

PMX 12

TECHNICAL SPECIFICATIONS



PMX 12 D





ACOUSTICAL SPECIFICATIONS

Amplitude linearity (± 3 dB) (*)	63 - 20 000 Hz	(*) with #HPF 55 Default Preset
Operating frequency range (- 6dB)	56 - 20 000 Hz	
Cut off frequencies (- 10dB)	52 - 20 000 Hz	
Number of ways	2	
Sensitivity (LF)	99 dB	
Sensitivity (MHF)	105 dB	
Maximum SPL (*)	129 dB	(*) Peak level at 1-meter under free field conditions using 12 dB crest factor pink noise
Horizontal coverage	80°	
Vertical coverage	80°	

TECHNICAL SPECIFICATIONS

Nominal impedance (LF)	8 Ω	
Nominal impedance (MHF)	8 Ω	
AES power handling (LF)	350 W	
AES power handling (MHF)	80 W	
Program power handling (LF)	700 W	
Program power handling (MHF)	160 W	
Peak power handling (LF)	980 W	
Peak power handling (MHF)	180 W	
Transducer (LF)	1 x 12"	
Transducer (HF)	1 x 3" (*)	(*) Voice Coil Diameter
Enclosure type	Bass-Reflex	
Crossover type	DSP	
Amplifier class	Class D 2-way amplifier	

AUDIO PERFORMANCE

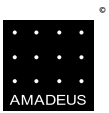
THD + N 20 Hz - 20 kHz for 1 W	< 0.05 %
THD + N at 1 kHz and 1 dB below clipping	< 0.04 %
Input impedance	Balanced > 10 k Ω
Dynamic range	> 119 dB
Processing	64-bit floating-point processing resolution
A to D conversion	24 bit
Internal sample rate	96 kHz
Formats (AES/EBU)	24 bit

LOUDSPEAKER PROCESSING

Crossover	Multiple filter types (Butterworth, Linkwitz-Riley, Bell, High Shelf, Low Shelf, Notch, All Pass, Band Pass, High Pass, Low Pass) up to 24 dB/Oct.
Control and monitoring interface	Full configuration and real-time monitoring via PC, Mac and iPad
Presets	99 user-definable presets

CONNECTORS AND BUTTONS

Input connectors (Analog)	1 x Male XLR (Pin 2+, Pin 3-), 1 x Female XLR (Pin 2+, Pin 3-)
Input connectors (AES/EBU)	1 x Male XLR (Pin 2+, Pin 3-), 1 x Female XLR (Pin 2+, Pin 3-)
Input connectors (Dante)	2 x RJ45 etherCON
Mains connectors	1 x IEC 16 A
Buttons	Power, Up, Down
Encoder	Adjust, Set



PHYSICAL SPECIFICATIONS

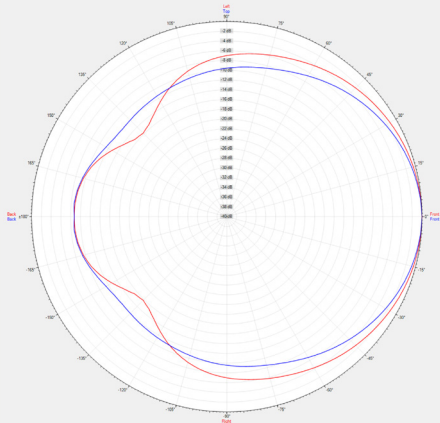
Height	21.69 in (551 mm)
Width	14.64 in (374 mm)
Depth	14.96 in (380 mm)
Weight	48.50 lbs (22.15 kg)
Handles	2
Rigging	3 x M8 threaded inserts for optional U-Brackets 1 x 35 mm pole socket

