



SI SERIES

VERSATILE INSTALLATION TOOLS



P10i/j (TR) – column loudspeakers designed for installations

Versatile Installation Tools

With the new **SI SERIES** – SI stands for **System Integrator** – HK Audio has unveiled a family of speakers tailored to meet the needs of today's installation market.

The **P10i** and **P10j** high-performance column speakers are the first products in the SI SERIES.

Working together with planners and installers, HK Audio engineers equipped these cabinets with the full complement of technical features, plenty of installation options and a host of handy hardware details. They are also designed to comply with all relevant and applicable standards.

The P10i and P10j come in **16-ohm versions** and alternative models featuring built-in, fully enclosed **100/70 V** transformers that can deliver up to 150 watts via three power taps.

The i and j versions of the P10 have different vertical directivities – 5° for the P10i and 15° for the P10j. The P10j's directional characteristic is **asymmetrical**. Its **j-shaped** pattern of throw is directed downwards, a function achieved exclusively by the speaker's design – that is, without an on-board DSP. The P10i's horizontal directivity is 100° and the P10j's is 120°.

With the drivers **arrayed in a line** and tuned for tight vertical directivity, P10i/j speakers are very well suited for large rooms with **long reverberation times** as well as for outdoor **long-throw applications**.

They accomplish both sound reinforcement tasks superbly, allowing excellent speech transmission index (**STI**) values and high quality music rendition in combination with subwoofers.

P10 speakers are loaded with ten 3" high-performance drivers. Custom-developed for HK Audio, they deliver up to **127 dB SPL**.

With a punch as assertive as this, the P10 speakers are

an excellent choice for **noisy venues** such as sports facilities and foyers. And with the benefit of their remarkably **neutral response**, they are also ideally suited for applications demanding high-quality music and speech reinforcement in venues such as auditoriums, presentation rooms, houses of worship, music clubs, and so on.

The **birch plywood** cabinet housing is laminated with waterproof adhesive and coated with a dual-component finish. The cover plate can easily withstand **direct jet streams of water**. With this weatherproofing, P10 enclosures are entirely suitable for outdoor use. A 4-pole connector serves to provide electrical power, whereby two PG glands are available for cable routing.

The impregnated speaker cloth and speaker cones protect components against the adverse **effects of weather**.

P10s have all the features necessary for a protection class **IP 66** rating in accordance with **EN 60529**. A test report from TÜV Süd is available for this.

All P10 models are certified according for use in voice alarm systems and slated for certification to **EN 54-24:2008** (type B outdoor use).

A full range of mounting accessories is available to quickly and safely install these speakers in any facility or outdoor area. Compliance with the German **DIN 18032-3** standard for ball impacts is certified.

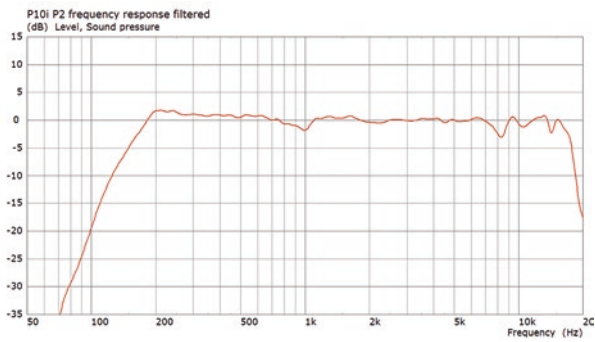
A test report or certificate of the MPA Stuttgart is available for this.

With more than 40 colors to choose from, the enclosures may be adapted to purpose in the factory – for example, to **match elegant interior designs** or comply with monument conservation regulations.

