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



| 00 KEMAR | 35 Shore |
|--|---|
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| supra-aural circumaural KEMAR DUT | |
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| | |
| 20 kHz | |
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| | Supra-aural circumaural KEMAR DUT 20 kHz 45BC-14 KEMAR CEMAR 21 |

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 |



| GRAS 45BC | KEMAR Head & Torso with GRAS mouth simulator, non-configured |
|--------------------|--|
| <u>GRAS KB5000</u> | KEMAR Large Right Anthropometric Pinna 35 Shore 00 |
| <u>GRAS KB5001</u> | 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) |
| GRAS AA0018-S | 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 |

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 |
|--------------------|---|
| GRAS KB5001 | Large Left Anthropometric Pinnar 35 Shore 00 |
| GRAS KB0060 | KEMAR Small Right Ear 55 Shore 00 |
| <u>GRAS KB0061</u> | 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 |
| GRAS KB1060 | 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 |
| <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 |
| GRAS KB1090 | 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

| <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. |

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

| *************************************** | |
|---|--------------------------------------|
| GRAS AL0026 | Loudspeaker stand for KEMAR, Ø 35 mm |

Miscellaneous

| GRAS KB0000 | KEMAR Handbook |
|-------------|-------------------|
| GRAS KB0010 | T-Shirt for KEMAR |

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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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