REFERENCES

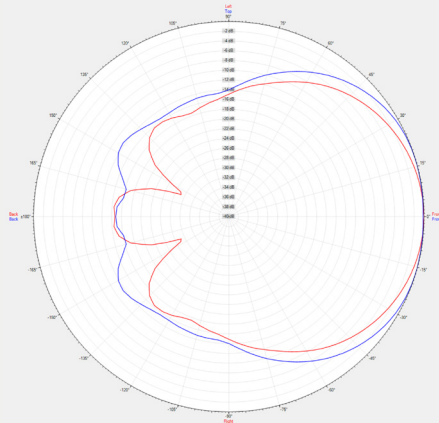
PMX 12 D	High-powered active loudspeaker with Analog, AES3 and Dante I/O (1 x 12" LF ; 1 x 3" HF)
LYRE 101215 V	Adjustable vertical U-Bracket for UDX/PMX 10, 12 and 15 (D Series included)
LYRE 101215 H	Adjustable horizontal U-Bracket for UDX/PMX 10, 12 and 15 (D Series included)
FA2PMX12	Flight Case featuring casters with brakes for two Amadeus PMX 12 or PMX 12 D
9005	Jet Black finish for cabinet, based on RAL 9005 color
9010	Pure White finish for cabinet, based on RAL 9010 color
1013	Oyster White finish for cabinet, based on RAL 1013 color
7040	Window Grey finish for cabinet, based on RAL 7040 color
7030	Stone Grey finish for cabinet, based on RAL 7030 color
5011	Steel Blue finish for cabinet, based on RAL 5011 color
9005	Jet Black color for Airtex [®] acoustical fabric, based on RAL 9005 color
9006	White Aluminium color for Airtex [®] acoustical fabric, based on RAL 9006 color
9010	Pure White color for Airtex [®] acoustical fabric, based on RAL 9010 color
1035	Pearl Beige color for Airtex [®] acoustical fabric, based on RAL 1035 color
1036	Pearl Gold color for Airtex [®] acoustical fabric, based on RAL 1036 color

2D POLAR RADIATION PATTERNS

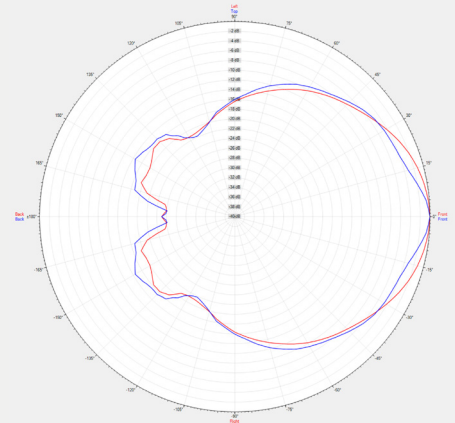
The following patterns show the SPL radiated by the source as a function of angle in the horizontal (—) and vertical (—) planes. The horizontal and vertical plots are each normalized, separately, to the highest level within that plane.



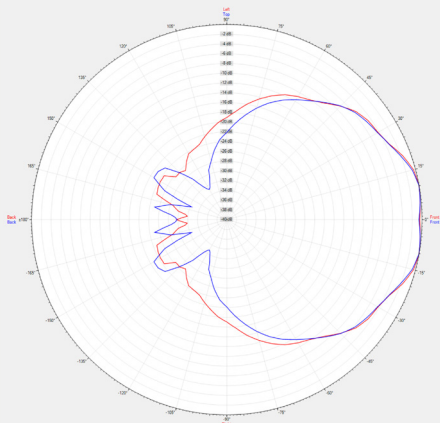
Bandwidth : 1/3 Octave
Frequency : 500 Hz



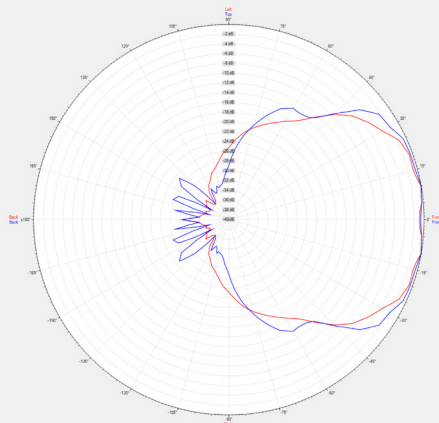
Bandwidth : 1/3 Octave
Frequency : 1 000 Hz