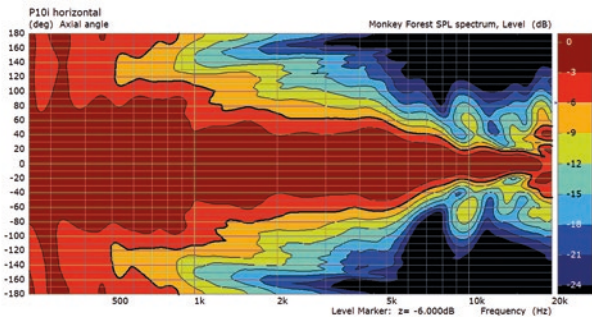


Electroacoustic measurements

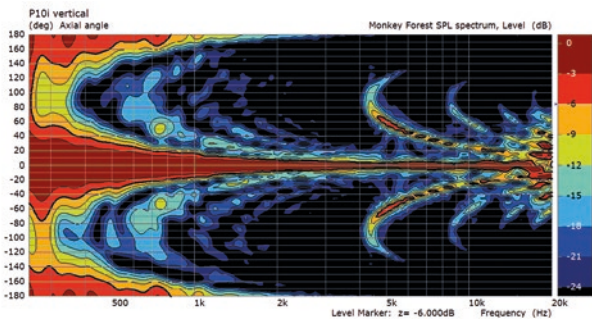
P10i



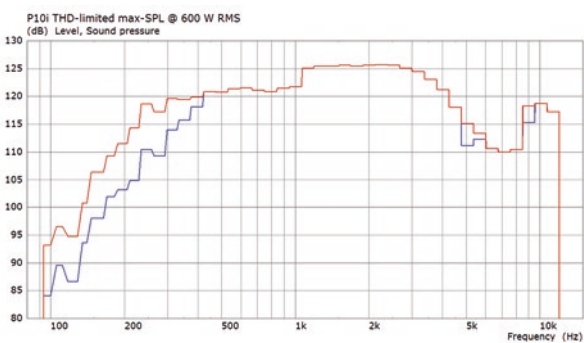
Frequency response (processed)



Horizontal directivity

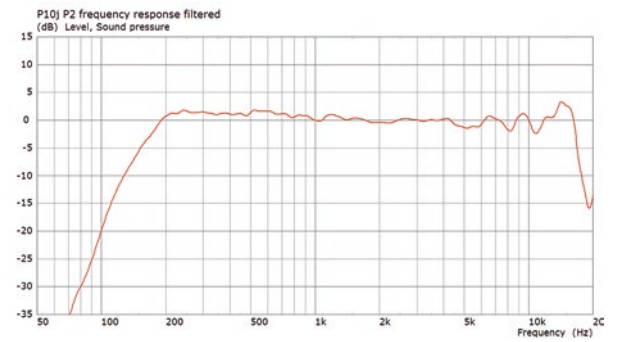


Vertical directivity

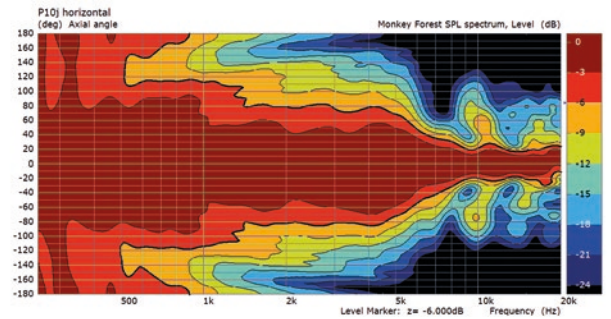


Max. SPL (blue = 3 % THD, red = 10 % THD)

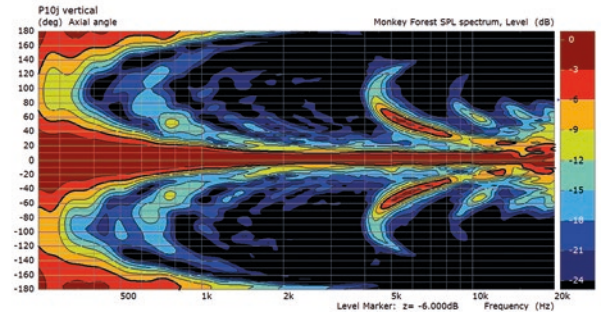
P10j



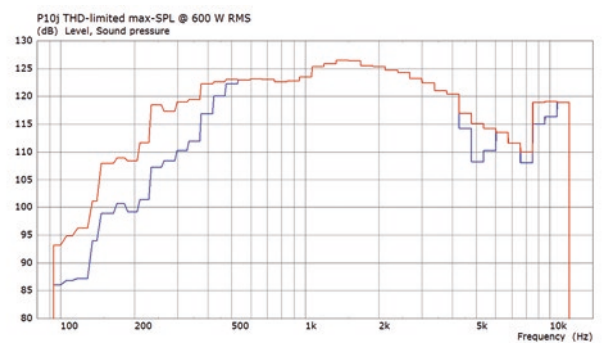
Frequency response (processed)



