# **GRAS 45BC-14**

2 CCP KEMAR





CCP ANSI: S3.36, S3.25 IEC: 60318-4, 60318-7 ITU-T Rec. P.57 Type 3.3 ITU-T Rec. P.58

45BC-14 KEMAR TEDS 45BC-14

LEMO GRAS 45BC-13



KEMAR Knowles 1972 ( KEMAR.us ) ANSI S3.36/ASA58-2012 IEC 60318-7:2011	00 KEMAR	35 Shore
KEMAR KEMAR GRAS		
45BC KEMAR 45BC KEMAR KEMAR 45BC KEMAR KEMAR	supra-aural circumaural KEMAR DUT	
TEDS [][]  CCP KEMAR IEEE 1451.4 TEDS v. 1.0  TEDS		
45BC-14 KEMAR		
USB	20 kHz	
45BC-14 GRAS RA0402 KB5000/KB50001	45BC-14 KEMAR	
GRAS ITU-T P51 1/3 100 dB 20 μPa 100 Hz 16 kHz	□□□□□  KEMAR  2  KEMAR  5  6	
RA0402	KLMAN 0 0	
RA0402 IEC60318-4 10 kHz 13.5 kHz 20 kHz IEC60318-4 IEC60318-4 10 kHz 20 kHz ±2.2 dB THD  IEC 60318-4 ITU-T P.57		
GRAS 40A0 1/2		
RA0402		



## Specifications

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 CCP preamplifier	dB	150
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		60318-7
ITU-T recommondations		P. 58
Weight	g / oz	11.45 k / 404
MOUTH SIMULATOR		
Output impedance	Ω	8
Maximum power, continuous	W	10
Maximum power, pulsed 2 sec.	W	50
Input impedance	kΩ	20
Gain	dB	10
Input signal, max.	Vrms	2
Power supply, external	Vdc	24



## Ordering info

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GRAS 45BC	KEMAR Head & Torso with GRAS mouth simulator, non-configured
<u>GRAS KB5000</u>	KEMAR Large Right Anthropometric Pinna 35 Shore 00
GRAS KB5001	KEMAR Large Left Anthropometric Pinna 35 Shore 00
GRAS GR0408	External Ear Canal (for calibration, 2 pcs)
GRAS GR0409	Union Nut (for GR0408, 2 pcs)
GRAS GR1874	Ear Simulator Holder (2 pcs)
GRAS RA0402	High Resolution Ear Simulator, (Prepol.version, 2 pcs)
GRAS 26CS	1/4" CCP Standard Preamplifier with Microdot Connector, Very Short (2 pcs)
<u>GRAS RA0001</u>	Right Angled Adapter for 1/2" Microphone and 1/4" Preamplifier (2 pcs)
<u>GRAS AA0018-S</u>	Microdot-BNC Cable, 35 cm (2 pcs)
GRAS AA0035	3 m BNC - BNC Cable (2 pcs)
GRAS 46BD	1/4" CCP Pressure Standard Microphone Set
GRAS AA0070	Microdot-BNC Cable, 3 m

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## **Power Modules for Pre-polarized Ear Simulators and Microphones**

GRAS 12AL	1-Channel CCP Power Module with A-weighting filter
GRAS 12AQ	2-Channel Universal Power Module with signal conditioning and PC interface

## **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)



## **Pinna Simulators**

GRAS KB5000	Large Right Anthropometric Pinna 35 Shore 00
<u>GRAS KB5001</u>	Large Left Anthropometric Pinnar 35 Shore 00
GRAS KB0060	KEMAR Small Right Ear 55 Shore 00
GRAS KB0061	KEMAR Small Left Ear 55 Shore 00
<u>GRAS KB0065</u>	KEMAR Large Right Ear 55 Shore 00
<u>GRAS KB0066</u>	KEMAR Large Left Ear 55 Shore 00
<u>GRAS KB1060</u>	KEMAR Small Right Ear, 35 Shore 00
GRAS KB1061	KEMAR Small Left Ear 35 Shore 00
<u>GRAS KB1065</u>	KEMAR Large Right Ear 35 Shore 00
GRAS KB1066	KEMAR Large Left Ear 35 Shore 00
GRAS KB0090	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
GRAS KB1091	KEMAR Large Left Ear (VA-Style) 35 Shore 00

## **Ear Mould Simulators**

GRAS KB0110	Ear Mould Simulator for 2 mm inner diameter tubing
<u>GRAS KB0111</u>	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 1/4" 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
GRAS RA0250	Tapered Ear Canal Extension Kit for KEMAR,made of POM, for binaural hearing aid test

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

GRAS RA0251	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.

## **Extension Cables**

GRAS AA0034	BNC-BNC Cable, 2 m
GRAS AA0035	BNC-BNC Cable, 3 m
GRAS AA0036	BNC-BNC Cable, 5 m
GRAS AA0037	BNC-BNC Cable, 10 m

## Flight Case

GRAS KM0094	PELI Case for KEMAR

## **Simulation Model of 45BB KEMAR**

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



## Ordering info

GRAS KB3002

3D Simulation Model of KEMAR with anthropometric pinnae, stp file

## **Stand for KEMAR**

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GRAS AL0026	Loudspeaker stand for KEMAR, Ø 35 mm

## **Miscellaneous**

GRAS KB0000	KEMAR Handbook
GRAS KB0010	T-Shirt for KEMAR

**GRAS Sound & Vibration** 



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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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