

The logo for Kling & Freitag, featuring the company name in a white sans-serif font on a dark square background. A small red square is positioned between the ampersand and the word 'FREITAG'.

KLING &  
FREITAG

SOUND SYSTEMS

Two black, rectangular, floor-standing speaker units are shown. The unit on the left is taller and wider, while the one on the right is shorter and narrower. Both units feature a series of circular drivers along their length. They are positioned in front of a background of modern, curved architectural elements. The units are reflected on the surface they are standing on.

EN | VERSION 4.0 | 07/26/2023

**USER'S MANUAL**

**K&F** VIDA M



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## 1 Introduction

### 1.1 Icons Used



This icon indicates a risk of injury or death. Not following these instructions may result in serious health problems including potentially fatal injuries.



This icon indicates a possibly dangerous situation. Not following these instructions may cause minor injuries or damage.



This icon marks instructions for proper use of the described products. Not following these instructions may cause malfunctions or damage.



This icon marks information provided for simplified use of the described products.

### 1.2 About this user's manual

EN | Translation of the original instructions

All KLING & FREITAG manuals are originally authored in German.

© KLING & FREITAG GmbH, all rights reserved.

All specifications regarding the features of the described products and applicable safety guidelines provided in this manual are based on information available at the time of publishing.

We assume no responsibility for technical specifications, dimensions, weights, and properties.

All information in this manual is subject to change without notice.

**To ensure safe operation, all persons using the speaker system must have access to these user's manual and all other relevant material during installation. The speaker system may neither be set up nor used until these user's manual has been read, understood and kept readily available in site.**

KLING & FREITAG spare manuals are separately available for order or can be downloaded from our website: [www.kling-freitag.de](http://www.kling-freitag.de)

Contact Us: [info@kling-freitag.de](mailto:info@kling-freitag.de)

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Phone +49 511 96 99 70

### 1.3 Scope of Application

If you have purchased this product together with other accessories, the instructions of those accessories including, but not limited to, mounting-accessory instructions become part of these instructions by reference.

If the VIDA M speaker is used together with accessories that restrict the use specified in here, those restrictions will apply.

## 2 Product Description

The VIDA M speaker system is an active 2-way coaxial line array with electronic beam steering.

### 2.1 Intended Use

Be sure to use the speaker system only with K&F mounting accessories suitable for the specific application.

The speaker has originally been designed for stationary installation but can be upgraded to mobile use using the optional »Accessories for Mobile Use«.

Note that you cannot convert the system for a number of use cases without the optional VIDA M accessories for mobile use; in that case, mobile use has certain limitations.

From the following serial numbers and larger, the enclosures are dust-tight and protected against water jets from any angle (IP65 rating according to DIN EN 60529). The speaker can therefore be used in environments that meet the respective requirements.

VIDA M 110 81211700071

VIDA M 110 S 83211700043

VIDA M 220 82211700072

VIDA M 220 S 84212100010

#### WARNUNG

#### Risks imposed by falling or overturning parts

Be sure to install, suspend, fasten, and use Kling & Freitag speakers only using the designated fixtures as specified in this document.

Be sure to observe all instructions and information in the user manuals of the specific mounting accessories.

Never down-tilt speakers mechanically.

#### HINWEIS

#### Possible malfunctions

Never operate the speaker in an environment where the temperature exceeds 45 °C / 113 °F.

Never operate the speaker in places exceeding an altitude of 2,000 meters / 6,000 ft.

Make sure that the humidity is between 10% and 90%.

This product is not designed for use in corrosive environments.

#### Potential interference with household appliances

This device is not designed for home use.

Any use not described in this User's Guide is not an intended use.

## 2.2 Versions

VIDA M is available in four versions designed for different applications and transmission ranges.

### VIDA M 110

- Asymmetrical design
- Transmission range: approx. 20 meters
- Height: 1.1 meters

### VIDA M 110 S

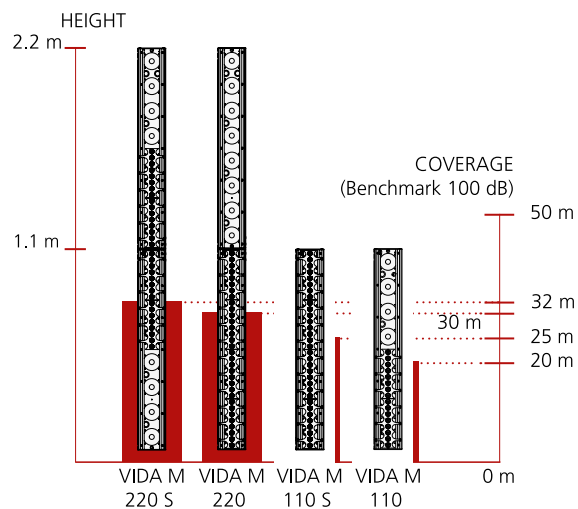
- Symmetrical design
- Transmission range: approx. 25 meters
- Height: 1.1 meters

### VIDA M 220

- Asymmetrical design
- Transmission range: approx. 30 meters
- Height: 2.2 meters

### VIDA M 220 S

- Symmetrical design
- Transmission range: approx. 32 meters
- Height: 2.2 meters



## 2.3 System requirements

- Mounting hardware
- Computer running Windows 8, 8.1, or 10
- VIDA App

The VIDA App required for setting up the speaker system is freely available at the Windows Store.

For this purpose, visit the **Microsoft App Store** and search for **VIDA App**.

For more information, refer to the VIDA App User's Manual, which is available for download at our website.

**[www.kling-freitag.de](http://www.kling-freitag.de)**

- Audio source connected to Analog, AES 3, or Dante.

## 2.4 Items Included

### 2.4.1 Items Included VIDA M 110 / 110 S

- 1 x VIDA M 110 / 110 S speaker
- 12 x counterbore caps
- 1 x sealing plate for the connector panel
- 7 x Countersunk screw M4x10 for securing the sealing plate
- 1 x 3-pin power connector
- 1 x 9-pin audio-in connector
- 1 x 15-pin GPIO connector
- 3 x cable tie
- 5 ml Loctite 2400
- 1 x user guide

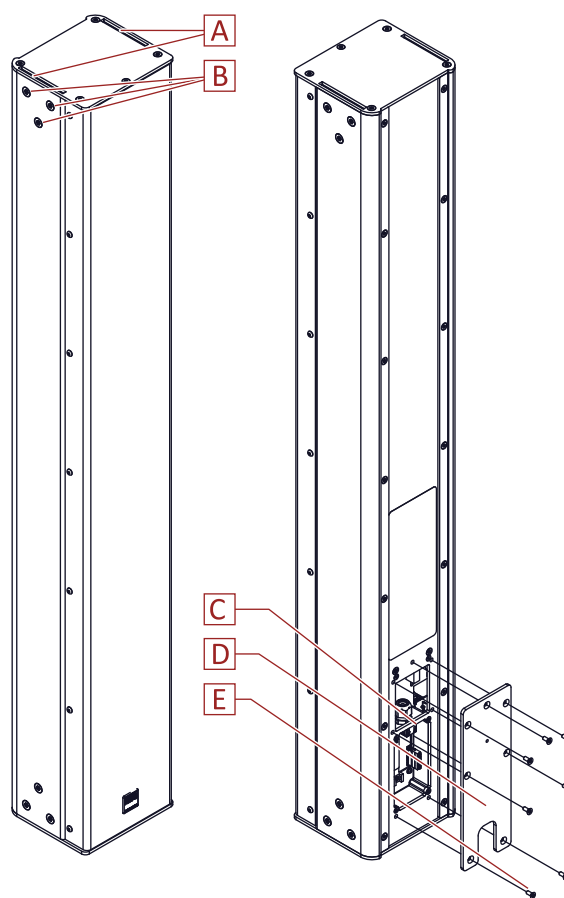
### 2.4.2 Items Included VIDA M 220 / 220 S

- Passive module for VIDA M 220 or VIDA M 220 S (1 piece)
- Active module for VIDA M 220 or VIDA M 220 S (1 piece)
- 2 x mounting plate for securing the modules
- 12 x Countersunk screw M6x10 for securing the modules
- 12 x counterbore caps
- 1 x sealing plate for the active-module connector panel
- 1 x sealing plate for the passive-module connector panel
- 14 x Countersunk screw M4x10 for securing the sealing plates
- 1 x 3-pin power connector
- 1 x 9-pin audio-in connector
- 1 x 15-pin GPIO connector
- 3 x cable tie
- 5 ml Loctite 2400
- 1 x user guide



## 2.5 Overview of VIDA M 110 / 110 S Parts

- [A]** Inlet for connecting mounting hardware (also available at the bottom)
- [B]** Bores for fastening mounting hardware. Can be sealed using the supplied caps when not in use.
- [C]** Connector panel
- [D]** Sealing plate for connector panel
- [E]** Screws for fastening the sealing plate:  
7 x Countersunk screw M4x10,  
hexagon socket wrench IS2,5 (7 pieces)



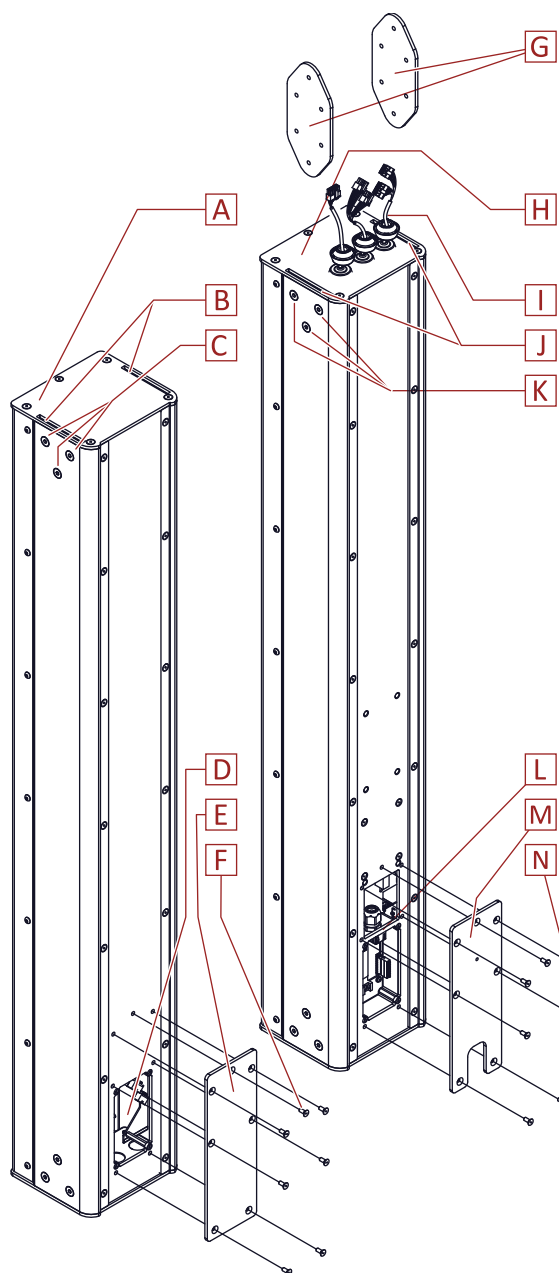
## 2.6 Overview of VIDA M 220 / 220 S Parts