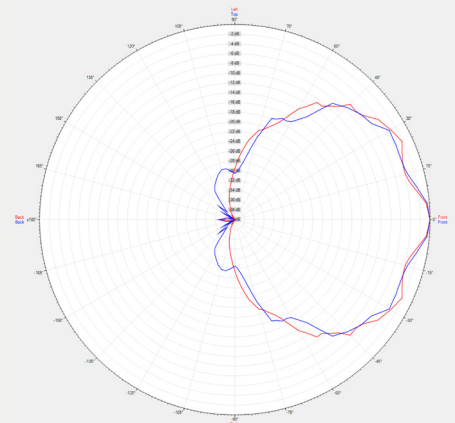
Bandwidth : 1/3 Octave
Frequency : 2 000 Hz



Bandwidth : 1/3 Octave
Frequency : 4 000 Hz



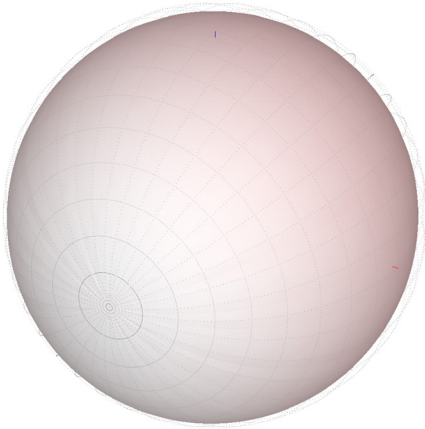
Bandwidth : 1/3 Octave
Frequency : 8 000 Hz



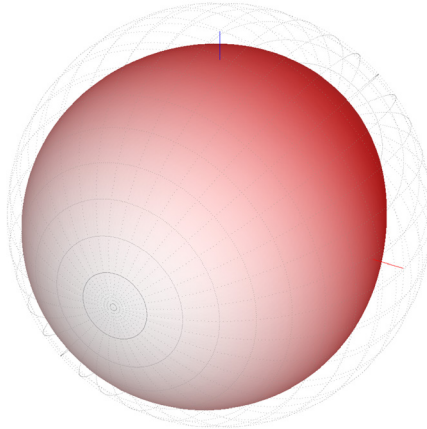
Bandwidth : 1/3 Octave
Frequency : 16 000 Hz

ATTENUATION BALLOON

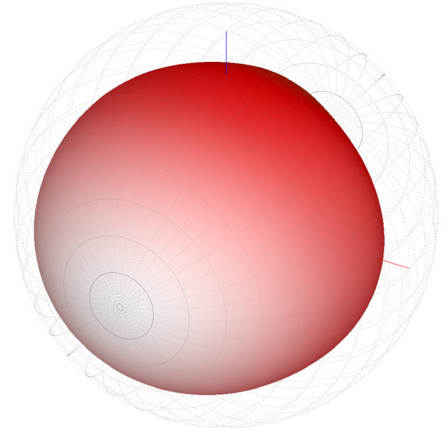
The attenuation balloon shows a 3D balloon denoting level attenuation with respect to the on-axis level at the frequency displayed. This is done since all of the directivity data is normalized to the on-axis SPL.



