



Technical Specifications FR122

APPLICATIONS & FEATURES

The FR122 provides high volume, high definition performance in a compact, low cost package. Its small footprint allows for easy placement and installation in a wide variety of short to medium-throw applications. The two-way full-range design provides both high SPLs and accurate reproduction.

The FR122 is available in two configurations: FR122HP (Permanent) and FR122HR (Road). The "R" version is optimized for portable applications with handles, stacking corner protectors, 1/4" phone plug input connection and Ultimate Support® stand adapters included. The "P" version deletes these features but adds multiple mounting hardware attachment points and barrier strip input connector for ease of installation.

SPECIFICATIONS

Frequency Response

±3 dB	65 to 17k Hz
-10 dB	55 Hz

Axial Sensitivity

SPL 1w @ 1m	98 dB
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Impedance

Nominal	8Ω
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Power Handling

AES	250 Watts
100 Hour Sine Wave	125 Watts

Maximum Output

Peak	122 dB SPL
Long Term	119 dB SPL

Nominal Coverage Angles (-6 dB)

Horizontal	90 degrees
Vertical	45 degrees

Additional Descriptive Data

LF Subsystem	1 x 12-in; Vented
HF Subsystem	1 x 1-in Compression Driver; Horn Loaded
Crossover	Third Order, Equalized
Powering Mode	Passive
"R" Rigging	Socket for Ultimate brand stand & 2 5/16-18 T-nuts for external Ultimate brand stand adapter
"P" Rigging	3/8-16 T-nuts, 4 ea, top & bottom
Finish	Black Catalyzed Polyurethane
"R" Connectors	1/4" Phone Jacks, Banana Plugs, Neutrik NL4FC SpeakOn
"P" Connectors	2-Pin Barrier Strip, Neutrik NL4FC
Grill	Vinyl Coated Perforated Steel

Dimensions & Weights

Height	20.38 in (518 mm)
Width	14.63 in (372 mm)
Depth	11.63 in (295 mm)
Net Weight	47 lbs. (21.3 kg)
Shipping Weight	49 lbs. (22.2 kg)

OTHER RELEVANT DOCUMENTS

- Group B Hardware Technical Specifications*
- Group B Price Lists
- APP Testing Procedures*
- Water Proofing Technical Specifications
- Structural/Mechanical Technical Specifications*



ARCHITECTURAL SPECS

The loudspeaker system shall be a two-way design, incorporating a 12-inch low frequency cone-type transducer in a vented direct radiating enclosure and a compression driver mounted on a constant directivity high frequency horn. The high frequency horn shall maintain constant horizontal coverage to above 18k Hz.

The system shall meet the following performance criteria: Frequency Response: 65 to 17k Hz ±3 dB. Axial Sensitivity: 98 dB SPL 1W@1m over the 100 to 14k Hz band. Power Handling: 250 Watts full range AES Standard. Horizontal Coverage Angle: 90 degrees between -6 dB points.

The system shall include an internal passive crossover network, providing full range operation via rear panel inputs. The network shall be of a third order asymmetrical design with compensation for maximally flat response throughout the crossover region. Input connectors shall include (dual 1/4" 2-conductor phone jacks, dual banana plugs ["R" version]) (2 terminal barrier strip ["P" version]) and Neutrik NL4FC SpeakOn® connectors. Overload protection shall be by user replaceable fuses located on the input panel.

The cabinet shall be constructed with void-free birch plywood with a minimum of 18 plies-to-the-inch and coated with a catalyzed black polyurethane finish. (The system shall be provided with one recessed handle on each side and mating fittings for Ultimate Support brand accessories ["R" version only]). All drivers shall be protected by a vinyl coated perforated steel grill.

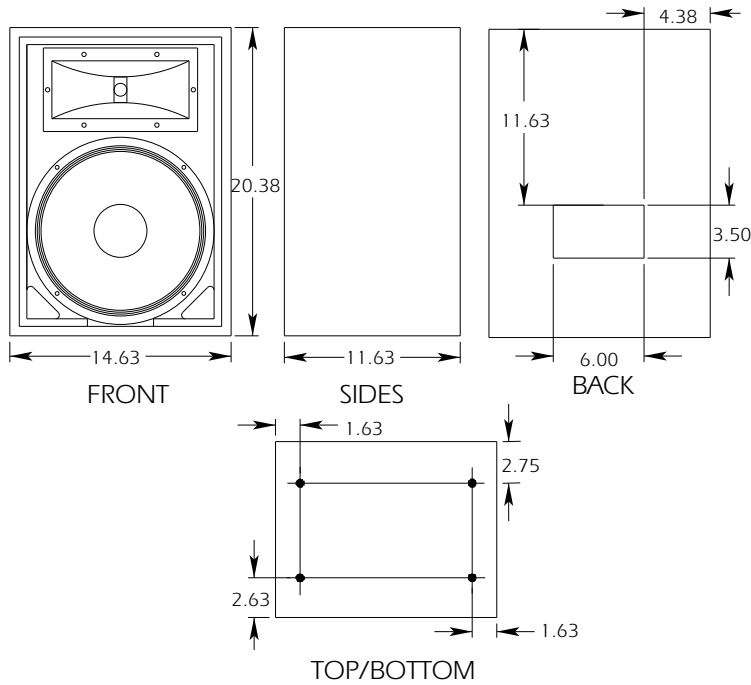
The loudspeaker system shall be the EAW FR122 HR (FR122HP).



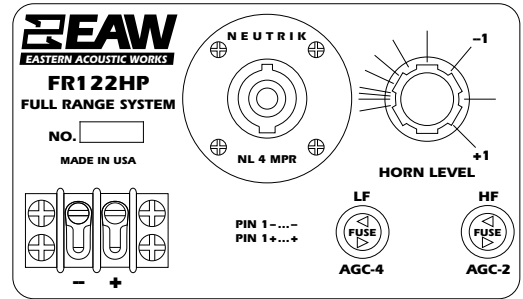
Drawings FR122

DIMENSIONAL DRAWINGS

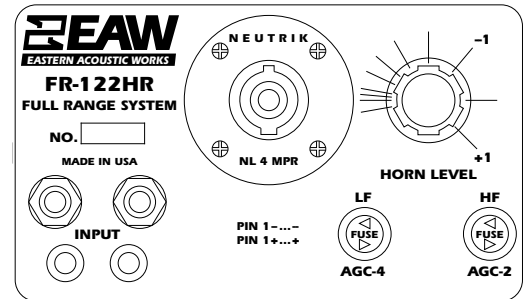
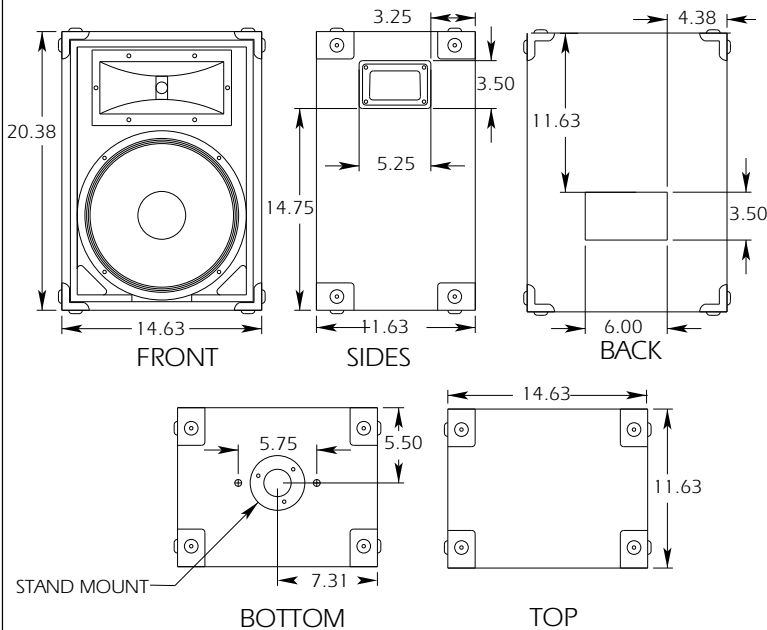
FR122HP • MOUNTING POINTS 3/8"-16 T-NUTS
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED



