

# GRAS 47AX

1/2" CCP 嵌入式传声器组



Freq range: 3.15 Hz to 20 kHz  
Dyn range: 22 dB(A) to 150 dB  
Sensitivity: 12.5 mV/Pa

GRAS 47AX 1/2" CCP 嵌入式传声器组是一款小尺寸 1/2" 精确压力传声器，内置 CCP 前置放大器。

## 典型应用和用途

- 可在狭小空间内嵌入安装
- 粘土型号中的嵌入式安装
- 地面阵列测量
- 常规噪声测量

## Design

47AX 的高度（至膜片）仅为 8 毫米，非常适合在地面阵列应用和其他有尺寸限制的应用中嵌入板中安装。传声器为预极化压力传声器，动态范围为 22 dB 至 146 dB 频率范围为 3.15 Hz 至 20 kHz 内置前置放大器为低噪声恒流功率 (CCP) 型，内置 TEDS 电路，用于自动识别传感器。该设备配有一条 1.5 米长的集成电缆，带 Microdot 接头和一个 BNC 电缆适配器。嵌入式安装非常适合在粘土模型等结构上开孔，以便安装前通风型 47AX 此外 47AX-S1 还提供后通风型。

它随 [GRAS 67AX](#) 地面阵列组件一起提供，该组件有一个直径为 400 毫米的安装板。

47AX 基于 IEC 61094 测量传声器标准。

## 校准

出厂时，所有 GRAS 传声器都已在受控实验室环境中使用可追踪校准设备进行了校准。根据使用情况、测量环境和内部质量控制程序，我们建议传声器至少每年重新校准一次。

我们提供两种校准作为可选的售后服务 GRAS 可追溯校准和 GRAS 认可校准。

GRAS 可追溯校准是由训练有素的人员在受控条件下根据既定程序和标准执行的可追溯校准。这与所有 GRAS 传声器都要经过的严格校准相同，是我们质量保证不可分割的一部分。

GRAS 认可校准由 GRAS 认可校准实验室执行，该实验室已获得丹麦认可基金 DANAK 按照 ISO 17025 标准认可。

如果您希望交付的新传声器组带有认可校准，而不是默认的出厂校准，请在订购时说明。

点击了解更多 [gras/calib](#).

## 质量和质保

GRAS 传声器套件由我们久经考验的标准产品组合中的部件组成，全部采用优质材料和品牌部件制造，这些材料和部件都经过精挑细选和加工，以确保终身稳定和坚固耐用。

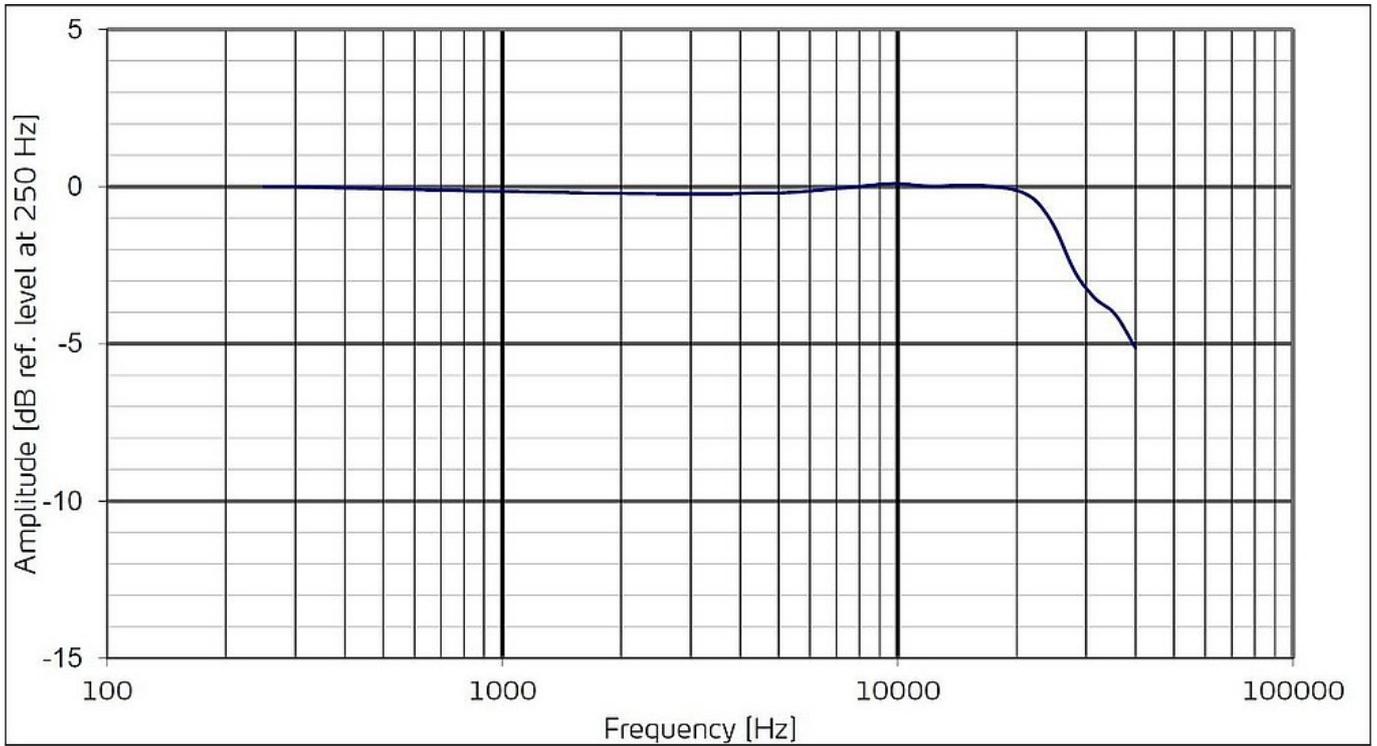
所有部件均在丹麦工厂由技术熟练的专业操作人员在经过验证的无尘室环境中制造和组装。传声器振膜、主体和独特的保护栅均由高级不锈钢制成，使传声器组能够抵御物理损坏以及侵蚀性空气或气体造成的腐蚀。

