



# Installation Line

## IL 82

Compact cabinet for public address and full-range applications offering exceptional speech intelligibility for background and near-field sound reinforcement in foyers, lecture halls, bars, clubs and the like.

The IL 82 may be deployed either as a full-range cabinet or as a mid/ high cabinet in a configuration with a subwoofer like the compact HK Audio IL 112 Sub or IL 115 Sub.

Built-in passive crossover.



### Description

The **IL 82** is a very compact 2-way full range loudspeaker enclosure with a built-in passive crossover. It is fitted with a direct loaded 8"-conical loudspeaker in a bass reflex housing and a ceramic high frequency driver with horn. This equipment makes a frequency response in the bass range possible which is sufficient for the transmission of speech and the representation of background music even without an additional subwoofer. HK Audio subwoofers IL 112 Sub and IL 115 Sub are available for applications requiring an extended frequency response in the bass range.

Apart from tonal neutrality, the **IL 82** stands out mainly due to its high speech transfer ability and a wide dynamic range. It is ideally suited for close-range acoustic applications for which distances of up to approx. 10 m have to be bridged, depending on the sound pressure requirements. Its small dimensions allow it to blend into the surroundings almost unnoticed.

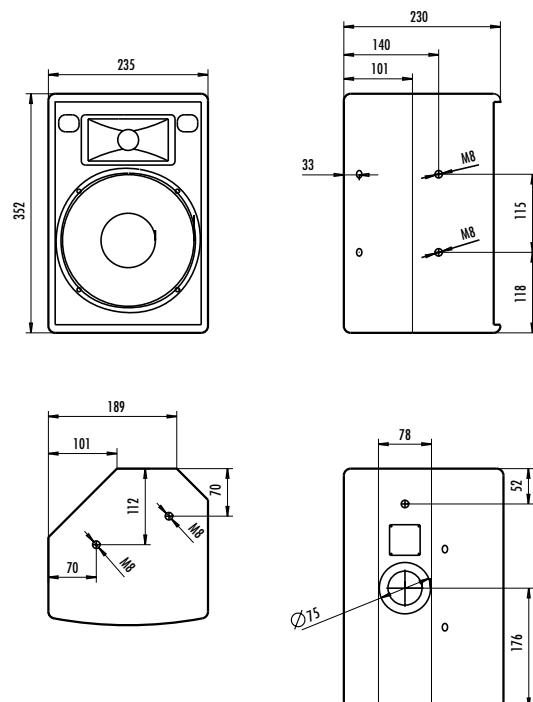
A controller is not required for operating the **IL 82**. It is possible to use the Digital Field Controller (DFC).

### Structure and mechanics

The housing of the **IL 82** is made of 16 mm thick MDF and coated with acrylic paint. The standard colours of the coating are black or white. The housing is trapezoidal in shape. The angles resulting from the shape of the housing support the installation and alignment as well as the clustering of several IL 82 units. The baffle cover consists of an impact-resistant perforated steel grille.

The **IL 82** is supplied in a multi-functional shape with two different housing angles and available in two housing versions which are symmetrical to one another (right and left versions). The different housing angles of the two versions support wall and corner installation as well as 180° and 360° clustering.

The **IL 82** weighs 5.5 kg. It is 23,5 cm wide, 35 cm high and 23 cm deep. There are a total of nine M8 threaded bits on the sides of the housing. These are used for the attachment of the mechanical accessories which can be used to install the enclosure in various different positions



## Connectors

The connections are countersunk on the rear of the **IL 82**. The **IL 82** has loudspeaker binding posts for the direct connection without further plug connections.



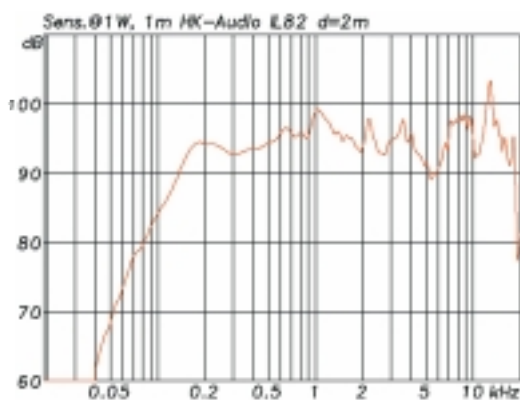
## Electrical and acoustic data

An 8" HK AUDIO Custom-conical chassis and a ceramic high frequency driver are used in the **IL 82**. Both drivers are arranged twin-axially. There is an internal passive crossover with a crossover frequency of 6 kHz and a slope of 12 dB per octave.

