

KLING &
FREITAG

SOUND SYSTEMS

FUTURE

BUILT IN

NEW
2018

SOUND SYSTEMS
INNOVATIONS 2018



FUTURE BUILT IN

With pride we present our products innovations. Groundbreaking, innovative concepts and uncompromising implementation make these products something special. One thing that always comes first with Kling & Freitag developments: an unforgettable listening experience.

The good tone is the music!

Passion built in

Kling & Freitag balances passion with precision for uncompromising audio quality and 'German engineering'. We are driven by a desire to provide and technically guarantee music and sound as a genuine sound experience. This is what each product by Kling & Freitag stands for – or, as we say – 'Passion built in'.

In global use

Every day, numerous renowned theatres, stadiums, concert halls and opera houses hold first-class events that meet the highest standards with professional sound systems from Kling & Freitag. For mobile use at concerts and festivals, in live clubs and open air, Kling & Freitag systems are the best choice.

Our company

Since 1991, Kling & Freitag has stood for innovative sound systems 'Made in Germany'. From the headquarters in Hanover, Germany, outstanding, high-quality loud speaker systems have been developed and produced for over 25 years, setting new standards and creating global excitement time and again.

Innovation and excellence

With our international distributors and qualified K&F trade and system partners, we guarantee the best service and customer satisfaction. Our motto – true innovation, excellent sound systems, professional service. Kling & Freitag is known for this and is held in the highest regard each and every day.



CONTENT

K&F SPECTRA – Convertible Array Speaker

6 – 11



K&F SCENA – Floor Wedges

12 – 15



K&F SystemAmps – K&F PLM+ Series

16 – 21



K&F VIDA – Versatile Intelligent Digital Array

22 – 35



Specifications and appearances are subject to change without notice.
For more information visit us on our website, www.kling-freitag.com

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K&F SPECTRA

CONVERTIBLE ARRAY SPEAKER





K&F SPECTRA

CONVERTIBLE ARRAY SPEAKER

The K&F SPECTRA 212 is a compact, three-way, high-performance top that provides very high performance with the best possible dispersion in a compact form factor. Thanks to the integrated K&F VariQ technology, the K&F SPECTRA 212 can be used as a point source as well as in a cluster as a line source. To this end, the patented K&F VariQ unit is rotated 90° in just a few steps to switch between point source and line source operation.

The absolutely exemplary radiation behaviour in both operating modes makes the K&F SPECTRA 212 ideal as a tool for demanding sound reinforcement tasks, especially in acoustically difficult environments. The three-way system features two 12" woofers in a bass-reflex cabinet, six 5" mid-range speakers in a closed cabinet, and four 1" compression drivers on a K&F Waveformer. The result of this assembly is an extremely distortion-free reproduction in the entire frequency spectrum. The K&F SPECTRA 212 is powered by the proven K&F SystemAmp power amplifiers. They equalise the box with two amp channels, which ensures the best possible performance and reliability.

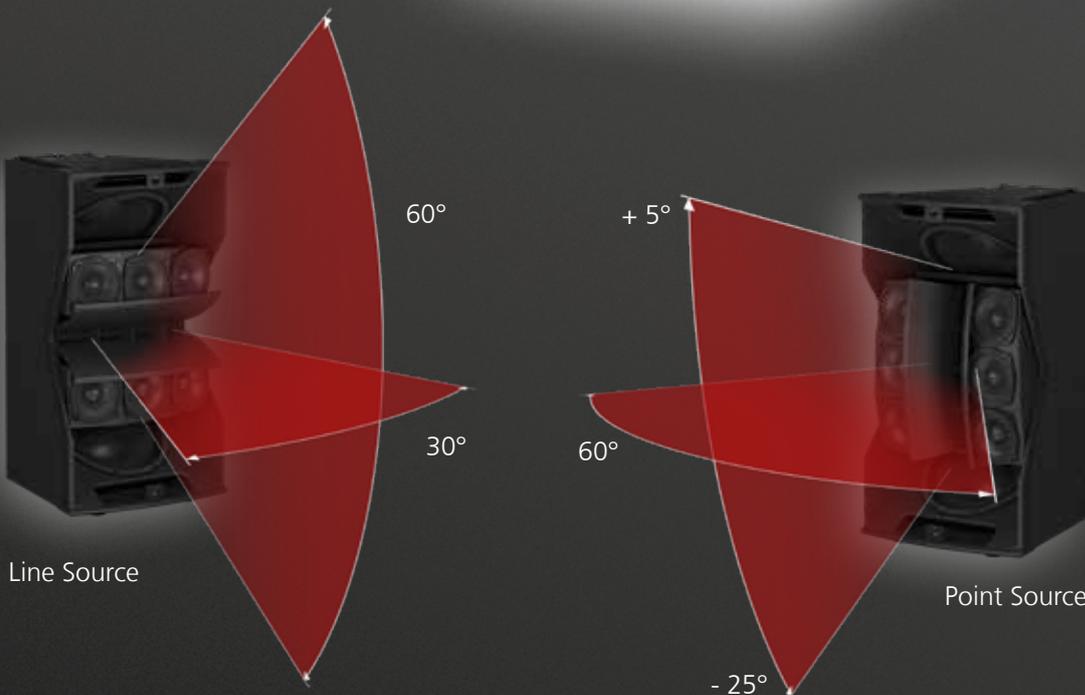
The design of the K&F SPECTRA 212 provides a sonically impressive experience. All details of the source material are transmitted to the audience transparently and in detail. The large dynamic range and very high achievable levels allow for versatile applications. From small club gigs to large sound systems - the system's sound remains absolutely neutral in every situation.

