GRAS 40PK

CCP QC Short





10 Hz - 20 kHz 26 dB(A) - 145 dB 18 mV/Pa 40PK dB 20 kHz 26 dB A 145



Technology

Typical applications and use

- Production-line testing of drivers, receivers, and microspeakers
- · Measurements in confined spaces

Design

The GRAS 40PK CCP Free-field QC Microphone, short 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 26 dB (A) to 145 dB.

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

The 40PK is very short and can therefore be used in confined spaces where its bigger equivalent, the 40PP cannot be used. Close manufacturing tolerances provide the 40PK with a high degree of interchangeability – a major advantage when used in production-line test setups.

The standard SMB connector of the 40PK ensures an easy-to-handle setup and supports the use of standard RG174 cable all the way from the microphone to the input module.

Compatibility

The integrated CCP (Constant Current Power) preamplifier requires a constant-current power supply, such as the <u>GRAS 12AL</u> 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.

To fully benefit from its short length, the cable with an angled SMB connector should be chosen (see the tab Ordering info).

System verification

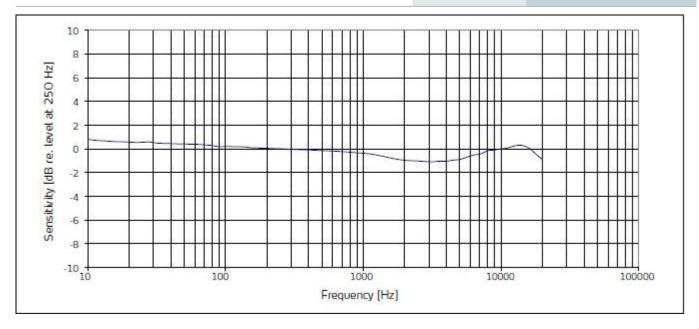
The functionality of TEDS is very useful for determining what microphone is connected to your respective input channels. However, it is not a check of whether the microphone is within specifications or not. For daily verification and check of your measurement setup we therefore recommend using a sound source like the GRAS 42AG Multifunction Sound Calibrator.

For proper sensitivity calibration we recommend using a reference sound source like the GRAS 42AP Intelligent Pistonphone.



Specifications

Polarization/Connection		0 V / CCP
Frequency range (±2 dB)	Hz	10 to 10 k
Frequency range (±3 dB)	Hz	10 to 20 k
Dynamic range lower limit with GRAS preamplifier	dB(A)	<26
Dynamic range upper limit	dB	145
Set sensitivity @ 250 Hz (±2 dB)	mV/Pa	18
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 (IEEE 1451.4)		27 v. 1.0
Connector type		SMB
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	3.5 / 0.12346



Specifications

GRAS Sound & Vibration



Dimensions

34 mm 7 mm



Ordering info

<u>GRAS AA0027</u>	3 m SMB - BNC Cable
GRAS AA0078	3 m SMB angled - BNC Cable
GRAS AL0028	7 mm Microphone Holder, POM
GRAS AL0005	Swivel head
GRAS AL0006	Tripod
GRAS 12AL	1-Channel CCP Power Module with A-weighting filter
GRAS 12AQ	2-Channel Universal Power Module with signal conditioning and PC interface
GRAS 42AG	Multifunction Sound Calibrator, Class 1
GRAS 42AP	Intelligent Pistonphone, Class 0

GRAS Sound & Vibration



GRAS Worldwide

Subsidiaries and distributors in more than 40 countries

HEAD OFFICE, DENMARK

GRAS SOUND & VIBRATION

Skovlytoften 33 2840 Holte Denmark Tel: +45 4566 4046 www.GRASacoustics.com gras@grasacoustics.com

USA

GRAS SOUND & VIBRATION

9290 SW Nimbus Avenue Beaverton, OR 97008 Tel: 503-627-0832 Toll Free: 800-231-7350 www.GRASacoustics.com sales-usa@grasacoustics.com

UK

GRAS SOUND & VIBRATION

Unit 115, Gibson House, Ermine Business Park, Huntingdon, Cambridgeshire, PE29 6XU Tel: +44 (0) 7762 584 202 www.GRASacoustics.com sales-uk@grasacoustics.com

CHINA

GRAS SOUND & VIBRATION

Room 315, RuiBo Center(T1) Lane683, Shenhong Rd, Minhang District, Shanghai, China, 201107 Tel: +86 21 64203370 www.GRASacoustics.cn cnsales@grasacoustics.com



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 and related equipment for industries where acoustic measuring accuracy and repeatability are of the utmost importance. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, consumer electronics and other highly demanding industries. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect, trust and require.

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

GRAS

An Axiometrix Solutions Brand

grasacoustics.com