### [A] **Passive module**

- [B] Inlet for connecting mounting hardware (bottom inlet for connecting the active module)
- [C] Bores for fastening mounting hardware. Can be sealed using the supplied caps when not in use. Use the bores at the bottom for connection with the active module [H].
- [D] Connector panel for fastening the active module
- [E] Sealing plate for the passive-module connector panel
- [F] Screws for fastening the sealing plate:  
7 x Countersunk screw M4x10, hexagon socket wrench IH2.5
- [G] Fastener for connecting the passive module to the active module

### [H] **Active module**

- [I] Cable with connectors and grommets for connecting the passive module. The VIDA M 220 has only one single cable!
- [J] Inlet for connecting to the passive module (inlet at the bottom is for fastening mounting hardware)
- [K] Bores for fastening the active module [A]. The bores at the bottom are for fastening mounting hardware. Can be sealed using the supplied caps when not in use.
- [L] Connector panel
- [M] Sealing plate for the active-module connector panel
- [N] Screws for fastening the sealing plate:  
7 x Countersunk screw M4x10, hexagon socket wrench IH2.5



## 2.7 Front-panel indicator

Each VIDA M features an LED indicator located behind the front grille. The indicator color shows the following statuses:

- Power-up (blue): The speaker is being powered up and will be ready for operation shortly.
- Beam error (red-lit): The speaker has been powered up successfully and is ready for operation; however, the sound-ray setup needs to be checked.
- Identification (green): The speaker is part of the selected speaker group.
- Error (flashing red and green): Fatal file error. Perform a firmware update. See chapter »Updates«, page 37. If the flashing is not stopped by a firmware update, contact the service department.

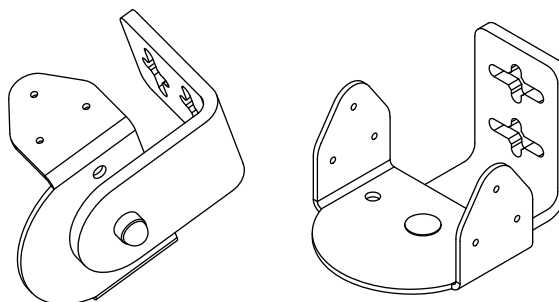
## 2.8 Accessories

### 2.8.1 Fixtures for permanent mounting

#### VIDA M wall bracket

In stationary installations, you can mount the speaker to a wall vertically or horizontally using the permanently attached wall mount.

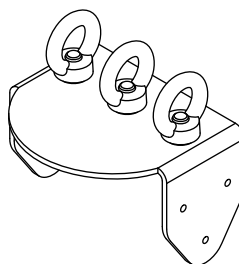
Not suitable for ceiling mounting!



#### VIDA M flying frame

The flying frame permanently mounted on the loudspeaker allows for suspending a VIDA M loudspeaker vertically.

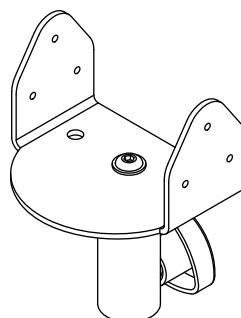
Note that the fixing accessories are not suitable for recurring assembly and disassembly.



#### VIDA M Stand Adapter

The stand adapter is permanently attached to the VIDA M 110 / 110 S speaker and allows for using it on a speaker stand.

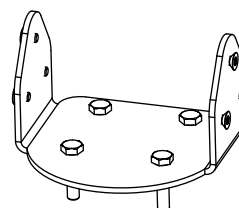
Note that the fixing accessories are not suitable for recurring assembly and disassembly.



#### VIDA M Adapter Plate

The adapter plate is permanently attached to the VIDA M speaker and allows for mounting it to an H.O.F. Alutec speaker stand.

Note that the fixing accessories are not suitable for recurring assembly and disassembly.



## 2.8.2 Accessories for Mobile Use

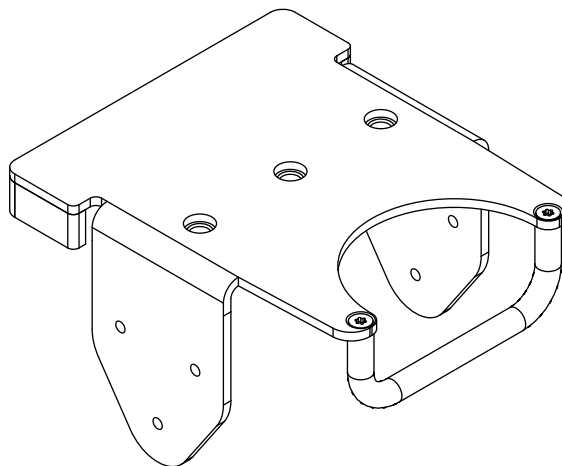
The accessories below allow for mobile use of VIDA M speakers and for adapting them to a number of applications, for example, in rental use.

### VIDA M Mounting Adapter

This mounting adapter with handles is permanently attached the VIDA M speaker. It ensures safe handling of a VIDA M speaker in mobile use.

Depending on the specific application, the mounting adapter allows for repeatedly attaching and removing the following:

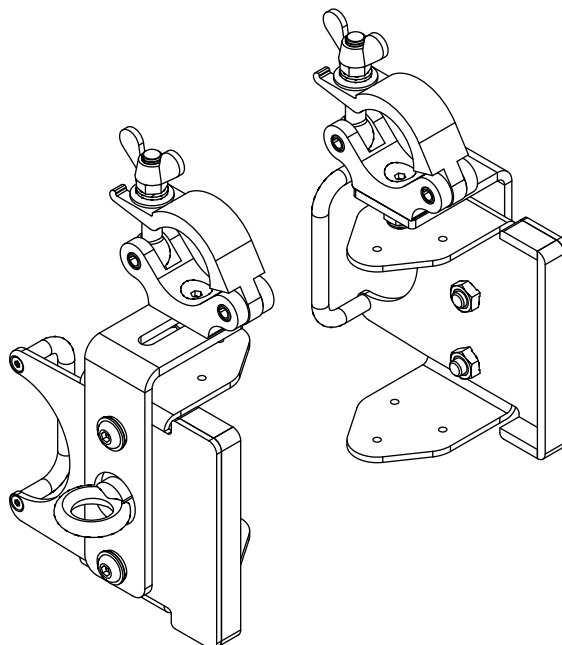
- Eyebolts
- TV spigot
- Pole mount socket



### VIDA M Truss Adapter Set

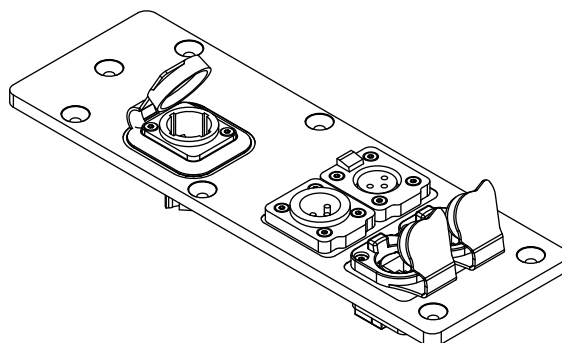
(incl. 2 VIDA M mounting adapters)

Allows for vertically and horizontally mounting a VIDA M speaker to a truss or tube with a diameter of approx. 50 mm.



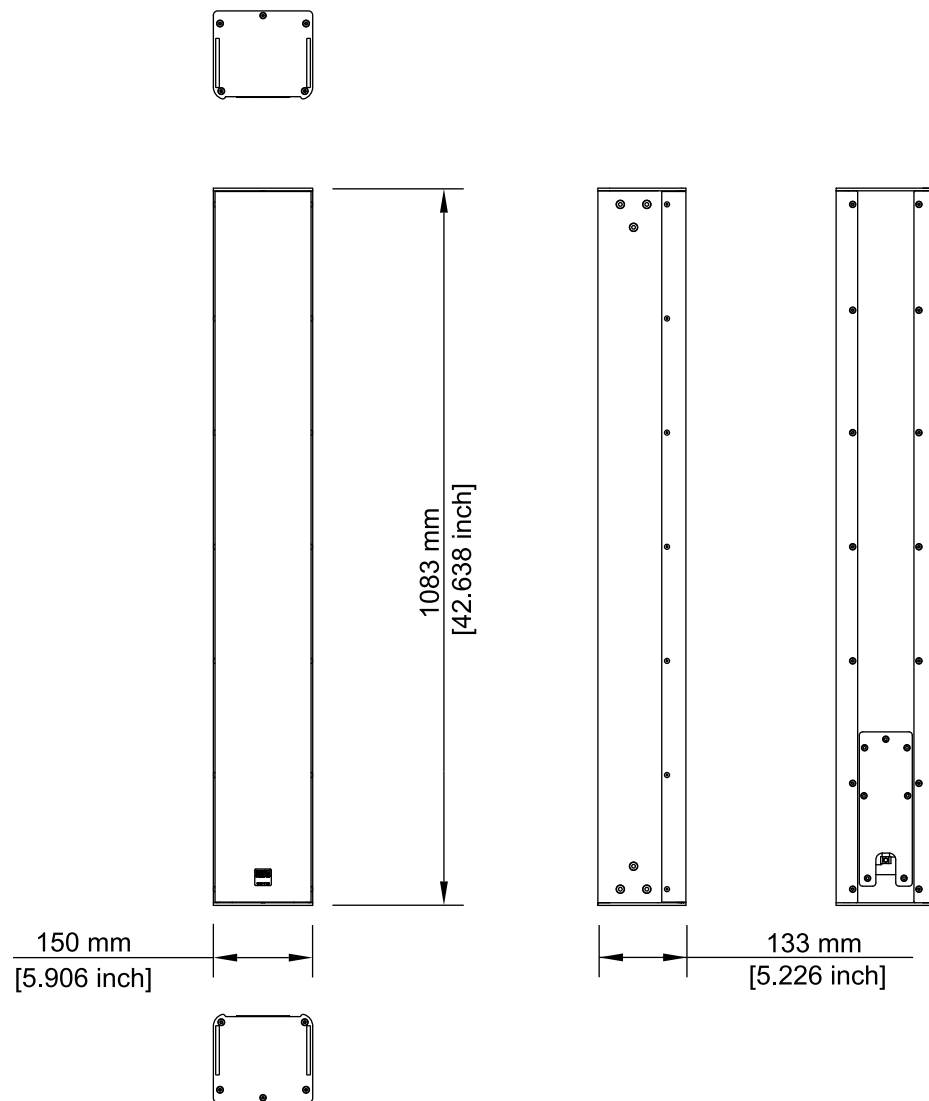
### VIDA M Connector Panel

Provides connectivity for power-supply, audio, and network connectors.

