

# Vari-directional Array

Sound traveling in the right direction



**BOSCH**

Invented for life



# The ultimate sound performance for acoustically challenging environments

- ▶ **Unmatched sound quality and speech intelligibility**
- ▶ **Fast solution for challenging environments**
- ▶ **Smart modular design**
- ▶ **EVAC compliant**
- ▶ **Flexible, straightforward installation**
- ▶ **Optional Cobranet™ networking**

## **Superior technology for superb acoustics**

Hard construction materials, applied in buildings such as railway stations, airports, places of worship and conference centers, lead to disturbing reverberation. Vari-directional Arrays from Bosch overcome this challenge to deliver unmatched acoustical performance in difficult environments.

Thanks to digitally controlled directivity, sound is only sent where it is needed, producing an optimal sound field with perfect speech intelligibility. The sleek, unobtrusive design looks great in any environment, and the modular units can be mounted flat against the wall or even flush-mounted. Supervision, backup power, and optional support for CobraNet™ extend the options even further.

## **Configuration software**

Automatically generates the perfect sound beam in real-time.





**Indoor/outdoor casing**  
The stylish units are rugged enough to be used outdoors.

**Modular design**  
Practical to stock, user-friendly to transport, and straightforward to install.

**Optional CobraNet™-networking**  
Seamlessly connect with other CobraNet™-based components, including Praesideo from Bosch.

**Front amplifier cooling**  
Front access to connections and an energy-efficient approach that allows flush mounting in walls.



## Unique **features**

Modular design, straightforward installation and user-friendly configuration make these loudspeakers the right choice for difficult environments.

### **Active Line Array**

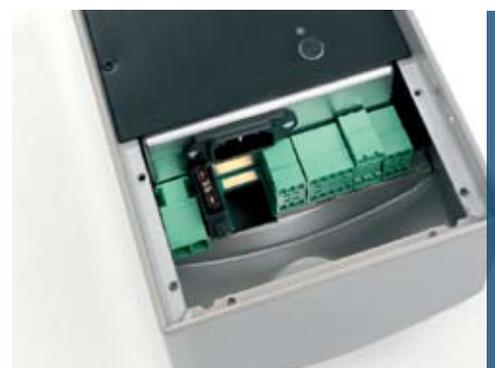
Bosch's active technology covers a large range (up to 50 m), and generates an evenly distributed sound output pattern. Electrical beam steering optimizes audience coverage without wasting output energy on ceilings or open space above the audience. As less reverberation is generated, this results in excellent speech intelligibility.

### **EVAC compliant**

Full EVAC compliance means that the arrays conform to local and international requirements for voice-alarm applications. All the amplifier and loudspeaker components are fully supervised. Provisions for fault-detection and backup power supply are available for public address and voice alarm systems like Plena and Praesideo.

### **CobraNet™ networking**

Digital audio via CobraNet™ (optional) enables the arrays to fully integrate with digital public address systems like Praesideo from Bosch.





### Smart modular design

The base unit and extension units connect together with a simple action. Automatic detection of the extension units speeds up configuration.



### Designed for straightforward installation

Vari-directional Arrays can be installed flat against a wall and do not need tilting, as the sound beam is steered by the software. The compact brackets can turn the array horizontally up to 80°. Each base unit provides all the necessary connectors for networking, configuration and surveillance.

### Different combinations for various sound beams

High directivity leads to focused energy and a longer throw, so fewer speakers are needed to cover the same area. On its own, the base unit can cover up to 15 m. Adding one extension provides coverage up to 30 m, and adding two extensions provides longer coverage up to 50 m.



## Unique software for fast and accurate configuration

### Line array configuration has never been easier

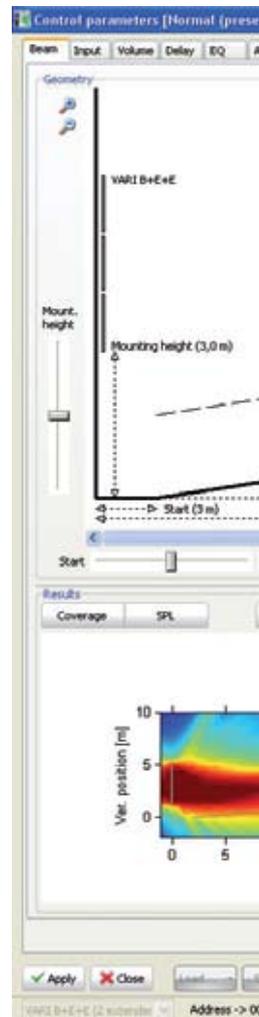
The Bosch Configuration Software makes it easier than ever to configure a line array. By simply entering the room dimensions and the speaker mounting height, the software automatically generates the optimal setting for the beam in real-time. The final solution is perfect, without the need for time-consuming manual configuration.