With its compact dimensions and low weight of 48 kg, the K&F SPECTRA 212 can easily be put into operation by two people. The size and weight of a box correspond to about half of classic horn systems, while the acoustic output is the same. The required truck load volume is thus reduced by almost 50 % with the K&F SPECTRA 212.

In point-source mode, a K&F SPECTRA 212 emits 60° horizontally and +5/-25° vertically. This makes it possible to use a K&F SPECTRA 212 as a single high performance top. The asymmetrical vertical radiation facilitates alignment with the audience and reduces unwanted ceiling reflections.

In line-source mode, a K&F SPECTRA 212 emits 30° horizontally and 60° vertically. With the housing angles and the integrated and unobtrusive connection mechanism, arrays of up to six K&F SPECTRA 212 units can be horizontally clustered and flown. The system adapts to the requirements, depending on the desired coverage and maximum sound pressure.

The flexibility and high dynamics achieved in this form for the first time make the K&F SPECTRA 212 a modern, extremely powerful and precise sound system in the premium segment.



Line Source

Point Source



NEW
2018

K&F SPECTRA 212 – NEW

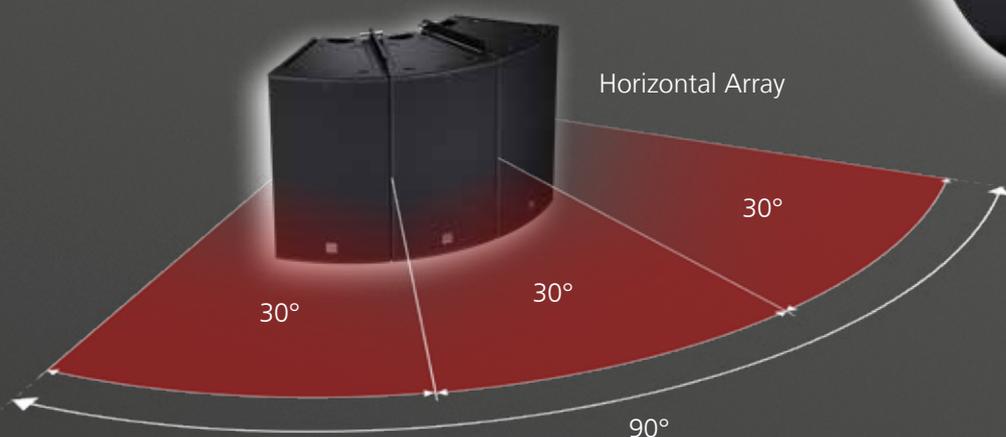
Design	Passive 3-way system, 2-way active equalized
Operated with	K&F PLM+ Series, K&F D-Series (recommended) K&F SystemRack (supported)
Frequency response -10 dB	Full Range: 56 Hz – 20 kHz Low Cut: 83 Hz – 20 kHz
Frequency response ±3 dB	Full Range: 65 Hz – 18 kHz Low Cut: 135 Hz – 18 kHz
Nominal coverage angle	Line Source: 30° x 60° Point Source: 60° x +5°/-25°
Power handling nominal	500 W
Power handling programme	1.000 W
Power handling peak	2.000 W
Max. SPL ¹	Point Source: 141 dB SPL 1 x Line Source (30°): 143 dB SPL 2 x Line Source (60°): 145 dB SPL 3 x Line Source (90°): 146 dB SPL 4 x Line Source (120°): 147 dB SPL
Impedance nominal	2 x 8 Ω
Loudspeakers per channel	2 (recommended)/3 (maximum)
Components	2 x 12" LF, 6 x 5" MF, 4 x 1" HF
Connectors	2 x speakON® 4-pol NLT4MP (1+/1- LF/HF , 2+/2- MF)
Enclosure	Frame-reinforced 15mm multiplex enclosure with 30° angle for ideal cluster setups with highly resistant polyurea synthetic coating in black, convertible between line source and point source through rotation of integrated VariQ-unit, integrated flying track system, ergonomic handles on top and bottom for horizontal and vertical transport, sunk-in connector panel, 4 non-abrasive plastic sliding feet on bottom, ball-proof steel grille with black acoustic foam behind the grille.
Dimensions (W x H x D)	460 x 800 x 460 mm
Weight	47 kg
Colours	■ RAL 9005 (black) – standard ■ RAL special colour – optional

¹Measured at 1 m distance under free field conditions with pink noise and crest factor 4

Vertical Array



Horizontal Array



ACCESSORIES

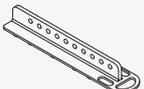
NEW
2018

K&F SPECTRA 212

SPECTRA 212 Sub Adapter



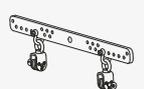
SPECTRA 212 Flybar Connector Horizontal



SPECTRA 212 Flybar Connector Vertical



SPECTRA 212 Flybar



SPECTRA 212 Transport Cover



SPECTRA 212 Connector



K&F Rotary Clamp 450



All Accessories are available in black.



