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STUDIO MONITOR KH 120



ENGLISH

KH 120



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Best Input.

▶ Attention to detail

▶ User oriented engineering

▶ Reliability

▶ Accuracy

▶ Precision

▶ Unique quality management

▶ Perfection



# Best Output.

▶ Consistency

▶ Authenticity

▶ Transparency

▶ Versatility

▶ Control

▶ Flexibility

▶ The measure of all sound



KH 120



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## Neumann Studio Monitor Systems

Neumann is well-known in the audio industry for its high quality microphones in studios, broadcast, and on stage. Neumann has also been a pioneer in the audio industry for over 80 years with a long history of world-class products. These products have kept Neumann on the cutting edge of technology – from mixing consoles and disc cutting lathes, to more recent innovations in digital technology with the Solution-D system.

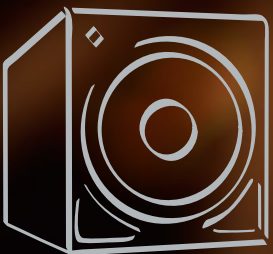
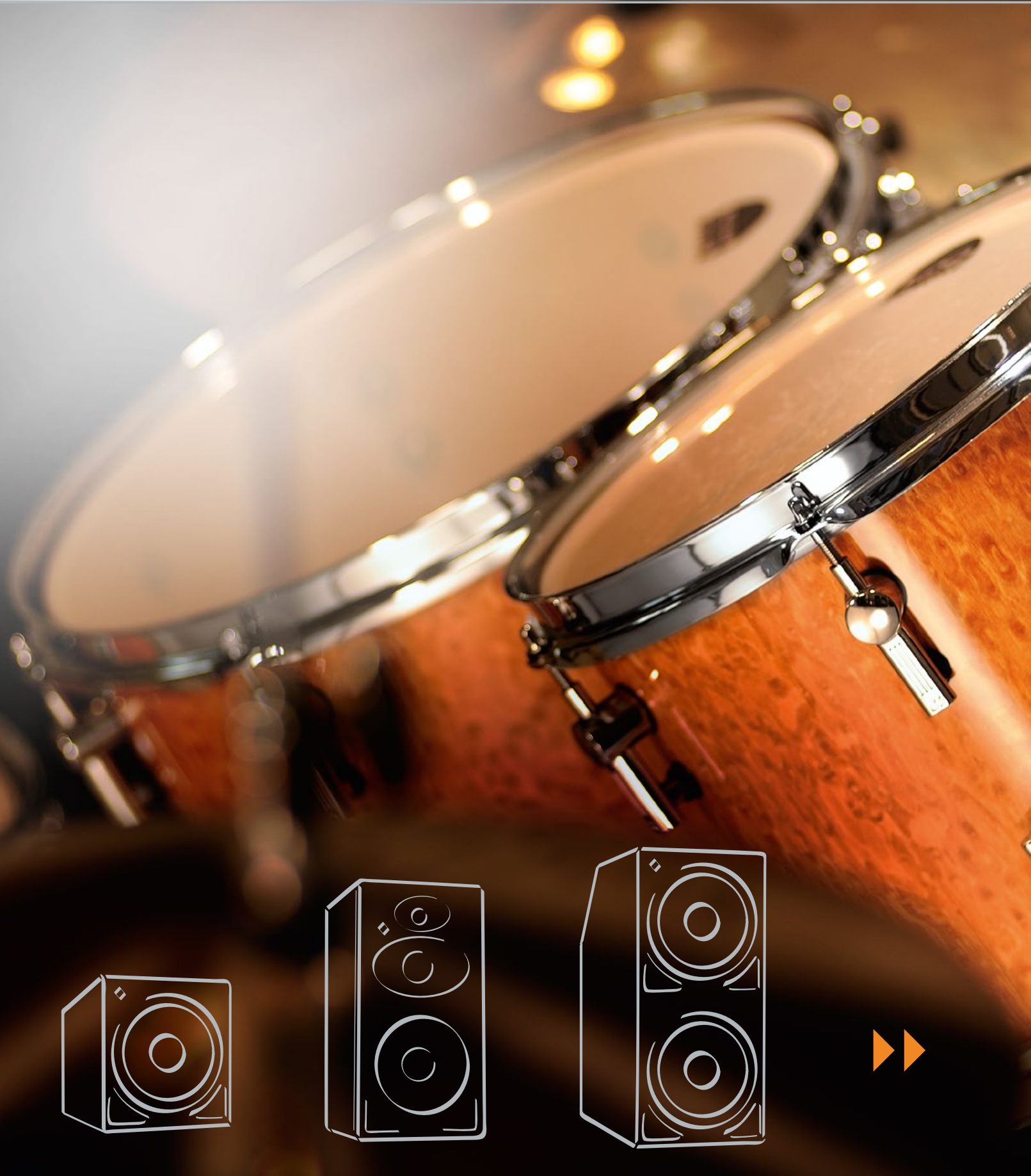
In 2010 Neumann expanded the product portfolio with studio monitor systems, and now stands for highest quality at both ends of the audio production chain: “Best Input and Best Output”.