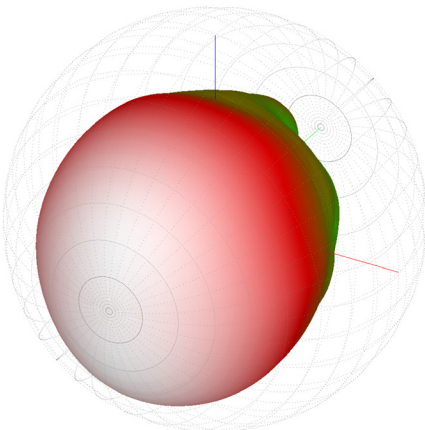
Bandwidth : 1/3 Octave
Frequency : 125 Hz



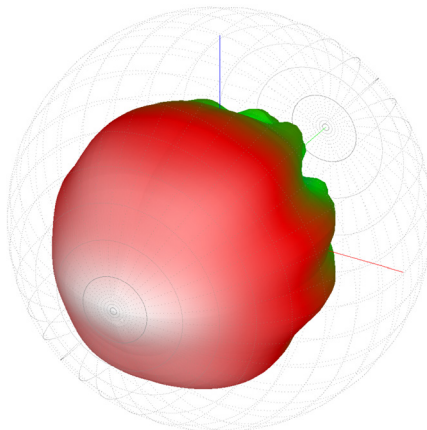
Bandwidth : 1/3 Octave
Frequency : 250 Hz



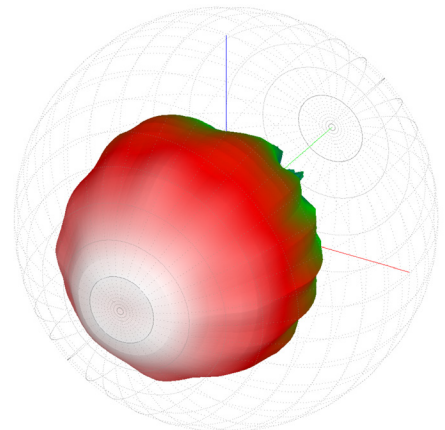
Bandwidth : 1/3 Octave
Frequency : 500 Hz



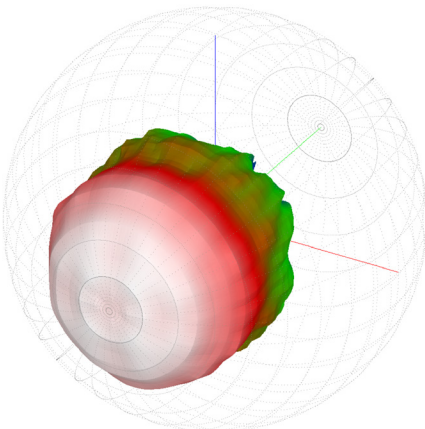
Bandwidth : 1/3 Octave
Frequency : 1 000 Hz



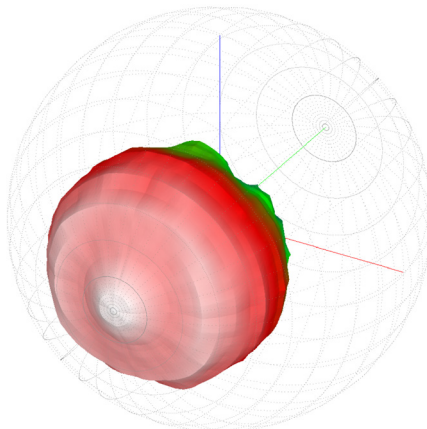
Bandwidth : 1/3 Octave
Frequency : 2 000 Hz



