



The products

Active digitally steerable column-speaker





Active digital steerable column loudspeakers

Pan Beam® offers an all-in-one self-powered DSP-controlled solution in nearly every architecturally demanding sound-installation with a high speech intelligibility.

One of the outstanding abilities of Pan beam® is the constant volume precisely to the desired audience area, without mechanically tilting or turning the speaker.

This is simply done by the electronic DSP control software, which can be controlled easily via a PC or laptop.

With the Pan Beam® software each "acoustic beam" can be adjusted in the vertical direction and the opening angle can be adjusted in 1° steps to achieve a direct SPL only to the area that is important: **the audience.**

Another feature, the Pan beam® speakers can produce several independent beams, so projecting the sound of separate listening areas is possible.

The Pan beam® speakers can be cascaded to improve the lower limiting frequency, the sound pressure level, and distance.

Typical areas for using Pan Beam® products are: **houses of worship, Museums, railway stations, airports, metro stations, conference rooms, auditoriums, shopping centers as well as audio-video presentation rooms and expanding existing installations.**

The wall mounting hardware is off course included.

The Pan Beam® family consists of a complete range of digital steerable loudspeaker systems; **The PB04 with 4 channels, PB08 with 8 channels, PB16 with 16 channels, PB16-C (church version) with 16 channels, PB32 with 32 channels and the PB40 with 40 channels.**

The differences between these products are their physical parameters and features specifically matching to the respective area.

Additionally available;

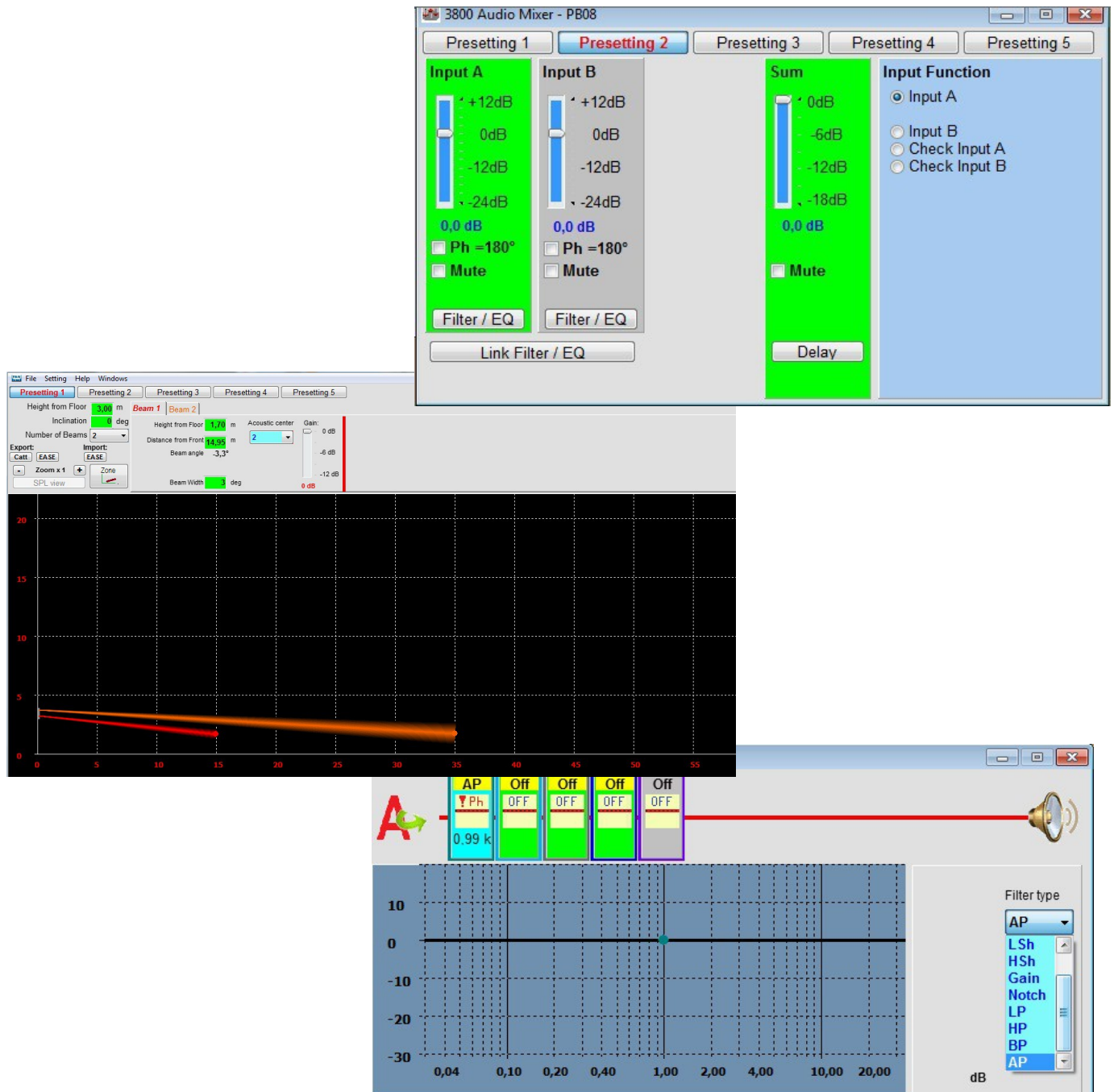
Extended delay times, two separate line- inputs with automatic priority switching, automatic gain control with ambient noise measuring, extended optional accessory package and custom color.

