal sensitivity

at 250 Hz ..... 50 mV/Pa (±2 dB)

### Power supply

..... 2 mA to 20 mA (typically 4 mA)

### Dynamic range

Upper limit ..... 135 dB re. 20 µPa  
 Thermal noise ..... <30 dB(A) re. 20 µPa

### Influence of axial vibration equivalent to 1 m/s<sup>2</sup>

..... 50 dB re. 20 µPa

### Temperature range

Operation ..... -10 °C to +50 °C

### Output impedance

..... <50 Ω

### Output connector

..... BNC coaxial socket

### Weight

..... 5.5 g

### Dimensions

Diameter ..... 7.0 mm  
 Length ..... 115.2 mm

Values quoted for 23 °C and 4 mA supply current.

## Ordering Information

Production-Line Test Microphone ..... 40PP

## Additional Accessories

Windscreens, Ø40mm (Set of 6) ..... AM0364  
 Rain-protection cap ..... RA0092  
 Tripod Adapter ..... RA0096  
 3 m BNC–BNC cables ..... AA0035  
 5 m BNC–BNC cables ..... AA0036  
 10 m BNC–BNC cables ..... AA0037  
 Custom length BNC–BNC cables .... AA0039-XX  
 1-Channel CCP Power Module with A-Weighting filter ..... 12AL  
 Intelligent Pistonphone ..... 42AP  
 Pistonphone ..... 42AA  
 Sound Calibrator ..... 42AB  
 Traceable Calibration ..... CA0034

## Microphone Calibration

Before leaving the factory, G.R.A.S. products are tested and calibrated by G.R.A.S., and an individual test certificate is included with the product.

G.R.A.S. Sound & Vibration continually strives to improve the quality of our products for our customers; therefore, the specifications and accessories are subject to change.