Bandwidth : 1/3 Octave
Frequency : 4 000 Hz



Bandwidth : 1/3 Octave
Frequency : 8 000 Hz

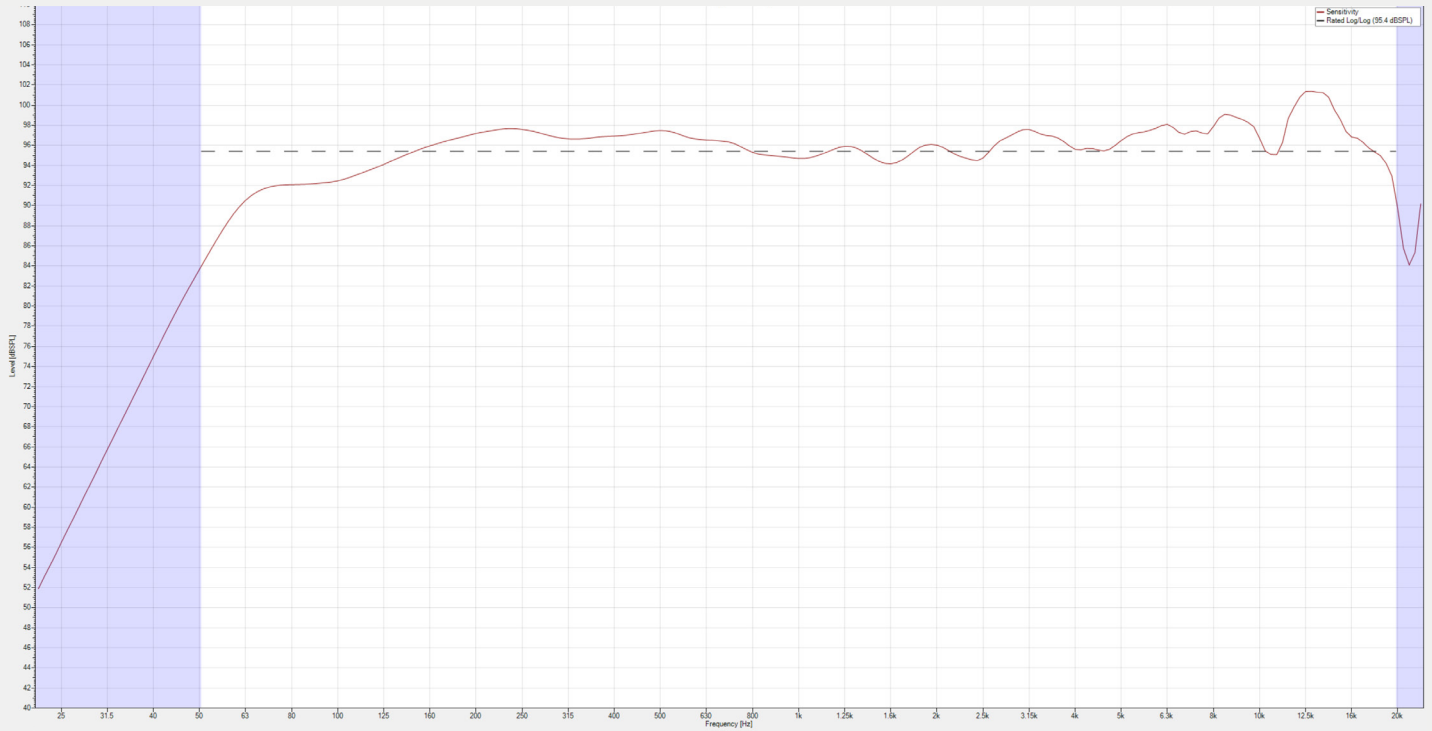


Bandwidth : 1/3 Octave
Frequency : 16 000 Hz



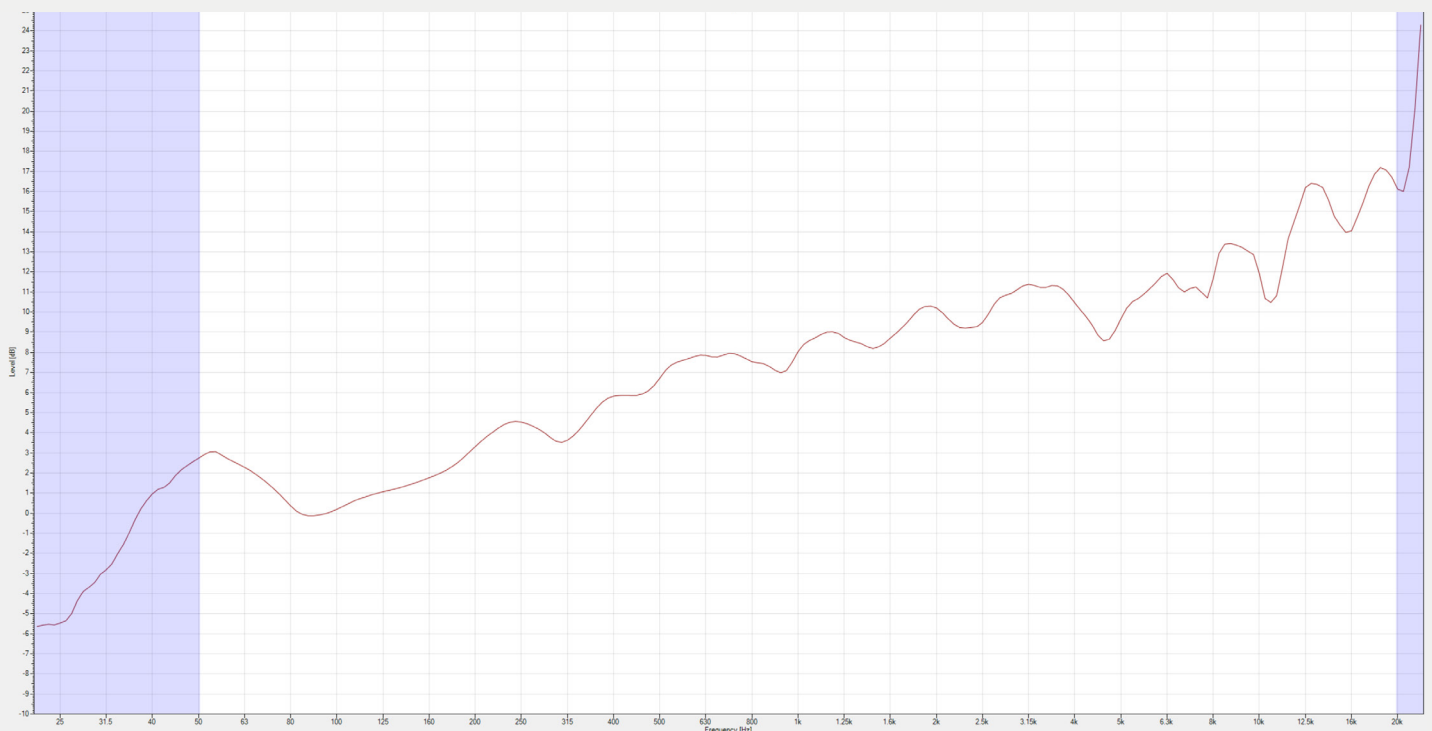
SENSITIVITY GRAPH

The sensitivity graph is identical to the transfer function graph for the on-axis location with two exceptions. First is that the display is of magnitude only. There is no phase data to be shown on this graph. The second is that the level is referenced to 1-meter and an RMS input voltage of 2.83 V. The sensitivity value is calculated over the bandwidth defined by the upper and lower frequency limits entered for the rated frequency bandwidth. This is in keeping with the definition of sensitivity in IEC 60268-5 for an RMS input of 2.83 V.