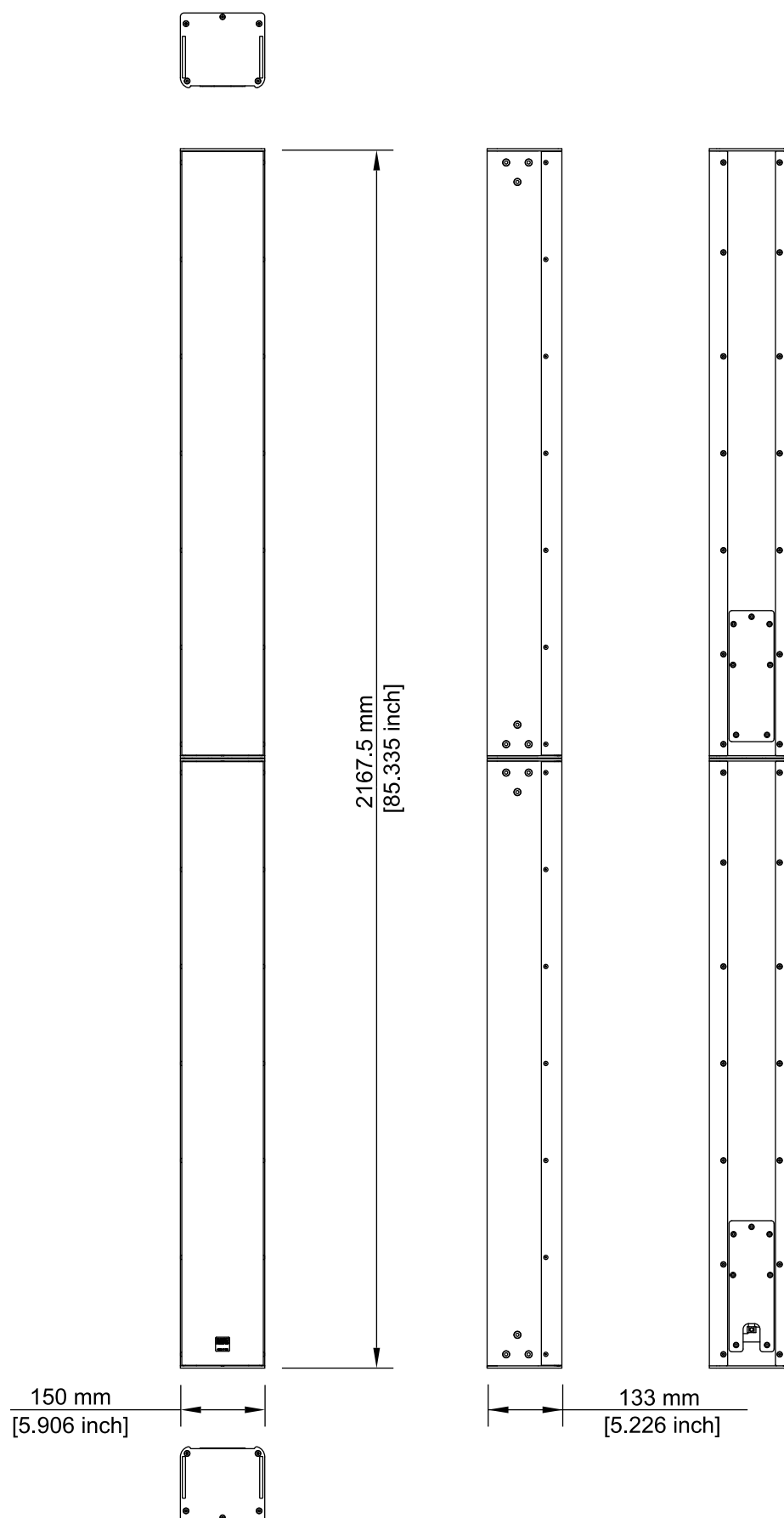


## 2.9 Dimensions

### 2.9.1 Dimensions VIDA M 110 / 110 S



## 2.9.2 Dimensions VIDA M 220 / 220 S



## 2.10 Technical Specifications

### 2.10.1 Technical Specifications VIDA M 110

<b>Concept</b>	Active 2-way coaxial line array with electronic beam steering
<b>Input signal</b>	Each speaker is fed through a dedicated DSP/amp channel.
<b>Frequency range @-10 dB</b>	95 Hz – 22 kHz
<b>Frequency range @±3 dB</b>	125 Hz – 21 kHz
<b>Horizontal coverage angle (nominal)</b>	90° nominal
<b>Coverage angle vertical</b>	Continuously adjustable spread angle up to 90°. ±45° steering angle
<b>Max. SPL</b>	131 dB
<b>Components</b>	16 x 1" dome tweeters 8 x 4" bass/midrange drivers
<b>Connectors</b>	DANTE™ (primary/secondary)/remote (RJ45), AES67 compliant, AES/EBU input (9-pin Phoenix terminal block), Analog input (9-pin Phoenix terminal block), GPIO (15-pin Phoenix terminal block), AUX OUT (9-pin Phoenix terminal block)
<b>AUX OUT</b>	Controllable DSP output, e.g. for subwoofer expander, +6 dBu nominal level
<b>Analog input</b>	Fullscale at +18 dBu
<b>Wide-range power supply</b>	100 – 240 VAC, 50 / 60 Hz
<b>Rated input power<sup>a)</sup></b>	185 W
<b>Maximum power consumption</b>	450 W
<b>maximum amplifier RMS power</b>	1120 W
<b>Idle power consumption</b>	65 W
<b>Enclosure</b>	Dust and jet-proof enclosure (IP65) made of extruded aluminum profile, highly robust powder coating, opaque steel grille with acoustic foam, hidden connector panel
<b>Dimensions (H x W x D)</b>	1083 x 150 mm x 133 mm
<b>Weight</b>	16.5 kg
<b>Colors</b>	RAL 9005 (black), standard RAL 9010 (white), standard RAL spot color, on request

a) @ 1/8 full-scale



## 2.10.2 Technical Specifications VIDA M 110 S

<b>Concept</b>	Active 2-way coaxial line array with electronic beam steering
<b>Input signal</b>	Each speaker is fed through a dedicated DSP/amp channel.
<b>Frequency range @-10 dB</b>	95 Hz – 22 kHz
<b>Frequency range @±3 dB</b>	125 Hz – 21 kHz
<b>Horizontal coverage angle (nominal)</b>	90° nominal
<b>Coverage angle vertical</b>	Continuously adjustable spread angle up to 90°. ±45° steering angle
<b>Max. SPL</b>	131 dB
<b>Components</b>	32 x 1" dome tweeters 8 x 4" bass/midrange drivers
<b>Connectors</b>	DANTE™ (primary/secondary)/remote (RJ45), AES67 compliant, AES/EBU input (9-pin Phoenix terminal block), Analog input (9-pin Phoenix terminal block), GPIO (15-pin Phoenix terminal block), AUX OUT (9-pin Phoenix terminal block)
<b>AUX OUT</b>	Controllable DSP output, e.g. for subwoofer expander, +6 dBu nominal level
<b>Analog input</b>	Fullscale at +18 dBu
<b>Wide-range power supply</b>	100 – 240 VAC, 50 / 60 Hz
<b>Rated input power<sup>a)</sup></b>	240 W
<b>Maximum power consumption</b>	585 W
<b>maximum amplifier RMS power</b>	1120 W
<b>Idle power consumption</b>	65 W
<b>Enclosure</b>	Dust and jet-proof enclosure (IP65) made of extruded aluminum profile, highly robust powder coating, opaque steel grille with acoustic foam, hidden connector panel
<b>Dimensions (H x W x D)</b>	1083 x 150 mm x 133 mm
<b>Weight</b>	17.4 kg
<b>Colors</b>	RAL 9005 (black), standard RAL 9010 (white), standard RAL spot color, on request

a) @ 1/8 full-scale

### 2.10.3 Technical Specifications VIDA M 220

<b>Concept</b>	Active 2-way coaxial line array with electronic beam steering
<b>Input signal</b>	Each speaker is fed through a dedicated DSP/amp channel.
<b>Frequency range @-10 dB</b>	95 Hz – 22 kHz
<b>Frequency range @±3 dB</b>	125 Hz – 21 kHz
<b>Horizontal coverage angle (nominal)</b>	90° nominal
<b>Coverage angle vertical</b>	Continuously adjustable spread angle up to 90°. ±45° steering angle
<b>Max. SPL</b>	133 dB
<b>Components</b>	32 x 1" dome tweeters 16 x 4" bass/midrange drivers
<b>Connectors</b>	DANTE™ (primary/secondary)/remote (RJ45), AES67 compliant, AES/EBU input (9-pin Phoenix terminal block), Analog input (9-pin Phoenix terminal block), GPIO (15-pin Phoenix terminal block), AUX OUT (9-pin Phoenix terminal block)
<b>AUX OUT</b>	Controllable DSP output, e.g. for subwoofer expander, +6 dBu nominal level
<b>Analog input</b>	Fullscale at +18 dBu
<b>Wide-range power supply</b>	100 – 240 VAC, 50 / 60 Hz
<b>Rated input power<sup>a)</sup></b>	305 W
<b>Maximum power consumption</b>	700 W
<b>maximum amplifier RMS power</b>	1120 W
<b>Idle power consumption</b>	65 W
<b>Enclosure</b>	Dust and jet-proof enclosure (IP65) made of extruded aluminum profile, highly robust powder coating, opaque steel grille with acoustic foam, hidden connector panel
<b>Dimensions (H x W x D)</b>	2167.5 mm x 150 mm x 133 mm
<b>Weight</b>	31.6 kg
<b>Colors</b>	RAL 9005 (black), standard RAL 9010 (white), standard RAL spot color, on request

