

# GRAS RA0404



100 Hz to 10 kHz: According to IEC 60318-4

10 kHz to 20 kHz:  $\pm 2.2$  dB

20 kHz to 50 kHz:  $\pm 3.2$  dB

Volume:  $1260 \text{ mm}^3$  @ 500 Hz

Sensitivity: 1.6 mV/Pa

Damped resonance, with peak @ 13.5 kHz

GRAS RA0404

50 kHz

40BD 1/4"

[RA0403.](#)



GRAS RA0404



RA0404

 RA0404  $\frac{1}{4}$ 
GRAS 40BD 1/4"

RA0404 IEC60318-4

13.5 kHz Q

14 dB

10 kHz

10 kHz

13.5 kHz Q

10 kHz

50 kHz

 RA0404 13.5 kHz 14 dB 10  
 kHz  $\frac{1}{4}$ " RA0404 50  
 kHz


RA0404

GRAS

KEMAR

 IEC60318-4 IEC60318-4 10 kHz  
 10 kHz 20 kHz  $\pm 2.2$  dB 20 kHz 50 kHz

10 kHz

 $\pm 2.2$  dB

50 kHz

**45CA**

RA0404 45CA

45CA-12 -

45CA-11 -

IEC60318-4

KEMAR

GRAS RA0403.


• IEC60318-4

 • 10 kHz 20 kHz  $\pm 2.2$  dB

 • 20 50 kHz  $\pm 3.2$  dB

• 13.5 kHz 14 dB

• 100 kHz



•

• 10 kHz -- 10 kHz /

• 10 kHz 10 kHz

• 3-5 kHz

**KEMAR**

RA0404 RA0045-S1 RA0402 KEMAR

45BB-16 KEMAR

2-Ch CCP

45BC-16 KEMAR

2-Ch CCP

45BB-15 KEMAR

2 -Ch LEMO

45BC-15 KEMAR

2 -Ch LEMO

**GRAS 43**

RA0404 RA0045-S1 43AG

43AG-9 Anthro CCP.

43AG-8 Anthro LEMO

43AC

43AC-S6 LEMO 43AC-S7 CCP



60318-4

13.5 kHz

10 kHz

 $\frac{1}{4}$ "

RA0404 10 kHz 10 kHz

RA0404

RA0404 KEMAR

RA0404

RA0404 45CA /

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RA0404 CCP [GRAS 26CB](#)  
[GRAS 26CS](#) 1/4"

RA0404

# Specifications

GRAS RA0404

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Polarization/Connection		0 V / CCP
Theoretical dynamic range lower limit with GRAS preamplifier	dB(A)	44
Theoretical dynamic range upper limit with GRAS preamplifier @ +28 V / ±14 V power supply	dB	166
Set sensitivity @ 250 Hz (±3 dB)	mV/Pa	1.5 mV
Resonance frequency	kHz	13.5
Coupler volume	mm <sup>3</sup>	1260 @ 500 Hz
Temperature range, operation	°C / °F	-30 to 60 / -22 to 140
Temperature coefficient @250 Hz	dB/°C / dB/°F	-0.01 / -0.006
Humidity range non condensing	% RH	0 to 90
ANSI standard		S3.7
IEC standard		Based on 60318-4
ITU-T recommendations		P.57
CE/RoHS compliant/WEEE registered		Yes/Yes, Yes
Weight	g / oz	44
Frequency Response	IEC60318-4 ± 2,2 dB ± 3,2 dB	100 Hz -13,5 kHz 10 kHz - 20 kHz 20 kHz - 50 kHz