INPUT PLATES



FR122HR • MOUNTING POINTS 5/16"-18 T-NUTS FOR ULTIMATE BRAND STAND
NOTE: CORNER PROTECTORS ADD 1/2" TO OVERALL WIDTH AND HEIGHT
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

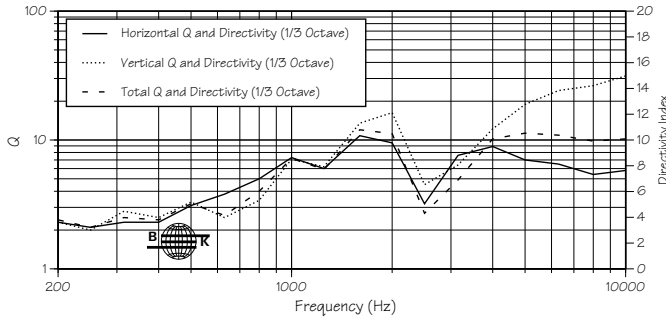




Performance Data FR122

Q & DIRECTIVITY INDEX (DI)

FR122 Q and Directivity

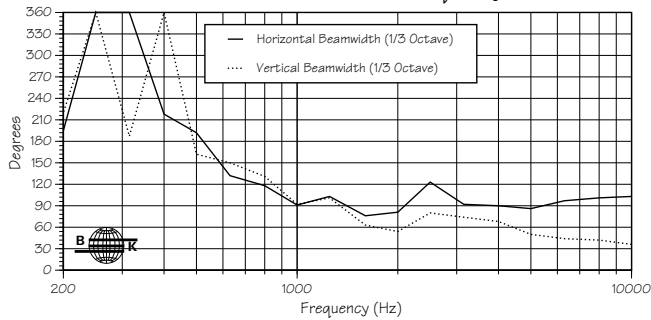


Q & BEAMWIDTH BY FREQUENCY

Freq	Hor Q	Ver Q	Tot Q	Hor Beamwidth	Ver Beamwidth
100	1.6	1.4	1.5	360	360
125	1.5	1.4	1.4	360	360
160	1.2	1.1	1.2	360	360
200	2.3	2.3	2.4	195	220
250	2.1	2	2.1	360	360
315	2.3	2.8	2.5	360	187
400	2.3	2.5	2.4	218	360
500	3.1	3.3	3.2	192	162
630	3.8	2.5	2.6	132	150
800	5	3.4	4	118	131
1000	7.3	7.1	7.2	91	92
1250	6	6.2	5.9	103	101
1600	10.8	13.5	12	76	63
2000	9.5	16.3	11.2	81	54
2500	3.2	4.5	2.7	123	80
3150	7.6	6.4	4.9	92	74
4000	8.9	12.2	10.2	90	68
5000	7	18.9	11.3	86	50
6300	6.5	24.2	10.9	97	44
8000	5.4	26.4	9.8	101	42
10000	5.8	31.4	10.2	103	36
12500	5.7	38.2	11.6	97	27
16000	6.7	34.4	11.6	91	29
20000	10	26.9	14.7	79	28

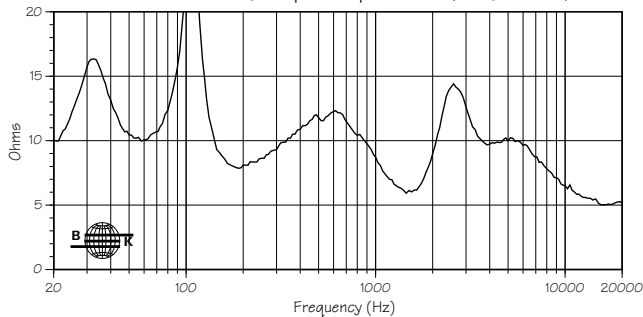
BEAMWIDTH

FR122 Beamwidth vs Frequency



INPUT IMPEDANCE

FR122 Full Range Input Impedance (Magnitude)

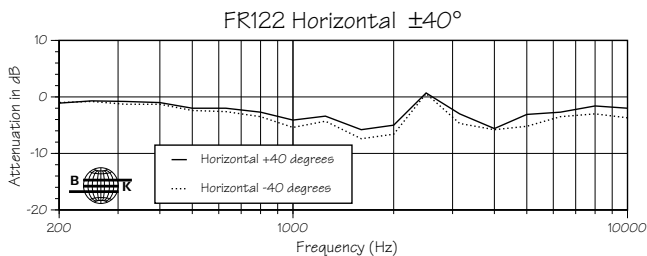
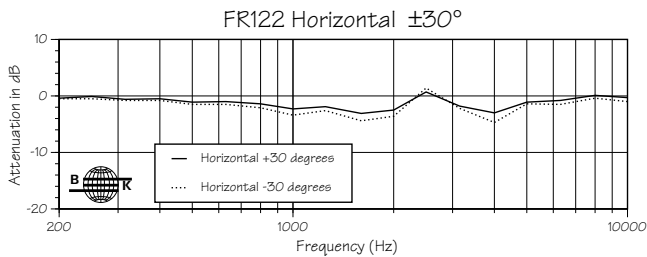
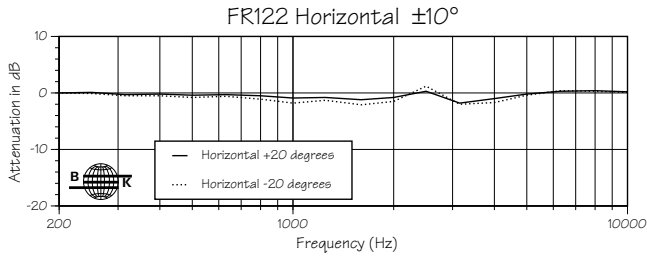
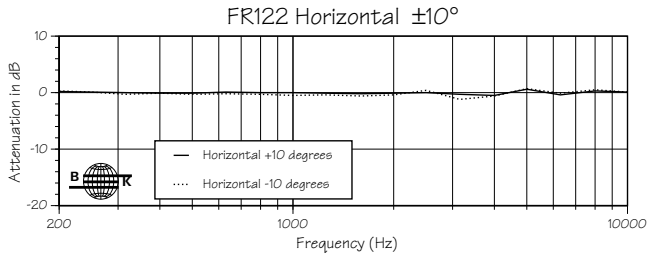




