GRAS 40PP-10-S1

CCP Free-field QC Microphone, High Pressure

Freq range: 10 Hz to 20 kHz
Dyn range: 33 dB(A) to 142 dB
Sensitivity: 9 mV/Pa (± 3 dB)

The GRAS 40PP-10-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 <33 dB(A) to 142 dB.

GRAS Sound & Vibration
Skovlytoften 33, 2840 Holte, Denmark
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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-10-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-10-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 Electronic 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.

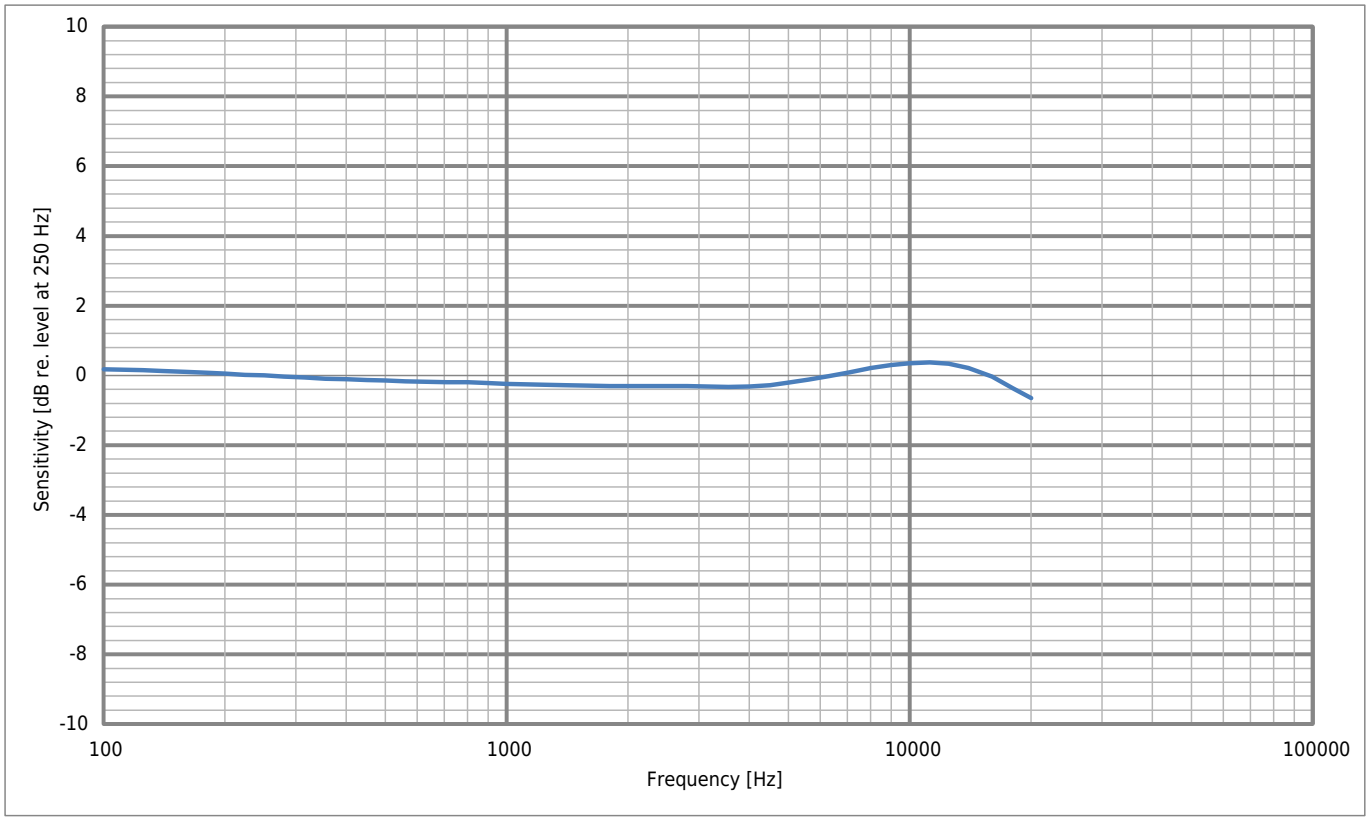
Before leaving the factory, GRAS products are tested and calibrated by GRAS, and an individual test certificate is included with the product.