Horizontal Array stacked

Point Source stacked

K&F SCENA

STAGE MONITORS





K&F SCENA

STAGE MONITORS

Good feedback for musicians

Our philosophy proclaims that a sound event shall be rendered as neutral, as natural and as authentic as possible. Whenever music is played live, the monitor speakers K&F SCENA provide extremely precise feedback to the musician and thus form the basis for a concert of high quality. Their natural sound and the basic tone, which is particularly warm and precise, support the artist's clear intonation and work without stress. Also in sound technology, the handling of K&F SCENA monitors is pleasantly easygoing. Thanks to the outstanding sound characteristics of the K&F SCENA, it is easier to bring out the important voices and instruments, coinciding with a very weak feedback tendency. Applause instead of catcalls!

Impressive handling

K&F SCENA have been optimised for operation as stage monitors in live mode and for assignments with high optical value added, such as in the television studio. The monitors are very flexible and can, if needed, also be suspended at the suspension points (K&F SCENA 15) or mounted on speaker stands. The handling of K&F SCENA is appreciated for the compact dimensions, the low weight and the intelligent handle solution. The robust polyurea coating, the stable grille with added acoustic foam and the feet at all standing areas provide high resistance against mechanical impact. This makes the K&F SCENA ideal partners on any stage. The discreet well-formed design with low installation height and the covered connection unit provide a pleasant visual aspect.

The drive of the K&F SCENA is ideally with the SystemAmps of the K&F PLM+ or the K&F D series, but is also possible over the especially cost-effective Lab.gruppen IPD 2400. K&F SCENA 12 can also be used with linear poweramps and is therefore even more flexible and cost effective. It is the perfect choice in confined spaces and delites with its big sound contrary to its particular small measurements.

The result counts

The art of operating speaker systems is to reach a high level of performance while economising on resources. K&F SCENA help you to do this with numerous advantages: You save time, transport weight and storage volumes. You gain impressive reliability through quality 'Made in Germany'. And you protect your investment through the well-known, long-lasting quality of K&F. K&F SCENA means meeting the highest professional demands – efficiently and cost-effectively. Satisfied artists and technical crews, as well as a higher return on investment for rental companies and event organisers, are impressive results. The stage monitors K&F SCENA are ideal tools that make way for what is really important – a well-directed and creative design of acoustical impressions. Audibly better!



	K&F SCENA 12 – NEW	K&F SCENA 15
Design	Passive 2-way bass reflex system	1-way/2-way active switchable, bass reflex
Operation with	K&F SystemAmps K&F SystemRack Lab.gruppen IPD 2400 lineare Verstärker	K&F SystemAmps K&F SystemRack Lab.gruppen IPD 2400
Recommended amplifier power	300 – 750 W RMS/8 Ω	K&F SystemAmps only
Recommended high pass	50 Hz/Bessel 12 dB/Okt	K&F SystemAmps only
Frequency response -10 dB	53 Hz – 20 kHz	49 Hz – 20 kHz
Frequency response ±3 dB	64 Hz – 18 kHz	65 Hz – 18 kHz
Tuning frequency	60 Hz	55 Hz
Coverage angles nominal	80° radial	50° x 70° (h x v)
Power handling nominal	550 W	400 W
Power handling programme	1.100 W	800 W
Power handling peak	2.200 W	1.600 W
Max. SPL ¹	134 dB SPL Peak	134 dB SPL (1-Kanalbetrieb) 136 dB SPL (2-Kanalbetrieb)
Impedance nominal	6 Ω	8 Ω (1-Kanalbetrieb) 2 x 8 Ω (2-Kanalbetrieb)
Loudspeakers per channel	2	3
Components	1/4" high frequency driver (Neodymium) 12" coaxial-chassis (Neodymium)	1/4" high frequency driver (Neodymium) 15" coaxial-chassis (Neodymium)
Connectors	4 x speakON® 4-pol (2 x NLT4MP and 2 x NL4MPR), 1+/1- oder 2+/2- switchable	2 x speakON® 4-pol NLT4MP (parallel) 1 CH/2 CH switchable
Enclosure	Housing with 32° monitor angle, fixing points for accessories, slip-resistant rubber feet	Housing with 35° monitor angle, fixing points for pole mount flange, 4 flying points M8, non-abrasive plastic sliding feet
	both feature 15 mm multiplex with high-strength polyurea plastic coating, ergonomic handles on the sides, hidden port terminal, ball-proof 2 mm steel grille, acoustic foam	
Dimensions (W x H x D)	497 x 300 x 469 mm	640 x 355 x 568 mm
Weight	18,4 kg	23,5 kg
Colours	■ RAL 9005 (black)	■ RAL 9005 (black)
Accessories	K&F SCENA 12 Stand Adapter	–

¹Measured at 1 m distance under free field conditions with pink noise and crest factor 4

K&F SYSTEMAMPS

LAKE DSP SYSTEM AMPLIFIERS

FREITAG



MUTE
ENABLE

METER

MENU

PLM 12K44

MODE 12K
SEQUEN

|||
OK

SEQU

|||
OK

B

44
A SW L

-25	LCUT		1	-13	-00

EN2A SW L	DK			-13	-00
-25	LCUT		1	-00	

MD5 LT V1.0	DK			-23	-00
-25	100HZ		1	-00	

DK	DK			-23	-00
MD5 LT V1.0	DK		1	-00	
-25	100HZ				

DK	DK				
-25	DK				



EXIT

lake

230

K&F SYSTEMAMPS

LAKE DSP SYSTEM AMPLIFIERS

State of the art technology

The K&F system amplifiers are based on the new PLM+ and D series models of the internationally renowned manufacturer, Lab.gruppen. The power amps, which are designed for both live performances and touring, come with special Kling & Freitag module presets, exclusively for K&F loudspeaker systems. The ideal combination!