Performance Data FR122

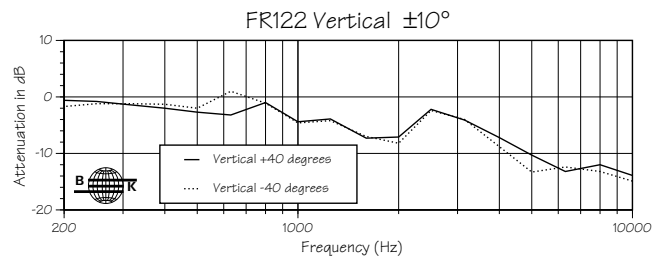
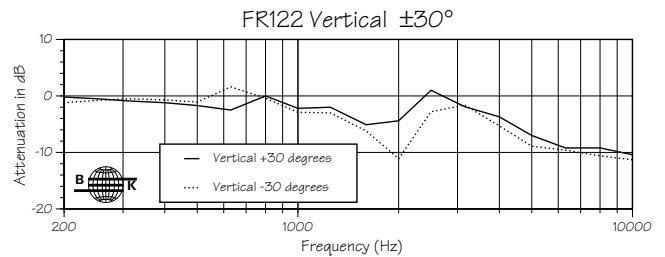
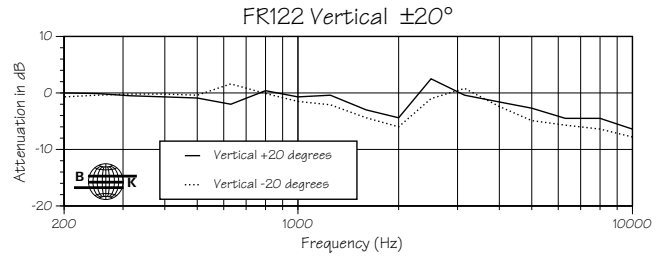
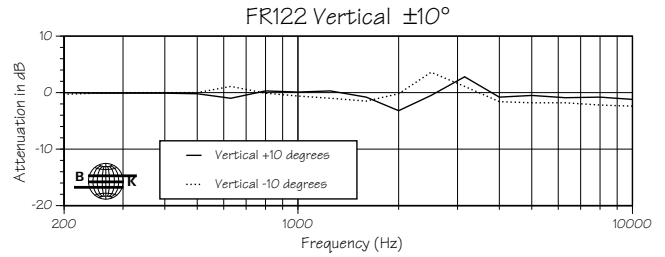
HORIZONTAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.



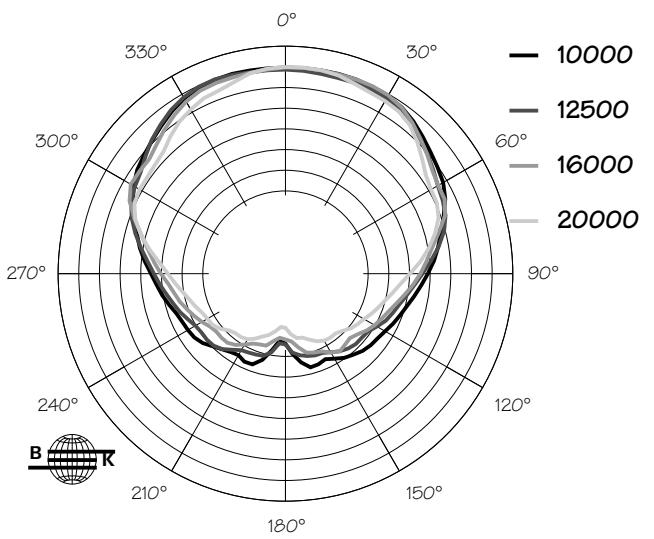
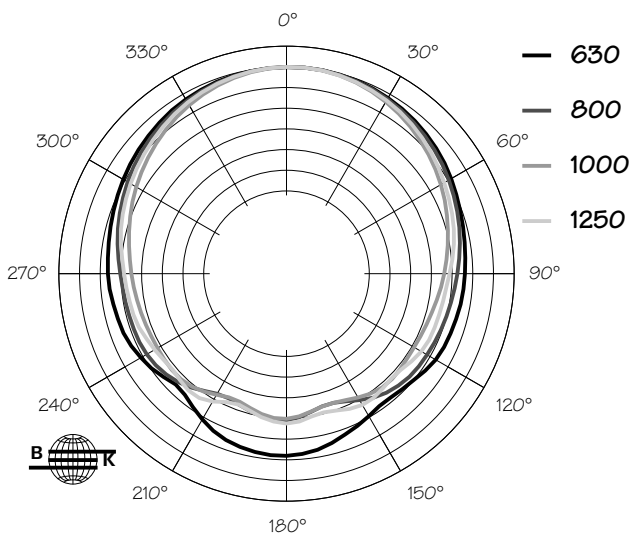
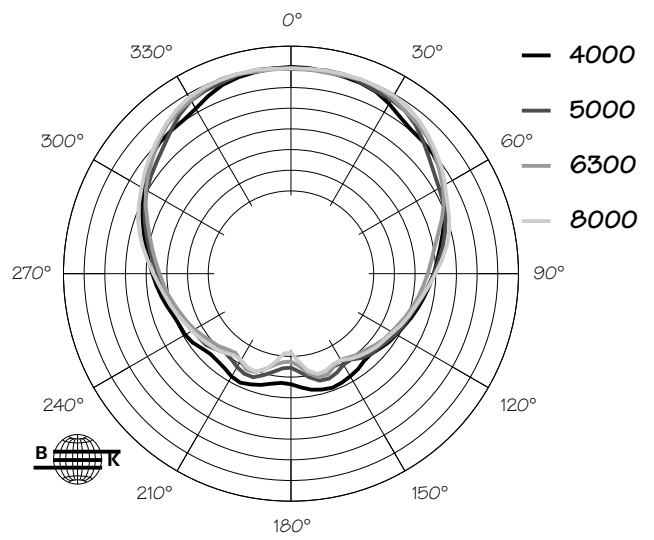
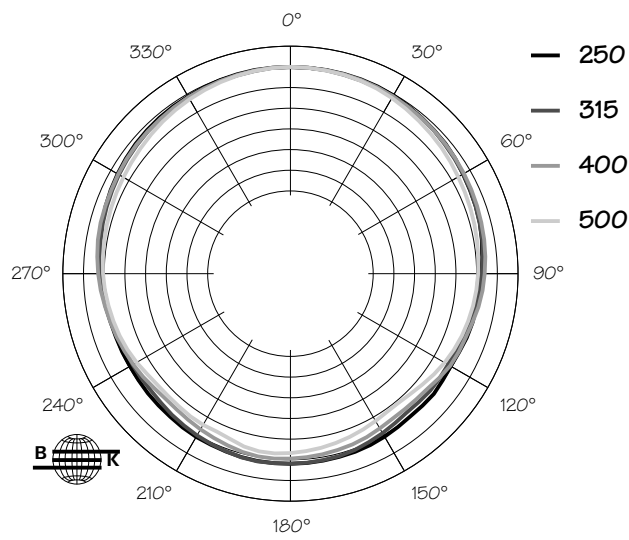
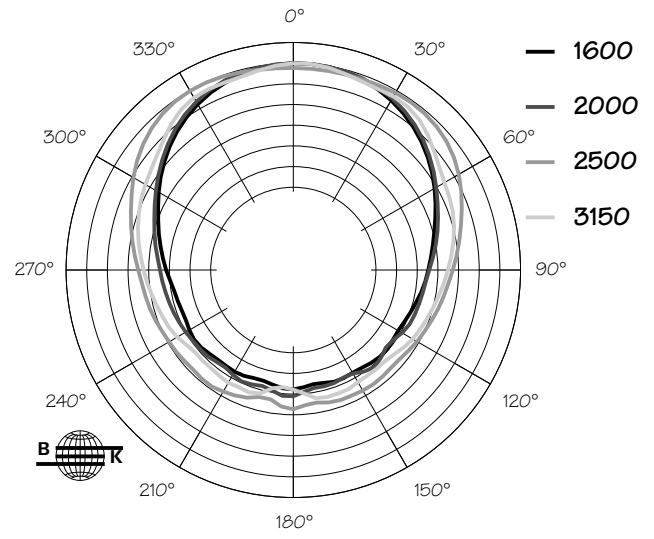
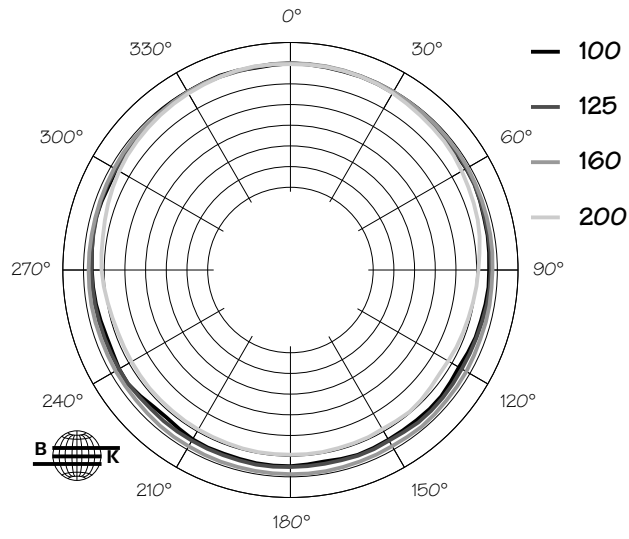
VERTICAL OFF-AXIS RESPONSE