Horizontal directivity



Vertical directivity



Max. SPL (blue = 3 % THD, red = 10 % THD)

P10 Accessories

U-bracket

The **factory-included** U-bracket serves to mount a single P10 speaker cabinet. The bracket's symmetrical keyhole openings accept both M6 and M8 mounting fixtures.

The bracket also features four attachment points that make it easier to bolt it to walls in a level position.

Even **multiple P10 setups** are easy to mount by simply attaching one on top of the other and fastening them with a connector plate so they may be swiveled as one.



Swivel and tilt bracket

Swivel and tilt brackets serve to accurately aim individual speakers and multiple speaker setups towards the intended coverage areas.

The adjustable tilt angle aligns speakers to provide satisfying sound reinforcement even in **acoustically challenging venues**, such as rooms with highly reflective facing walls.



Rigging rail

P10 speakers may also be **flown** when circumstances dictate they be deployed at a great distance from a wall or if walls are unable to handle the load.

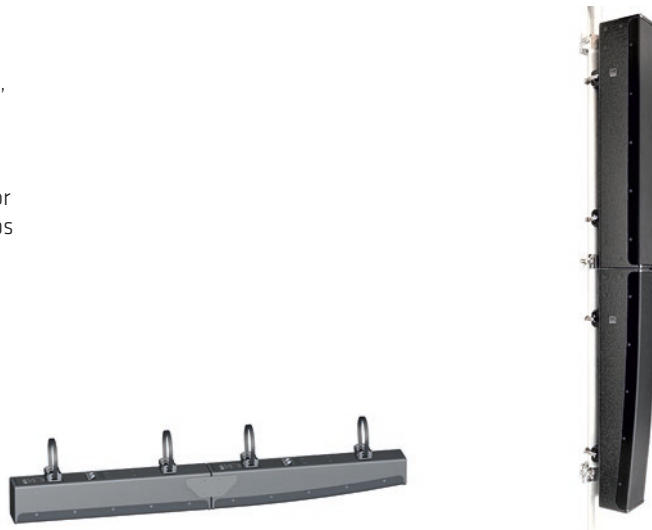
The rigging rail designated for this purpose holds **up to three speaker columns** to deliver high volume levels across long throw distances. A rear-mounted steel bracket with matching attachment points is available to tension and precisely align speakers.



Pole support

Speakers often need to be mounted on poles, columns, masts or trusses. The P10 pole support serves this purpose.

Bolted to the housing, it provides a **suitable support** for poles or columns with standard diameters. Hose clamps or clips may be used to attach the mounts, a practical solution in **listed buildings** where drilling holes is not an option.



Ceiling mount

A ceiling mount is available for attaching a speaker to the ceiling and aligning it with the audience areas below.

The cable is **concealed in the mount's tube**.

Its wide-ranging swivel and tilt mechanism serves to achieve high-quality audio even in acoustically challenging rooms where speakers have to be placed very close to the audience area. This is the case in very loud and/or reverberant venues.

Despite its **small footprint** and low profile, the ceiling mount provides an excellent hardware solution for these applications.



Transformers

All P10 loudspeakers are also available with high-quality, fully encapsulated **100/70 V transformers**. The versions with the "TR" suffix are particularly well suited for applications with very long speaker cable runs, as the 100/70 V lines significantly **reduce line losses**. The P10j TR, for example, is equipped with this transformer.

It provides **three power taps (37.5/75/150 W)** via 4-pole connectors.

The transformer serves to deliver very high sound pressure levels, and that makes the P10i/j TR a great choice of speaker for **integrated (voice) alarm systems**.