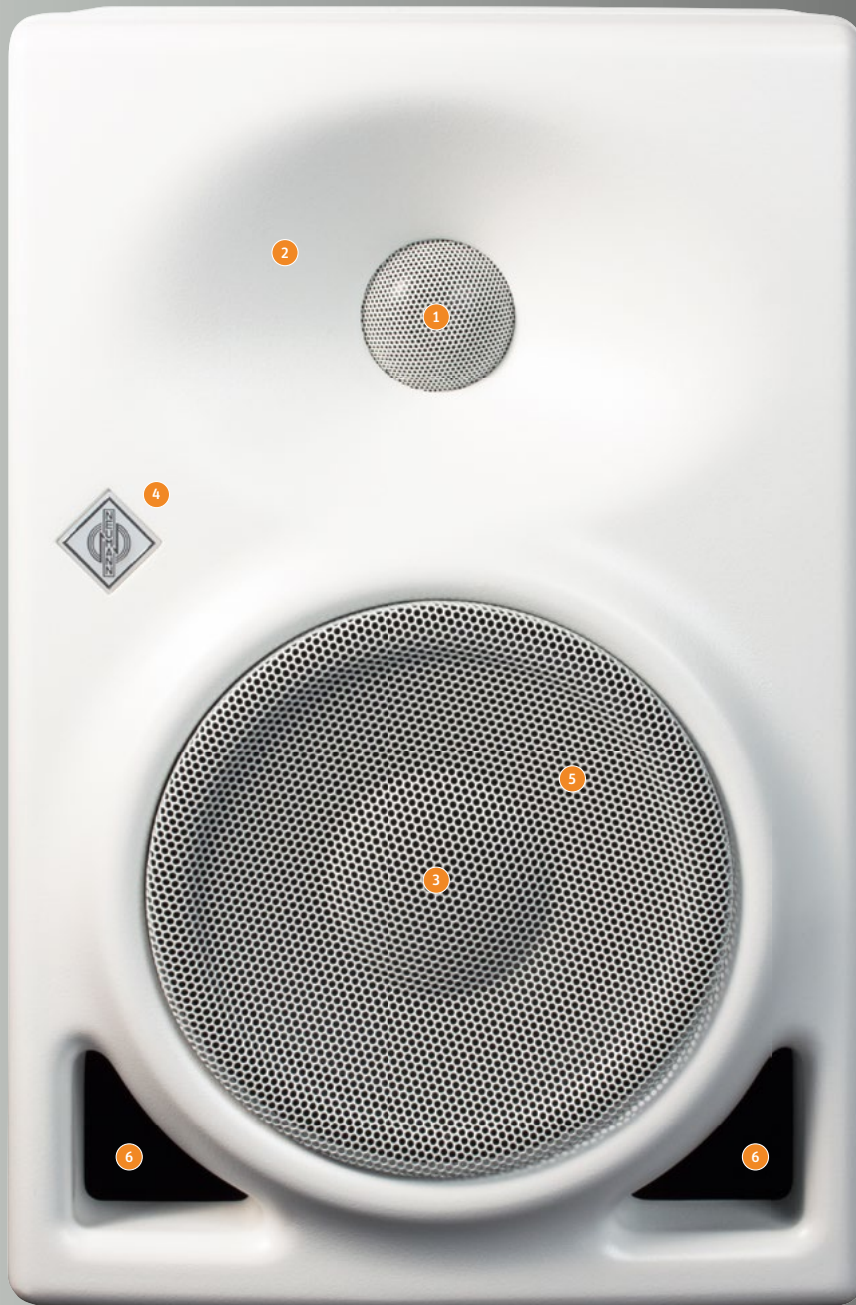
## The Neumann KH 120

The KH 120 studio monitor is designed for use as a near-field loudspeaker or as a rear loudspeaker in larger multi-channel systems. The KH 120 represents the latest in acoustic and electronic simulation and measurement technologies to ensure the most accurate sound reproduction possible. It has a Mathematically Modeled Dispersion™ waveguide (MMD™), flexible acoustical controls, analog class-AB amplifiers, various input formats and an extensive mounting hardware range. All of this provides the user with the maximum versatility over a wide variety of acoustic conditions, source equipment, and physical locations.