On-axis response normalized to 0 dB.



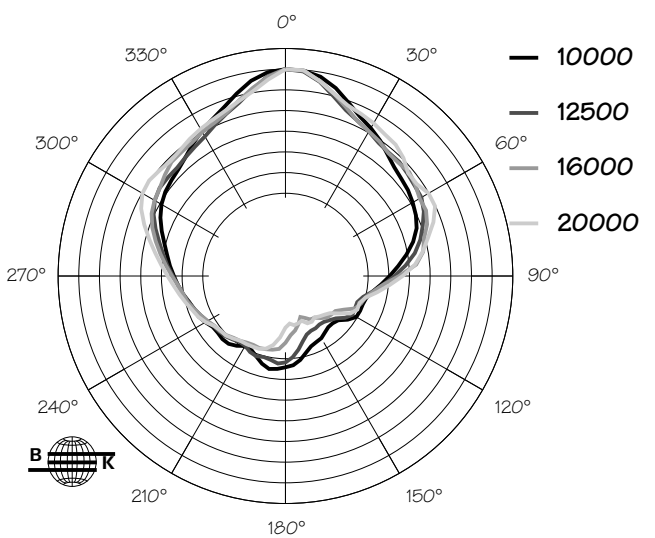
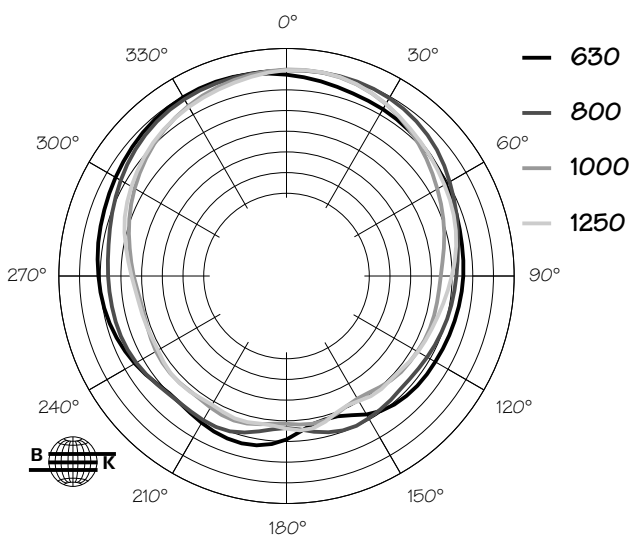
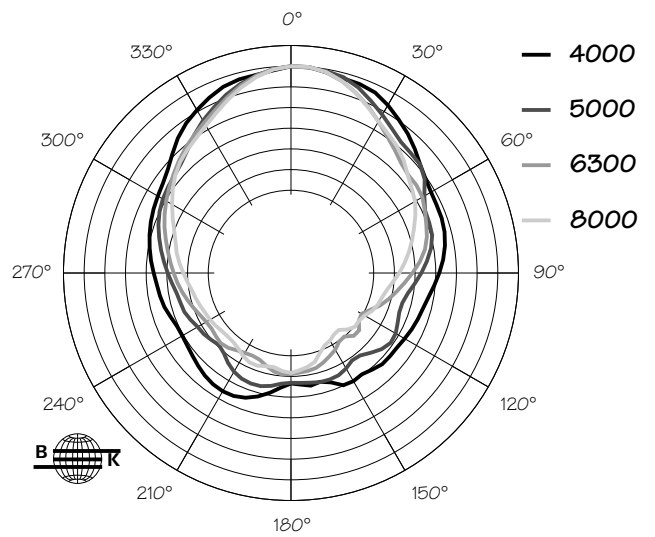
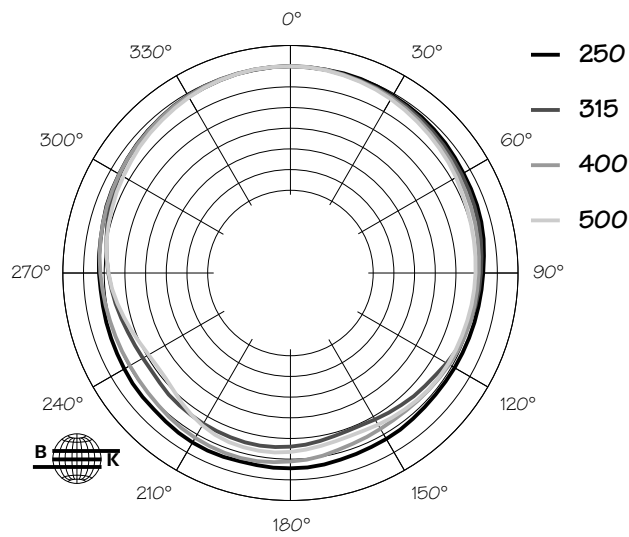
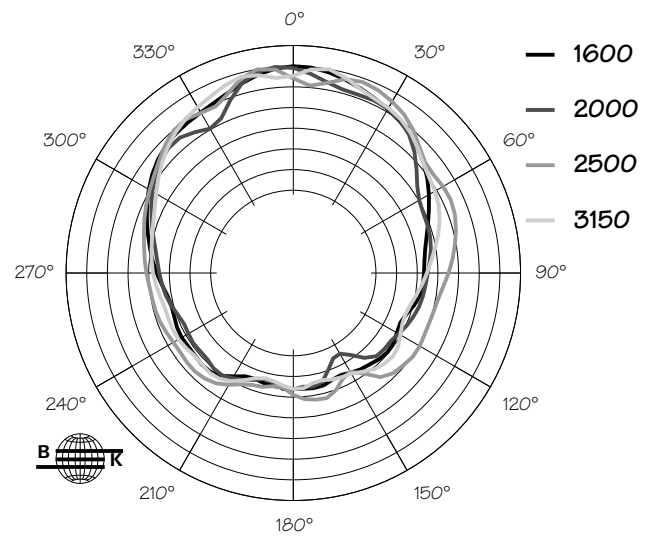
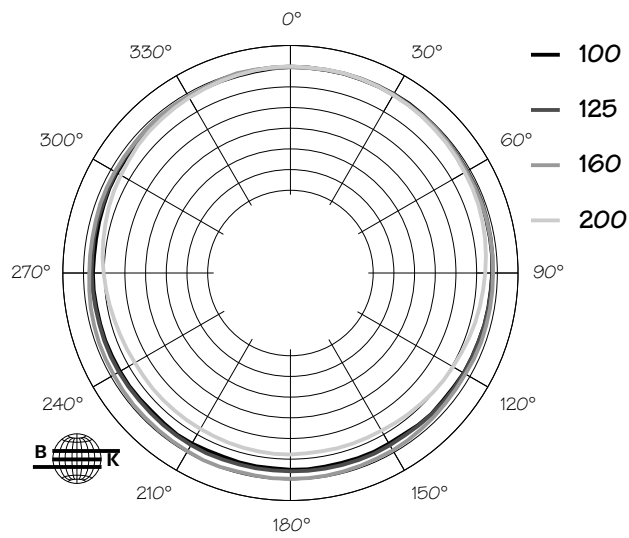