S210 V and S210 P – Outdoor-suitable subwoofers for installations

S210 V und S210 P

Two new installation-specific subwoofers are available within the SI SERIES.

Both subwoofers are particularly suitable for combination with the SI SERIES P10, but are also compatible with many other HK Audio products.

They offer numerous unique solutions that implement the requirements of today's installation market.

The cabinets have been optimised for installation purposes and kept as flat as possible so that they can be accommodated and „hidden“ as unobtrusively as possible in practice.

As standard, there are multiple mounting points in the enclosures to which an **optional U-bracket** can be attached. With the help of this bracket, all speakers can be installed on walls or ceilings. Ceiling mounting or flown fixed installation with up to two S210s is also possible.

The S210s offer a recessed switch that allows the electrical impedance to be selected between **4 or 16 ohms**. This way, it is possible to react to the available power amplifiers in any situation and to make optimal use of their power.

Basically, all enclosures are suitable for **installation in outdoor areas**. The S210 P in particular stands out with its very high **IP 66 protection class**, which is achieved due to its transducer principle with **passive radiators** and the well thought-out cabinet design.

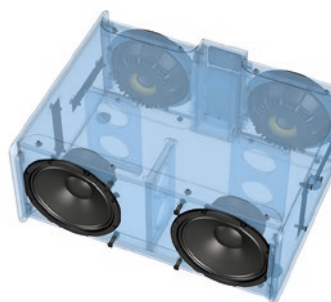
The S210 V is equipped with 2x10“ transducers and a large bass reflex tunnel. The tunnel has an **exponential contour** to reduce unwanted air flow noises.

The S210 V can be used in **protected outdoor areas** and is specified with **IP 44**.

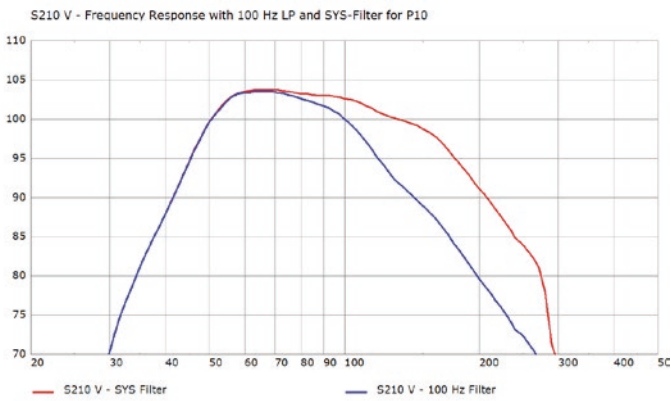
Together with the modular P10 column loudspeakers, a **complete system** with protection class **IP 66** can be set up for the first time. This solution package is **unique worldwide** and enables uncompromising audio quality even under the most difficult environmental conditions! In addition, **certified proof of ball impact resistance** (DIN 18032-3) is available for installation in sports facilities and comparable applications.



The S210 P is equipped with 2x10“ transducers in the front and **2x10“ passive radiators** in the back. Optimized for installation purposes, the general cabinet design and mounting equipment is identical to the S210 V. The S210 P has been designed to work under the **most challenging environmental conditions**. It has been tested and certified with **IP 66**.