A subwoofer, such as the Neumann KH 810, with its 7.1 High Definition Bass Manager™, can be added to deepen the low-frequency response to 18 Hz and increase the system's maximum output level. The KH 120 is perfect for tracking, mixing and mastering in music, broadcast, project and post-production studios.







**Powerful alloy fabric dome**  
▶ Low-distortion high-frequency reproduction

**Elliptical Mathematically Modelled Dispersion™ (MMD™) waveguide**

- ▶ Smoother off-axis response
- ▶ More forgiving of diverse acoustical environments

**Composite sandwich cone**  
▶ Damping of break-up modes

**Long throw bass driver**  
▶ Low distortions at high sound levels

**Two-color + dimmable Neumann logo**  
▶ Displays operation status and activation of the extensive protection system

**Robust metal grille**  
▶ Protects against mechanical damage

**Large front panel ports**  
▶ Reduced bass compression and easier to mount in tight spaces such as OB vans

**Compact aluminum cabinet (magnetically shielded)**  
▶ Minimizes resonances, better heat dissipation, long life

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More features:



Wide horizontal dispersion

- ▶ Freedom of movement across the mixing console

Narrow vertical dispersion

- ▶ Reduces reflections off the mixing console

One-piece front panel with no discontinuities

- ▶ Reduced diffraction and smoother frequency response

Powerful analog amplifiers with large headroom

- ▶ Improved transient response

Separate woofer and tweeter electronic peak limiters and thermal-protection circuitry

- ▶ High reliability

Production consistency

- ▶ Any KH 120 is "pairmatched" to any other KH 120



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A VERSION



D VERSION

1

4-position bass, low-mid and treble acoustical controls  
▶ More control in diverse acoustical environments

2

Wide range input gain and output level controls  
▶ Easier interfacing with signal sources

3

New mounting hardware options  
▶ More flexibility in mounting cabinets in more diverse locations

4

Display dimmer  
▶ For low lighting level conditions or behind the screen applications



View of connectors and control switches

5

Ground lift  
▶ Reduced noise in electrically noisy environments and overcomes ground loops

6

Universal switched-mode power supply (100 ... 240 V)  
▶ One version works in any country and robust to poor quality mains supply

\* Digital input version only (KH 120 D)



XLR analog input

7

Lipsync delay  
(0 ... 10/12 frames)\*  
▶ To align audio and  
video signals

8

Time-of-flight delay  
(0 ... 400 ms)\*  
▶ To compensate for listening  
distance differences

Signal select  
▶ Analog, Digital A, Digital B,  
Digital A+B (all available with  
and without delay)

9

BNC input and  
buffered BNC output / 24 bit,  
192 kHz, AES3, S/P-DIF\*  
▶ Compatible with commonly  
used digital signals\*

10

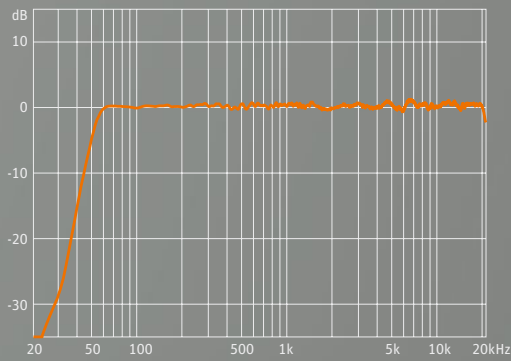
More features:

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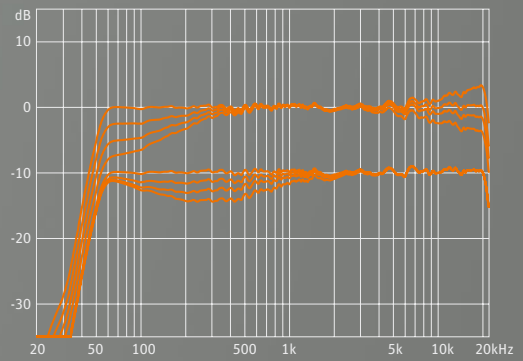
Separate woofer and tweeter  
electronic peak limiters and  
thermal-protection circuitry  
▶ High reliability