Horizontal 1/3 Octave Polar Data FR122





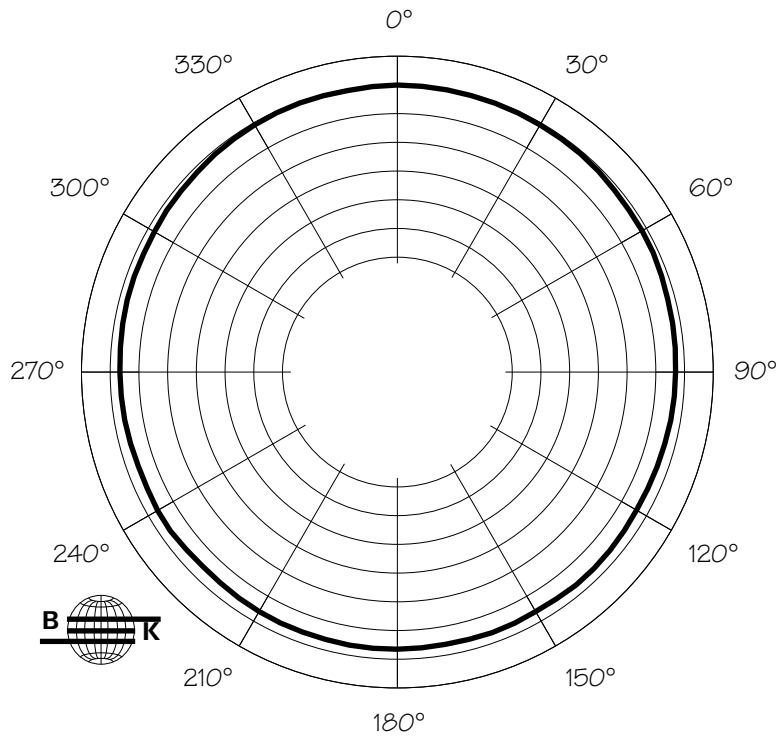
Vertical 1/3 Octave Polar Data FR122



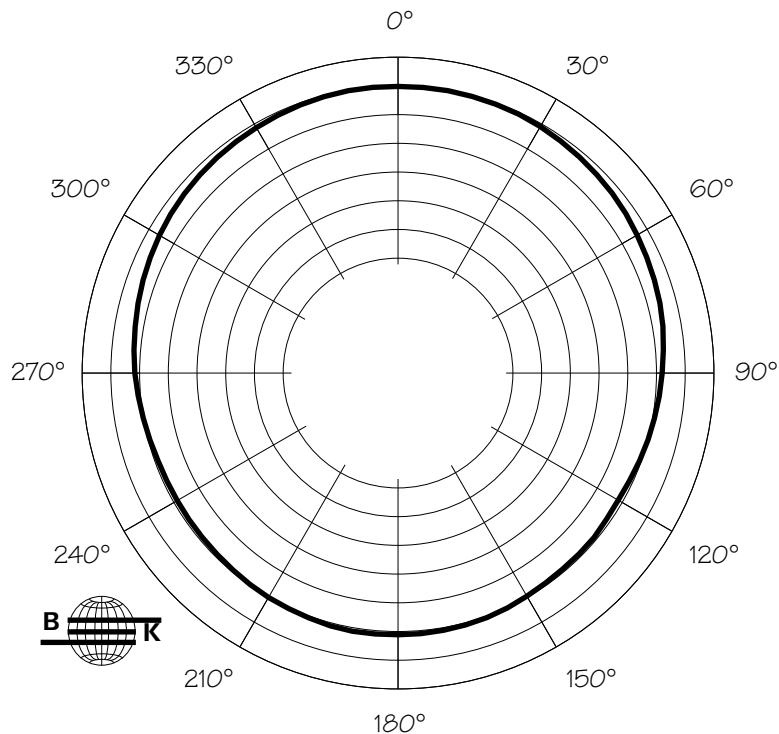


Horizontal Octave Polar Data FR122

FR122 125 Hz Horizontal Octave Polar Data



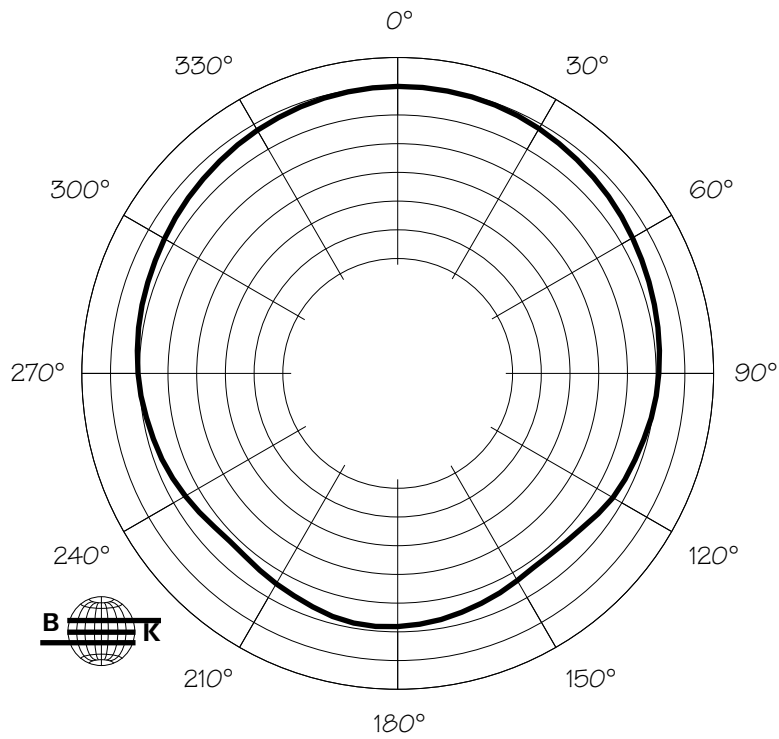
FR122 250 Hz Horizontal Octave Polar Data



