

# GRAS 40SC

CCP 探头传声器



Freq range: 2 Hz to 8 kHz  
Dyn range: 40 dB to 160 dB  
Sensitivity: 3 mV/Pa

CCP 40SC 探头传声器是一种小型恒流供电装置，结构紧凑，适用于在小型机柜、恶劣环境和距离声源非常近的地方进行声压测量。探头顶端的高声输入阻抗将其对声场的影响降至最低，同时探头的不锈钢管可承受高达 800 °C 的温度。

## 技术

- 典型应用和用途
- 声阻抗测量
- 排气系统测量
- 近场测量
- 高温测量
- 小型机箱内的压力分布测量

## 设计

40SC 配有可拆卸的不锈钢探头管，可将声信号引导至 40SC 外壳内的预极化传声器。传声器感应到声信号后，将其传递给阻抗匹配波导，从而消除不必要的内部反射。因此，频率响应平稳，范围从 2 Hz 到 20 kHz 内部传声器连接到具有高动态范围的 CCP 前置放大器，确保测量范围从约 40 dB 到 160 dB re. 20  $\mu$  Pa

集成的 BNC 插口用于从恒流电源（如 GRAS 12AL CCP 电源或任何其他兼容的恒流电源）获取电源并将信号传输到恒流电源。

CCP 探头传声器 40SC 经过内部补偿，使传声器内部压力与探头顶端的静压相等。因此 40SC 内部的静态压力会根据探头顶端的静态压力进行自我调整；调整的时间常数约为 0.1 秒。

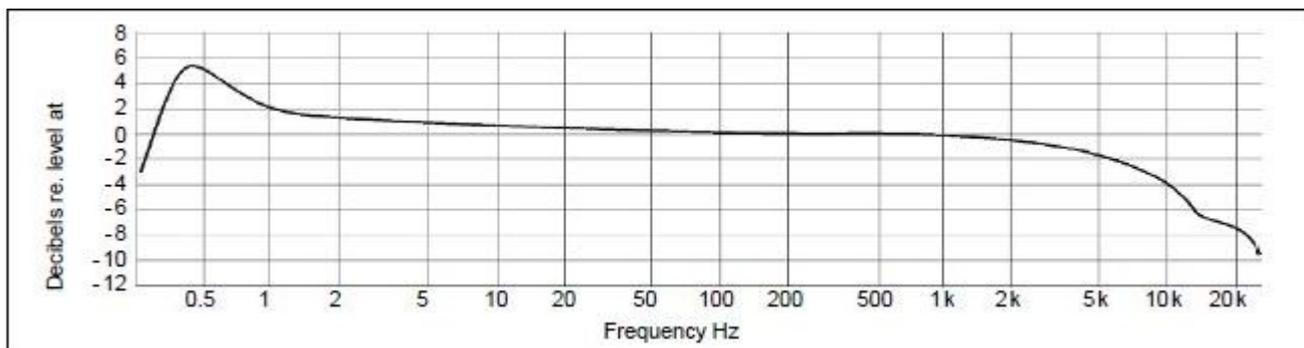
40SC 可与不同长度的探头配合使用，并提供四种标准探头长度，即：20 毫米、40 毫米、80 毫米和 160 毫米。中间长度可通过切割这些标准长度来实现。此外，不锈钢管的弯曲半径可小至 5 毫米，而不会降低系统的声学性能。此外，还提供了一种柔性探头管，用于在不适合使用坚硬的不锈钢管时进行测量。不过，这也会稍微降低系统的声学性能。

40SC 采用直角设计，因此特别适合测量排气系统和其他一般机械，以及扫描扬声器振膜和箱体等振动表面。

40SC 结构紧凑，重量轻，采用全不锈钢结构，坚固耐用，易于操作和安装。

Polarization/Connection		0 V / CCP
Frequency range ( $\pm 3$ dB)	Hz	2 to 8 k
Dynamic range lower limit (microphone thermal noise)	dB(A)	40
Dynamic range upper limit	dB	>160
Set sensitivity @ 250 Hz ( $\pm 3$ dB)	mV/Pa	3
Polarization voltage	V	0 V / CCP
Power supply (Constant Current Power)	mA	2 to 20
IEC 61094-4 Compliance		WS3P
Output impedance	$\Omega$	<50
Temperature range, operation	$^{\circ}\text{C} / ^{\circ}\text{F}$	-25 to 700 / -13 to 1292
Temperature range, storage	$^{\circ}\text{C} / ^{\circ}\text{F}$	-40 to 85 / -40 to 185
Temperature range with GRAS preamplifier, operation	$^{\circ}\text{C} / ^{\circ}\text{F}$	-25 to 70 / -13 to 158
Connector type		BNC
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	40 / 1.4110

压力平衡时间常数：内部至喷嘴静压：通常为 0.1 秒



## 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。

**Where not specified, measures are in mm.**

Length (housing)	83.80
Diameter	12.7
Probe tube outside diameter	1.25
Probe tube inside diameter	1
Cable diameter	2.5
Cable length	3 metres

## Included items

GRAS GR0265	Pistonphone adapter for stainless steel probe
GRAS GR0266	Pistonphone adapter for flexible probe
GRAS GR0267	Heat sink and tool
GRAS RA0326	Calibration coupler
GRAS GR0263	1.3 mm insert pin for calibration coupler
GRAS GR0266	1.6 mm insert pin for calibration coupler
GRAS YY0004	Pair of pliers
GRAS YY0005	File
GRAS MI0016	Silicon grease
GRAS EK0018	Teflon tubing (L=0.5 m, Dia.: 1.6 mm)
GRAS GR0258	20 mm probe tube
GRAS GR0259	40 mm probe tube
GRAS GR0260	80 mm probe tube
GRAS GR0261	160 mm probe tube
GRAS GR0401	Flexible probe tube
GRAS SK5546	Needle (for cleaning the probe)

## Optional items

<a href="#">GRAS AA0035</a>	3 m BNC - BNC Cable
<a href="#">GRAS 12AA</a>	2-Channel Power Module with gain, filters and SysCheck generator
<a href="#">GRAS 12AQ</a>	2-Channel Universal Power Module with signal conditioning and PC interface
<a href="#">GRAS 42AA</a>	Pistonphone, Class 1
<a href="#">GRAS 42AP</a>	Intelligent Pistonphone, Class 0

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

# GRAS Worldwide

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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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