The Pan Beam® products will apply to the EN-54-31 standards as soon as the requirements are set.

Pan Beam®-Setup Software III controlling all parameters.

Beam opening, beam inclination, acoustics center, Delay, Equalizer and gain.

The software is also used to built up the Pan Beam® network and monitors the loudspeaker systems in the network.



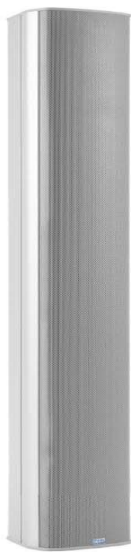
Pan Beam® digital steerable column loudspeaker



Features:

- . Integrated digital PWM power-amps and digital processor-boards
- . Vertical beam control
- . Wide horizontal dispersion
- . Two-beam technology
- . Build-in Electronic Driver Protection
- . High speech intelligibility even in highly reverberant or noisy areas
- . Slim unobtrusive design
- . Lightweight
- . Integrated DSP control
 - Failure report for EVAC systems
 - DSP readout for EVAC systems
 - Automatic A+B input switching for EVAC Systems
 - Vertical beam control
 - Opening angle
 - Elevation angle
 - Focus distance
 - 5 band parametric equalizer
 - Volume control
 - internal delay up to 370 ms
- . RS-485 networking
- . User friendly Windows PC software to control all parameters
- . Media bus control
- . Electronic surveillance
- . Wall mounting hardware included
- . Mounting options for fixed installation and portable use
- . The Pan Beam® family consists off:
PB 04, PB08, PB 16, PB 16-C, PB 24, PB 32, PB 40, PB 224, PB 248,
PB 8-15, PBS 208

Engineered and manufactured in Germany



Order number	800 338
Configuration	Full range-System, 4 x 3,5" cone
Operation mode	Self-powered, 4 x digital amplifier
Acoustical performance	
Operating range	120 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	10° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 25 m
typical throw	15 m
SPL-Limit (avg)	86 dB A-weighted with pink noise at 15m
SPL-Limit (peak)	113 dB SPL at 1m (calc.) 90 dB SPL at 15 m
Electronic performance	
Amplifier output	4 amplifiers, max. 50 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	5 VA (idle), 135 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	456 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	3,5 kg