Impressive power packs

Through 'Rational Power Management' (RPM), the overall performance of the power amp can be flexibly distributed over various power amp channels. In addition to the power adapter with power factor correction (PFC), which can be used worldwide, there are analog, digital AES3 and redundant Dante™ network audio inputs which ensure a high degree of fail-safe performance by means of prioritisation (fallback). Control is via Ethernet using the proven Lake® Controller software. Powerful features!



Lake

The integrated Lake Processor is the industry standard for PA system controlling and offers outstanding flexibility in signal processing. Whether it is asymmetrical filters, look-ahead-limiters or automatic input choice – many details make work more efficient while maintaining highest audio quality. The Analyzer Bridge makes it possible to use third party real time analyzers within Lake Control – for a precise system setup.



NEW
2018



	K&F PLM 5K44 – New	K&F PLM 12K44	K&F PLM 20K44
Processor/Network	Lake®/Dante™		
Number of channels	4		
Loudspeaker processing	Up to 4 K&F Lake-Moduls Classic linear-phase FIR-crossover EQ Delay LimiterMax™ with Peak and RMS Limiter		
Dante™ Audio Network	8 x 8 Dante™ I/O		
AES inputs	2 AES inputs (4 audio channels)		
Analog inputs	4 Analog inputs with Iso-Float™, 96 kHz / 24 bit		
Max. output power on all channels ¹	1.250 W (4 Ω) 1.250 W (8 Ω)	3.000 W (4 Ω) 1.900 W (8 Ω)	4.400 W (4 Ω) 2.300 W (8 Ω)
Max. output power on a single channel ¹	1.750 W (4 Ω) 1.350 W (8 Ω)	4.600 W (4 Ω) 2.300 W (8 Ω)	4.600 W (4 Ω) 2.300 W (8 Ω)
Dimensions (W x H x D)	483 x 88 x 463 mm	483 x 88 x 463 mm	483 x 88 x 463 mm
Weight	11,4 kg	16,5 kg	17 kg

¹ Lab.gruppen burst power (1 kHz, 25 ms burst power @ 150 BPM, 12 dB Crest factor)

ACCESSORIES

K&F SystemAmps

K&F CP+ Connector Panel



■ black



K&F VIDA

VERSATILE INTELLIGENT DIGITAL ARRAY





smart >> The future of car sharing



K&F VIDA

VERSATILE INTELLIGENT DIGITAL ARRAY

Digital

Centerpiece of K&F VIDA series loudspeakers is a 48 channel signal processor, which is built on a powerful FPGA. It is used in all K&F VIDA models and creates the basis for all the outstanding properties that characterizes K&F VIDA. The corresponding multi-channel amplifier is responsible for the good tone and provides the power reserves for impressive performances.

The resolution and power of the DSP platform makes system setup very easy. Dispersion can be adjusted in real time and subtlest steps of 0,1°. Our K&F VIDA App supports the user through its intuitive and easy comprehensible user surface.

Intelligent

In K&F VIDA series, all drivers work exactly measured to their respective application. Thereby the BEM optimized K&F VIDA Waveguide, together with the coaxial arrangement of the drivers support the precise dispersion in the horizontal dimension. The combination of driver arrangement, channel count and acoustic optimization is responsible for the incomparable sound and highest quality beam steering in the vertical axis.

All K&F VIDA systems are designed for a maximum of naturalness, resolution and signal control. This makes best results easy to achieve.

Versatile

On the input side, all K&F VIDA loudspeakers offer a rich selection of input sources, which make it a very flexible partner. DANTE™, AES/EBU, analogue inputs – all available off-the-shelf, additionally, the automatic fallback guarantees a high level of reliability.

Through its GPIO interface, integration in media control systems and fixed installation applications is a piece of cake, K&F VIDA is prepared for all eventualities.

Array

K&F VIDA series covers a wide range of applications. From small speech reinforcement to concert level amplification, depending on the case of application and up to 8 meters of total length. This provides Beam Steering even in the lowest of frequencies.

New member – K&F VIDA M

The K&F VIDA M expands our portfolio by a particularly small installation speaker in four fixed sizes. With their decent looks, they blend in in any environment. The water resistant construction and expanded temperature tolerance make it suitable for outdoor use. All that while sounding bigger than they actually are!