### Easy, intuitive software interface

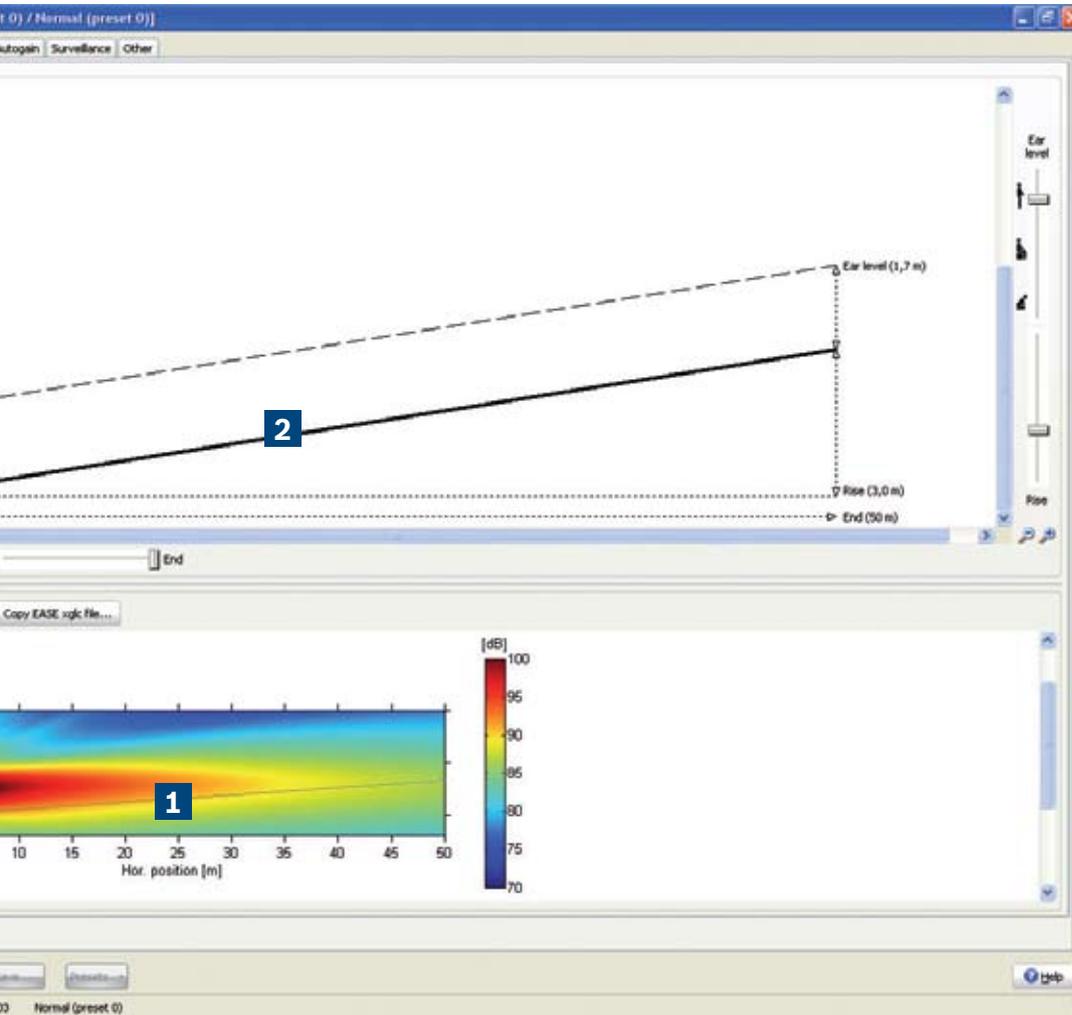
The software menus are straightforward to use and easy to understand. A unique feature is that the software generates a real-time visual coverage pattern to check how the beam will be steered. Changing the parameters will instantly change the coverage pattern. Furthermore, the software features a complete on-line monitoring screen for Vari-directional Array diagnostics.

The software can fully control the built-in delay, equalization, supervision parameters for Voice Evacuation applications and automatic volume control for noisy environments.

The computer running the configuration software can be connected to the array directly or via a dedicated network by means of an RS485/USB connection.



The smart Bosch Configuration Software makes it easier than ever to configure the Vari-directional Arrays, since the most optimized soundbeam is automatically generated.



Real user flexibility

- 1 Through the software, the sound beam of the array is automatically generated to meet specific needs.
- 2 A tilted beam can easily be generated for use in auditoriums with tiered rows of seats.

Sound pressure is constant over the entire audience area. There are no hot spots – the sound is clear and natural throughout the listening space.





