GRAS 51AC

Sound Intensity Calibration Kit



Standard: IEC 61043
Special feature: Calibration coupler with two matched calibration chambers for GRAS Rugged Intensity Probes.

The 51AC Sound Intensity Calibration Kit is a ready to use kit for sensitivity and phase calibration of GRAS Rugged Intensity Probes (50AI-LP, 50GI-P, 50GI-RP). The kit consists of a calibration adapter with two calibration chambers, a GRAS 42AA Pistonphone, Class 1, and a GRAS ZC0002K Barometer.

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Introduction

The 51AC Sound Intensity Calibration Kit provides a convenient calibration method for GRAS 50AI-LP, 50GI-RP, and 50GI-P CCP Rugged Intensity Probes. When the probe is configured with a 50 mm spacer, there is no need for disassembling the probe, it can be mounted directly into the calibration adapter. The calibration signal is a 250 Hz pressure signal provided by a GRAS 42AA Pistonphone, Class 1. A GRAS ZC0002K Barometer makes it possible to correct for the ambient pressure.

Design

The calibration adapter has two identical, acoustically sealed chambers for the two intensity microphones that are mounted in the intensity probe. Each chamber is lined with silicone rubber. A lid with two finger screws provides an effective acoustical sealing of the measurement chambers. These are identical within a tolerance of 0.15 dB. A coupling on the rear of the calibration adapter provides connection to the pistonphone.

The calibration signal from the pistonphone is fed through this coupling into the two measurement chambers. The coupling provides a stress-free connection between pistonphone and calibration adapter when they both are placed on the same flat surface.

Calibration, Warranty and Repair

Before leaving the factory, all GRAS products are calibrated in a controlled laboratory environment using traceable calibration equipment. Individual test certificates for the calibration adapter and the pistonphone are included.

GRAS products are made of components from our proven standard portfolio and are all manufactured of high-quality material and branded parts that were chosen and processed to ensure life-long stability and robustness. The calibration coupler housing comes with a 2 year warranty. The warranty for the pistonphone is 2 years. The warranty does not cover products that are damaged due to negligent use, an incorrect power supply, or an incorrect connection to the equipment.

All repairs are made at GRAS International Support Center located in Denmark. Our Support Center is equipped with the newest test equipment and staffed with dedicated and highly skilled engineers. Upon request, we make cost estimates based on fixed repair categories. If a product covered by warranty is sent for service, it is repaired free of charge, unless the damage is the result of negligent use or other violations of the warranty. All repairs are delivered with a service report, as well as an updated calibration chart.

Specifications

Frequency	Hz	250
Sound pressure level	dB	114 re. 20 Pa
Phase match	°	< 1
Repeatability	dB	< 0.15
IEC standard		61043
Weight	g / oz	850 / 30

Included

GRAS RA0301	Two-port Calibration Adapter for 50AI-LP
GRAS 42AA	Pistonphone, Class 1
GRAS ZC0002K	Barometer

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

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 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

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