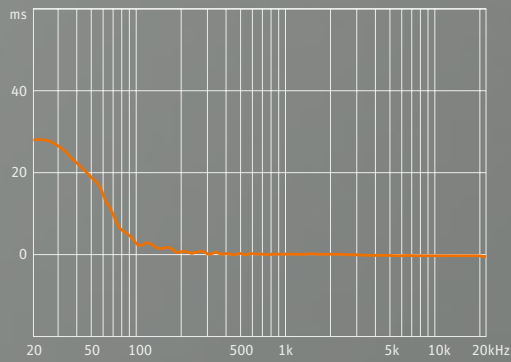
Frequency Response



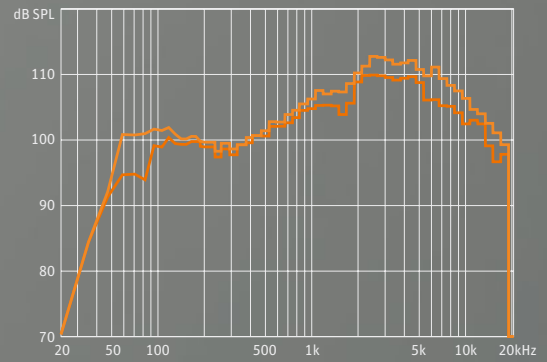
Acoustical Controls (Bass/Low-Mid/Treble)



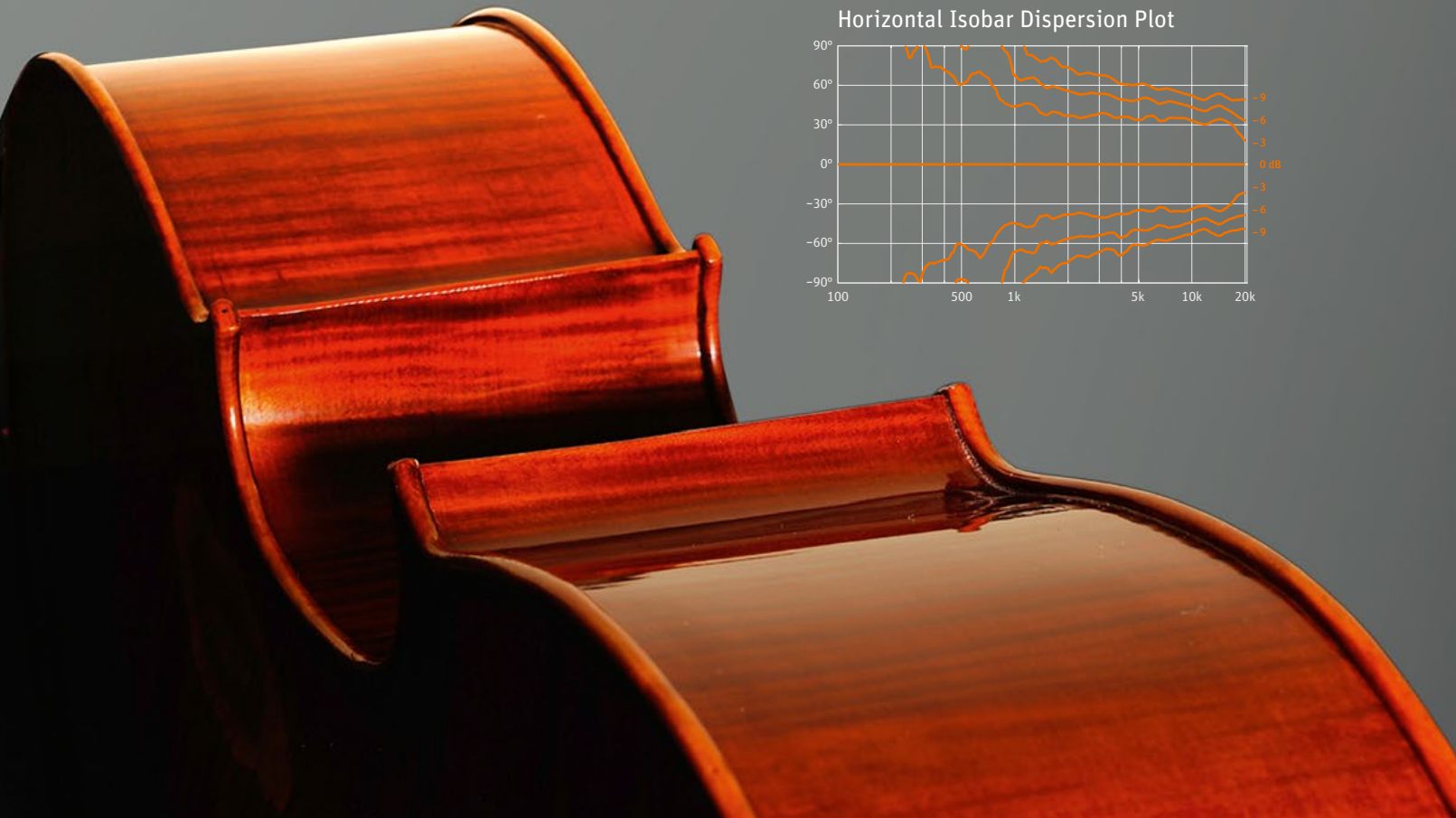
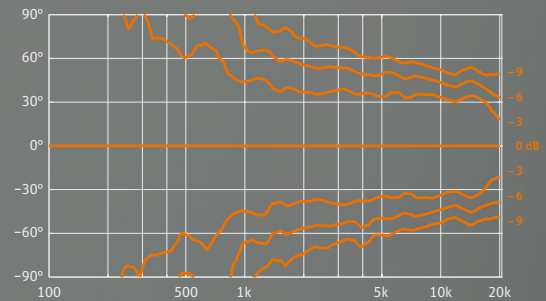
Group Delay