*-10 dB under anechoic half-space conditions



Order number	800 340
Configuration	Full range-System, 8 x 3,5" cone
Operation mode	Self-powered, 8 x digital amplifier
Acoustical performance	
Operating range	70 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	5° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 50 m
Typical throw	25 m
SPL-Limit (avg)	88 dB A-weighted with pink noise at 25m
SPL-Limit (peak)	119 dB SPL at 1m (calc.) 94 dB SPL at 25 m
Electronic performance	
Amplifier output	8 amplifiers, max. 50 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	10 VA (idle), 270 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	906 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	6,0 kg

*-10 dB under anechoic half-space conditions



Order number	800 342
Configuration	Full range-System, 16 x 3,5" cone
Operation mode	Self-powered, 16 x digital amplifier
Acoustical performance	
Operating range	52 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	3° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 75 m
typical throw	35 m
SPL-Limit (avg)	92 dB A-weighted with pink noise at 25m
SPL-Limit (peak)	125 dB SPL at 1m (calc.) 97 dB SPL at 25 m
Electronic performance	
Amplifier output	16 amplifiers, max. 50 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	20 VA (idle), 540 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	1812 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	12,0 kg

*-10 dB under anechoic half-space conditions



Order number	800 379
Configuration	Full range-System, 16 x 3,5" cone
Operation mode	Self-powered, 16 x digital amplifier
Acoustical performance	
Operating range	52 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	3° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 75 m
typical throw	35 m
SPL-Limit (avg)	88 dB A-weighted with pink noise at 25m
SPL-Limit (peak)	121 dB SPL at 1m (calc.) 93 dB SPL at 25m
Electronic performance	
Amplifier output	16 amplifiers, max. 25 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	10 VA (idle), 270 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	1812 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	12,0 kg

*-10 dB under anechoic half-space conditions



Order number	800 344
Configuration	Full range-System, 24 x 3,5" cone
Operation mode	Self-powered, 24 x digital amplifier
Acoustical performance	
Operating range	42 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	3° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 90 m
typical throw	70 m
SPL-Limit (avg)	95 dB A-weighted with pink noise at 25m
SPL-Limit (peak)	128 dB SPL at 1m (calc.) 100 dB SPL at 25 m
Electronic performance	
Amplifier output	24 amplifiers, max. 50 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	30 VA (idle), 810 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	2718 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	18,0 kg

*-10 dB under anechoic half-space conditions



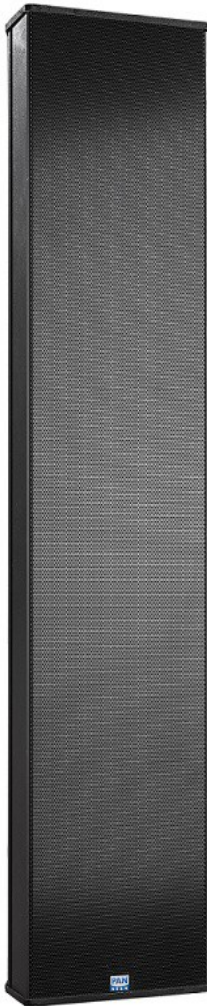
Order number	800 396
Configuration	Full range-System, 32 x 3,5" cone
Operation mode	Self-powered, 32 x digital amplifier
Acoustical performance	
Operating range	42 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	3° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 90 m
typical throw	70 m
SPL-Limit (avg)	99 dB A-weighted with pink noise at 25m
SPL-Limit (peak)	130 dB SPL at 1m (calc.) 102 dB SPL at 25 m
Electronic performance	
Amplifier output	32 amplifiers, max. 50 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	40 VA (idle), 1080 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	3624 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	24,0 kg

