

# GRAS 45BB-13

KEMAR

2 LEMO



(200 V/LEMO)

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ANSI S3.36, S3.25

IEC 60318-4:ITU-T

P.57 3.3 ITU-T P.58

45BB-13 KEMAR

[GRAS 45BB-14 KEMAR](#)

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KEMAR Knowles 1972  
[KEMAR.us](#) ANSI  
S3.36/ASA58-2012 IEC 60318-7:2011

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KEMAR KEMAR GRAS

45BB KEMAR 45BB KEMAR  
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20 kHz 45BB-13 KEMAR

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USB

45BB-13 GRAS RA0401 KB5000/KB5001

RA0401

RA0401 IEC 60318-4 10 kHz 13.5  
kHz 20 kHz IEC  
60318-4 IEC 60318-4 10 kHz 20 kHz  
±2.2 dB THD

IEC 60318-4 / ITU-T P.57

[GRAS 40AG 1/2](#)

RA0401

35 Shore 00

KEMAR

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Connector type		3 m 7-pin LEMO
Set sensitivity @ 250 Hz ( $\pm 2$ dB)	mV/Pa	12.5
Set sensitivity @ 250 Hz ( $\pm 2$ dB)	dB re 1V/Pa	-38.5
Theoretical dynamic range lower limit with GRAS preamplifier	dB(A)	25
Theoretical dynamic range upper limit with GRAS preamplifier @ +28 V / $\pm 14$ V power supply	dB	153
Theoretical dynamic range upper limit with GRAS preamplifier @ +120 V / $\pm 60$ V power supply	dB	164
Resonance frequency	kHz	13.5
Temperature range, operation	$^{\circ}\text{C}$ / $^{\circ}\text{F}$	-30 to 60 / -22 to 140
Temperature range, storage	$^{\circ}\text{C}$ / $^{\circ}\text{F}$	-40 to 65 / -40 to 149
Humidity range non condensing	% RH	0 to 95%
ANSI standard		S3.36, S3.25
IEC standard		60318-4 (former 60711), 60318-7 (former 60959)
Weight	g / oz	11.45 k / 404



<a href="#">GRAS 45BB</a>	KEMAR Head & Torso, Non-configured
<a href="#">GRAS KB5000</a>	Large Right Anthropometric Pinna 35 Shore 00
<a href="#">GRAS KB5001</a>	Large Left Anthropometric Pinna 35 Shore 00
<a href="#">GRAS RA0401</a>	High-Frequency Ear Simulator (2 pcs)
GRAS GR1874	Ear Simulator Holder
GRAS GR0408	External Ear Canal
GRAS GR0409	Union Nut
GRAS 26AS-S3	1/4" Preamplifier, Short version with 0.4 m Cable (2 pcs)
<a href="#">GRAS GR0010</a>	Adapter for 1/2" Microphone and 1/4" Preamplifier (2 pcs)
<a href="#">GRAS AA0008</a>	LEMO 7-pin - LEMO 7-pin Cable, 3 m (2 pcs)



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<a href="#">GRAS 12AK</a>	1-Channel Power Module with gain, filters and SysCheck generator
<a href="#">GRAS 12AD</a>	1-Channel Power Module
<a href="#">GRAS 12AA</a>	2-Channel Power Module with gain, filters and SysCheck generator
<a href="#">GRAS 12AR</a>	2-Channel Power Module
<a href="#">GRAS 12AQ</a>	2-Channel Universal Power Module with signal conditioning and PC interface

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<a href="#">GRAS 42AA</a>	Pistonphone (250 Hz, 114 dB +/- 0.08 dB)
<a href="#">GRAS 42AP</a>	Intelligent Pistonphone (250 Hz or 251.2 Hz, 114 dB +/- 0.05 dB)

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<a href="#">GRAS KB0060</a>	KEMAR Small Right Straight Pinna 55 Shore 00
<a href="#">GRAS KB0061</a>	KEMAR Small Left Straight Pinna 55 Shore 00

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<a href="#">GRAS KB0065</a>	KEMAR Large Right Straight Pinna 55 Shore 00
<a href="#">GRAS KB0066</a>	KEMAR Large Left Straight Pinna 55 Shore 00
<a href="#">GRAS KB1060</a>	KEMAR Small Right Straight Pinna, 35 Shore 00
<a href="#">GRAS KB1061</a>	KEMAR Small Left Straight Pinna 35 Shore 00
<a href="#">GRAS KB1065</a>	KEMAR Large Right Straight Pinna 35 Shore 00
<a href="#">GRAS KB1066</a>	KEMAR Large Left Straight Pinna 35 Shore 00
<a href="#">GRAS KB0090</a>	KEMAR Large Right Tapered Pinna (VA-Style/SQ) 55 Shore 00
<a href="#">GRAS KB0091</a>	KEMAR Large Left Tapered Pinna (VA-Style/SQ) 55 Shore 00
<a href="#">GRAS KB1090</a>	KEMAR Large Right Tapered Pinna (VA-Style) 35 Shore 00
<a href="#">GRAS KB1091</a>	KEMAR Large Left Tapered Pinna (VA-Style) 35 Shore 00

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<a href="#">GRAS KB0110</a>	Ear Mould Simulator for 2 mm Inner diameter tubing
<a href="#">GRAS KB0111</a>	Ear Mould Simulator for 3 mm Inner diameter tubing

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GRAS RA0250	Tapered Ear Canal Extension Kit for KEMAR, made of POM, for binaural hearing aid test
GRAS RA0237	Straight Ear Canal Extension Kit for KEMAR
<a href="#">GRAS RA0238</a>	VA-tapered Ear Canal Extension Kit for KEMAR
GRAS RA0239	Ear Canal Extension Kit w. silicone lining for KEMAR
GRAS RA0240	Holder for long 1/2" Microphone Kit for KEMAR
GRAS RA0241	Holder for short 1/2" Microphone Kit for KEMAR
GRAS RA0243	Holder for 1/4" Microphone Kit for KEMAR
GRAS RA0244	O-ring kit for KEMAR, 2 pcs.
GRAS RA0249	Straight Ear Canal Extension Kit for KEMAR, made of POM, for binaural hearing aid test

## KEMAR 0000000000

<a href="#">GRAS RA0251</a>	KEMAR Retrofit Kit for Binaural Hearing Aid Test. The Kit includes Ear Holder Plates, mounting bolts and the RA0249 and RA0250 Ear Canal Extension Kits. Included items are made of POM, Nylon and Teflon.
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<a href="#">GRAS AA0008</a>	LEMO 7-pin - LEMO 7-pin Cable, 3 m
<a href="#">GRAS AA0009</a>	LEMO 7-pin - LEMO 7-pin Cable, 10 m

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GRAS KM0094	PELI Case for KEMAR
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## KEMAR 0000

GRAS KB3000	3D Simulation Model of KEMAR with large pinnae, stp file
GRAS KB3001	3D Simulation Model of KEMAR with small pinnae, stp file
GRAS KB3002	3D Simulation Model of KEMAR with anthropometric pinnae, stp file

## KEMAR 00

GRAS AL0026	Loudspeaker Stand for KEMAR, Ø 35 m
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GRAS KB0000	KEMAR Handbook
GRAS KB0010	T-Shirt for KEMAR

GRAS Sound & Vibration

# 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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