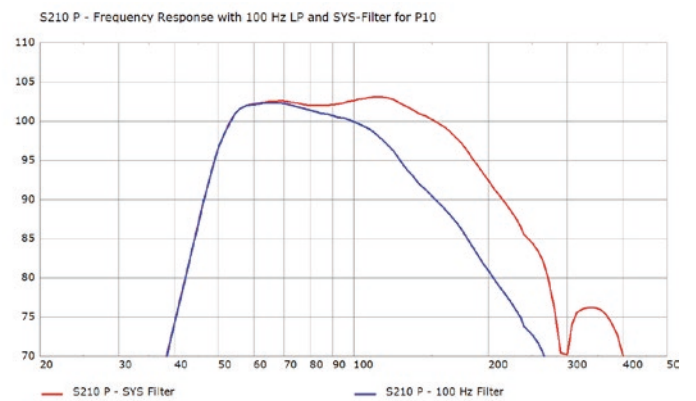


S 210 V

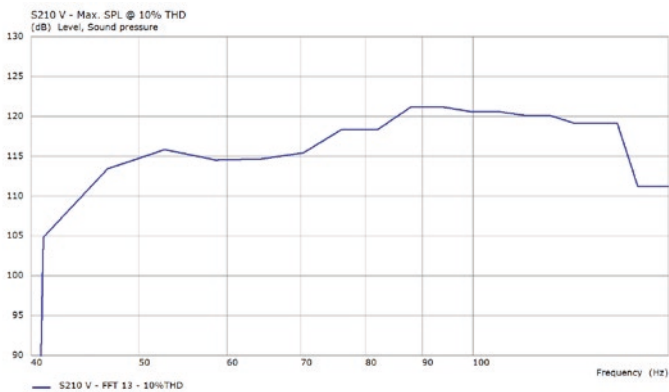


Frequency response SYS (red) and 100 Hz (blue) (processed)

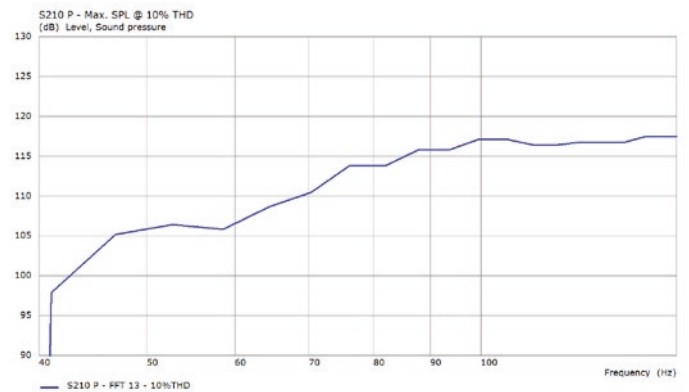
S 210 P



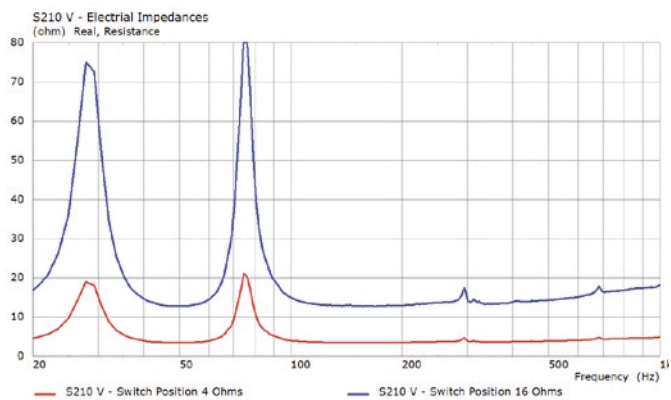
Frequency response SYS (red) and 100 Hz (blue) (processed)



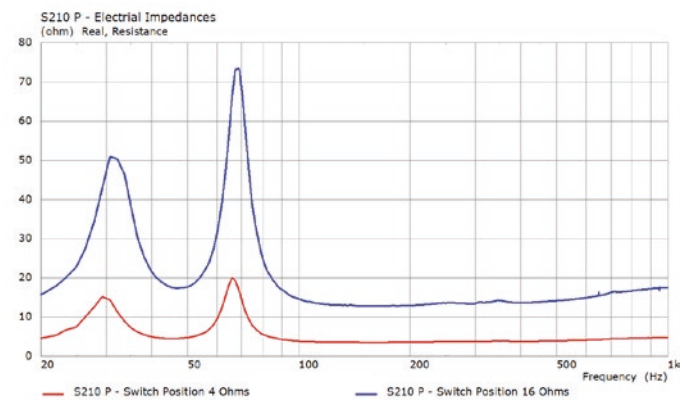
Max. SPL (blue = 10 % THD)



Max. SPL (blue = 10 % THD)



Electrical impedance (red = switch position 4 ohms, blue = switch position 16 ohms)



Electrical impedance (red = switch position 4 ohms, blue = switch position 16 ohms)

S210 V and S210 P Accessories



The U-bracket allows for vertical installation of a single S210. No additional parts are needed: The installer simply uses the screws that are pre-installed in every loudspeaker cabinet.

