GRAS 40PP-S1

CCP Free-field QC Microphone, High Pressure

Freq range: 10 Hz to 20 kHz
Dyn range: 32 dB(A) to 142 dB
Sensitivity: 10 mV/Pa (± 3 dB)

The GRAS 40PP-S1 QC Microphone, High Pressure 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 and a large dynamic range from <32 dB(A) to 142 dB.

GRAS Sound & Vibration A/S
Skovlytoften 33, 2840 Holte, Denmark
www.gras.dk

GRAS Sound & Vibration

Typical applications and use

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

Design

The cost-effectiveness of the 40PP-S1 is a key consideration when setting up multiple production lines. Close manufacturing tolerances provide the 40PP-S1 with a high degree of interchangeability – a major advantage when used in production-line test setups.

The robust standard BNC connector of the 40PP-S1 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 (Constant Current Power) preamplifier requires a constant-current power supply, such as the GRAS 12AL 1-Channel CCP Power Module with A-Weighting filter, or any other CCP compatible power supply or input module. The built-in TEDS (Transducer Electronid Data Sheet, according to IEEE 1451.4) chip provides information about the microphone that can be used by systems designed for use with TEDS.

Microphone Calibration

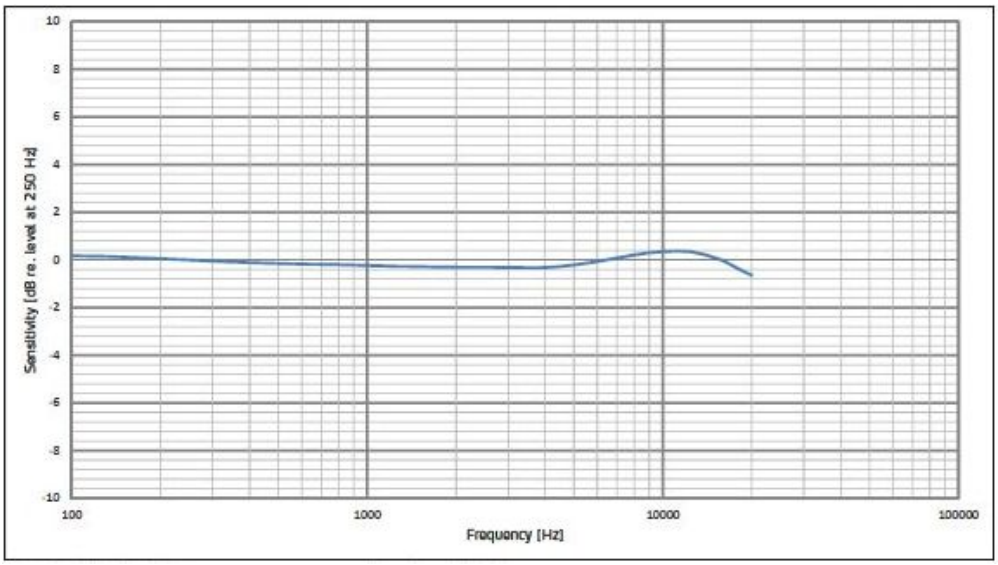
Calibration is easy with a GRAS pistonphone, such as the GRAS 42AA, together with a ¼" microphone adapter.

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

Warranty

GRAS offers 3 years warranty against defective materials and workmanship.

Frequency range (±1 dB)	Hz	50 to 5 k
Frequency range (±2 dB)	Hz	5 k to 20 k
Frequency range (±3 dB)	Hz	10 to 50
Dynamic range lower limit (microphone thermal noise)	dB(A)	<32
Dynamic range upper limit	dB	142
Set sensitivity @ 250 Hz (±3 dB)	dB re 1V/Pa	10
Power supply (Constant Current Power)	mA	2 to 20
Microphone venting		Front
Output impedance	Ω	<50
Temperature range, operation	°C / °F	-10 to 50 / 14 to 122
Temperature range, storage	°C / °F	-40 to 85 / -40 to 185
Influence of axial vibration @1 m/s²	dB re 20 µPa	50
TEDS UTID (IEEE 1451.4)		27 v. 1.0
Connector type		BNC
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	5.5 / 0.19401



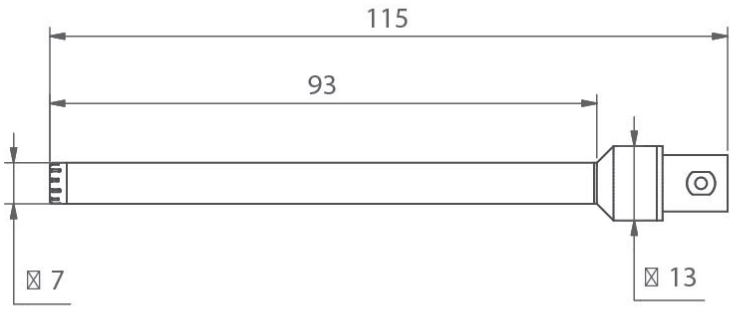
Typical frequency response

GRAS Sound & Vibration reserves the right to change specifications and accessories without notice.

Dimensions

Dimensions

Dimensions in mm



GS0528
40PP

Dimensions

Optional items

GRAS AA0039-CL	BNC to BNC 50 Ω extension cable, customized length
GRAS 12AL	1-Channel CCP Power Module with A-weighting filter
GRAS AL0028	Tripod adapter
GRAS RA0092	Rain-protection Cap for array microphones
GRAS 42AP	Intelligent Pistonphone, Class 0
GRAS 42AG	Multifunction Sound Calibrator, Class 1

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We Make Microphones

Tradition

Since the establishment in 1994, GRAS has been 100% dedicated to developing and manufacturing high-quality measurement microphones and related acoustic equipment.

Innovation

We work with everybody with an interest in sound or noise within the fields of aerospace, automotive, audiology, consumer electronics, noise monitoring, building acoustics and telecommunications.

Quality

At GRAS we know that in order for you to trust your measurement results; signal quality, stability and robustness are essentials. We design and build them to perform under real life conditions – and beyond.

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