

## SMARTVOX-MA12

### Passive Loudspeaker Line Array



#### SMARTVOX-MA12 / 50 W / 100 V

SMARTVOX-MA12 is a vertical loudspeaker array that uses a linear spaced speaker arrangement in combination with passive phase shifting, passive power shading and filtering, to obtain a constant directivity index for multiple frequencies (Concept is based on the MESSENGER linear spaced line-arrays with patent algorithm). The fixed Azimuth angle of -12 degrees, allows for the unit to be placed vertical against any surface, resulting in more clarity, lower reverberant field and therefore a much higher 'direct-to-reverb' ratio, leading to a higher intelligibility figure (STI).

Ordinary line-arrays radiates a cylindrical wave front that moves in a straight line from its source. Due to this a normal colum needs to be tilted forward to obtain good coverage of the listening area (figure 1).

This is needed to focus the soundwaves in forward direction into the audience area trying to avoid annoying reflections from other surfaces. Loudspeakers in general are not only producing sound forwards but also backwards especially for the lower frequencies. These soundwaves are reflected by the backwall to which the array is fixed.

These waves are mirrored according to the mounting angle of the array and will fill the environment with un-wanted artificial reverberation energy, leading to lower direct-to-reverb ratio and to a poor intelligibility.

By "aiming" the beam of a loudspeaker electronically using passive phase-shifting, power-shading and filtering technique for constant directivity, you can keep the column perfectly vertical position against its surface (figure 2), reducing any additional attributed energy to the reverberant field, resulting in more clarity and a much higher intelligibility.

The SMARTVOX-MA12 distinguishes itself through its precise sound direction pattern in the vertical plane, independent of the frequency. Due to constant sound pressure over long distances fewer columns are needed, which makes the installation far more simple and effective.

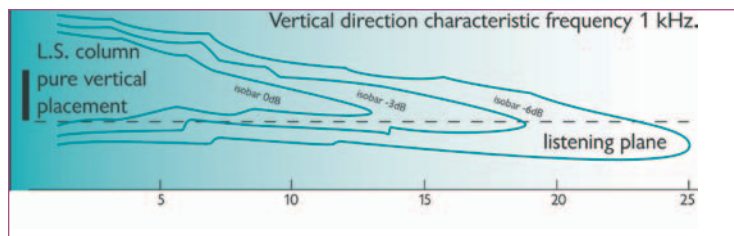
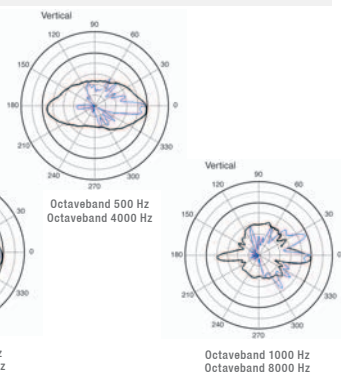
#### SMARTVOX-MA12 CHARACTERISTICS

- Maximum power rating: 50 Watt.
- Operating voltage: 50 / 70 / 100 Volt.
- Frequency respond: 250 Hz - 12 kHz.
- Horizontal coverage: 120 degrees.
- Q-factor / Di: 14.1 / 11.5 dB.
- SPL @ 1 kHz, 1W/ 1M: 93.5 dB.
- Standard color: RAL 9010.
- Dimensions:  
560 mm Height, 90 mm Width, 110 mm Depth.

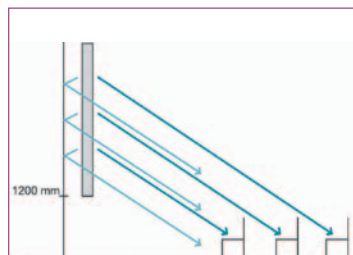


#### SMARTVOX-MA12 Features

- Filtering based on Messenger Patent algorithm concept.
- Wide dispersion.
- Linear spaces speakers.
- Constant sound level.
- Lower reverberant field.



Picture 2



Picture 1