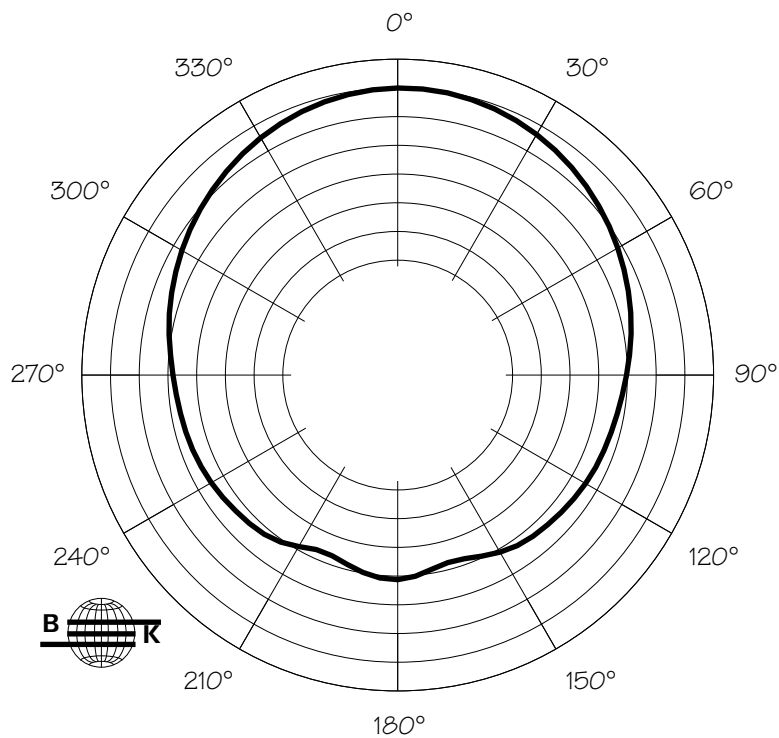


Horizontal Octave Polar Data FR122

FR122 500 Hz Horizontal Octave Polar Data



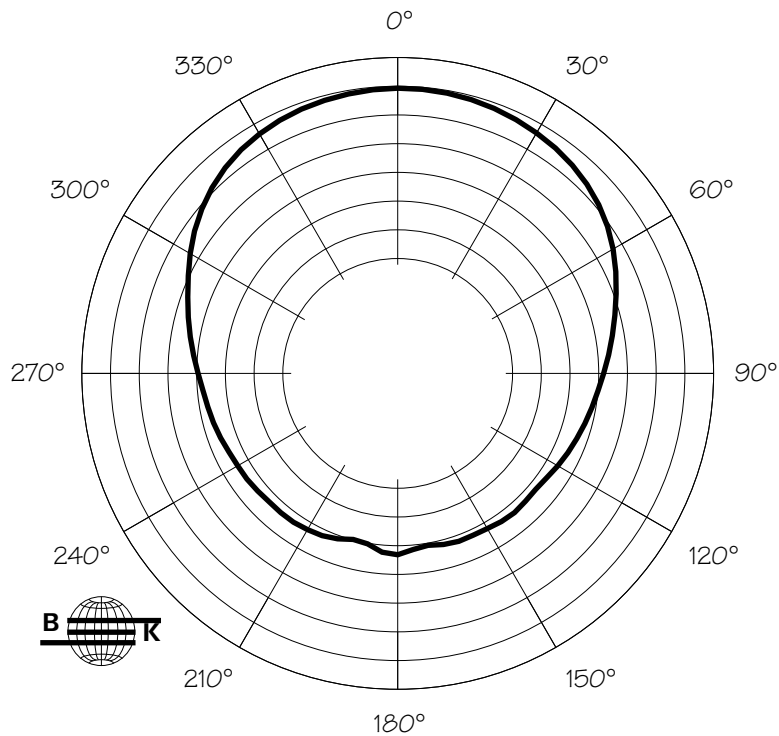
FR122 1000 Hz Horizontal Octave Polar



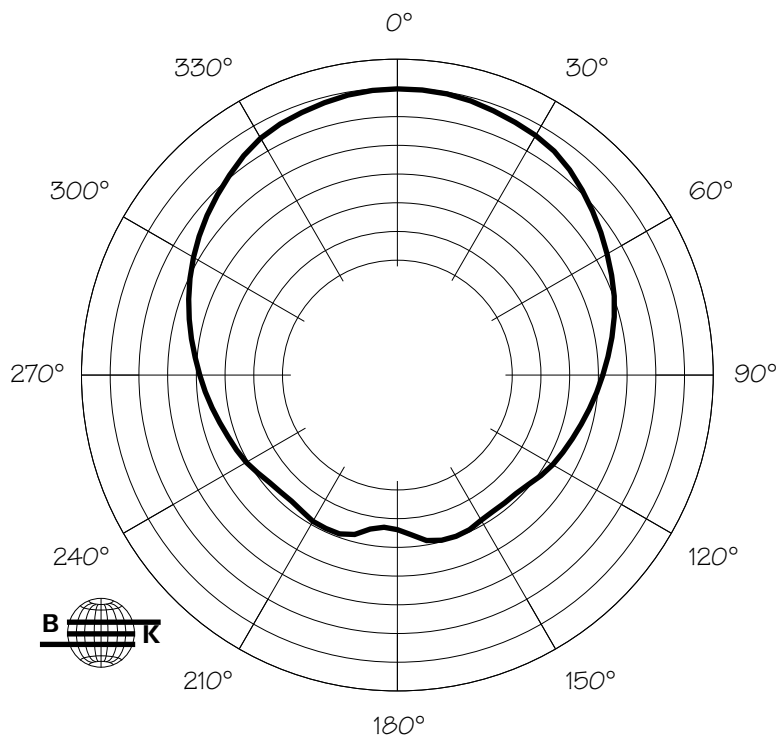


Horizontal Octave Polar Data FR122

FR122 2000 Hz Horizontal Octave Polar Data



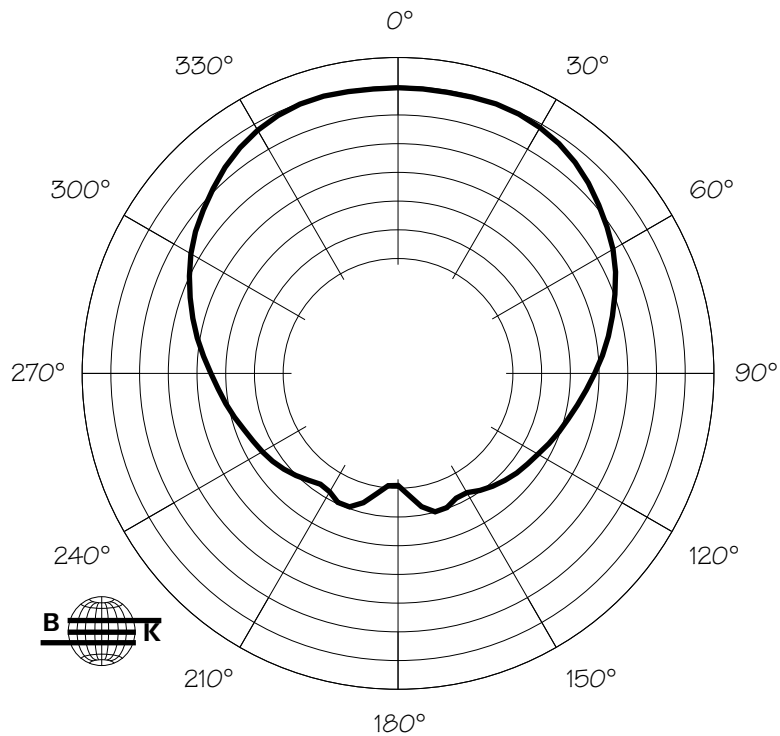
FR122 4000 Hz Horizontal Octave Polar Data