K&F VIDA M

COMPACT AND SMART

NEW
2018

108 cm

433 cm

NEW
2018



	K&F VIDA M 110	K&F VIDA M 220	K&F VIDA M 330	K&F VIDA M 440
Design	Active 2-way coaxial column speaker with electronic beam steering			
Controlling	Every speaker is controlled by its own amplifier and DSP-channel			
Frequency response -10 dB	95 Hz – 22 kHz			
Frequency response ±3 dB	125 Hz – 21 kHz			
Coverage angle horizontal	90° nominal			
Coverage angle vertical	Coverage angle adjustable up to 90° Steering angle +/- 45°			
Max. SPL (1 m) ¹	131 dB	133 dB	136 dB	137 dB
Components	16 x 1" dome tweeter 8 x 4" low-mid chassis	32 x 1" dome tweeter 16 x 4" low-mid chassis	48 x 1" dome tweeter 24 x 4" low-mid chassis	64 x 1" dome tweeter 32 x 4" low-mid chassis
IN/OUT	DANTE™ (primary/secondary)/Remote (RJ45), AES/EBU Input (Phoenix-Connector, 9-pin), Analog Input (Phoenix-Connector, 9-pin), GPIO (Phoenix-Connector, 15-pin), AUX OUT (Phoenix-Connector, 9-pin)			
AUX OUT	Controllable DSP-output, e.g. for low frequency extension, nominal +6 dBu			
Analog input	Fullscale at +18 dBu			
Wide range power supply	100 V – 240 V AC, 50/60 Hz			
Rated input power ²	185 W	305 W	465 W	610 W
Max. power consumption	450 W	700 W	1.100 W	1.400 W
Enclosure	Extruded aluminum profile, heavy duty powder coating in black, opaque steel grille with black acoustic foam, hidden connection-panel			
Dimensions (H x W x D)	1083 x 150 x 133 mm	2166 x 150 x 133 mm	3249 x 150 x 133 mm	4332 x 150 x 133 mm
Weight	17 kg	30 kg	47 kg	60 kg
Colours	<input checked="" type="checkbox"/> RAL 9005 (black) – standard <input type="checkbox"/> RAL 9010 (white) – standard <input type="checkbox"/> RAL special colour – optional			

¹Measured at 1 m distance under free field conditions with pink noise and crest factor 4

²at 1/8 rated output power



	K&F VIDA L	K&F VIDA C
Design	Active 3 way coaxial high performance column speaker with K&F VIDA beam steering	Passive 1 way bass reflex System, add on for K&F VIDA L
Controlling	48 DSP and amplifier-channels	–
Frequency response -10 dB	65 Hz – 22 kHz 'FR mode' 80 Hz – 22 kHz 'LCut mode'	57 Hz – 350 Hz
Frequency response ± 3 dB	77 Hz – 21 kHz 'FR mode' 115 Hz – 21 kHz 'LCut mode'	65 Hz – 240 Hz
Coverage angle horizontal Coverage angle	90° nominal	Cardioid, Hypercardioid, Sphere (Bass boost), (electronically selectable)
Coverage angle vertical	Continuously adjustable +/- 45°	–
Max. SPL (1 m) ¹	135 dB	–
Power AMP OUT	2 x 400 W RMS/4 Ω	–
AUX OUT	Nominal +6 dBu	–
Analog input	Fullscale at +18 dBu	–
Components	32 x 1" dome tweeter 12 x 3,5" high mid chassis 6 x 6,5" low-mid chassis	4 x 6,5" low-mid chassis
IN/OUT	1 Analog Input (XLR), 1 AES/EBU Input (XLR), 1 VIDA BUS Input (Ethernet), 1 PowerCon True 1, 1 Analog Link (XLR) 1 AES/EBU Link (XLR), 2 Dante™/Remote (Primary/Secondary), 1 AUX OUT (XLR), 1 AMP OUT (speakON®), 1 VIDA BUS Output (Ethernet), GPIOs (Phoenix-Connector); VIDA C: 1 x speakON® 4-pol NLT4MP	
Wide range power supply	100 V – 240 V AC, 50/60 Hz	–
Rated input power ²	520 W	–
Max. power consumption	2.350 W	–
Enclosure	Extruded aluminium profile with internal hidden flight mechanics, back action rail with slot nuts for mounting brackets and VIDA C, flight mechanics to be secured/released via a back action operating lever, heavy duty powder coating in black, connection and output terminal set obliquely downward, ball proof steel grille with black acoustic foam	
Dimensions (H x W x D)	1075 x 210 x 314 mm 1075 x 210 x 480 mm (with VIDA C)	210 x 749 x 150 mm
Weight	48,2 kg	13,6 kg
Colours	■ RAL 9005 (black) – standard ■ RAL special colour – optional	■ RAL 9005 (black) – standard ■ RAL special colour – optional

ACCESSORIES

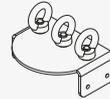
**NEW
2018**

K&F VIDA M

VIDA M Wall Mount



VIDA M Flying Frame



VIDA M Stand Adapter



All Accessories are available in black.

ACCESSORIES

K&F VIDA L

VIDA L Mounting Bracket/
Handhold



VIDA L Case



VIDA L Flying Frame



VIDA L Flying Frame Extension



VIDA L Sub Adapter



VIDA L Flying Bracket



VIDA L Flying Frame
Connector Set



K&F Rotating Clamp 450



VIDA L Wall Bracket
(fixed installation)



VIDA L Adapter Plate
for design stand



For free-standing use of VIDA L loudspeakers we recommend Excellent Line D4 designstands by H.O.F. Alutec (german): www.hof-alutec.com/de/produkte/messe/designstelen/designstele-kf-vida-l/

K&F VIDA APP

INTUITIVE CONFIGURATION SOFTWARE FOR
K&F VIDA SYSTEMS



One for all

The VIDA App is simple and intuitive, touch-based software that runs both on laptops, as well as tablets from Windows 8.1. Using this, the system is configured in real time, the loudspeaker beam is positioned and sound adjustments are made.

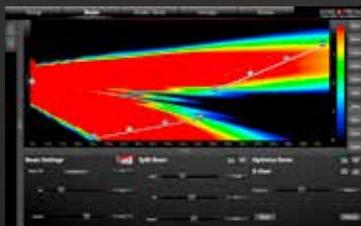
Secure and reliable

The software can be passwordprotected to prevent unauthorized persons from configuring settings on the system, while still allowing the system to be monitored. All settings can be saved on the computer.