这与强制镀金传声器端一起，保证了连接的高度可靠性。由于质量上乘，我们对材料和工艺缺陷的保修期为 5 年。

## 服务

如果您不小心损坏了 GRAS 传声器上的隔膜，我们在大多数情况下都能以非常合理的价格和较短的周转时间进行更换。这不仅能保护您的投资，还能满足您的质量保证要求，因为您不必担心新的序列号等问题。

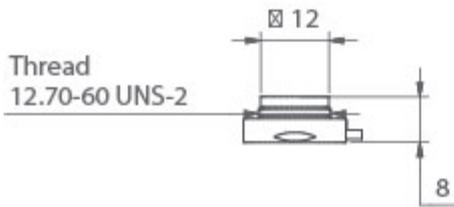
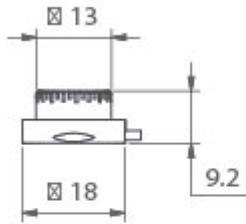
Polarization/Connection		0 V / CCP
Frequency range ( $\pm 1$ dB)	Hz	5 to 12.5 k
Frequency range ( $\pm 2$ dB)	Hz	3.15 to 20 k
Dynamic range lower limit with GRAS preamplifier	dB(A)	22
Dynamic range upper limit with GRAS CCP preamplifier	dB	150
Set sensitivity @ 250 Hz ( $\pm 2$ dB)	mV/Pa	12.5
Power supply (Constant Current Power)	mA	2 to 10
Microphone venting		Front
IEC 61094-4 Compliance		WS3P
Output impedance	$\Omega$	<50
Temperature range, operation	$^{\circ}\text{C} / ^{\circ}\text{F}$	-30 to 70 / -22 to 158
Temperature range, storage	$^{\circ}\text{C} / ^{\circ}\text{F}$	-40 to 85 / -40 to 185
Temperature coefficient @250 Hz	dB/ $^{\circ}\text{C}$ / dB/ $^{\circ}\text{F}$	-0.01 dB/ $^{\circ}\text{C}$
Static pressure coefficient @250 Hz	dB/kPa	-0.008
Humidity range non condensing	% RH	0 to 90
Humidity coefficient @250 Hz	dB/% RH	<0.001
Influence of axial vibration @1 m/s <sup>2</sup>	dB re 20 $\mu\text{Pa}$	66
TEDS (IEEE 1451.4)		27 v. 1.0
Connector type		Microdot 10/32
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	9 / 0.317



## 典型频率响应

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

Dimensions in mm



GS0523  
47AD  
47AX

All dimensions in mm.



## Included items

GRAS AE0046	Microdot - BNC male adapter
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## Optional items

<a href="#">GRAS 12AL</a>	1-Channel CCP Power Module with A-weighting filter
<a href="#">GRAS 42AP</a>	Intelligent pistonphone
GRAS RA0221	Pistonphone Calibration Adapter for 1/2" Flush-mount Microphone Sets
<a href="#">GRAS RA0501</a>	Mounting Adapter for 1/2" Flush-mount Microphone Set
<a href="#">GRAS RA0302</a>	Removal Tool for 1/2" & 1/4" Flush-mount Microphones
GRAS AE0074	BNC male to female adapter
<a href="#">GRAS AA0035</a>	3 m BNC - BNC Cable
<a href="#">GRAS AA0037</a>	10 m BNC - BNC Cable
GRAS CA0029	Traceable Calibration of Microphone Set
GRAS CA2301	Accredited Calibration of Microphone Set

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 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](http://www.GRASacoustics.com)

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**GRAS**  
An Axiometrix Solutions Brand