

GRAS 45BB-15

KEMAR

2 LEMO



200 V/LEMO

2

ANSI: S3.36, S3.25

IEC: 60318-7

ITU-T Rec. P.57 Type 3.3, ITU-T Rec. P.58

45BB-15 KEMAR

[GRAS 45BB-16 KEMAR](#)

CCP



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

KEMAR KEMAR GRAS

KEMAR

DUT



45BB KEMAR 45BB KEMAR
KEMAR 45BB KEMAR
KEMAR



45BB-15 KEMAR

USB

45BB-15 GRAS RA0403
KB5000/KB5001

RA0403

RA0403 IEC 60318-4 10 kHz
13.5 kHz 50 kHz IEC
60318-4 IEC 60318-4 10 kHz 20 kHz
 ± 2.2 dB 20 kHz 50 kHz ± 3.2 dB
THD

IEC 60318-4 / ITU-T P.57

[GRAS 40BP](#) 1/4

RA0403

35 Shore 00

KEMAR

50 kHz

45BB-15 KEMAR



KEMAR 5 6

2

| | | |
|---|---|------------------------|
| Connector type | | 3 m 7-pin LEMO |
| Set sensitivity @ 250 Hz (± 2 dB) | mV/Pa | 1.6 |
| Theoretical dynamic range lower limit with GRAS preamplifier | dB(A) | 44 |
| Theoretical dynamic range upper limit with GRAS preamplifier @ +120 V / ± 60 V power supply | dB | 169 |
| 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 | | 60318-7 |
| Weight | g / oz | 11.45 k / 404 |



| | |
|-----------------------------|---|
| GRAS 45BB | KEMAR Head & Torso, Non-configured |
| GRAS KB5000 | Large Right Anthropometric Pinna 35 Shore 00 |
| GRAS KB5001 | Large Left Anthropometric Pinna 35 Shore 00 |
| GRAS RA0403 | Hi-Res 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 AA0008 | LEMO 7-pin - LEMO 7-pin Cable, 3 m (2 pcs) |



.....

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



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



| | |
|-----------------------------|---|
| GRAS KB0060 | KEMAR Small Right Straight Pinna 55 Shore 00 |
| GRAS KB0061 | KEMAR Small Left Straight Pinna 55 Shore 00 |
| GRAS KB0065 | KEMAR Large Right Straight Pinna 55 Shore 00 |
| GRAS KB0066 | KEMAR Large Left Straight Pinna 55 Shore 00 |
| GRAS KB1060 | KEMAR Small Right Straight Pinna, 35 Shore 00 |
| GRAS KB1061 | KEMAR Small Left Straight Pinna 35 Shore 00 |

| | |
|-----------------------------|---|
| GRAS KB1065 | KEMAR Large Right Straight Pinna 35 Shore 00 |
| GRAS KB1066 | KEMAR Large Left Straight Pinna 35 Shore 00 |
| GRAS KB0090 | KEMAR Large Right Tapered Pinna (VA-Style/SQ) 55 Shore 00 |
| GRAS KB0091 | KEMAR Large Left Tapered Pinna (VA-Style/SQ) 55 Shore 00 |
| GRAS KB1090 | KEMAR Large Right Tapered Pinna (VA-Style) 35 Shore 00 |
| GRAS KB1091 | KEMAR Large Left Tapered Pinna (VA-Style) 35 Shore 00 |

Ear Mould Simulators

| | |
|-----------------------------|--|
| GRAS KB0110 | Ear Mould Simulator for 2 mm Inner diameter tubing |
| GRAS KB0111 | Ear Mould Simulator for 3 mm Inner diameter tubing |

Ear Canal Extension Kits (2mm O.D.)

| | |
|-----------------------------|--|
| 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 |
| 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 |

KEMAR Retrofit Kits

| | |
|-----------------------------|---|
| 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. |
|-----------------------------|---|

〇〇〇〇

| | |
|-----------------------------|-------------------------------------|
| GRAS AA0008 | LEMO 7-pin - LEMO 7-pin Cable, 3 m |
| GRAS AA0009 | LEMO 7-pin - LEMO 7-pin Cable, 10 m |

〇〇〇

| | |
|-------------|---------------------|
| GRAS KM0094 | PELI Case for KEMAR |
|-------------|---------------------|

KEMAR 〇〇〇〇

| | |
|-------------|---|
| 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 〇〇

| | |
|-------------|-------------------------|
| GRAS AL0026 | Stand for KEMAR, Ø 35 m |
|-------------|-------------------------|

〇〇 (45BB 〇〇)

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

GRAS Sound & Vibration

GRAS Worldwide

Subsidiaries and distributors in more
than 40 countries

HEAD OFFICE, DENMARK
GRAS SOUND & VIBRATION
Skovlytoften 33
2840 Holte
Denmark
Tel: +45 4566 4046
www.GRASacoustics.com
gras@grasacoustics.com

USA
GRAS SOUND & VIBRATION
9290 SW Nimbus Avenue
Beaverton, OR 97008
Tel: 503-627-0832
Toll Free: 800-231-7350
www.GRASacoustics.com
sales-usa@grasacoustics.com

UK
GRAS SOUND & VIBRATION
Unit 115, Gibson House,
Ermine Business Park, Huntingdon,
Cambridgeshire, PE29 6XU
Tel: +44 (0) 7762 584 202
www.GRASacoustics.com
sales-uk@grasacoustics.com

CHINA
GRAS SOUND & VIBRATION
Room 315, RuiBo Center(T1)
Lane683, Shenhong Rd,
Minhang District,
Shanghai, China, 201107
Tel: +86 21 64203370
www.GRASacoustics.cn
cnsales@grasacoustics.com



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

grasacoustics.com

GRAS
An Axiometrix Solutions Brand