



NOVASONAR - Invisible loudspeaker

AK-Series





Power handling: 30 Watts Dimensions: Min. 500 mm x 625 mm	
AK 30 (Ext. DSP recommended)	2
AK 30 / PN (Incl. frequency crossover)	3

Power handling: 60 Watts Dimensions: Min. 500 mm x 625 mm	
AK 60 (Ext. DSP recommended)	4
	_
AK 60 / PN (Incl. frequency crossover)	5
AK 60 Stereo (Ext. DSP recommended)	6
AK 60 Stereo / PN (Incl. frequency crossover)	7

PN = Integrated frequency crossover Please click on the products to open the respective data dpecification sheet www.novasonar.de

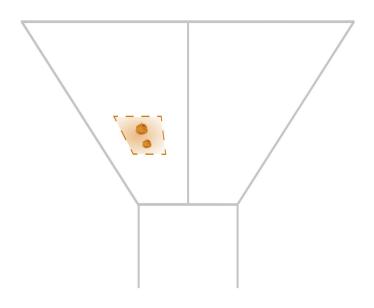
NOVASONAR AK 30

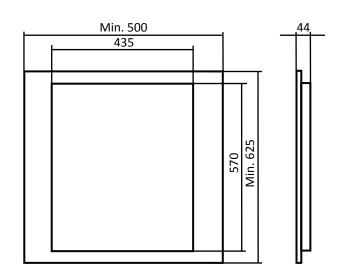
Invisible sound system for acoustic ceilings



Building material and the sound system from a single production source







Available in the following acoustic boards

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions

Description / Technical data

Flat-panel loudspeaker on the principle of the bending wave transducer with a flat panel membrane, which is brought to vibration by electrical exciters mounted to the back.

The loudspeaker comprises a conventional acoustic board, e.g. made of expanded glass granulate, mineral wool, glass wool, wood wool, particle wood etc. with a factory-integrated flat-panel loudspeaker.

The acoustic board is stripped down to a minimum thickness on the back in the area of the loudspeaker membrane by means of milling and thus causes sound-neutrality.

Materials and assembly do not differ from other construction materials used and as a result, there are no "alien bodies" in the acoustic ceiling.

Factory integration of the flat-panel loudspeaker in the building material precludes any errors in installation and guarantees continously assembly and processing technology in drywall work without material change, therefore ensuring smooth progress on the building site.

The surface can be coated with all usual acoustic coatings.

Dimensions (standard): Minimum 500 mm x 625 mm

Building material: Acoustic board
Frequency response: 80 Hz – 20000 Hz

EQ: External Dispersion: $180^{\circ} \times 180^{\circ}$ Power handling: $30 \text{ W} / 8 \Omega$ Optional: 70/100 V

Sensitivity: 80 dB (1 w / 1 m)

Max. SPL: 95 dB (1 m)

Manufacturer: ML-Audio und Carbons GmbH

Model: Novasonar AK 30

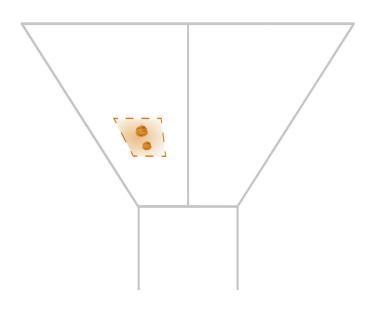
NOVASONAR AK 30 / PN

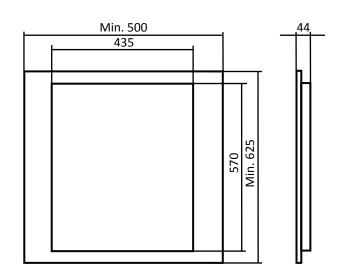
Invisible sound system for acoustic ceilings



Building material and the sound system from a single production source







Available in the following acoustic boards

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions

Description / Technical data

Flat-panel loudspeaker on the principle of the bending wave transducer with a flat panel membrane, which is brought to vibration by electrical exciters mounted to the back and with an integrated frequency crossover/filter.

The loudspeaker comprises a conventional acoustic board, e.g. made of expanded glass granulate, mineral wool, glass wool, wood wool, particle wood etc. with a factory-integrated flat-panel loudspeaker.

The acoustic board is stripped down to a minimum thickness on the back in the area of the loudspeaker membrane by means of milling and thus causes sound-neutrality.

Materials and assembly do not differ from other construction materials used and as a result, there are no "alien bodies" in the acoustic ceiling.

Factory integration of the flat-panel loudspeaker in the building material precludes any errors in installation and guarantees continously assembly and processing technology in drywall work without material change, therefore ensuring smooth progress on the building site.

The surface can be coated with all usual acoustic coatings.

