

GRAS 40HL

1/2 英寸 LEMO 低底噪传声器系统



频率范围 10 Hz - 16 kHz
动态范围 6.5 dB(A) - 110 dB
灵敏度 750 mV/Pa

GRAS 40HL 1/2" 低底噪传声器可测量接近人类听觉阈值的声压级。因此，它通常适用于对非常安静的产品进行声功率测量。其极宽的动态范围支持在 20 Hz 至 20 kHz 频率范围内（以 1/3 倍频程计）进行低至 6.5 dB 参考声压 20 μ Pa 的测量。

典型应用和使用

- 极低声压级测量
- 适用于硬盘驱动器、计算机产品、消声室、静音室等的测量
- 低噪声环境下的声功率测量

设计

40HL 包含一支特殊高灵敏度 1/2 英寸自由场测量传声器和一个集成式 1/2 英寸低底噪前置放大器。二者组合后，可通过 LEMO 1B 接口连接至大多数高品质输入模块。

该设备符合 IEC 61672 标准 1 级要求。

前置放大器

前置放大器，一款真正的 1/2 英寸低底噪放大器，配备 LEMO 1B 连接器，内置自由场传声器补偿滤波器。

传声器

1/2 英寸传声器是一款外极化自由场传声器，其内在噪声底限经过特殊优化，以实现高动态范围和宽频率响应。其振膜经过特殊调校，可提供高灵敏度与低内部噪声的完美结合。

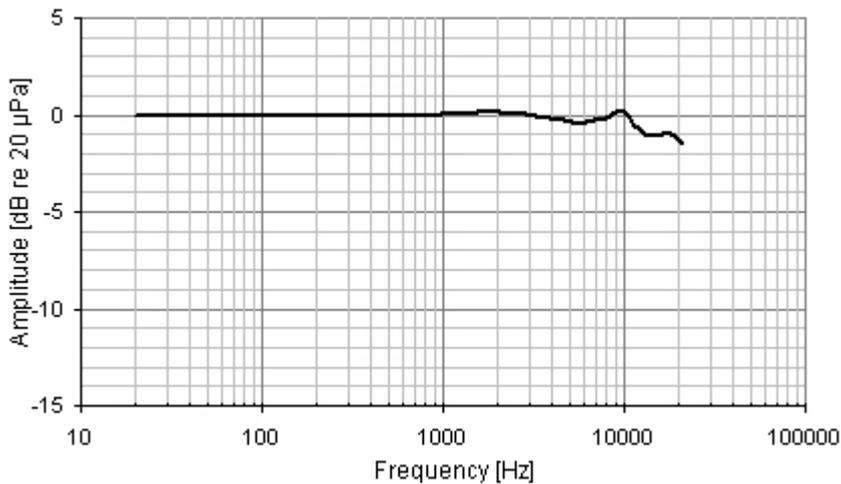
TEDS

40HL 前置放大器内置符合 IEEE 1451.4 标准的 TEDS 功能。若您的测量平台支持 TEDS 即可读写设备属性及校准数据等参数。

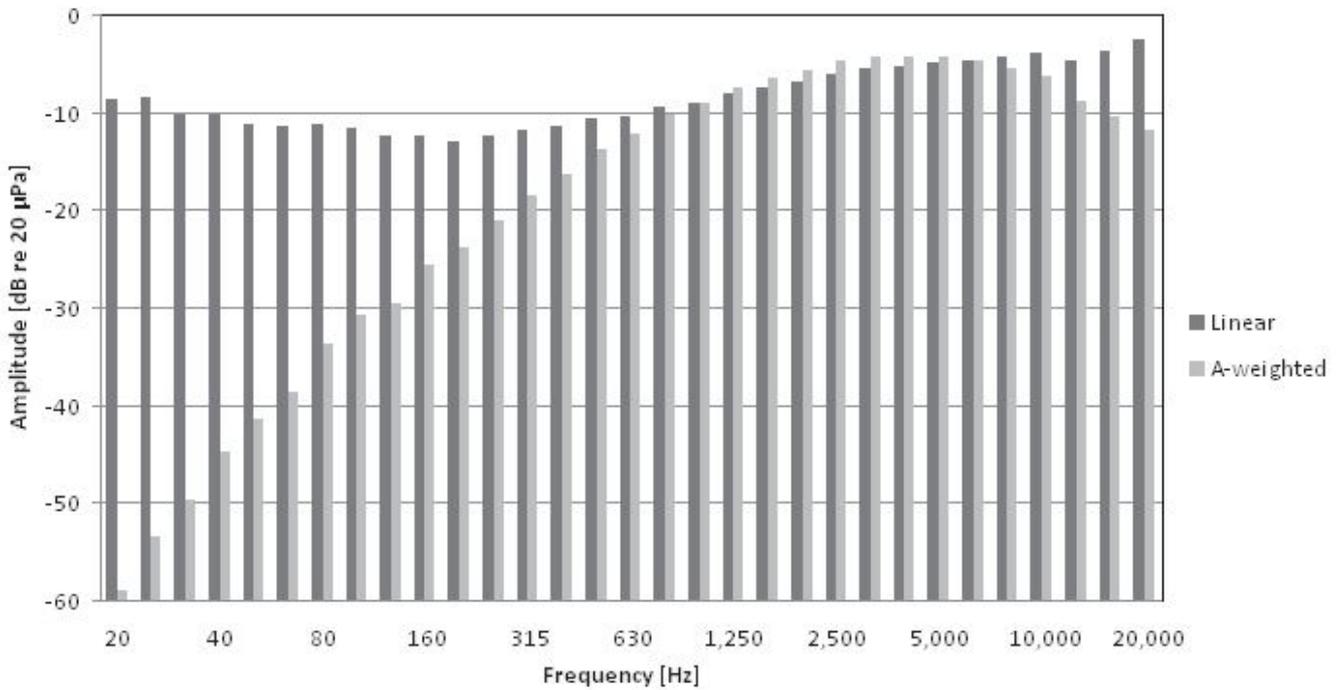
使用 40HL

固定传声器时，您可选购三脚支架；若需进行声级校准，则需配备活塞发声器和校准适配器（该适配器可将活塞发声信号衰减至 94 dB re. 20 μ Pa 详见“订购信息”。

Frequency range (± 1 dB)	Hz	12.5 to 10k
Frequency range (± 2 dB)	Hz	10 to 16 k
Frequency range (± 3 dB)	Hz	6 to 20k
Dynamic range lower limit (microphone thermal noise)	dB(A)	6.5
Dynamic range upper limit	dB	110
Set sensitivity @ 250 Hz (± 2 dB)	mV/Pa	850
Polarization voltage	V	200 V / Traditional
Microphone venting		Rear
Output impedance	Ω	47
Temperature range, operation	$^{\circ}\text{C} / ^{\circ}\text{F}$	-20 to 60 / -4 to 140
Temperature range, storage	$^{\circ}\text{C} / ^{\circ}\text{F}$	-40 to 85 / -40 to 185
