# **GRAS 45BB-9**

KEMAR

2 LEMO





2

(200 V/LEMO)

ANSI S3.36, S3.25 IEC 60318-4

ITU-T P.57 3.3 ITU-T P.58

45BB-9 KEMAR

GRAS 45BB-10 KEMAR 2 CCP

CCP



# Technology

KEMAR Knowles 1972 <u>KEMAR.us</u> S3.36/ASA58-2012 IEC 603	ANSI			
	GRAS			
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45BB-9 KEMAR				
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45BB-9 IEC 60318-4 KB5000/KB5001	GRAS RA0045			
IEC 60318-4				
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IEC 60318-4 ITU-T P.5	57			
<u>GRAS 40AG</u> 1/2				
_ RA0045				
	35 Shore 00			
KEMAR				
KEMAR DUT				



# Specifications

Connector type		3 m 7-pin LEMO
Set sensitivity @ 250 Hz (±2 dB)	mV/Pa	12.5
Set sensitivity @ 250 Hz (±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 / ±14 V power supply	dB	151
Theoretical dynamic range upper limit with GRAS preamplifier @ +120 V / ±60 V power supply	dB	163
Resonance frequency	kHz	13.5
Temperature range, operation	°C / °F	-30 to 60 / -22 to 140
Temperature range, storage	°C / °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)
ITU-T recommondations		P.380
Weight	g / oz	11.45 k / 404

**GRAS Sound & Vibration** 



# Ordering info

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GRAS 45BB	KEMAR Head & Torso, Non-configured
<u>GRAS KB5000</u>	Large Right Anthropometric Pinna 35 Shore 00
GRAS KB5001	Large Left Anthropometric Pinna 35 Shore 00
GRAS RA0045	IEC 60318-4 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)
GRAS GR0010	Adapter for 1/2" Microphone and 1/4" Preamplifier (2 pcs)
GRAS AA0008	LEMO 7-pin - LEMO 7-pin Cable, 3 m (2 pcs)

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GRAS 12AK	1-Channel Power Module with gain, filters and SysCheck generator
GRAS 12AD	1-Channel Power Module
GRAS 12AA	2-Channel Power Module with gain, filters and SysCheck generator
GRAS 12AR	2-Channel Power Module
GRAS 12AQ	2-Channel Universal Power Module with signal conditioning and PC interface

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GRAS 42AP	Intelligent Pistonphone (250 Hz or 251.2 Hz, 114 dB +/- 0.05 dB)
GRAS 42AA	Pistonphone (250 Hz, 114 dB +/- 0.08 dB)

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<u>GRAS KB0060</u>	KEMAR Small Right Ear 55 Shore 00
GRAS KB0061	KEMAR Small Left Ear 55 Shore 00



# Ordering info

<u>GRAS KB0065</u>	KEMAR Large Right Ear 55 Shore 00
GRAS KB0066	KEMAR Large Left Ear 55 Shore 00
GRAS KB1060	KEMAR Small Right Ear, 35 Shore 00
GRAS KB1061	KEMAR Small Left Ear 35 Shore 00
GRAS KB1065	KEMAR Large Right Ear 35 Shore 00
<u>GRAS KB1066</u>	KEMAR Large Left Ear 35 Shore 00
<u>GRAS KB0090</u>	KEMAR Large Right Ear (VA-Style/SQ) 55 Shore 00
GRAS KB0091	KEMAR Large Left Ear (VA-Style/SQ) 55 Shore 00
<u>GRAS KB1090</u>	KEMAR Large Right Ear (VA-Style) 35 Shore 00
GRAS KB1091	KEMAR Large Left Ear (VA-Style) 35 Shore 00

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<u>GRAS KB0110</u>	Ear Mould Simulator for 2 mm Inner diameter tubing
GRAS KB0111	Ear Mould Simulator for 3 mm Inner diameter tubing

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GRAS RA0237	Straight Ear Canal Extension Kit for KEMAR
GRAS RA0238	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 1/2" 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
GRAS RA0250	Tapered Ear Canal Extension Kit for KEMAR, made of POM, for binaural hearing aid test

## KEMAR



# Ordering info

<u>GRAS RA0251</u>	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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GRAS AA0008	LEMO 7-pin - LEMO 7-pin Cable, 3 m
GRAS AA0009	LEMO 7-pin - LEMO 7-pin Cablee, 10 m

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GRAS KM0094	PELI Case for KEMAR
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# KEMAR [][][]

GRAS KB3000	Simulation Model of KEMAR with large pinnae
GRAS KB3001	Simulation Model of KEMAR with small pinnae

## $\textbf{KEMAR} \; \square \square$

GRAS AL0026	Loudspeaker stand for KEMAR, & 35 mm	
011/107/120020	Educação de Carta For REF II III, o do Film	

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GRAS KB0000	KEMAR Handbook
GRAS KB0010	T-Shirt for KEMAR

### **GRAS Sound & Vibration**



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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

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