a) @ 1/8 full-scale

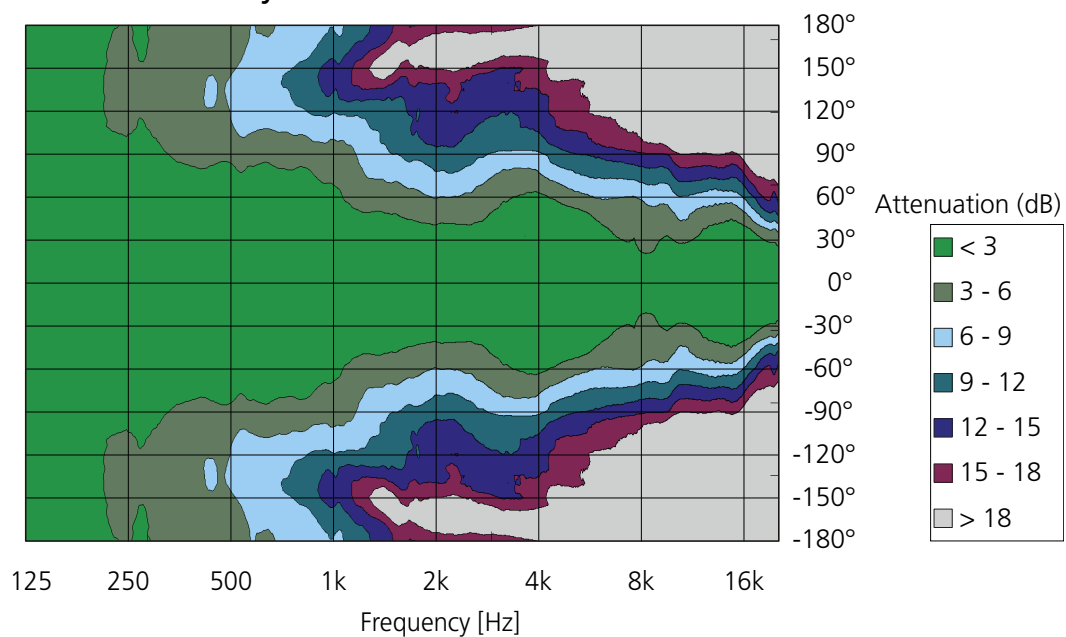
### 2.10.4 Technical Specifications VIDA M 220 S

<b>Concept</b>	Active 2-way coaxial line array with electronic beam steering
<b>Input signal</b>	Each speaker is fed through a dedicated DSP/amp channel.
<b>Frequency range @-10 dB</b>	95 Hz – 22 kHz
<b>Frequency range @±3 dB</b>	125 Hz – 21 kHz
<b>Horizontal coverage angle (nominal)</b>	90° nominal
<b>Coverage angle vertical</b>	Continuously adjustable spread angle up to 90°. ±45° steering angle
<b>Max. SPL</b>	133 dB
<b>Components</b>	32 x 1" dome tweeters 16 x 4" bass/midrange drivers
<b>Connectors</b>	DANTE™ (primary/secondary)/remote (RJ45), AES67 compliant, AES/EBU input (9-pin Phoenix terminal block), Analog input (9-pin Phoenix terminal block), GPIO (15-pin Phoenix terminal block), AUX OUT (9-pin Phoenix terminal block)
<b>AUX OUT</b>	Controllable DSP output, e.g. for subwoofer expander, +6 dBu nominal level
<b>Analog input</b>	Fullscale at +18 dBu
<b>Wide-range power supply</b>	100 – 240 VAC, 50 / 60 Hz
<b>Rated input power<sup>a)</sup></b>	305 W
<b>Maximum power consumption</b>	700 W
<b>maximum amplifier RMS power</b>	1120 W
<b>Idle power consumption</b>	65 W
<b>Enclosure</b>	Dust and jet-proof enclosure (IP65) made of extruded aluminum profile, highly robust powder coating, opaque steel grille with acoustic foam, hidden connector panel
<b>Dimensions (H x W x D)</b>	2167.5 mm x 150 mm x 133 mm
<b>Weight</b>	31.6 kg
<b>Colors</b>	RAL 9005 (black), standard RAL 9010 (white), standard RAL spot color, on request

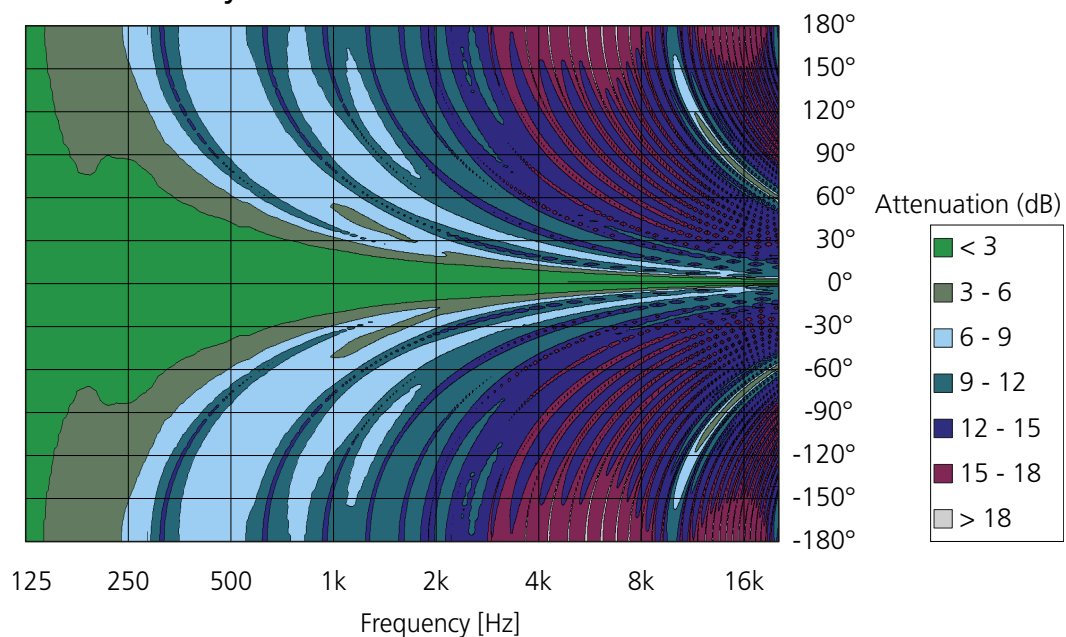
a) @ 1/8 full-scale

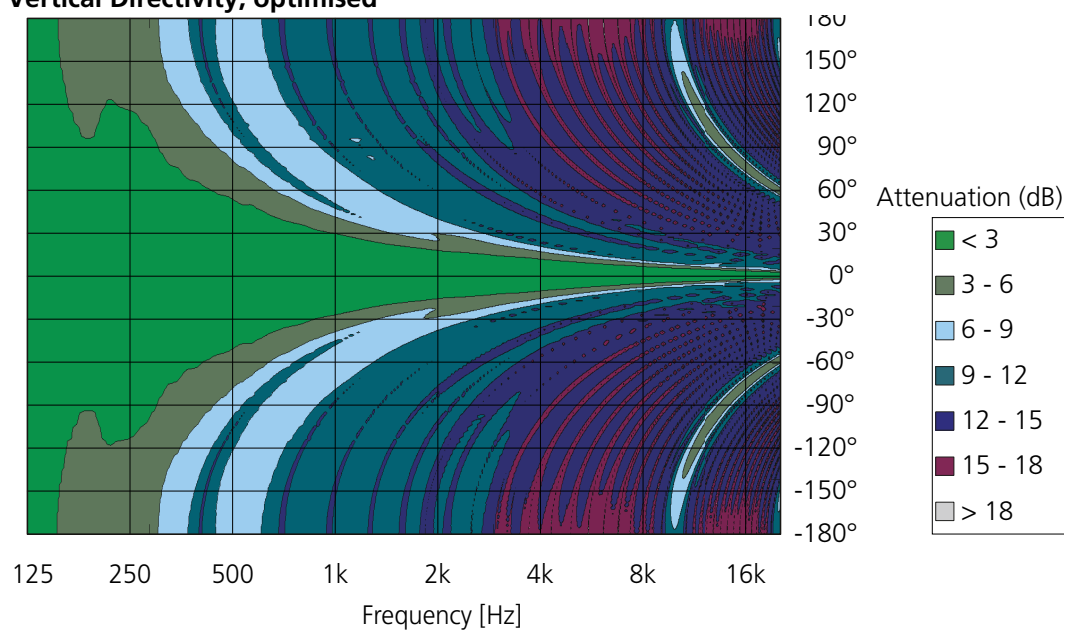
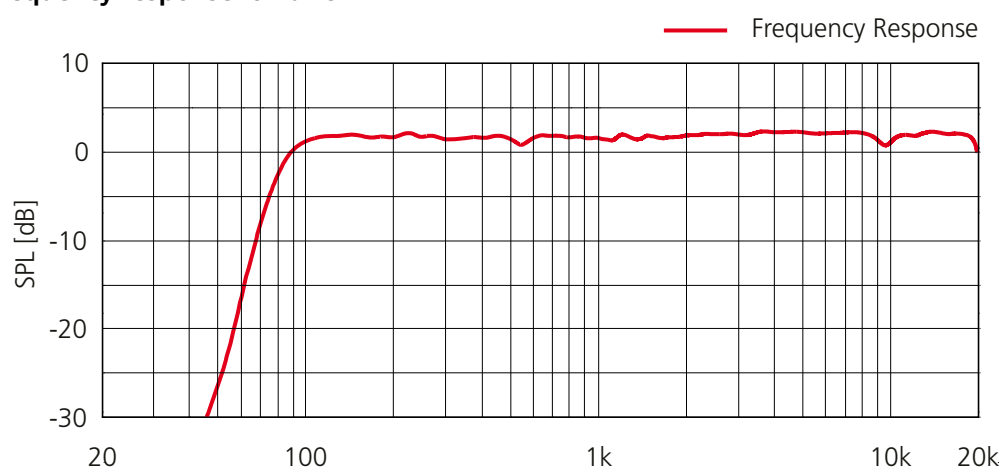
## 2.11 Measuring Diagrams

### Horizontal Directivity



### Vertical Directivity



**Vertical Directivity, optimised****Frequency response 'on axis'**

### 3 General Safety Instructions

#### **WARNUNG**

#### **Risk of electric shock**

- The system must be connected to the mains by a qualified electrician only.
- Make sure that the power outlet has a ground connector and it is connected to the device through the PE conductor of the power cord!
- Always route power cords so that they are protected from damage caused by stepping on it, tensile stress, or getting caught.
- All equipment interconnected through signal cables must be connected to common ground. Failing to do so may result in an electric shock or permanent damage to the connected equipment.