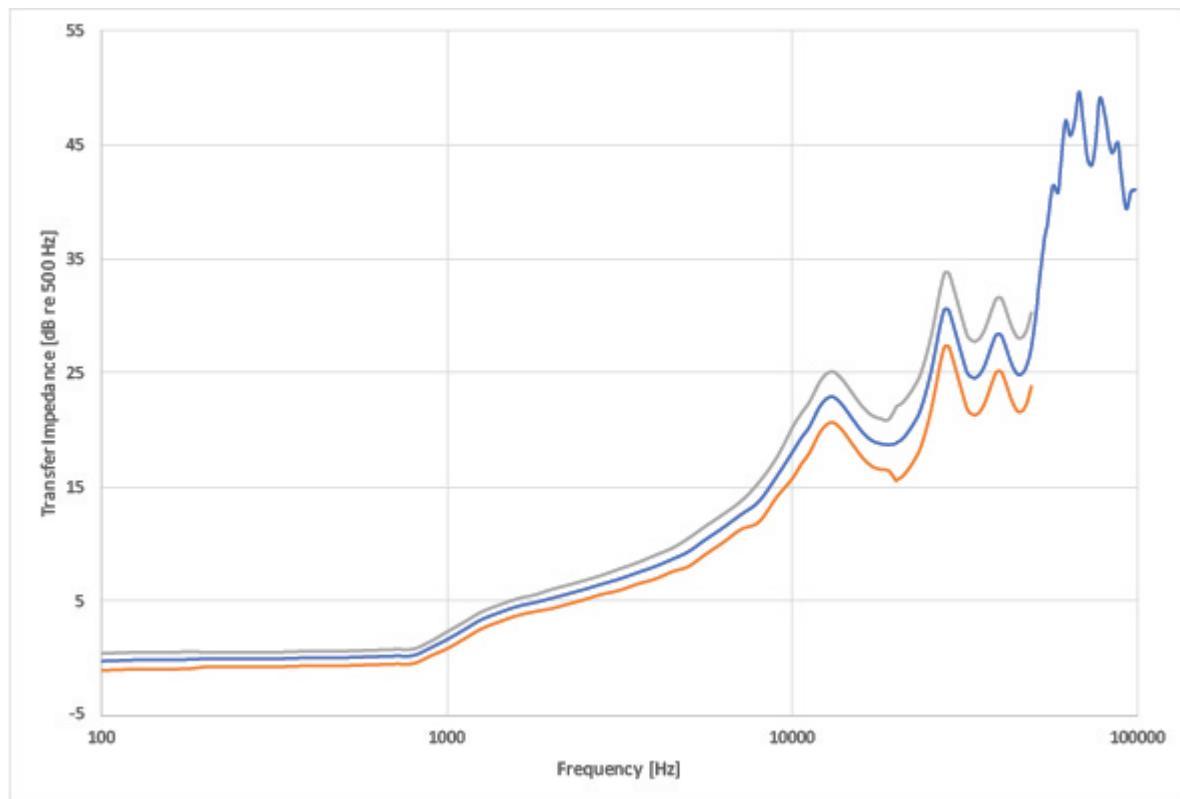
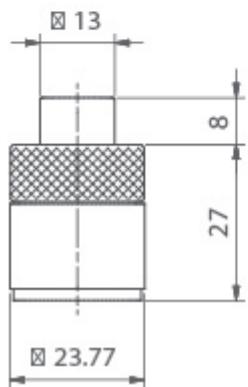


Fig 1. The transfer impedance of a typical RA0404 Hi-Res Ear Simulator with IEC and GRAS tolerances. Up to 10 kHz, the response is within the limits defined by IEC 60318-4. (red dotted curves). Above 10 kHz, the response is within a fairly tight tolerance band up to 50 kHz (green dotted lines).

Dimensions in mm



## Optional items

<a href="#">GRAS RA0088</a>	In Ear Adapter
GRAS GR0433	Calibration Adapter
GRAS GR0434	Stop Washer
GRAS GR0436	Tube Adapter
GRAS GR0437	Ear-mould Simulator
GRAS GR0438	Retention Ring
GRAS GR0440	Tube Adapter
<a href="#">GRAS 26CB</a>	1/4" Standard Preamplifier with Integrated BNC Connector
<a href="#">GRAS 26CS</a>	1/4" CCP Preamplifier, Very Short

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

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