### **Superb speech intelligibility**

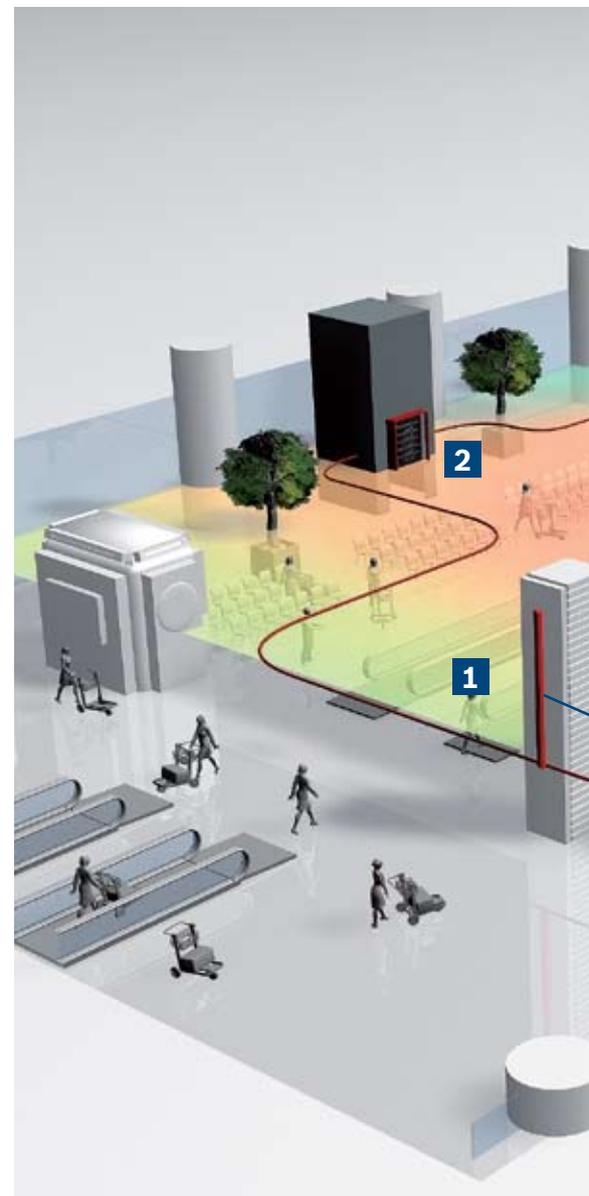
Due to the optimal sound beam, there is no sound-energy loss and no disturbing reverberation, resulting in clear and easy-to-understand recorded messages and live speech.

### **Fewer installation points**

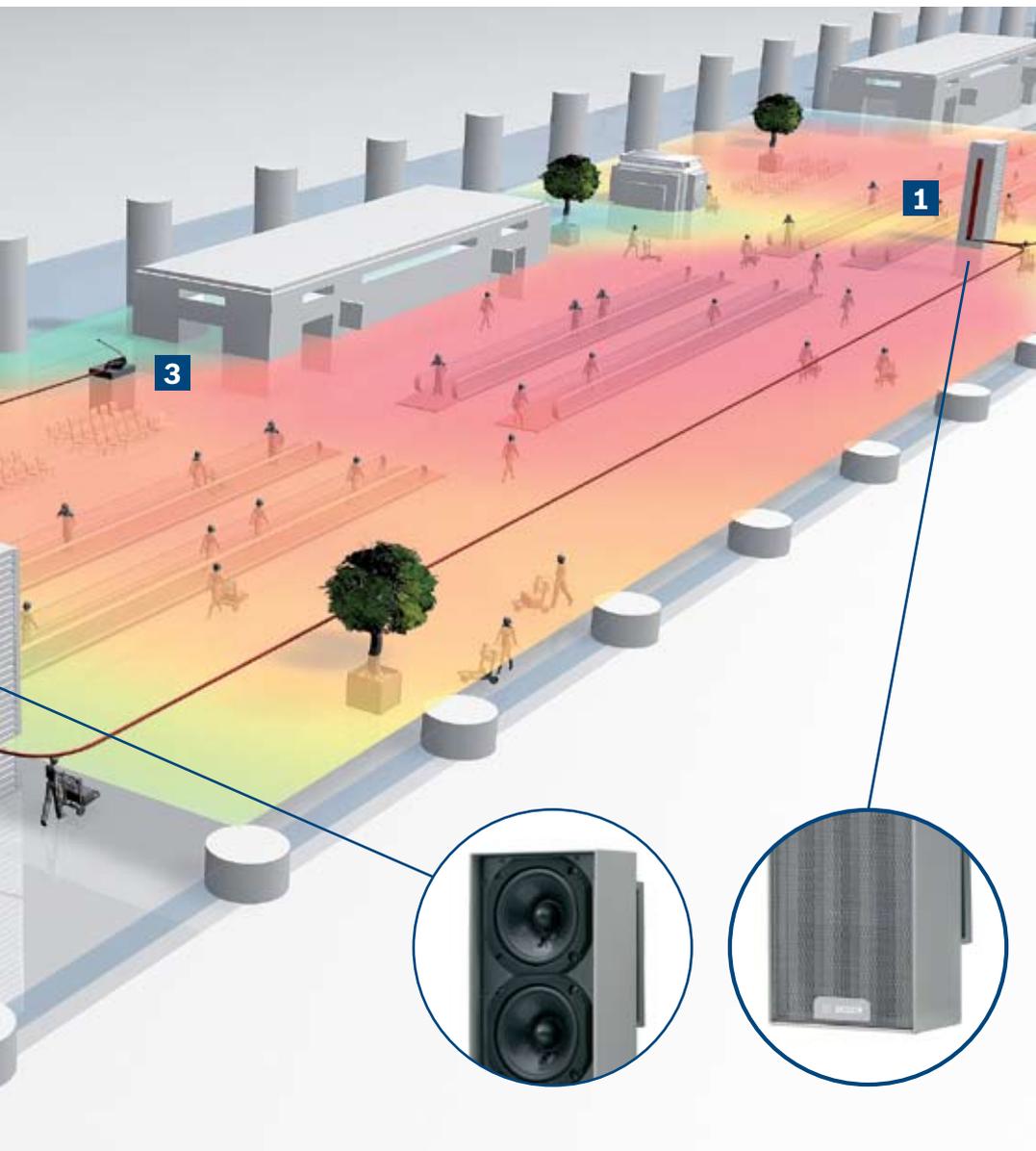
The long throw, combined with the wide horizontal opening angle and built-in amplifiers, results in a significant planning advantage with fewer installation points, and less cabling and central equipment.