#### **Risk of electric shock and falling parts**

- Never perform any maintenance work on the equipment other than what is described in these user's manual.
- Repair work must be carried out by qualified service personnel authorized by KLING & FREITAG.

#### **Risks imposed by falling or overturning parts**

- To be installed by qualified personnel only.
- Be sure to install, suspend, fasten, and use KLING & FREITAG speakers only using the designated mounting hardware as specified in this document.
- Observe the safety instructions in the User's Manuals to the respective mounting hardware.
- Unless otherwise stated, use only KLING & FREITAG original parts for mounting the speakers.
- Dieses Lautsprechersystem darf nicht mechanisch geneigt werden.
- Never try removing the individual modules of VIDA M 220 / 220 S speakers after these have been joined, screwed, and glued together during initial installation.

#### **Danger of fire**

- The device does not include a master fuse. Be sure to protect the supply line appropriately (230 V: 16 A fuse max.; 115 V: 20 A fuse max.)!
- Also make sure the supply line has an appropriately dimensioned cable cross-section.

#### **VORSICHT**

#### **Risk due to high volumes**

This equipment is capable of delivering sound pressure levels in excess of 90dB SPL, which may cause permanent hearing damage. Keep your distance from operating speakers.

#### **HINWEIS**

#### **Possible malfunctions**

- RF interference at the power cord or line cables may result in unwanted noise.

## 4 Initial installation of VIDA M 220 / 220 S modules

VIDA M 220 / 220 S systems are disassembled for shipping and therefore need to be assembled for initial installation.

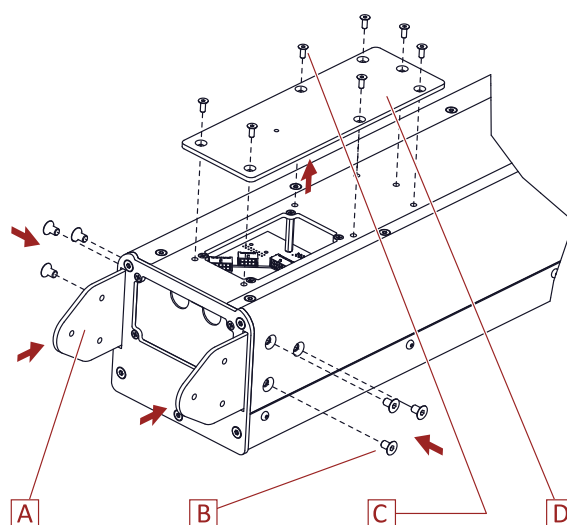
### ⚠ WARNING

#### Risks imposed by falling parts

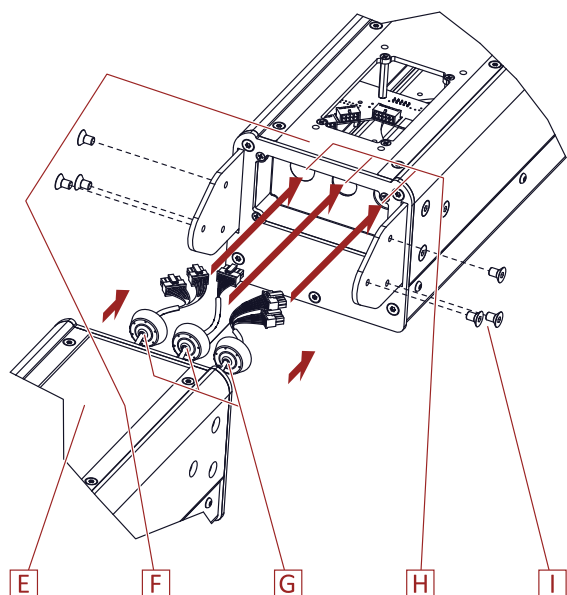
Never try removing the individual modules of VIDA M 220 / 220 S speakers once these have been joined, screwed, and glued together during initial installation.

Required Tools	Required mounting material
hexagon socket wrench IH4	Loctite 2400 (supplied)
hexagon socket wrench IH2.5	
Bent needle-nose pliers	

1. Slide the joint pieces [A] halfway into the passive-module inlets.
2. Apply Loctite 2400 to the threads of the M6x10 counter-sunk screws [B].
3. Screw in all M6x10 screws [B] using an IH4 hexagon socket wrench. Do not tighten yet!
4. Loosen the M4x10 countersunk screws [C] using an IH2.5 hexagon socket wrench and remove the sealing plate [D].



5. Slide the active module [E] onto the passive module [F].
6. Route the cables with their connectors [G] through the appropriate cable openings [H] of the passive module. The VIDA M 220 has only one single cable!
7. Press the grommets [G] into the cable openings to seal the housing. Make sure you can hear the grommets snap into place.
8. Apply Loctite 2400 to the threads of the M6x10 counter-sunk screws [I] to be used for attaching active module.
9. Tighten the M6x10 screws [I] to a **3Nm torque** using an IH4 hexagon socket wrench.
10. Next, tighten the M6x10 screws of the passive module [B] (see above figure) to a **3 Nm torque**.

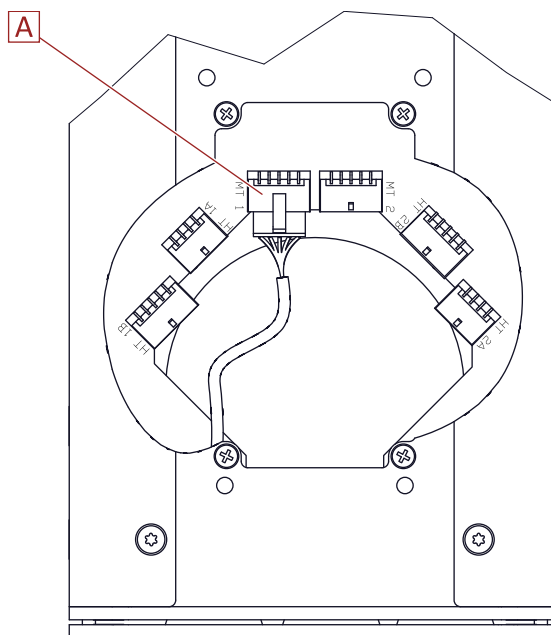


**VIDA M 220**

11. Plug in the connector as shown.  
The connecting-cable label matches the terminal label.

**[A] MT 1**

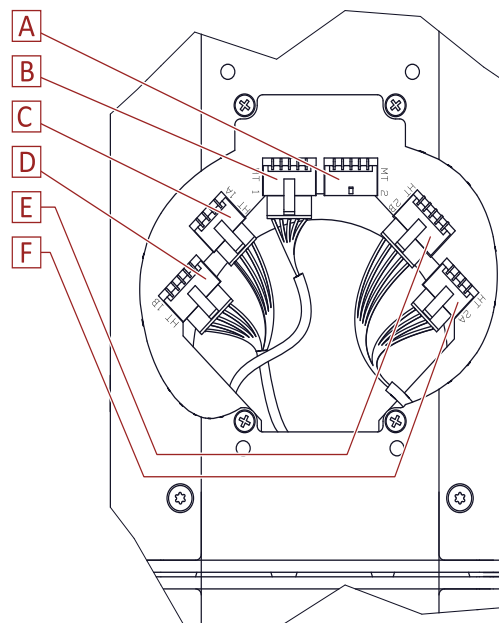
The remaining terminals will stay unoccupied.

**Tipp**

Use a pair of bent needle-nose pliers to complete the following steps:

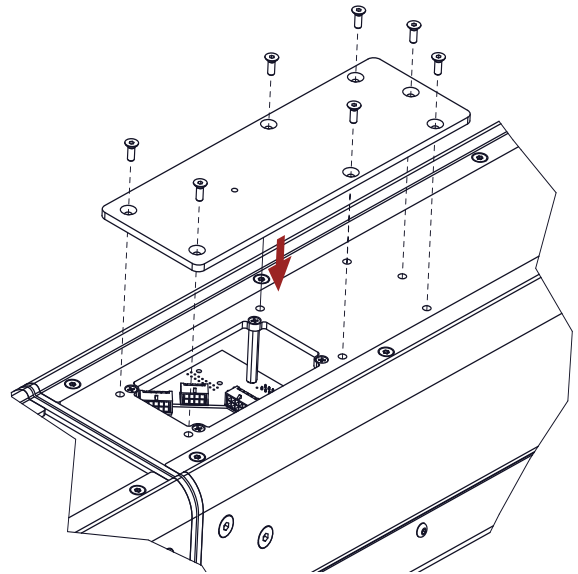
**VIDA M 220 S**

12. Make the connections as shown.  
The connecting-cable labels match their respective terminal labels.

**[A] MT 2, unoccupied****[B] MT 1****[C] HT 1A****[D] HT 1B****[E] HT 2B****[F] HT 2A**



13. Place the sealing plate.
14. Tighten the M4x10 screws using an IH2.5 hexagon socket wrench.



## 5 Wiring

Wire the speaker as described below.