The U-bracket also allows for installation parallel to a wall. With this space-saving arrangement, the S210 can be mounted in rooms previously considered too small for such installations.



The U-bracket can also be used to install S210s to a ceiling. Using the optional U-Bracket Extension Plates, a maximum of two S210s can be mounted.

Moreover, the U-Bracket can even be used for flown installations. This is the most cost-efficient solution in the HK Audio portfolio for flying of subwoofers. Using the optional U-Bracket Extension Plates, a maximum of two S210s can be flown.



Services for professionals

Support

Our team of sales consultants and application engineers will support you in day-to-day business as well as in long-term projects.

- Consulting: On HK Audio products and project-specific challenges
 - Project business: Needs analysis and solution-oriented project support
 - Services: Electroacoustic measurements, simulations and forecasts
 - Special constructions: Loudspeakers adapted to the respective requirements (e.g. environmental conditions or protection of historical monuments)
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Services

- Individual clarification of the requirements or needs of the customer
 - Development of detailed concepts and transparent offers
 - Support in the preparation of bill of quantities and tender specifications
 - Long-term consulting and support for a successful project completion
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Public address and Voice alarm

- Acoustic planning for all kinds of sound reinforcement systems: sports facilities, houses of worship, theatres, clubs, multifunctional halls etc.
 - Acoustic planning for voice alarm systems and for electro-acoustic emergency warning systems
 - Electroacoustic measurements on site, e.g. for final commissioning or for troubleshooting in existing buildings
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Room acoustics und Simulations

- On-site measurements of all room acoustic parameters (reverberation times, noise levels...)
- Model construction of closed or open rooms of any kind in EASE
- Simulation of acoustic parameters such as clarity, total sound level, speech intelligibility including masking and noise, etc. in EASE
- Simulation and auralisation of room acoustic measures
- Consideration of all relevant technical standards or local requirements

Technical specifications

	P10i	P10j
Power-handling, nominal (RMS)	300 W	300 W
Power-handling, program	600 W	600 W
Power-handling, peak	1200 W	1200 W
Sensitivity 1 W/1 m (full space)	97 dB (200 Hz - 10 kHz)	97 dB (200 Hz - 10 kHz)
Frequency response +/- 3 dB (processed)	155 Hz - 18 kHz	155 Hz - 18 kHz
Frequency response -10 dB (processed)	130 Hz - 19 kHz	130 Hz - 19 kHz
Max. SPL @ 10 % THD (EN 60268-21, full space)	126 dB	127 dB
Directivity (horizontal x vertical)	100° x 5° (symmetrical)	120° x 15° (asymmetrical, j-shaped)
Electrical impedance	16 ohms	
Transducer	10 x 3" fullrange drivers with ferrite magnet and 0.8" voice coil	
DSP filters	Filters for Lab.gruppen IPD and Lake, Powersoft Armonia+, QSC Q-SYS and filters in tabular form	
Connections	2 x 4-pole connectors, with cover plate and PG glands	
Mounting points	24 x M5	
Cabinet material	Birch plywood	
Front grille	Ball impact resistant steel grille, powder coated, with acoustic cloth (dirt and water repellent)	
Finish	Two-component coating, black and white as standard, over 40 colors possible	
Certifications	Voice alarm (EN 54-24:2008), IP 66 (EN 60529), ball impact resistance (DIN 18032-3)	
Optional accessories	U-bracket, swivel and tilt bracket, rigging rail, pole support and ceiling mount	
Dimensions (W x H x D)	120 x 820 x 165 mm / 4.72 x 32.28 x 6.49 in	120 x 820 x 165 (top) and 119 (bottom) mm / 4.72 x 32.28 x 6.49 (top) x 4.68 (bottom) in
Weight	10.4 kg / 22.9 lb	10.2 kg / 22.5 lb