Temperature coefficient @250 Hz	dB/ $^{\circ}\text{C}$ / dB/ $^{\circ}\text{F}$	-0,007 / -0,004
Static pressure coefficient @250 Hz	dB/kPa	-0.01
Humidity range non condensing	% RH	0 to 95
Humidity coefficient @250 Hz	dB/% RH	0,001
Influence of axial vibration @1 m/s ²	dB re 20 μPa	63
TEDS (IEEE 1451.4)		27 v. 1.0
Connector type		7-pin LEMO (FGG.1B.307)
CE/RoHS compliant/WEEE registered		Yes / Yes / Yes



Typical frequency response



Typical noise floor shown in 1/3-octave bands - linear and A-weighted

GRAS Sound & Vibration 保留更改规格和配件的权利，恕不另行通知。

选配

GRAS AA0008	3 m LEMO-to-LEMO cable*
GRAS AA0009	10 m LEMO-to-LEMO cable*
GRAS 12AD	1-Channel Power Module
GRAS 12AR	2-Channel Power Module
GRAS 12AA	2-Channel LEMO Power Module with gain, filters and Syscheck generator
GRAS 12AK	1-Channel Power Module with gain, filters and SysCheck generator
GRAS 12AQ	2-Channel Universal Power Module with signal conditioning and PC interface
GRAS AL0006	Tripod
GRAS RA0093	Adjustable, high quality, stainless steel tripod adapter
GRAS AM0069	Windscreen for 1/2" Microphones
GRAS 42AP	Intelligent Pistonphone, Class 0
GRAS 42AA	Pistonphone, Class 1
GRAS RA0090	94 dB Pistonphone Coupler

*这些线材还可作为连接线（用于将 40HL 连接至电源模块）。

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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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