Dimensions (standard): Minimum 500 mm x 625 mm

Building material: Acoustic board
Frequency response: 80 Hz – 20000 Hz

EQ: PN- integrated crossover

Dispersion: $180^{\circ} \times 180^{\circ}$ Power handling: $30 \text{ W} / 8 \Omega$ Optional: 70/100 V

Sensitivity: 80 dB (1 w / 1 m)

Max. SPL: 95 dB (1 m)

Manufacturer: ML-Audio und Carbons GmbH

Model: Novasonar AK 30 / PN

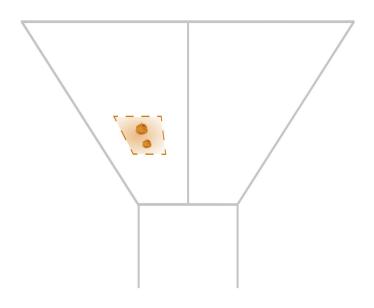
NOVASONAR AK 60

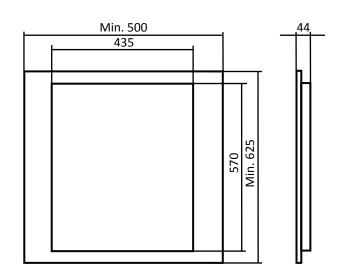
Invisible sound system for acoustic ceilings



Building material and the sound system from a single production source







Available in the following acoustic boards

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions

Description / Technical data

Flat-panel loudspeaker on the principle of the bending wave transducer with a flat panel membrane, which is brought to vibration by electrical exciters mounted to the back.

The loudspeaker comprises a conventional acoustic board, e.g. made of expanded glass granulate, mineral wool, glass wool, wood wool, particle wood etc. with a factory-integrated flat-panel loudspeaker.

The acoustic board is stripped down to a minimum thickness on the back in the area of the loudspeaker membrane by means of milling and thus causes sound-neutrality.

Materials and assembly do not differ from other construction materials used and as a result, there are no "alien bodies" in the acoustic ceiling.

Factory integration of the flat-panel loudspeaker in the building material precludes any errors in installation and guarantees continously assembly and processing technology in drywall work without material change, therefore ensuring smooth progress on the building site.

The surface can be coated with all usual acoustic coatings.

Dimensions (standard): Minimum 500 mm x 625 mm

Building material: Acoustic board
Frequency response: 80 Hz – 20000 Hz

EQ: External Dispersion: 180° x 180°

Power handling: $60 \text{ W} / 4 \Omega \text{ (Optional 16 }\Omega\text{)}$

Optional: 70/100 V

Sensitivity: 83 dB (1 w / 1 m)

Max. SPL: 101 dB (1 m)

Manufacturer: ML-Audio und Carbons GmbH

Model: Novasonar AK 60

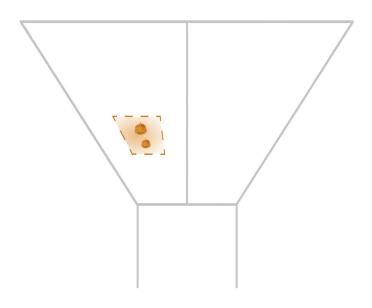
NOVASONAR AK 60 / PN

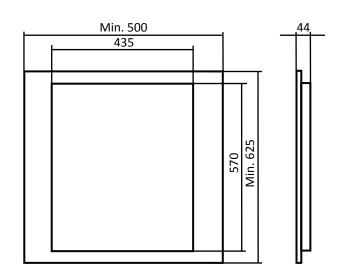
Invisible sound system for acoustic ceilings



Building material and the sound system from a single production source







Available in the following acoustic boards

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions

Description / Technical data

Flat-panel loudspeaker on the principle of the bending wave transducer with a flat panel membrane, which is brought to vibration by electrical exciters mounted to the back and with an integrated frequency crossover/filter.

The loudspeaker comprises a conventional acoustic board, e.g. made of expanded glass granulate, mineral wool, glass wool, wood wool, particle wood etc. with a factory-integrated flat-panel loudspeaker.

The acoustic board is stripped down to a minimum thickness on the back in the area of the loudspeaker membrane by means of milling and thus causes sound-neutrality.

Materials and assembly do not differ from other construction materials used and as a result, there are no "alien bodies" in the acoustic ceiling.

Factory integration of the flat-panel loudspeaker in the building material precludes any errors in installation and guarantees continously assembly and processing technology in drywall work without material change, therefore ensuring smooth progress on the building site.

The surface can be coated with all usual acoustic coatings.

Dimensions (standard): Minimum 500 mm x 625 mm

Building material: Acoustic board
Frequency response: 80 Hz – 20000 Hz

EQ: PN- integrated crossover

Dispersion: $180^{\circ} \times 180^{\circ}$ Power handling: $60 \text{ W} / 4 \Omega$ Optional: 70/100 V

Sensitivity: 83 dB (1 w / 1 m) Max. SPL: 101 dB (1 m)

Manufacturer: ML-Audio und Carbons GmbH

Model: Novasonar AK 60 / PN

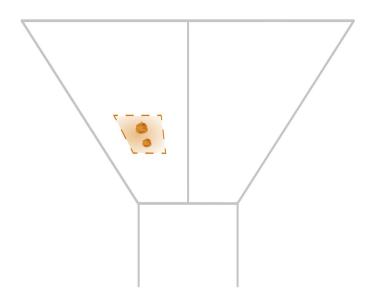
NOVASONAR AK 60 Stereo

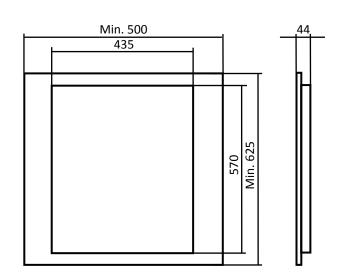
Invisible sound system for acoustic ceilings



Building material and the sound system from a single production source







Available in the following acoustic boards

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions

Description / Technical data

Flat-panel loudspeaker on the principle of the bending wave transducer with a flat panel membrane, which is brought to vibration by electrical exciters mounted to the back and dual channel input for stereo applications.