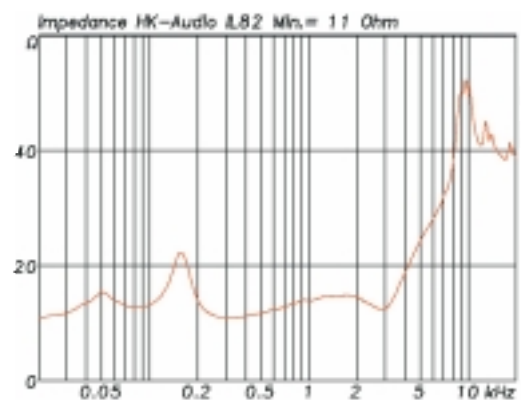
The power handling of the **IL 82** is 100 Watt RMS at an impedance of 16 ohms. It has an axial sensitivity of 103 dB (1W/1m), measured under half-space conditions. The maximum SPL which can be achieved at a distance of 1 m under the same conditions is 125 dB at a THD-value of 10%.

The High frequency horn of the **IL 82** has a dispersion of 100 degrees horizontally and 90 degrees vertically. The directivity is 6.95 dB, the Q-factor 8.03 (averaged from 100 Hz to 10 kHz). The frequency response ranges from 120 Hz to 18 kHz ( $\pm 3$  dB). This means that the **IL 82** can be used without an additional subwoofer for speech acoustics and music reproduction without extended deep bass (background acoustics).