*-10 dB under anechoic half-space conditions



Order number	800 397
Configuration	Full range-System, 40 x 3,5" cone
Operation mode	Self-powered, 40 x digital amplifier
Acoustical performance	
Operating range	42 Hz to 17 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	130° (3kHz), 70° (10kHz)
vertical	3° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 90 m
typical throw	70 m
SPL-Limit (avg)	100dB A-weighted with pink noise at 25m
SPL-Limit (peak)	131 dB SPL at 1m (calc.) 103 dB SPL at 25 m
Electronic performance	
Amplifier output	40 amplifiers, max. 50 Watt @ 4 Ohm
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	50 VA (idle), 1350 VA (max.)
temperature range	0°C to +40°C ambient -30°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	4570 mm x 99 mm x 107 mm
Classification	IP54 (option) and IP 65 (option)
Weight	30,0 kg

*-10 dB under anechoic half-space conditions



Order number	800 395
Configuration	2-way system, 6 x 6,5" Hi Q cone, 18 x 1" HQ HF Neodymium drivers
Operation mode	Self-powered, 16 x digital amplifier
Acoustical performance	
Operating range	85 Hz to 20 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	150°
vertical	5° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 60 m
typical throw	40 m
SPL-Limit (avg)	102dB A-weighted with pink noise at 25m
SPL-Limit (peak)	134 dB SPL at 1m (calc.) 106 dB SPL at 25 m
Electronic performance	
Amplifier output	10 x 60 Watt (4 Ohm, high frequency) 6 x 100 Watt (4 Ohm, low/mid frequency)
Amplifier type	Digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	20 VA (idle), 800 VA (max.)
temperature range	0°C to +40°C ambient -10°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	1115 mm x 244 mm x 210 mm
Classification	IP54 (option)
Weight	26,5 kg

*-10 dB under anechoic half-space conditions



Order number	800 387
Configuration	2-way system, 12 x 6,5" Hi Q cone, 36 x 1" HQ HF Neodymium drivers
Operation mode	Self-powered, 32 x digital amplifier
Acoustical performance	
Operating range	60 Hz to 20 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	150°
vertical	3° to 40°, digitally variable
aiming angle	-70° to +70°, digitally variable
Focus Distance	1 m to 75 m
typical throw	50 m
SPL-Limit (avg)	106dB A-weighted with pink noise at 25m
SPL-Limit (peak)	138 dB SPL at 1m (calc.) 110 dB SPL at 25m
Electronic performance	
Amplifier output	20 x 60 Watt (4 Ohm, high frequency) 12 x 100 Watt (4 Ohm, low/mid frequency)
Amplifier type	digital PWM
Audio input	Two transformer balanced inputs Input level: +4 dBu sample rate: 96.000 sample/s – 24 bits
Dynamic range	> 92 dB
AC mains	230 V or 110 V (±10%) 50 Hz bis 60 Hz
Power consumption	40 VA (idle), 1200 VA (max.)
temperature range	0°C to +40°C ambient -10°C to +50°C ambient (option)
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	2230 mm x 244 mm x 210 mm
Classification	IP54 (option)
Weight	53,0 kg

*-10 dB under anechoic half-space conditions



Order number	800 398
Configuration	Full range-System, 15 x 2,1" HQ long excursion drivers
Operation mode	passive 150 Watt max., 200 W peak
Acoustical performance	
Operating range	135 Hz to 18 kHz (+3 / -10 dB) *
Nominal bandwidth	
horizontal	140°
vertical	20°
aiming angle	--
Focus Distance	--
typical throw	--
Axial Sensitivity	91 dB SPL (1W at 1m)
SPL-Limit (peak)	120 dB SPL at 1m (calc.) 95 dB SPL at 25m
Electronic performance	
Amplifier output	--
Amplifier type	--
Audio input	Nominal Impedance 8 Ohm 100V input (option)
Dynamic range	--
AC mains	--
Power consumption	--
temperature range	-30°C to +70°C ambient
Mechanical performance	
Enclosure	Rear extruded aluminum
Grill	Powder coated, perforated steel
Color	Aluminum RAL 9006 Different colors available as an option
Dimensions	906 mm x 99 mm x 107 mm
Classification	IP-54 for outdoor using
Weight	5,0 kg