Maximum Output Level (at 1% / 3% THD)



Horizontal Isobar Dispersion Plot





# Accessories

▶ As a full service provider, Neumann offers an extensive range of accessories:

▶ LH 28 Tripod Stand Adaptor for mounting on standard 35 mm (1 3/8") diameter tripods.



▶ LH 29 TV-spigot for mounting onto a standard TV spigot.



▶ LH 32 Wall Bracket, can be tilted horizontally and vertically, tightens with bolts.



▶ LH 43 Surface Mounting Plate Used to spread the weight of a ceiling mounted loudspeaker.



▶ LH 45 Wall Bracket, 'L' shaped adaptor for wall mounting.



▶ LH 46 Adjustable Ceiling Drop Adaptor to vertically position a loudspeaker suspended off a ceiling.



▶ LH 47 Mounting Adaptor for ceiling and wall mounting.



▶ LH 48 Tripod Adaptor Plate (115 mm) to mount on König & Meyer tripods No. 26790 and No. 26795.



▶ LH 61 Adjustable L-Bracket



▶ LH 64 Omnimount/VESA Adaptor for Omnimount 75 / VESA 75 / VESA 100.



▶ LH 65 Table Stand with horizontal / vertical / height adjustment.



To aid transportation and storage of the loudspeaker:

▶ FKH 120 Flight Case for a pair of KH 120s



▶ The mounting hardware can be used in different combinations to locate the loudspeaker in many places:

Mounting on a floor stand:

KH 120 + LH 61 or  
KH 120 + LH 61 + LH 28 or  
KH 120 + LH 61 + LH 29 or  
KH 120 + LH 61 + LH 48 + K&M stand 26795

Mounting on a mic stand:

KH 120 + LH 61

Mounting on a meter bridge/table top:

KH 120 + LH 65

Mounting on a wall:

KH 120 + LH 32 or  
KH 120 + LH 61 + LH 47 + LH 45

Mounting off a ceiling:

KH 120 + LH 61 or  
KH 120 + LH 61 + LH 47 + LH 46 or  
KH 120 + LH 61 + LH 47 + LH 43

Mounting off a lighting or truss bar:

KH 120 + LH 61 + LH 29

Mounting on an Omni-mount bracket:

KH 120 + LH 64

Mounting on a VESA mount bracket:

KH 120 + LH 64

## ▶ Order Info

Product	Art. Number
KH 120 A G EU Analog input, metallic anthracite (RAL 7021), EU mains cable	503930
KH 120 A G US Analog input, metallic anthracite (RAL 7021), US mains cable	506299
KH 120 A G UK Analog input, metallic anthracite (RAL 7021), UK mains cable	505556
KH 120 A G CCC Analog input, metallic anthracite (RAL 7021), CCC/KC certified	503953
KH 120 D G A/D input, delay feature, metallic anthracite (RAL 7021), EU and US mains cable	503932
KH 120 D G UK A/D input, delay feature, metallic anthracite (RAL 7021), UK mains cable	505999
KH 120 D G CCC A/D input, delay feature, metallic anthracite (RAL 7021), CCC/KC certified	503954
KH 120 A W Analog input, white (RAL 9016), EU and UK mains cable	506179



Recommended for KH 120	Art. Number
KH 805 A G 10" subwoofer with 2.0 / 0.1 Bass Manager	506770
KH 810 G 10" subwoofer with 7.1 Bass Manager	503951
KH 810 G CCC 10" subwoofer with 7.1 Bass Manager, CCC/KC certified	505545



Please refer to the web site ▶ [www.neumann.com](http://www.neumann.com) for details of the complete range of accessories currently available. In particular, look for the "Hardware Mounting Matrix" which shows how to connect the various LH brackets and adaptors together to make a mounting solution. Detailed mechanical drawings are also available.