### 5.1 Terminal positions and purpose

**[A]** Netzanschluss, 100 V bis 240 V AC

**[B]** Fuse:

**VIDA M 220 / 220 S:**

250V, 8A, slow-blow

**VIDA M 110**

**up to serial number:  
81232100150**

250V, 8A, slow-blow

**VIDA M 110**

**from serial number:  
81232100151**

250V, 6.3A, slow-blow

**VIDA M 110 S**

**up to serial number:  
83232500089**

250V, 8A, slow-blow

**VIDA M 110 S**

**from serial number:  
83232500090**

250V, 6.3A, slow-blow

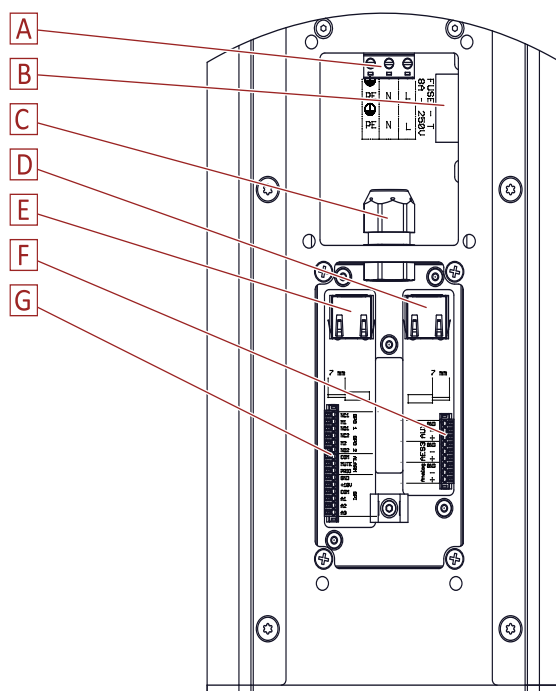
**[C]** Sealing power-cable gland and strain relief

**[D]** Dante/remote secondary (RJ45), redundant network port

**[E]** Dante/remote primary (RJ45) standard network port

**[F]** Audio terminals  
inputs: analog, AES 3, output (AUX): analog (LINE OUT)

**[G]** GPIO terminals



## 5.2 Kardioid

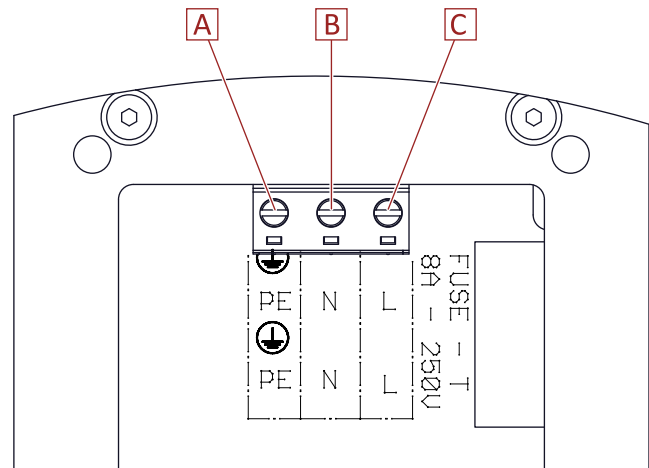
### 5.2.1 AC power inlet



#### Risk of electric shock

The system must be connected to the mains by a qualified electrician only.

- [A] PE conductor
- [B] N conductor (neutral)
- [C] L conductor (phase)



Cable specification		
Rating (min.)	Min. outer diameter (strain relief)	Max. outer diameter (strain relief)
8 A	4 mm	10 mm

## 5.2.2 Audio terminals

### HINWEIS

#### Potentially missing contact

Strip the cables by 7 mm.

#### Aux out (analog):

**[A]** GND (ground)

**[B]** COLD (–)

**[C]** HOT (+)

#### AES/EBU in (digital):

**[D]** GND (ground)

**[E]** COLD (–)

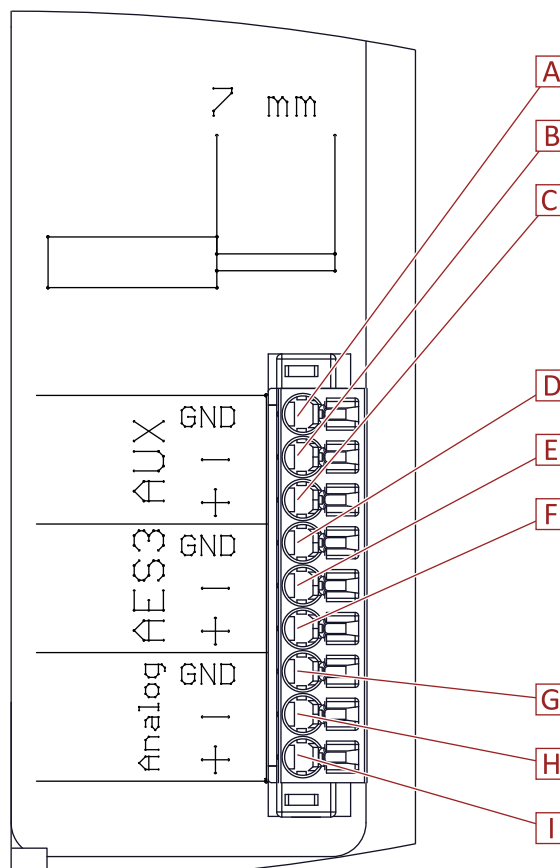
**[F]** HOT (+)

#### Analog in:

**[G]** GND (ground)

**[H]** COLD (–)

**[I]** HOT (+)



### Cable specification

Conductor type	Cross-sectional area (max.)	Cross-sectional area (max.)
Rigid/flexible	0.14 mm <sup>2</sup>	0.5 mm <sup>2</sup>
Flexible with wire end ferrule (no plastic ferrule)	0.25 mm <sup>2</sup>	0.34 mm <sup>2</sup>
Flexible with wire end ferrule (no plastic ferrule)	0.14 mm <sup>2</sup>	0.25 mm <sup>2</sup>
AWG specification	26	62

### 5.2.3 GPIO

#### HINWEIS

#### Potentially missing contact

Strip the cables by 7 mm.

#### [A] to [C] **GPO 1:**

NC1, M1, NO1:

Status output (warnings, errors)

#### [D] to [F] **GPO 2:**

NC2, M2, NO2:

Status output (warnings, errors)

#### [G] to [I] **ALARM:**

COM, MUTE, PRIO:

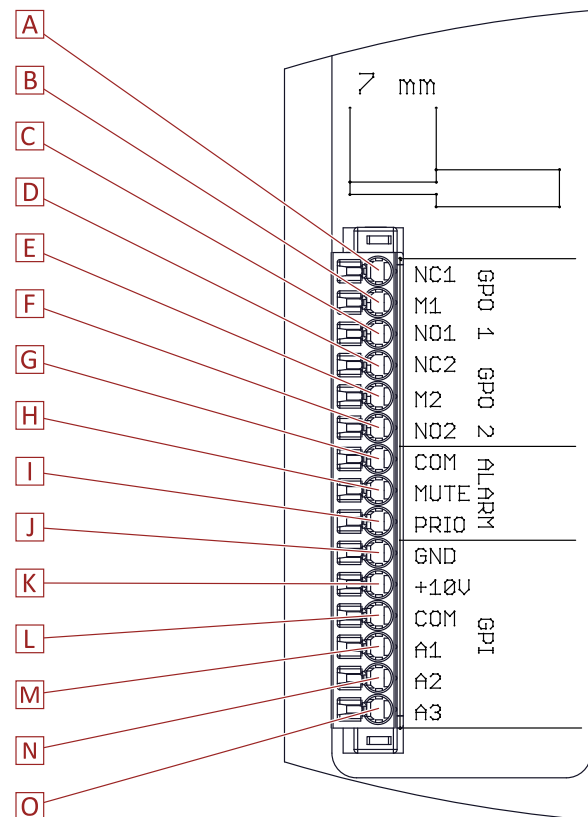
GPIs, for example, for warning systems: auto switch-off for prioritizing another warning system, or for loading a specific warning-system preset

#### [J] to [O] **GPI:**

GND, +10 V, COM, A1, A2, A3:

GPIs featuring power sources, allowing for switching between 8 presets

Refer to the VIDA App User's Guide for details on the GPIOs.



#### Cable specification

Conductor type	Cross-sectional area (max.)	Cross-sectional area (max.)
Rigid/flexible	0.14 mm <sup>2</sup>	0.5 mm <sup>2</sup>
Flexible with wire end ferrule (no plastic ferrule)	0.25 mm <sup>2</sup>	0.34 mm <sup>2</sup>
Flexible with wire end ferrule (no plastic ferrule)	0.14 mm <sup>2</sup>	0.25 mm <sup>2</sup>
AWG specification	26	62

## 6 GPIO specifications

### 6.1 GPI

#### GPI A1 – A3:

Type	Floating optocoupler inputs
Power consumption	2.5 mA @10 V
Internal voltage source <sup>a)</sup>	12 V/1 mA, floating
Reverse voltage	–6 V
HIGH switching threshold	Edge-triggered: 5 V (min.) – 30 V (max.)
LOW switching threshold	Edge-triggered: –6 V (min.) – 1.5 V (max.)