Warranty

GRAS offers 3 years warranty against defective materials and workmanship.

Specifications

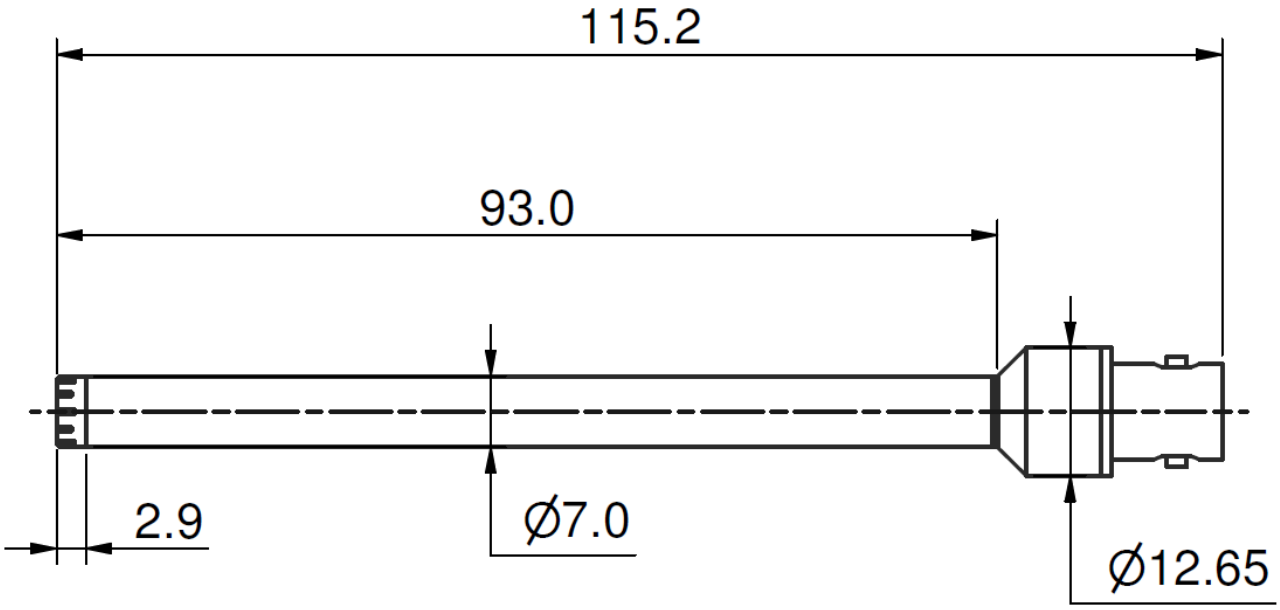
Polarization/Connection		0 V / CCP
Frequency range (±1.5 dB)	Hz	50 to 5 k
Frequency range (±2 dB)	Hz	10 to 20 k
Dynamic range lower limit (microphone thermal noise)	dB(A)	<33
Dynamic range upper limit	dB	142
Set sensitivity @ 250 Hz (±3 dB)	dB re 1V/Pa	9
Power supply (Constant Current Power)	mA	2 to 20
Microphone venting		Front
Output impedance	Ω	<50
Temperature range, operation	°C / °F	-10 to 50 / 14 to 122
Temperature range, storage	°C / °F	-20 to 60 / -4 to 140
Influence of axial vibration @1 m/s²	dB re 20 µPa	55
TEDS (IEEE 1451.4)		27 v. 1.0
Connector type		BNC
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	5.5 / 0.2



Typical frequency response

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

Dimension (in mm)



Optional items

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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GRAS Worldwide

Subsidiaries and distributors in more than 40 countries

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About GRAS Sound & Vibration

GRAS is a worldwide leader in the sound and vibration industry. We develop and manufacture state-of-the-art measurement microphones to industries where acoustic measuring accuracy and repeatability is of utmost importance in R&D, QA and production. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, and consumer electronics. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect and trust.

GRAS Sound & Vibration is represented through subsidiaries and distributors in more than 40 countries and is part of Axiometrix Solutions, a leading test solutions provider comprised of globally recognized measurement brands. Read more at www.GRASacoustics.com

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