# **GRAS 45BC-11**

KEMAR 1 LEMO





(200 V/LEMO)

ANSI: S3.36 IEC 60318-4 60318-7 ITU-T Rec. P.57 Type 3.3 ITU-T Rec. P.58 45BC-11 KEMAR

GRAS 45BC-12 KEMAR





# Technology

#### GRAS 45BC-11 KEMAR 1 LEMO

ПП 35 Shore 00 KEMAR Knowles 1972 ( KEMAR.us **KEMAR** S3.36/ASA58-2012 IEC 60318-7:2011 KEMAR KEMAR GRAS **KEMAR** 45BC KEMAR 45BC KEMAR DUT KEMAR 45BC KEMAR KEMAR 45BC-11 KEMAR 1 45BC-11 USB и п 35 Shore 00 45BC-11 GRAS GRAS 43BB KB5000/KB5001 10 kHz GRAS ITU-T P51 THD Rub & Buzz 1/3 100 dB 20 µPa 100 Hz 16 supra-aural circumaural kHz 43BB KEMAR 43BB IEC 60318-4 40HT KEMAR 5 6 40AH 10 kHz IEC 60318-4 10 kHz 13.5 kHz Q 26HG GRAS 26AC 1/4" 40 G 7-pin LEMO 26HT 12HF 43BB



# Specifications

Connector type		7-pin LEMO (FGG.1B.307)
Set sensitivity @ 250 Hz (±2 dB)	mV/Pa	800
Theoretical dynamic range lower limit with GRAS preamplifier	dB(A)	10.5
Theoretical dynamic range upper limit with GRAS preamplifier @ +28 V / ±14 V power supply	dB	113
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
IEC standard		60318-7
ITU-T recommondations		P. 58
Weight	g / oz	11.45 k / 404
MOUTH SIMULATOR		
Output impedance		8
Maximum power, continuous	W	10
Maximum power, pulsed 2 sec.	W	50
Input impedance	k	20
Gain	dB	10
Input signal, max.	Vrms	2
Power supply, external	Vdc	24

**GRAS Sound & Vibration** 



# Ordering info

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GRAS 45BC	KEMAR Head & Torso with GRAS mouth simulator, non-configured
<u>GRAS KB5000</u>	Large Right Anthropometric Pinna 35 Shore 00
GRAS KB5001	Large Left Anthropometric Pinna 35 Shore 00
GRAS GR1874	Ear Simulator Holder
GRAS GR0408	External Ear Canal
GRAS GR0409	Union Nut
<u>GRAS AA0035</u>	BNC to BNC Cable
GRAS 46BD	1/4" CCP Pressure Standard Microphone Set (for mouth calibration)
<u>GRAS 43BB-1</u>	Low-noise Ear Simulator System, comprising:
<u>GRAS RA0001</u>	Right Angled Adapter for 1/2" Microphone and 1/4" Preamplifier
GRAS RA0234	Low-noise Ear Simulator
GRAS 26HG-S1	1/4" Preamplifier with 0.4 m Integrated Cable
GRAS 26HT	Gain and Filter Unit for 40HT
GRAS 12HF	1-Channel Power Module for Low-noise Systems
GRAS AA0059	LEMO 7-pin - LEMO 7-pin Cable, 1 m
GRAS AA0035	BNC to BNC Cable

### **For Ear Simulator Calibration**

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)
GRAS RA0090	94 dB Pistonphone Coupler

### **Pinna Simulators**

<u>GRAS KB5000</u>	Large Right Anthropometric Pinna 35 Shore 00



# Ordering info

<u>GRAS KB5001</u>	Large Left Anthropometric Pinna 35 Shore 00
<u>GRAS KB0060</u>	KEMAR Small Right Ear 55 Shore 00
GRAS KB0061	KEMAR Small Left Ear 55 Shore 00
GRAS KB0065	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
GRAS KB1066	KEMAR Large Left Ear 35 Shore 00
<u>GRAS KB0090</u>	KEMAR Large Right Ear (VA-Style/SQ) 55 Shore 00
<u>GRAS KB0091</u>	KEMAR Large Left Ear (VA-Style/SQ) 55 Shore 00
<u>GRAS KB1090</u>	KEMAR Large Right Ear (VA-Style) 35 Shore 00
<u>GRAS KB1091</u>	KEMAR Large Left Ear (VA-Style) 35 Shore 00

### **Ear Mould Simulators**

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

# Ear Canal Extension and Microphone Holder Kits (kits with 2 pcs and O-rings)

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



# Ordering info

## **KEMAR Retrofit Kit for Binaural Hearing Aid Test**

<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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### **Cables**

GRAS AA0046	3 m LEMO 7-pin - LEMO 7-pin Cable for Low-noise measuring system
GRAS AA0047	10 m LEMO 7-pin - LEMO 7-pin Cable for Low-noise measuring system

# **Flight Case**

GRAS KM0094	PELI Case for KEMAR

### **Simulation Model of KEMAR**

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

### **Stand for KEMAR**

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GRAS AL0026	Loudspeaker stand for KEMAR, Ø 35 mm
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#### **Miscellaneous**

GRAS KB0000	KEMAR Handbook
GRAS KB0010	T-Shirt for KEMAR

**GRAS Sound & Vibration** 



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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

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