	P10i TR	P10j TR
Power tap 1 at 100 V	150 W	150 W
Power tap 2 at 100 V	75 W	75 W
Power tap 3 at 100 V	37,5 W	37,5 W
Sensitivity 1 W/1 m (full space)	97 dB (200 Hz - 10 kHz)	97 dB (200 Hz - 10 kHz)
Frequency response +/- 3 dB (processed)	155 Hz - 18 kHz	155 Hz - 18 kHz
Frequency response -10 dB (processed)	130 Hz - 19 kHz	130 Hz - 19 kHz
Max. SPL @ 10 % THD (EN 60268-21, full space)	123 dB	124 dB
Directivity (horizontal x vertical)	100° x 5° (symmetrical)	120° x 15° (asymmetrical, j-shaped)
Electrical impedance	175/85/43 ohms	
Transducer	10 x 3" fullrange drivers with ferrite magnet and 0.8" voice coil	
DSP filters	Filters for Lab.gruppen IPD and Lake, Powersoft Armonia+, QSC Q-SYS and filters in tabular form	
Connections	2 x 4-pole connectors, with cover plate and PG glands	
Mounting points	24 x M5	
Cabinet material	Birch plywood	
Front grille	Ball impact resistant steel grille, powder coated, with acoustic cloth (dirt and water repellent)	
Finish	Two-component coating, black and white as standard, over 40 colors possible	
Certifications	Voice alarm (EN 54-24:2008), IP 66 (EN 60529), ball impact resistance (DIN 18032-3)	
Optional accessories	U-bracket, swivel and tilt bracket, rigging rail, pole support and ceiling mount	
Dimensions (W x H x D)	120 x 820 x 165 mm / 4.72 x 32.28 x 6.49 in	120 x 820 x 165 (top) and 119 (bottom) mm / 4.72 x 32.28 x 6.49 (top) x 4.68 (bottom) in
Weight	11.7 kg / 25.8 lb	11.3 kg / 24.9 lb

	S210 V	S210 P
Power-handling, nominal (RMS)	600 W	300 W
Power-handling, program	1200 W	600 W
Power-handling, peak	2400 W	1200 W
Sensitivity 1 W/1 m (full space)	95 dB	92 dB
Frequency response +/- 3 dB (processed)	48 Hz - 140 Hz	50 Hz - 140 Hz
Frequency response -10 dB (processed)	44 Hz - 140 Hz	48 Hz - 140 Hz
Max. SPL @ 10 % THD (EN 60268-21, full space)	121 dB	117 dB
Directivity (horizontal x vertical)	omnidirectional	
Electrical impedance	4 ohms/16 ohms switchable	
Transducer	2x 10" with ferrite magnet and 2,5" voice coil	2x 10" with ferrite magnet and 2,5" voice coil and 2x10" passive radiators
DSP filters	Filters for Lab.gruppen IPD and Lake, Powersoft Armonia+, QSC Q-SYS and filters in tabular form	
Connections	2 x 4-pole connectors, with cover plate and PG glands	
Mounting points	8x M8	
Cabinet material	Birch plywood	
Front grille	Ball impact resistant steel grille, powder coated, with acoustic cloth (dirt and water repellent)	
Finish	Two-component coating, black and white as standard, over 40 colors possible	
Certifications	IP 44 (EN 60529), ball impact resistance (DIN 18032-3)	IP 66 (EN 60529), ball impact resistance (DIN 18032-3)
Optional accessories	U-bracket, extension plates	
Dimensions (W x H x D)	700 x 297 x 550 mm / 27.56 x 11.69 x 21.65 in	700 x 297 x 550 mm / 27.56 x 11.69 x 21.65 in
Weight	27.5 kg / 60.62 lbs	29.0 kg / 63.93 lbs



Certified for voice alarm (EN 54-24:2008)



P10i/j:

- low impedance (16 ohms)
- 300 W (RMS)
- 127 dB SPL (10 % THD)



Certified ingress protection class IP 66 (EN 60529, applies to P10 and S210 P)



P10i/j TR:

- 100 V transformer
- 3 power taps (150 W max)
- 124 dB SPL (10 % THD)



Certified ball impact proof (DIN 18032-3)



Extensive mounting accessories for walls, ceilings and for flown installations



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