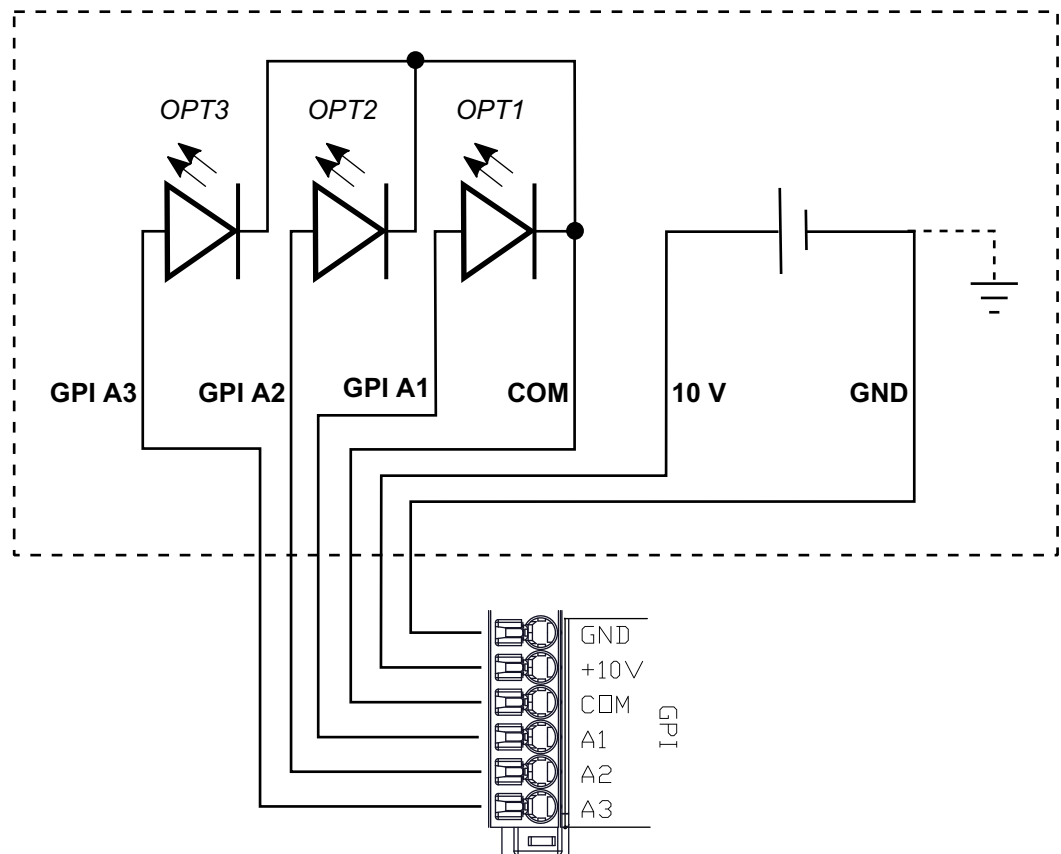
a) If galvanic isolation is required, be sure to use an external voltage source!

#### GPI prio / mute:

Type	Floating optocoupler inputs
Power consumption	2.5 mA @10 V
Internal voltage supply <sup>a)</sup>	12 V/1 mA, floating
Reverse voltage	–6 V
HIGH switching threshold	Voltage controlled: 5 V (min.) – 30 V (max.)
LOW switching threshold	Voltage controlled: –6 V (min.) – 1.5 V (max.)
GPI PRIO function	Input selection
GPI MUTE function	Mute

a) If galvanic isolation is required, be sure to use an external voltage source!

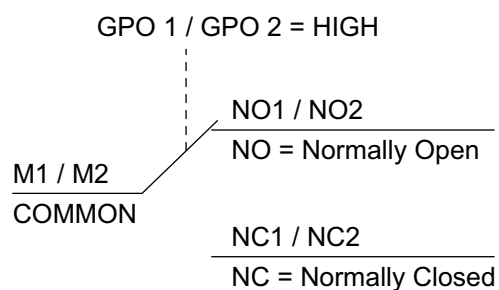
### 6.1.1 GPI internal wiring:



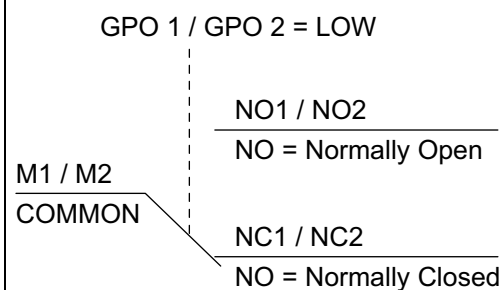
## 6.2 GPO

Type	Floating MOSFET-Schalter
Max. Continuous current	0.5 A
Max. Peak current	1.5 A
Max. Peak voltage	60 VAC
NO1 / NO2	Normally open, low impedance to COMMON
NC1 / NC2	Normally closed, high impedance to COMMON
M1 / M2	COMMON

### GPO internal wiring:



- GPO 1 / GPO 2 is high, status is OK
- NO1 / NO2 is low-impedance to COMMON



- GPO 1 / GPO 2 is low, status is ERROR
- NO1 / NO2 is high-impedance to COMMON



## 7 Systemlatency

The following table lists the systems latency that is to be expected of the VIDA M. They refer to firmware version 1.1.0 or greater, no beam steering.

Input	K&F VIDA M	AUX OUT
Analog	6.016 ms	1.260 ms
AES 44.1 kHz	8.299 ms	3.537 ms
AES 48.1 kHz	8.062 ms	3.313 ms
AES 88.2 kHz	7.302 ms	2.540 ms
AES 96 kHz	7.208 ms	2.448 ms
AES 176.4 kHz	6.830 ms	2.046 ms
AES 192 kHz	6.760 ms	2.000 ms
DANTE	n.a.	n.a.

When using system amplifiers such as the K&F PLM+ series with the AUX OUT, additional delay will be added due to the amps signal processing. For this reason, the AUX OUT has the least amount of delay possible, which leaves room to be adjusted via the VIDA APP.

### 7.1 Dante latency

The latency for the DANTE playback results from the setup for the DANTE network and the

#### 7.1.1 Example

DANTE controller setup: latency = 0.5 ms, sample rate = 96 kHz

Total latency = 7.208 ms (AES 96 kHz) + 0.5 ms (DANTE) = 7.708 ms

By factory default, the two network ports of the VIDA M are configured for redundant operation. This way, you can route a signal through Dante and two separate cable runs in order to increase fail-safety.

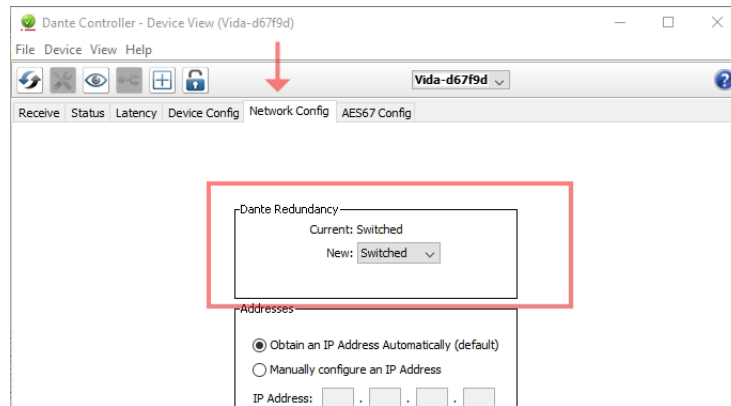
If necessary, you can change the two ports to the 'Switched' mode using the Dante Controller software. This way, you can route control data and the Dante signal from one speaker to the next. (This is referred to as daisy-chaining.) In this case, you cannot achieve a redundant configuration.

---

### 7.1.2 Changing between Dante redundancy operating modes

---

1. Launch Dante Controller.
2. Double-click the VIDA M to be configured to access the Device View.
3. Click the Network Config tab.
4. Make the appropriate settings in the Dante Redundancy section.



---


### 7.1.3 Setting up Dante latency with an additional hop

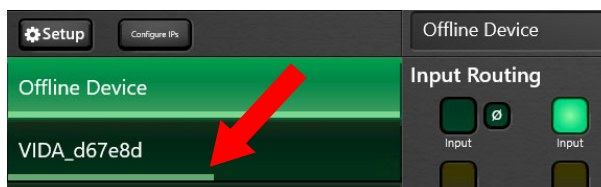
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There is one additional network switch installed inside K&F VIDA M which translates to one additional hop for the network. Be sure to note this when setting up the Dante latency.

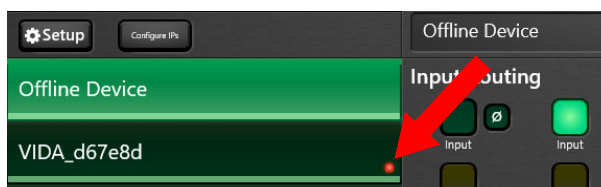
For more information about setup and design of a Dante audio network and the necessary [www.audinate.com/resources](http://www.audinate.com/resources)

## 8 Initial Operation

1. Download the VIDA App from the Microsoft Store and install it.  
For this purpose, visit the **Microsoft App Store** and search for **VIDA App**.
2. Download the VIDA App User's Guide from our website ([www.kling-freitag.de](http://www.kling-freitag.de)).
3. Wire the speaker as previously described. See chapter »Wiring« on page 26.
4. Connect the power supply.
5. Add the speakers to your network. Use for this purpose primarily the network socket **Dante / Remote Primary (RJ45)**
6. Run the VIDA App on your computer. At program launch, the Setup screen will be displayed.
  - By default, the Offline Device is always displayed at the top left corner. *Using that device, you can configure settings without physically connecting a speaker. This means you can create and store "virtual setups" that you can later apply onto your physical speakers. To configure Offline Devices, press the  button on the right-hand side to select the desired speaker type and in the case of VIDA L speakers, the corresponding number.*
  - The Offline Device will list all accessible VIDA speakers and arrays.
  - While the VIDA App is uploading the settings to the speakers found, green progress bars will show the upload status for each system.



- **At first use**, a red dot appears next to the speaker. In addition, the front LED will light red. This means that no valid preset could be uploaded, so the speaker is not ready for operation.



- The filter setup is automatically loaded when you make settings on the 'Beam' page.
- For a functional check, press the button 'Preset' (bottom right) under the tab 'Beam'.
- Load the 'Default' setup.
- Note that this preset is only for a functional check and is not suitable for a sound adjustment.

7. To check, change to the Setup tab.
  - When the progress bar is fully displayed and no red dot is shown, the speaker is ready for operation.



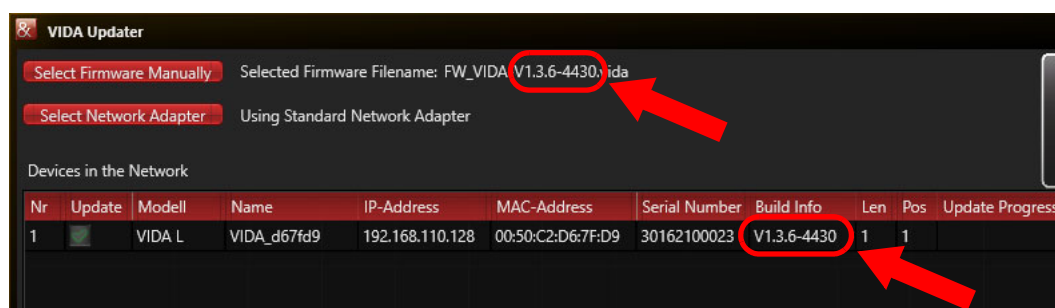
8. For details on speaker configuration and operation, refer to the VIDA App User's Manual.
9. Output a low-volume signal to the system.
10. Check to see if the desired signals are applied to the intended speakers and make sure there is no interference.
  - A red progress bar indicates that the speaker has received damaged data packets, or no data packets at all. In this case, make sure you are within the WLAN service area, are connected to the correct WLAN, and no other network-related problems exist.