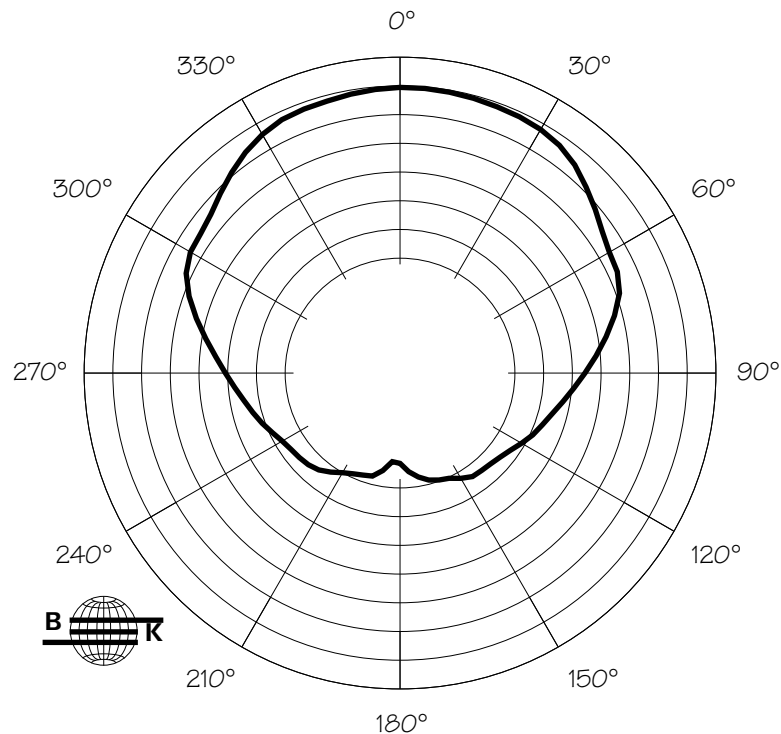


Horizontal Octave Polar Data FR122

FR122 8000 Hz Horizontal Octave Polar Data



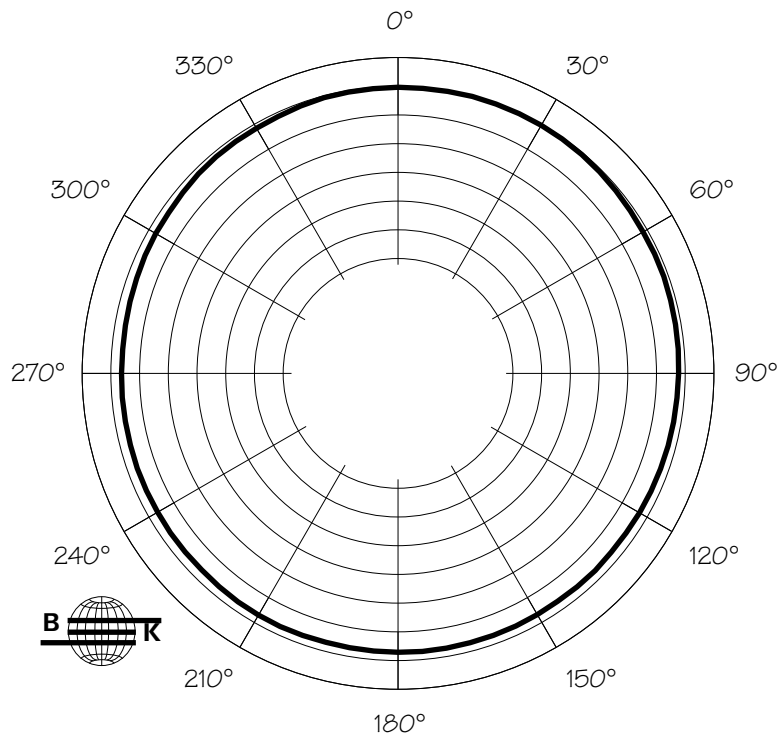
FR122 16000 Hz Horizontal Octave Polar Data