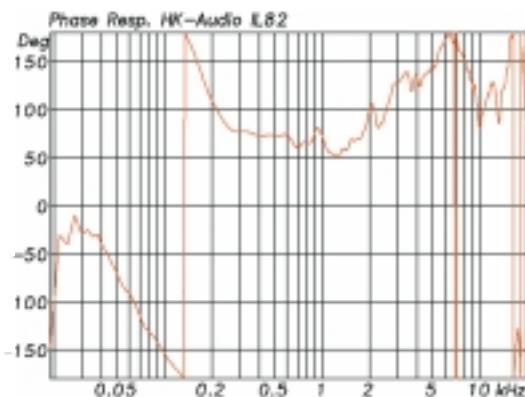
## Measuring results



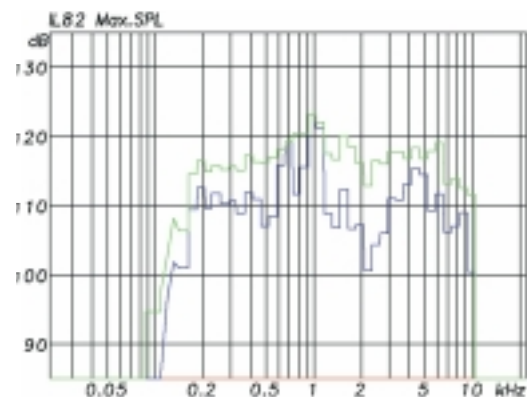
Frequency Response



Impedance

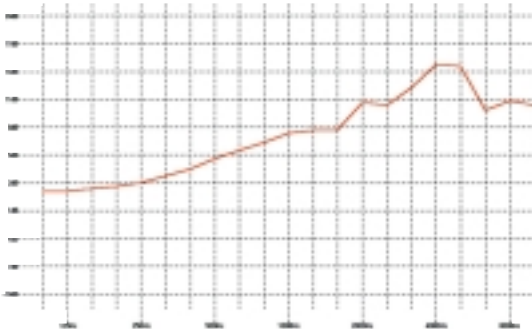


Phase Response

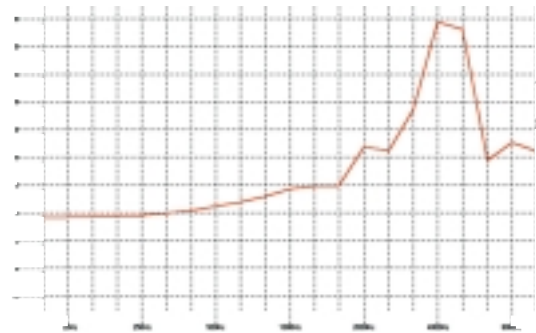


Max. SPL

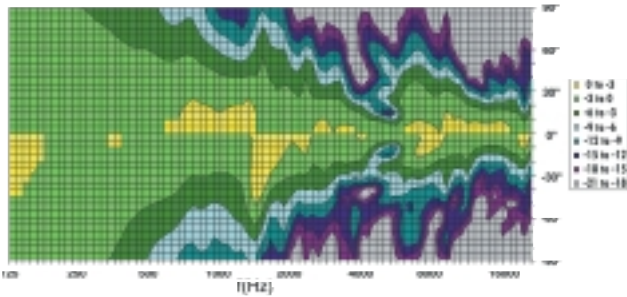
## Measuring results



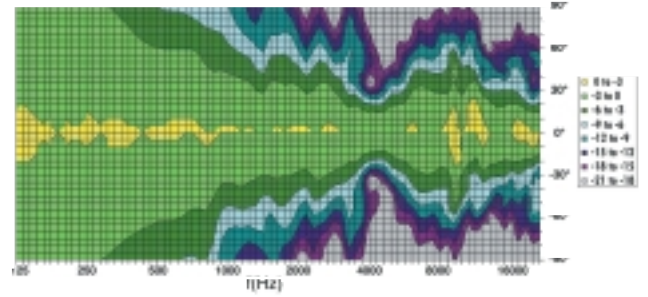
Directivity



Q-Factor

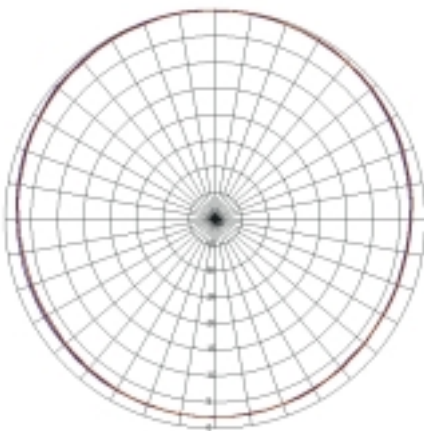


Directivity vertical 2D

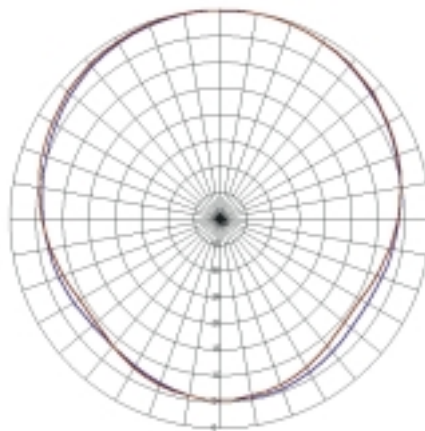


Directivity horizontal 2D

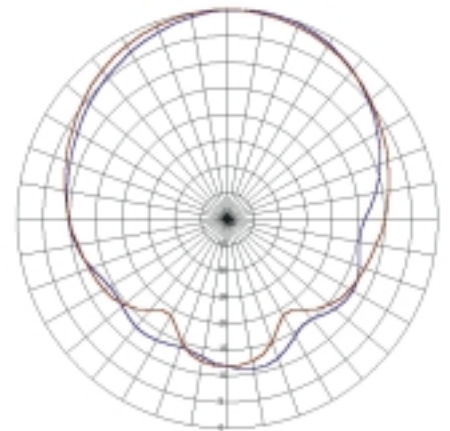
## Polar data



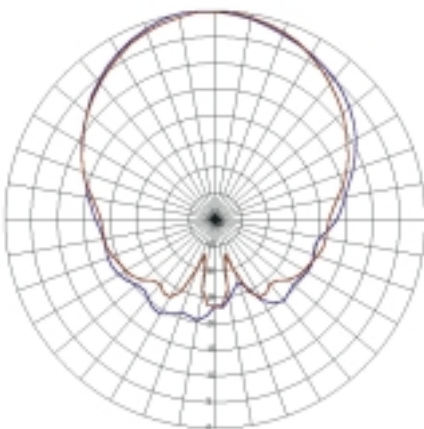
250 Hz



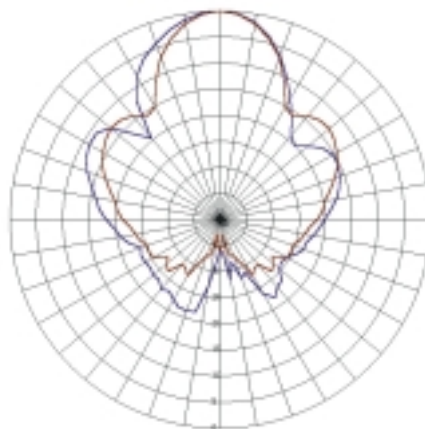
500 Hz



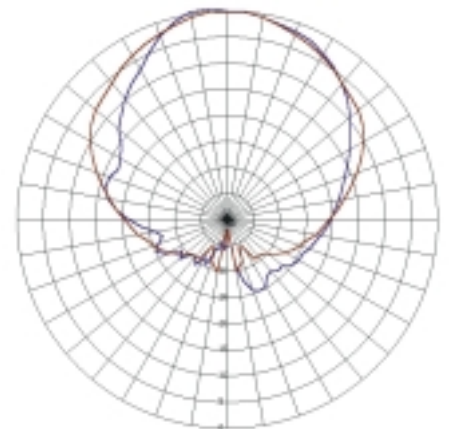
1000 Hz



2000 Hz



4000 Hz



8000 Hz

— horizontal  
— vertical

## Technical data

### Loudspeaker

Power handling nominal (RMS):	100 W
Power handling (program):	200 W
Power handling (peak, 10 ms):	300 W
Impedance:	16 ohms
Frequency response ( $\pm 3$ dB):	120 Hz to 18 kHz
Frequency response (-10 dB):	90 Hz to 20 kHz
Axial sensitivity (1W/1m, half-space):	103 dB
Maximum SPL (3 % THD, half-space):	116 dB
Maximum SPL (10% THD, half-space):	125 dB
Maximum SPL (Calculated peak):	126 dB
Bass/medium range speaker:	8" HK AUDIO Custom ceramics
High frequency:	6 kHz / 12 dB per octave
Crossover frequency:	6 kHz / 12 dB per octave
Horizontal dispersion(-6 dB):	100 degrees
Vertical dispersion(-6 dB):	90 degrees
Directivity:	6.95 dB
Q-factor:	8.03

### Connectors

Ports:	1 binding post
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### Housing

Material:	12 mm MDF
Coating:	acrylic paint in black or white
Front cover:	impact-resistant perforated steel grille