For everyday business in rental logistics, the hardware reset with a special dongle is of particular interest. This enables the system to be reset to the delivery state without using a computer.



Available free-of-charge in the Windows Store.



VOICES ON **K&F** VIDA

“For me, K&F VIDA is the perfect tool to combine the best sound performance with flexible installation.”

Marcel Babazadeh

Dipl. Tonmeister, Atelier Klang und Raum, Zurich, Switzerland

“K&F VIDA L/C has an incredible resolution across the entire frequency range, controlled and precise bass, lots of resolution in the lower mids and a silky high end. At higher volumes K&F VIDA stays transparent and delivers a Hi-Fi like feeling in applications where commonly mechanically steered line arrays are used. All of this is packed into a column speaker, ‘german-engineered’ and remotely configurable with equalization and beam steering in realtime – K&F VIDA is simply genius.”

Philip Zanon

Systems Engineer, ON Audio Visual Solutions, North Carolina, USA

K&F VIDA

A NEW ART OF BEAM STEERING

In 2016 we introduced K&F VIDA L to the market. Highly acclaimed by critics and customers worldwide, this product has proven to meet the highest demands. Now the L&F VIDA series grows. The new K&F VIDA M is a compact column speaker and your first choice for high end installations.

Learn about K&F VIDA series in all details and get to know more about the innovative technologies and and pioneering concepts, that these fascinating loudspeakers make us of. FUTURE built in.

))) High quality real-time beam steering

individual control of each driver, high performance FPGA, future proof hardware platform, high driver density for sidelobe-free beam steering, high channel density

))) Precise horizontal and vertical dispersion

BEM optimized VIDA Waveguide, coaxial driver layout, beam optimization through intelligent algorithms, selectable cardioid bass distribution patterns when using K&F VIDA L with K&F VIDA C.

Real Kling & Freitag Sound

))) Impressive resolution with high speech intelligibility, natural sound reproduction and high dynamic range

))) VIDA-App

simple and intuitive real-time-control for all K&F VIDA speaker systems

))) High integration potential and flexibility

Split Beam capability, 3 different inputs by standard (DANTE®/AES/Analog), GPIO interface, wide-range power supply