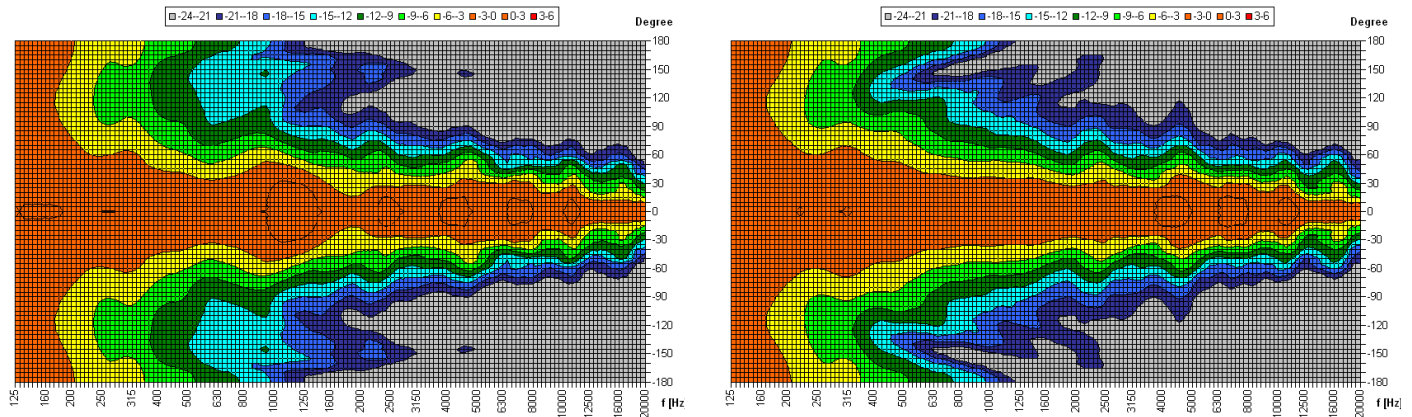
DIRECTIVITY INDEX

The directivity index graph shows the directivity index of the source as a function of frequency. Here the bandwidth can be selected to provide smoothing or averaging of the displayed data. The directivity index is a metric of how directional a sound source is in the way it radiates sound. The higher the value of the directivity index is the more directional the source is at radiating its sound. The directivity index is the logarithmic representation (expressed in dB) of the directivity factor, or Q.



ISOBAR DIAGRAMS

The following graphs show dispersion angle diagram of a single cabinet in vertical (on the left) and horizontal (on the right) plane, plotted using lines of equal sound pressure (isobars) from 6 dB to -24 dB.



STANDARD COLOR CODES

Amadeus systems offer a standard 'Jet Black' finish, based on RAL 9005 color. The following codes allow you to select separately the colors associated with the different external elements that Amadeus systems are composed of.

REFERENCE / **** 1 / **** 2

**** 1 RAL COLOR CODES FOR CABINETS AND MECHANICAL ELEMENTS

**** 2 RAL COLOR CODE FOR AIRTEX[®] ACOUSTICAL FABRIC

For example, a two-color PMX 5 MKII system with 'Jet Black' cabinet (RAL 9005) and 'White Aluminium' Airtex[®] fabric in front of the protection grid (RAL 9006) gets the code PMX5MKII/9005/9006. Another example, a single-color DIVA XS system, made with a 'Pure White' (RAL 9010) cabinet and mechanical elements and a 'Pure White' (RAL 9010) acoustical fabric Airtex[®] covering the protection grid gets the code DIVAXS/9010/9010.

Please contact us if you want to order any specific color.

HIGHLY RESISTANT FINISH (HRF)

Amadeus recently invested in a new painting area featuring new painting machines able to produce a high-resistance resin-based finish, making the speakers highly resistant to scratches, shocks and water projections.

This new optional finish, increasing the systems' durability as well as the degree of protection provided by enclosures against intrusion, dust, accidental contact, and water up to IP55 (EN 60 529) is now available available on-demand.

Please contact us if you want to order any specific finish.

ACCESSORIES TO MEET YOUR NEEDS

Accessories are often the forgotten detail. They are, however, a vital component in a complex speaker setup.

To compliment our core product offering, we also provide an extensive range of accessories.

The selection of accessories includes a huge number of mounting and connecting accessories, available to accommodate any configuration of installation.

The key to our success is to remain flexible. We have a unique manufacturing programme which allows us to efficiently produce anything from small batches to an automated production process for large scale manufacturing.

Please contact us if you want to order any specific accessory.