*-10 dB under anechoic half-space conditions

Order number 800 399
Configuration Subwoofer system, 2 x 8" loudspeaker
Operation mode Self-powered, 2 x digital amplifier

Acoustical performance

Operating range 42 Hz bis 120 Hz (+3 / -10 dB)
(user controlled)

Nominal bandwidth

horizontal --

vertical --

aiming angle --

Focus Distance --

typical throw --

SPL-Limit (avg) 122 dB *

SPL-Limit (peak) 125 dB *

Electronic performance

Amplifier output 600 Watt, peak 800 Watt

Amplifier type digital PWM

Audio input Two transformer balanced inputs
Input level: +4 dBu
Sample rate: 96.000 sample/s – 24 bits

Dynamic range > 92 dB

AC mains 230 V or 110 V (±10%) 50 Hz bis 60 Hz

Power consumption 20 VA (idle), 800 VA (max.)

temperature range 0°C to +40°C ambient
-10°C to +50°C ambient (option)

Mechanical performance

Enclosure 15mm plywood

Grill --

Color Black lacquer
Different colors available as an option

Dimensions 480 mm x 460 mm x 310 mm

Classification IP54 (option)

Weight 15,0 kg

*-10 dB under anechoic half-space conditions



PanCon485 – USB to RS485 Converter

The PanCon485 converter is needed for setting up any Pan Beam® product. By connecting the PanCon485 via your USB port on your computer you will have full access to the intuitive Pan Beam® software. After installing your system the PanCon485 will be used for the audio signals via the XLR connectors.

The PanCon485 can externally be controlled by any media control system via the RS-485 contacts.

For using the PanCon485 connection to the Pan Beam® systems we suggest to use CAT6 cabling.

Via the alarm contacts your priority switching of the A and B audio inputs can be controlled.

USB cable is standard supplied with the PanCon485.

To control all parameters of the loudspeakers, the intuitive Windows software is required. The software is available on request for Pan Beam® users.



Turnable Wall mount bracket for installing PB08 and PB16

With the optional turnable (swivel) wall mount bracket **PB08TWM** your Pan Beam® system can be mounted to the wall and can be turned in the desired the direction.

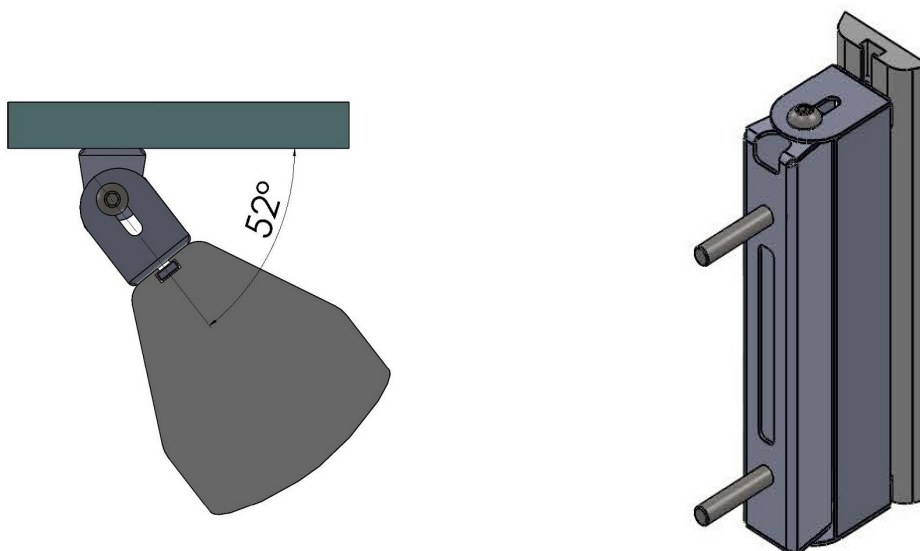
The **PB08TWM** can be used for installing the Pan Beam® PB08 and PB16.