))) No compromise

Drivers adjusted to their distinctive use, sound clean and free of distortion

))) High reliability

Look-ahead-limiter for each channel, meticulously tuned components

K&F VIDA L/C
supported by

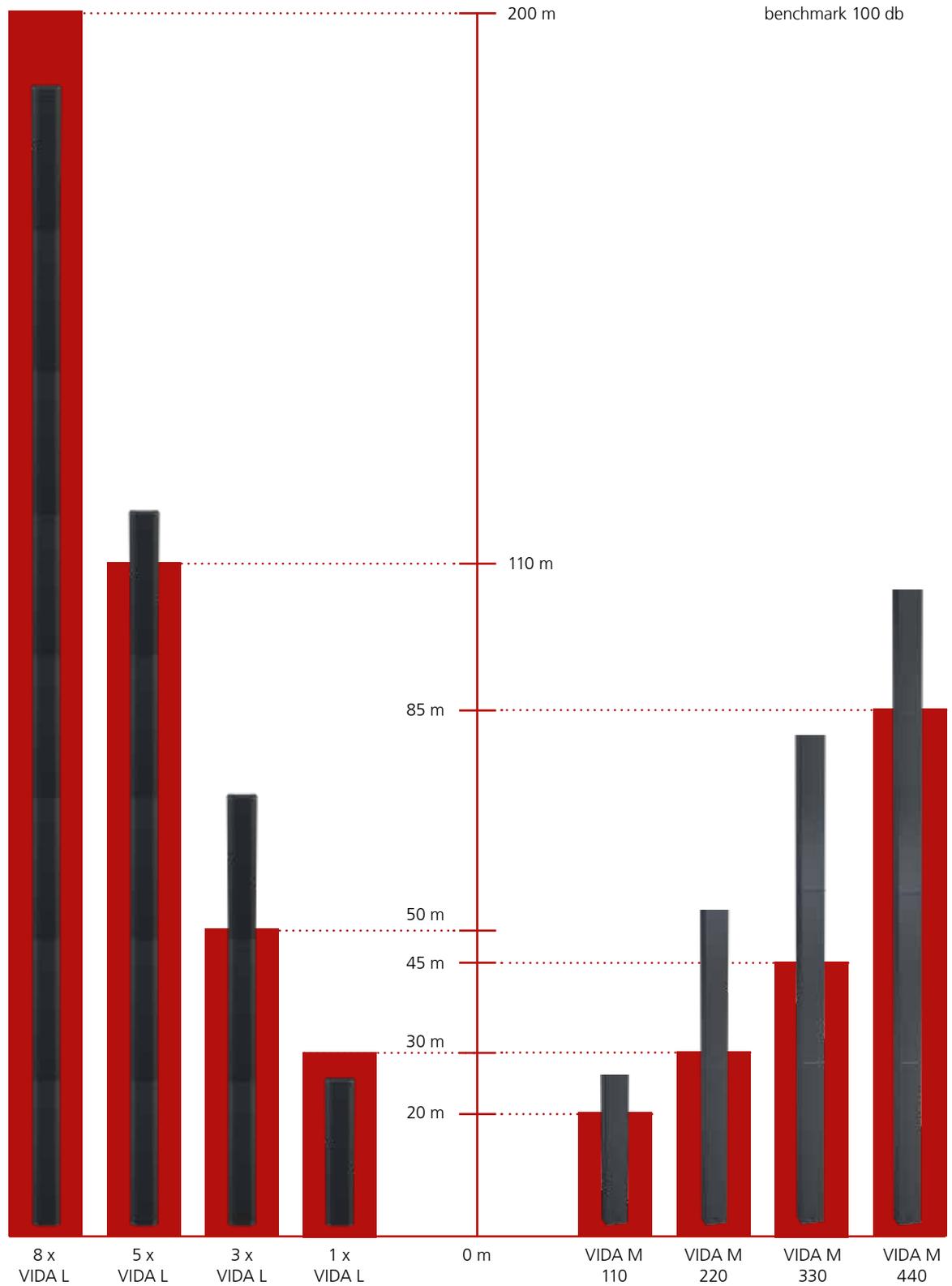


K&F VIDA M
supported by

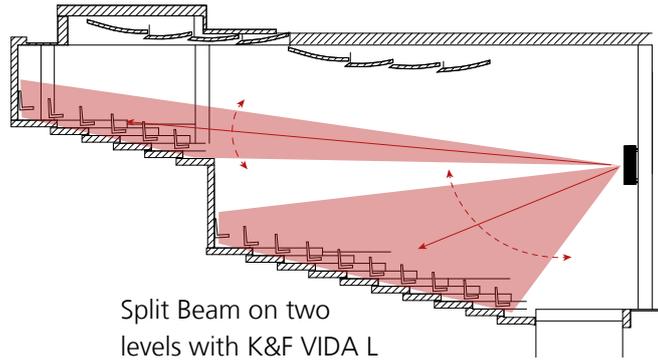


aufgrund eines Beschlusses
des Deutschen Bundestages

COVERAGE



BEAM STEERING



Split Beam on two levels with K&F VIDA L

Precise Real-time-beam steering

Achieving what is technically feasible in all relevant disciplines is the maxim of K&F VIDA, in order to get the best performance in controllability, full-range capability, sound pressure, latency, ease of use, and, ultimately, sound quality. This requires a willingness to make an enormous investment in technology and time to finally bring even live experiences to the highest level for the first time with line array technology – electronically targeted and controllable in real-time.

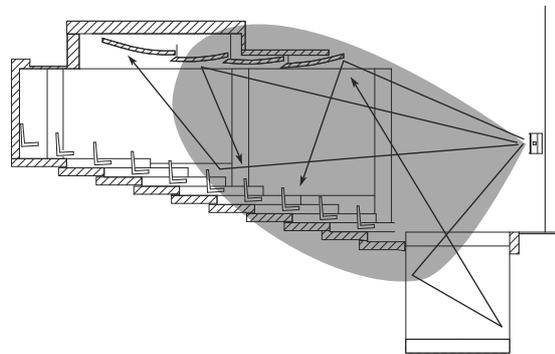
The beam steering options make a significant contribution towards improving sound quality. Especially in acoustically problematic surroundings, space-related reflections can be reduced to a minimum. With the K&F VIDA App, the beam can be focused precisely on the audience area. The result is improved speech intelligibility and an optimum listening experience from the first to the last row. The radiation characteristics of conventional loudspeaker systems are inflexible and can only be adjusted through physical orientation of the space. This is unlike beam steering with K&F VIDA. In this case, the vertical opening angle is adjusted in real time in the K&F VIDA App. Asymmetric beams can also be configured for rising positions.

The electronic controller of the K&F VIDA enables discreet positioning, also in non-optimum positions, and highly variable adjustment to different acoustic situations.

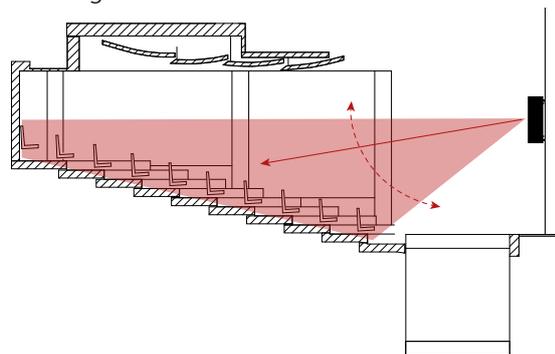
Switchable Split-Beam

Even scenarios with two different listener levels can be filled with sound using a single K&F VIDA L unit. For this purpose, there are two independent beams for the respective audience area. It is possible to switch between one and two beams, according to the seating layout. This can be done either directly in the K&F VIDA App or by using an external media controller. The orientation and level of both beams can be set independently from each other.

Coverage conventional speakers



Coverage K&F VIDA L



INNOVATIVE CONSTRUCTION

Tweeter with waveguide

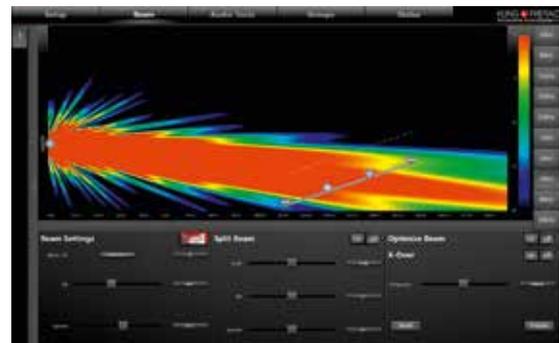
In addition to the focused verticals, it is important to achieve a constant horizontal beam characteristic. For this purpose, a 90° tweeter waveguide has been developed for K&F VIDA and optimised in the BEM method. This increases the sound pressure and an even beam characteristic is achieved. K&F VIDA hereby combines the best of two worlds: The beam characteristic is optimised electronically via an algorithm, as well as mechanically by the K&F VIDA Waveguide.