## 9 Updates


### 9.1 Firmware Update

1. Connect the speakers to the mains.
2. Add the speakers to your network.
3. Download the VIDA Firmware Updater from our website ([www.kling-freitag.de](http://www.kling-freitag.de)).
4. Unzip the file and run the executable.
5. Wait a moment until the software has found the speakers on the network and has selected the current firmware on the K&F server.
6. Compare the version numbers of the current firmware ("Build Info") on the server with the installed speaker firmware.
7. If the firmware version installed on the speaker is lower than the version number on the K&F server, perform a firmware update.

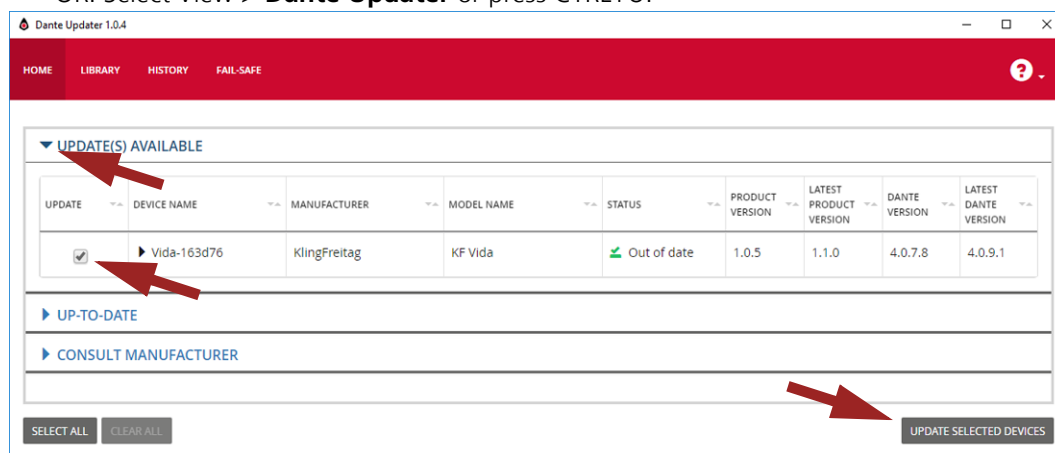


8. Follow the instructions in the Quick Start Guide included in the ZIP file of the VIDA Firmware Updater.

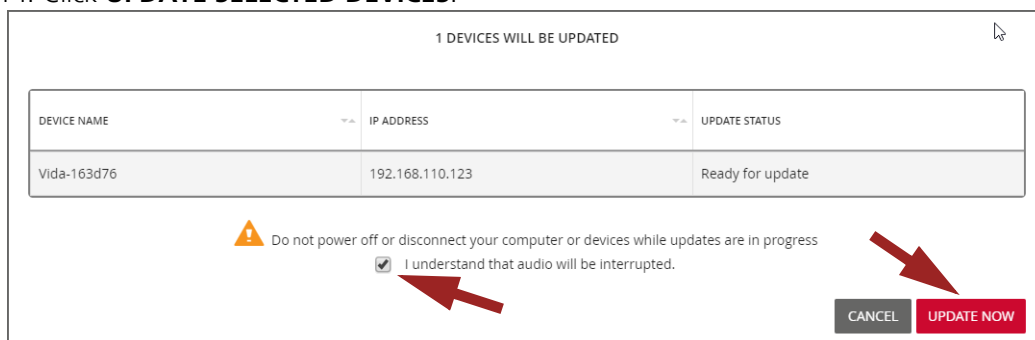
## 9.2 Dante Update

1. Connect the speakers to the mains.
2. Add the speakers to your network.
3. If the **Dante Controller** application is already installed, proceed to step 10.
4. Visit <https://www.audinate.com/products/software/dante-controller>.
5. Select your operating system.
6. Click the **Dante Controller v...** button.
7. Select **I need to create an account** to create a new account, or click **I have an account** to log in using your existing credentials.
8. Click **Downloadfile: Dante Controller-....exe** and save the file.
9. Launch the saved executable and follow the installation instructions.
10. Run the **Dante Controller** program.
11. To launch the Dante updater, click the  button.

OR: Select View > **Dante Updater** or press CTRL+U.



12. Open the **UPDATES AVAILABLE** menu.
13. Select the checkbox for the speakers you want to update.
14. Click **UPDATE SELECTED DEVICES**.



15. Select the checkbox to confirm that you understand that audio will be interrupted during the update process.
16. Click **UPDATE NOW**.

When the update is complete, the following dialog will be shown:

DEVICE NAME	IP ADDRESS	UPDATE STATUS
Vida-163d76	192.168.110.123	<input checked="" type="checkbox"/> REBOOT REQUIRED

SELECT ALL   REBOOT SELECTED DEVICES   CLOSE

17. Check the REBOOT REQUIRED box.

18. Click the REBOOT SELECTED DEVICES button to reboot the updated speaker(s).

## 10 Care and Maintenance

The K&F VIDA M system can exhibit signs of wear over the years, for example, from mechanical strain, transport damage, corrosion, or improper handling. Signs of wear typically indicate an increased safety risk.

In general, check the speaker and accessories for signs of wear at regular intervals.

When performing those checks, particularly look for deformations, cracks, dents, damage to threads, and corrosion. Also check slings and lifts (e.g. shackles, chains, and steel ropes) carefully for wear and deformation.

If as a result of these checks any uncertainty should arise with regard to safety or defects are found, don't use the speaker any longer. Contact your retailer.

Inspection regulations may vary depending on application and country of use. Observe all applicable regulations; If in doubt, contact local authorities.

Many countries require regular inspection of mounting components and accessories. An additional annual inspection is typically required to be performed by a technical expert. Moreover, a legally certified or official authority must perform a detailed inspection every four years.

Therefore, be sure to maintain an inspection log. Enter the values determined for each speaker and accessory during the periodic checks into this log. This way, relevant data are always at hand in case of inspection. This inspection log book shall be updated with the inspection steps, test intervals and parts lists.

## 11 Transportation and Storage

For transport in the original carton, place the speaker in the carton with the grille facing up. Store the product in a dry place. Also, transport under dry conditions only.

During prolonged storage, ensure sufficient ventilation.

Avoid vibrations during transport.

Avoid mechanical stress during transport and storage, so the product is not damaged.

## 12 Disposal



**This symbol on the electronic equipment indicates that the product must not be disposed of with household waste.**

### 12.1 Germany

Don't dispose of waste electrical equipment through household waste. All KLING & FREITAG products are plain business-to-business (B2B) products. <b>Don't deliver it to official recycling points either.</b>

KLING & FREITAG GmbH is exclusively responsible for disposing of all KLING & FREITAG waste equipment marked with a crossed-out garbage-can icon. Please call the below phone number when you have a KLING & FREITAG product for disposal. We will offer you a straightforward and professional disposal at no cost.

For further disposal information of KLING & FREITAG waste products, call **+49 511 -96 99 7 -0**

The WEEE registration number of KLING & FREITAG GmbH is: DE64110372.

### 12.2 EU, Norway, Iceland, and Liechtenstein

The local distributor (sales partner) in the respective country is responsible for complying with the national implementation of the WEEE directive.

Contact your retailer or the local authorities for information on the regulations applicable in any EU member state (except Germany).

### 12.3 All Other Countries

Contact your retailer or the local authorities for information on the regulations applicable in any country not listed above.



## 13 EC Declaration of Conformity

### EG-Konformitätserklärung

(Declaration of EG-Conformity)



**Hersteller:**  
(Manufacturer)

Kling & Freitag GmbH  
Junkersstraße 14  
30179 Hannover  
Deutschland

**Bevollmächtigter  
für die Zusammenstellung der  
technischen Unterlagen:**

(Authorized representative  
for the compilation of technical  
documents)

Kling & Freitag GmbH  
Abt. Entwicklung  
Dipl. Ing. Arne Muscheites  
+49 (0)511 / 96997-50  
Deutschland

**Produkt:**  
(Product)

**Lautsprechersysteme:**  
**VIDA M110, VIDA M110 S,**  
**VIDA M220, VIDA M220 S**

**Hiermit erklären wir, dass das genannte Produkt den Schutzanforderungen der folgenden EG-Richtlinien entspricht, einschließlich deren zum Zeitpunkt dieser Erklärung gültigen Änderungen:**

(We hereby declare that the designated product is compliant with the safety requirements of the following EU directives - including the changes which applied at the time of the declaration:)

- 2014/35/EU, Niederspannungsrichtlinie (Low Voltage Directive)
- 2014/30/EU, Elektromagnetische Verträglichkeit (Electromagnetic Compatibility)
- RoHS II 2011/65/EU

**Zur Beurteilung hinsichtlich der Einhaltung wurden folgende harmonisierte Normen herangezogen:**

(Conformance of the products with the requirements is approved by compliance with the following harmonized European standards:)

- IEC 62368-1 : 2016-05
- DIN EN 55032 Berichtigung 1 : 2019-02
- DIN EN 55035 : 2018-04
- DIN EN 61000-3-2 : 2017-03

**Folgende internationale und nationale Normen und Vorschriften wurden angewandt:**

(The following national and international standards and specifications were applied:)

- Eurocode 1/DIN EN 1991-1-1 : 12/2010
- Eurocode 3/DIN EN 1993-1-1 : 12/2010
- Eurocode 9/DIN EN 1999-1-1 : 12/2010
- DIN EN ISO 12100 : 2011-03
- DIN ISO/TR 14121-2 : 2013-02
- DGUV Vorschrift 17 (BGV C1)

Hannover, 09.07.2019

Jürgen Freitag, Geschäftsführung (CEO)



THANK  
YOU FOR  
CHOOSING  
K&F.



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