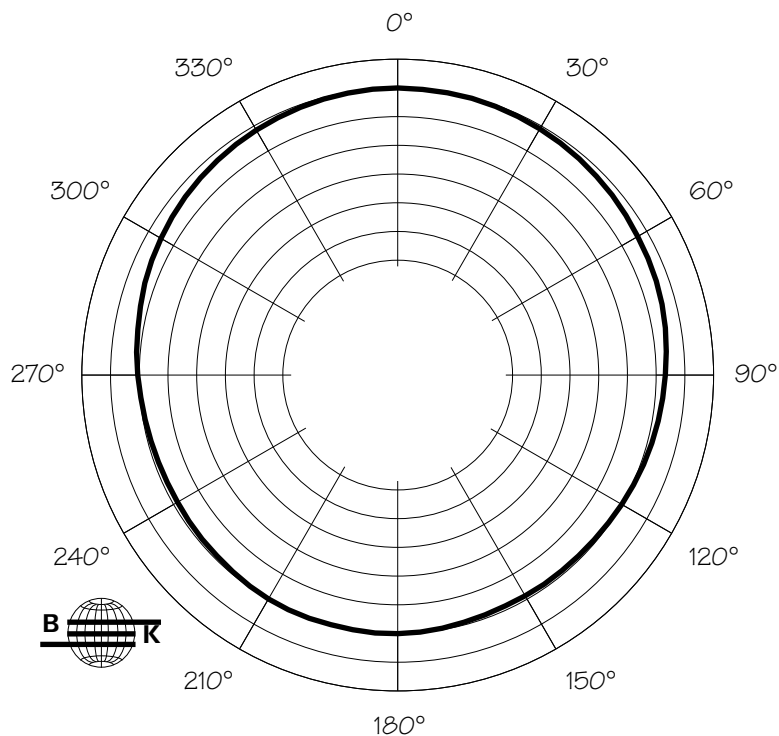


Vertical Octave Polar Data FR122

FR122 125 Hz Vertical Octave Polar Data



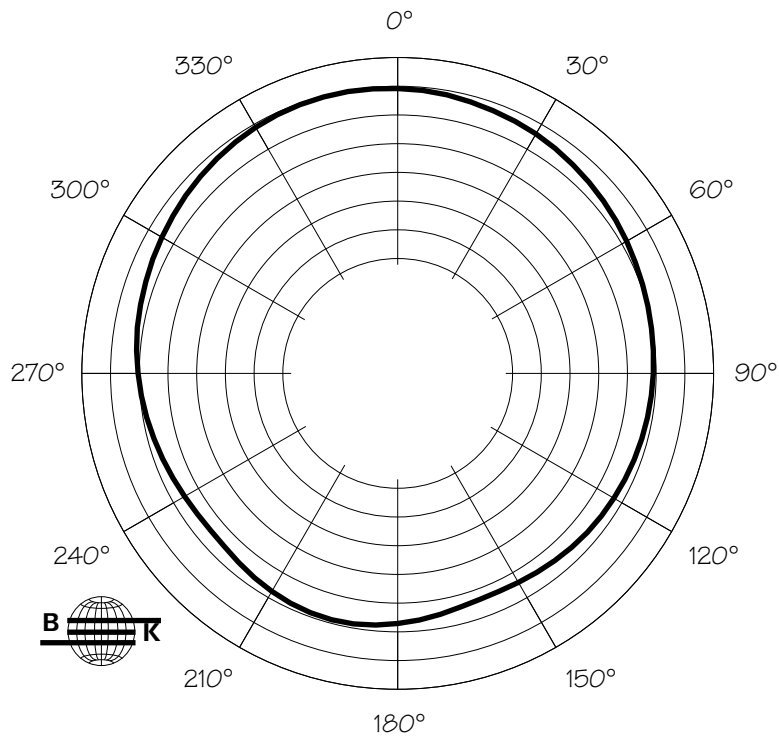
FR122 250 Hz Vertical Octave Polar Data



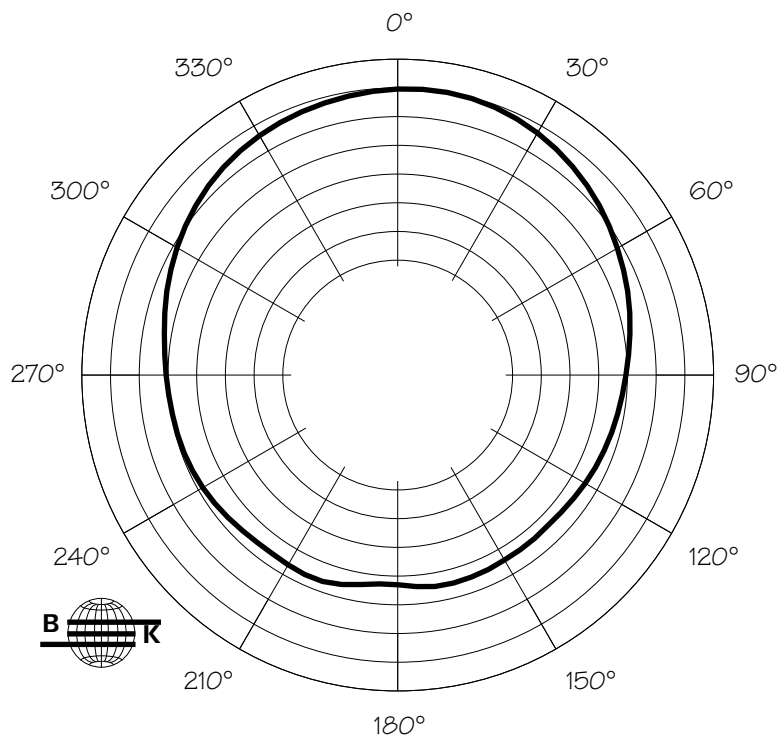


Vertical Octave Polar Data FR122

FR122 500 Hz Vertical Octave Polar Data



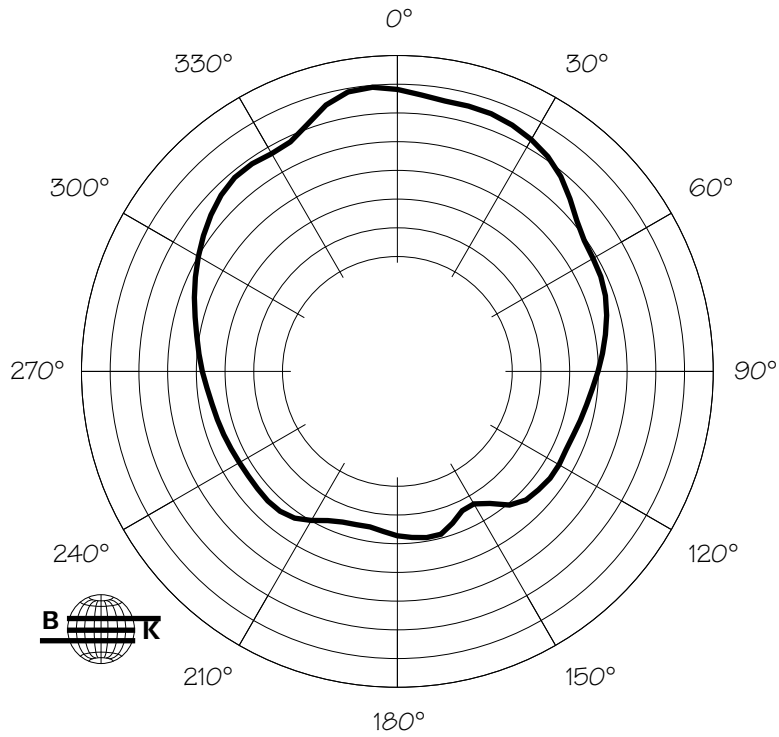
FR122 1000 Hz Vertical Octave Polar Data



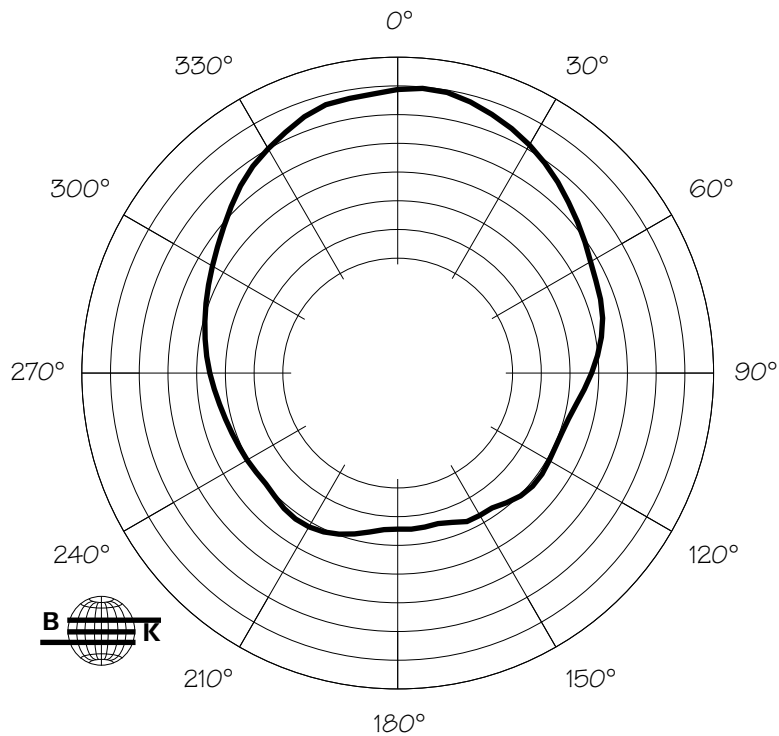


Vertical Octave Polar Data FR122

FR122 2000 Hz Vertical Octave Polar Data



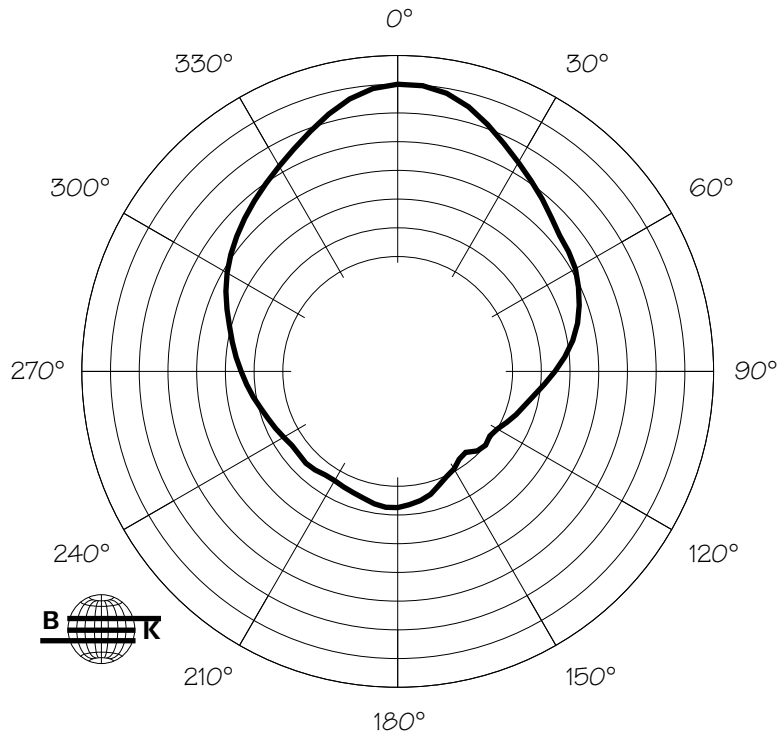
FR122 4000 Hz Vertical Octave Polar Data





Vertical Octave Polar Data FR122

FR122 8000 Hz Vertical Octave Polar Data



FR122 16000 Hz Vertical Octave Polar Data