Through the large number of 1" domes that are positioned closely together, artefacts only arise above 10 kHz. Each tweeter is controlled by a separate DSP amplifier channel. In addition, physically induced side lobes of the K&F VIDA L are suppressed by a software algorithm using the "Optimise" function. This results in a better STI values and thus leads to improved speech intelligibility in acoustically problematic surroundings.

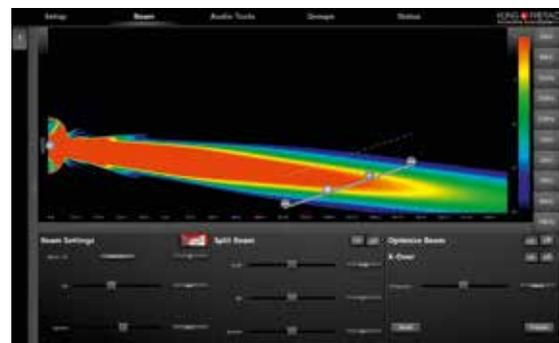
Safety first!

K&F VIDA L provides two ways of system integration in an existing building or media controller: Ethernet and GPIO.

The latter is especially suitable for integrating the line source into a voice alarm system. In addition to floating input and output contacts, K&F VIDA L provides an additional 10-volt control voltage. On the input side, presets can be switched over the GPIOs or mute commands, for example, can



Function Optimize 'OFF'

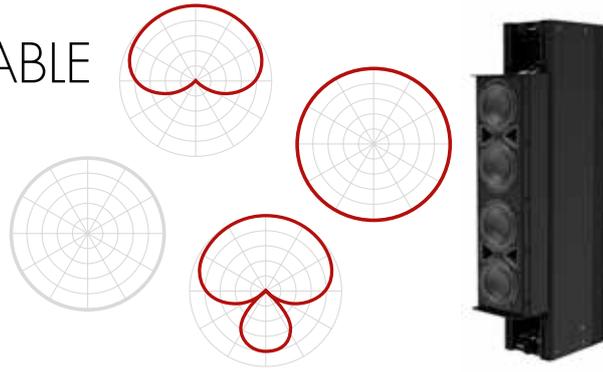


Function Optimize 'ON'

be received by a central fire alarm system. On the output side, feedback is provided on the operating status of the system. Here, errors and excess temperature, among other things, are reported to the central office.

Backup switching of the input signal is automatic.

K&F VIDA L – EXPANDABLE IN MANY WAYS



K&F VIDA C – the optional cardioid-module for K&F VIDA L

The advantage of a line source's lean design is that energy in the low and low-mid ranges is almost equally strong both in front of and behind the speakers. On the one hand, this dipole effect increases the risk of feedback during live performances on stage. On the other hand, the diffuse rear sound parts worsen speech intelligibility. To counteract this, the sound engineer needs to considerably equalise the feedback-prone frequencies with conventional line sources. The result is a pressure-free, thin sound. This is exactly where the K&F VIDA C module comes into play:

Using the cardioid module is the ideal solution. It counteracts the dipole effect of the line array with up to 20 dB rearward attenuation in the range of 60 Hz – 400 Hz. The K&F VIDA C module that is mounted on the rear of the line source is supplied from the K&F VIDA L and can be operated over the common software in cardioid or hypercardioid characteristic. If a higher level in the low-mid range is desired, K&F VIDA C can be used as an alternative to bass support. Thus, combining K&F VIDA L with K&F VIDA C offers extensive flexibility.

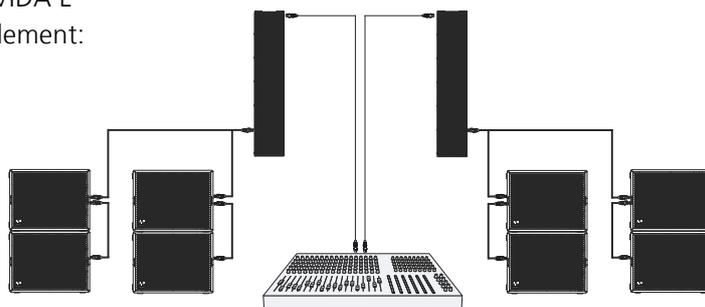
Maximum expandability

K&F VIDA L is designed as a 3-way bass reflex system that, in full-range mode, delivers impressive dynamics and high sound pressure of up to 65 Hz.

The LCut mode is recommended for maximum levels in combination with additional subwoofers. To connect an external bass extension, the 'AMP OUT' delivers an output power of up to 800 watts over a speakON® jack. K&F VIDA L offers the following options for each element:

- 1 K&F VIDA C
- 1 bis 4 K&F PASSIO SUB 12
- 1 bis 4 K&F PASSIO SUB 15

In addition to the bass extension over the 'AMP OUT', there is an audio output 'AUX OUT' on the connection panel of K&F VIDA L for operating external self-powered subwoofers or SystemeAmps. The system can be optimised and set up using the K&F VIDA App with additional delay, gain controller and crossover.





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