Attachment possibilities:	total of 9 threaded bits M8 for attaching the mechanical accessories
Weight:	5.5 kg
Dimensions (W x H x D):	23,5 cm x 35 cm x 23 cm (9.25" x 13.78" x 9")
Housing angle:	45 degrees

### Accessory articles

- 100 V Transformer with 3 power taps: 50 W, 25 W, 12.5 W
- Wall-mount bracket
- Ringbolt M8

### Service articles

8"-speaker	E994089
Ceramic high frequency driver	E994088



## Architectural specifications

Professional 2-way full range loudspeaker system with 8" bass/medium-range loudspeaker and ceramic high frequency driver with a high speech transfer capacity and wide dynamic range. Bass/medium-range loudspeaker mounted in an optimally matching bass reflex housing and high frequency driver coupled to a 100° x 90° horn.

Multi-functional housing with different housing angles made of 12 mm MDF coated in black or white acrylic paint. Two countersunk threads for the attachment of mounting accessories on the top, base, left- and right-hand sides of the housing. Impact-resistant perforated steel grille.

Internal passive crossover with crossover frequency of 6 kHz (12 dB / octave) as well as phase and frequency response correction. Frequency response from 120 Hz to 18 kHz (+/- 3 dB). Sensitivity of 103 dB in the main direction of radiation @ 1W/1m in half-space, maximum sound pressure level 125 dB in half-space at 10% THD. Power handling of 100 Watt RMS. Impedance of 16 ohms. Connectors: 1x binding post.

**Dimensions (W x H x D):** 23,5 x 35 x 23 cm

**Weight:** 5.5 kg

**Accessories:** 100 V Transformer, Wall-mount bracket, M8 Ringbolt

**Type:** HK AUDIO IL 82



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