The loudspeaker comprises a conventional acoustic board, e.g. made of expanded glass granulate, mineral wool, glass wool, wood wool, particle wood etc. with a factory-integrated flat-panel loudspeaker.

The acoustic board is stripped down to a minimum thickness on the back in the area of the loudspeaker membrane by means of milling and thus causes sound-neutrality.

Materials and assembly do not differ from other construction materials used and as a result, there are no "alien bodies" in the acoustic ceiling.

Factory integration of the flat-panel loudspeaker in the building material precludes any errors in installation and guarantees continously assembly and processing technology in drywall work without material change, therefore ensuring smooth progress on the building site.

The surface can be coated with all usual acoustic coatings.

Dimensions (standard): Minimum 500 mm x 625 mm

Building material: Acoustic board
Frequency response: 80 Hz – 20000 Hz

EQ: External Dispersion: 180° x 180°

Power handling: $2 \times 30 \text{ W} / 2 \times 8 \Omega$

Optional: 70/100 V

Sensitivity: 83 dB (1 w / 1 m)

Max. SPL: 101 dB (1 m)

Manufacturer: ML-Audio und Carbons GmbH

Model: Novasonar AK 60 Stereo

Back to contents

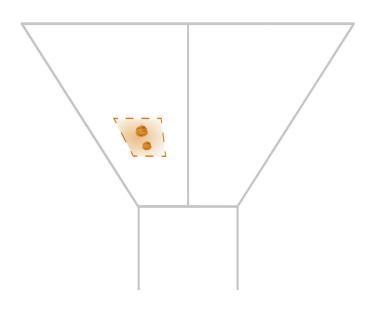
NOVASONAR AK 60 Stereo / PN

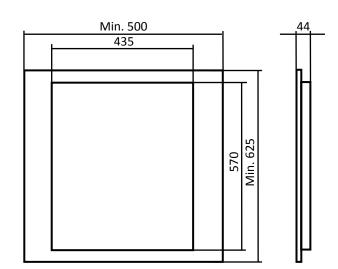
Invisible sound system for acoustic ceilings



Building material and the sound system from a single production source







Available in the following acoustic boards

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions

Description / Technical data

Flat-panel loudspeaker on the principle of the bending wave transducer with a flat panel membrane, which is brought to vibration by electrical exciters mounted to the back and with two integrated frequency crossovers/ filters for dual channel input for stereo applications.

The loudspeaker comprises a conventional acoustic board, e.g. made of expanded glass granulate, mineral wool, glass wool, wood wool, particle wood etc. with a factory-integrated flat-panel loudspeaker.

The acoustic board is stripped down to a minimum thickness on the back in the area of the loudspeaker membrane by means of milling and thus causes sound-neutrality.

Materials and assembly do not differ from other construction materials used and as a result, there are no "alien bodies" in the acoustic ceiling.

Factory integration of the flat-panel loudspeaker in the building material precludes any errors in installation and guarantees continously assembly and processing technology in drywall work without material change, therefore ensuring smooth progress on the building site.

The surface can be coated with all usual acoustic coatings.

Dimensions (standard): Minimum 500 mm x 625 mm

Building material: Acoustic board
Frequency response: 80 Hz – 20000 Hz

EQ: PN- integrated crossovers

Dispersion: 180° x 180°

Power handling: $2 \times 30 \text{ W} / 2 \times 8 \Omega$

Optional: 70/100 V

Sensitivity: 83 dB (1 w / 1 m)

Max. SPL: 101 dB (1 m)

Manufacturer: ML-Audio und Carbons GmbH Model: Novasonar AK 60 Stereo / PN

Back to contents

NOVASONAR Invisible Sound System with the intelligent integration concept for a perfect installation





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NOVASONAR - Invisible loudspeaker

AK-Series





Power handling: 30 Watts
Dimensions: Min. 500 mm x 625 mm

AK 30 (Ext. DSP recommended)

AK 30 / PN (Incl. frequency crossover)

Power handling: 60 Watts
Dimensions: Min. 500 mm x 625 mm

AK 60 (Ext. DSP recommended)

AK 60 / PN (Incl. frequency crossover)

AK 60 Stereo (Ext. DSP recommended)

AK 60 Stereo / PN (Incl. frequency crossover)

PN = Integrated frequency crossover

Available in the following acoustic boards:

Expanded glass granulate, mineral wool, glass wool, wood wool, chipped wood, etc. in all usual versions.

www.novasonar.de