### **CobraNet™ networking**

Using the optional CobraNet™ networking feature, Vari-directional Arrays can be easily integrated into an existing infrastructure or larger system – such as a Praesideo Public Address System from Bosch – without the need for extra audio cables. CobraNet™ technology means that all arrays can operate and be addressed individually over the existing Ethernet network.



# The **solution** for all acoustically challenging environments



Vari-directional Arrays use best-in-class technology to ensure that the target audience hears everything perfectly, whatever the application. Whether it's an announcement of the next train, an inspiring sermon, a musical performance or a multimedia presentation, the message will always come through loud and clear.

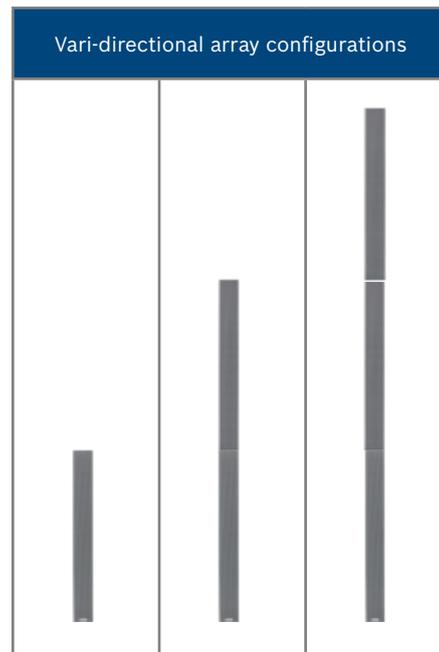
- 1 Vari-directional Array
- 2 Praesideo System
- 3 Call station



# A few modules **that make a world of difference**

Just a few product types provide all the tools to configure a superb loudspeaker system for nearly any environment. The standard base unit (LA3-VARI-B) is rugged enough for outdoor use, while the high-frequency base unit (LA3-VARI-BH) uses coax drivers for improved music reproduction. Both base units contain 8 amplifier channels, input and output connections, digital signal processing and a power supply for a complete array. The extension units, in combination with the base unit, create a loudspeaker that is up to 3.6 m tall and delivers a throw of up to 50 m.

LA3-VARI-B	LA3-VARI-BH	LA3-VARI-E
Base unit	Base unit with improved high frequency	Extension unit
		



	Vari-directional array configurations		
	Vari-array B1	Vari-array B2	Vari-array B3
LA3-VARI-B	1x	1x	1x
LA3-VARI-E		1x	2x
	Vari-array H1	Vari-array H2	Vari-array H3
LA3-VARI-BH	1x	1x	1x
LA3-VARI-E		1x	2x
Throw	15 m	30 m	50 m
Height	1.2 m	2.4 m	3.6 m



### **A Tradition of Quality and Innovation**

For over 100 years, the Bosch name has stood for quality and reliability. Bosch is the global supplier of choice for innovative technology, backed by the highest standards for service and support.



Bosch Security Systems proudly offers a wide range of security, safety, communications and sound solutions that are relied upon every day in applications around the world, from government facilities and public venues to businesses, schools and homes.

### **Bosch Security Systems**

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