

# 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 mm<sup>3</sup> @ 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 ¼

[GRAS 40BD](#) 1/4"

RA0404 IEC60318-4 10 kHz 10 kHz  
13.5 kHz Q 10 kHz

13.5 kHz Q 14 dB

RA0404 13.5 kHz 14 dB 10  
kHz ¼" RA0404 50  
kHz

IEC60318-4 IEC60318-4 10 kHz  
10 kHz 20 kHz ±2.2 dB 20 kHz 50 kHz  
±3.2 dB 50 kHz

IEC60318-4

KEMAR

[GRAS RA0403.](#)



- IEC60318-4
- 10 kHz 20 kHz ± 2.2 dB
- 20 50 kHz ± 3.2 dB
- 13.5 kHz 14 dB
- 100 kHz



- 
- 10 kHz --- 10 kHz /
- 10 kHz 10 kHz
- 3-5 kHz



RA0404  
GRAS KEMAR

**45CA**

RA0404 45CA  
45CA-12 -  
45CA-11 -

**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  
¼"

RA0404 10 kHz 10 kHz

RA0404

RA0404 KEMAR

RA0404

RA0404 45CA /



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

RA0404

|   |                                    |  |
|---|------------------------------------|--|
| 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<br>± 2,2 dB<br>± 3,2 dB | 100 Hz -13,5 kHz<br>10 kHz - 20 kHz<br>20 kHz - 50 kHz |

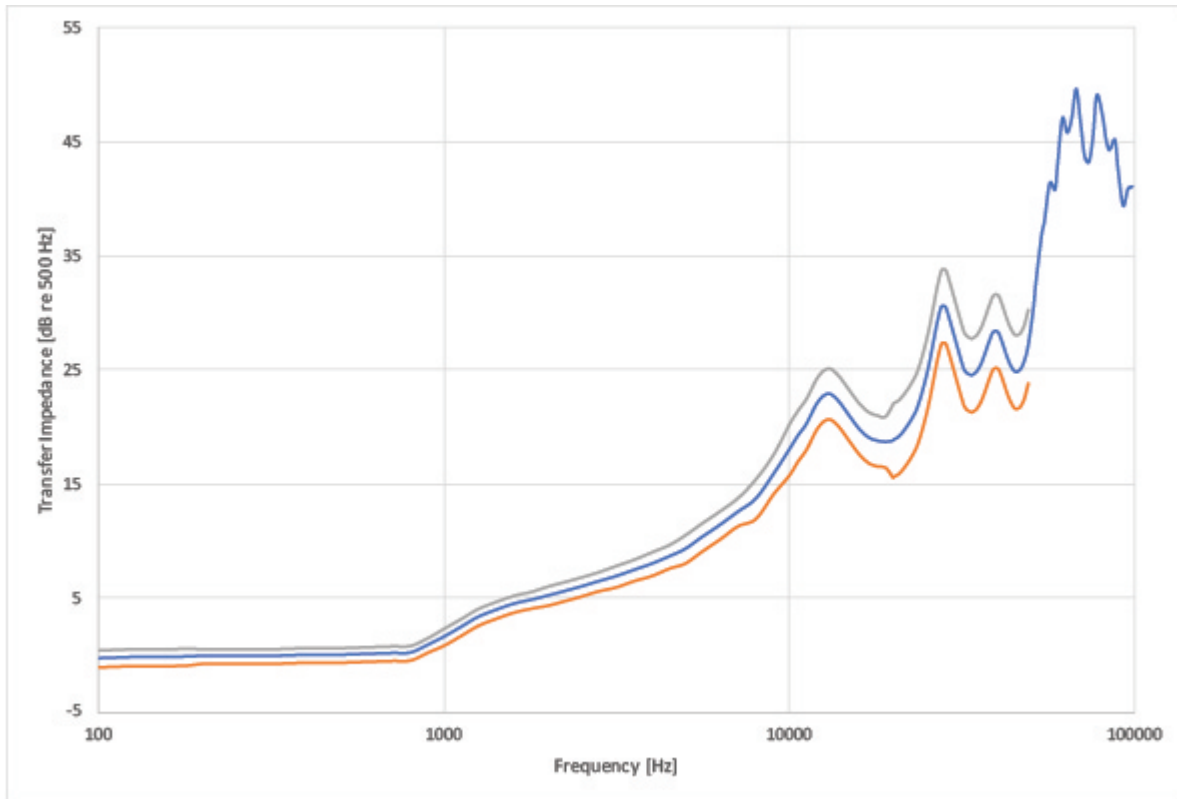
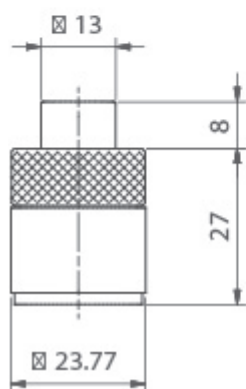
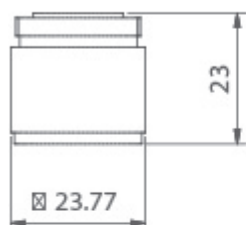


Fig 1. The transfer impedance of a typical RA0404 Hi-Res Ear Simulator with IEC and GRAS tolerances. Up to 10 kHz, the response is within the limits defined by IEC 60318-4. (red dotted curves). Above 10 kHz, the response is within a fairly tight tolerance band up to 50 kHz (green dotted lines).

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

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