Turnable Wall mount bracket PB08CHTWM

With the optional cable hiding turnable (swivel) wall mount bracket **PB08CHTWM** your Pan Beam® system can be mounted to the wall and can be turned in the desire direction.

The **PB08CHTWM** can be used for installing all Pan Beam® systems.
Each individual Pan Beam system will be mounted with one PB08CHTWM.

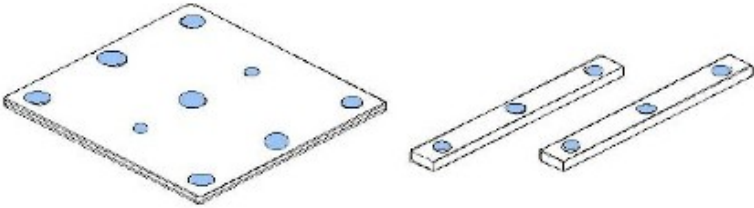


Pan Beam® Accessories

Wall mount bracket PB224WMP

With the optional **PB224WMP** wall mount plate your Pan Beam® system can be mounted straight to the wall.

A set **PB224WMP** consists of 1 wall mount plate and 2 pcs of sliders.



Wall mount plate PB224

Multi-purpose wall mount for speakers with universal adapter plate.

For horizontal and vertical adjustment of your PB224, the König&Meyer wall mount 24481 is available. (Local available in all countries)



Pan Beam® Accessories

Mobile use of your Pan Beam® loudspeaker

PowerCon® cable

For power connection of all Pan Beam® systems with a PowerCon® connector, the PowerCon® power cable is available.



Loudspeaker stand PB08SM

For the Pan Beam® models PB08/16/24 and PB224/248 an optional 35 mm stand mount is available.

Stand adapter **PB08SM for PB08**



Stand adapter **PB224SM for PB224**



Pan Beam® Accessories

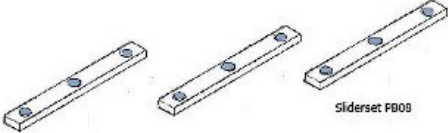
Cascading multiple Pan Beam® systems

The optional slider set offers you stable and rugged connection between PB08 systems.

For each extension an extra set is needed.

The optional slider set PB08slider consists of 3 sliders.

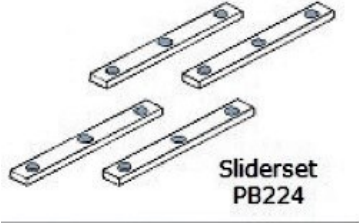
- 2 x PB08 = PB16, 1 slider set is needed
- 3 x PB08 = PB24, 2 slider sets are needed
- 4 x PB08 = PB32, 3 slider sets are needed
- 5 x PB08 = PB40, 4 slider sets are needed



A Pan Beam® PB224 can be cascaded up to a PB248.

The optional slider set offers you stable and rugged connection between PB224 systems.

The optional slider set PB224 consists of 4 sliders.



Pan Beam® Accessories

Pilot tone and fault option for all Pan Beam® systems

For all Pan Beam® systems a pilot tone and fault signal contact is available.

100V audio input for all Pan Beam® systems

For all Pan Beam® systems a 100V input option is available.

48V emergency option for all Pan Beam® systems

For all Pan Beam® systems a 48V emergency power option is available.

Ambient noise microphone option for all Pan Beam® systems

for all Pan Beam® systems an ambient noise microphone option is available.



Color options for all Pan Beam® systems

All Pan Beam® SYSTEMS can optionally be supplied in any RAL-color.

Fur each RAL-color the the specific gloss degree should be defined.



Pan Acoustics products



Pan Acoustics combines expertise and know-how.

Your Pan Beam partner

Pan Acoustics GmbH

Lindener Str. 15, D-38300 Wolfenbüttel, Germany

Tel.: +49 (0) 53 31 / 9 00 95 70, Fax: +49 (0) 53 31 / 9 00 95 79

E-Mail: kontakt@pan-acoustics.de, Internet: www.pan-acoustics.de