



PR4x1000



User Manual and datasheet

Version 1.1

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1. Important Safety Information

This device complies with the CE and VDE directives and fulfills the requirements of class 1 (DIN EN60065: 2006). It has been manufactured and tested with your safety in mind. However, improper use can result in potential electric shock or fire hazards.

To avoid defeating the safeguards that have been built into the device, please observe the precautions discussed in this document.



The lightning flash with arrowhead symbol, within a triangle, is intended to alert you to the presence of uninsulated “dangerous” voltages within your device’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within a triangle is intended to alert you to the presence of important instructions in the literature accompanying the device.

Warnings



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER OF THE DEVICE.

THERE ARE DANGEROUS VOLTAGES INSIDE THE UNIT EVEN WHEN MAINS IS DISCONNECTED.

THERE ARE NO USER-SERVICEABLE PARTS INSIDE IT.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE.

DO NOT PERFORM ANY SERVICING UNLESS YOU ARE QUALIFIED TO DO SO BY FOUR AUDIO.

REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

SERVICING THE DEVICE YOURSELF WILL INVALIDATE THE WARRANTY.

THIS IS A PROTECTIVE CLASS 1 DEVICE AND MUST THEREFORE BE EARTHED! NEVER DISCONNECT THE PROTECTIVE EARTH CONDUCTOR.

Ventilation

Slots and openings in the casing of the device are provided for ventilation, to ensure reliable operation of the device and to protect it from overheating.

MAKE SURE THAT ALL VENTILATION SLOTS ARE CLEAN AND FREE OF DUST.

NEVER BLOCK THE VENTILATION OPENINGS BY PLACING THE DEVICE ON A BED, SOFA, RUG OR OTHER SIMILAR SURFACE.

NEVER COVER THE VENTILATION OPENINGS WITH ITEMS SUCH AS NEWSPAPERS, CLOTHS ETC.

DO NOT PLACE THE DEVICE IN A BUILT-IN INSTALLATION SUCH AS A BOOKCASE OR RACK UNLESS PROPER VENTILATION IS PROVIDED OR YOU HAVE ADHERED TO THE MANUFACTURER’S INSTRUCTIONS.

Water and moisture

The appliance is built for indoor use.

DO NOT EXPLOIT IT TO HUMIDITY OR EXTREME TEMPERATURES

ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ARE PLACED ON THE DEVICE.

Disposal



When the end-of-life of your device is reached, do not dispose this device in the household waste. This protects our environment and saves raw materials. Return it to your distributor who will dispose it free of charge for you.

Four Audio assumes no liability for improper use of the product (e.g. operating errors, incorrect line voltage)

KEEP THIS INFORMATION FOR FUTURE REFERENCE

2. EC Declaration of Conformity

An example of this equipment has been tested and found to comply with the following European and international Standards for Electromagnetic Compatibility and Electrical Safety:

Radiated Emission (EU): EN55103-1 (1996)

RF Immunity (EU): EN55103-2 (1996)

Electrical Safety (EU): EN60065 (1993)

Manufacturer's Name & Address

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Germany

Product Name

PR4x1000



Aachen, June-25-2016

Rainer Thaden

3. Package contents

- ✓ 1x PR series amplifier
- ✓ 1x Neutrik® powerCON True1 cord

4. Product Specifications

The PR series amplifier is a 2/4/6/8-channel class D power amplifier. It is mainly intended for fixed sound installations and suitable even in surroundings where low operational noise is relevant. Due to its cooling concept with large heatsink, ultra-low noise fans and a temperature depending fan-control the amplifier remains quiet even under full load conditions.

5. Technical data

Data per Pascal® S-PRO 2 module

SE output power @ 1% THD+N, 1kHz, $R_L = 8\Omega$	245 W	
SE output power @ 1% THD+N, 1kHz, $R_L = 4\Omega$	490 W	
SE output power @ 1% THD+N, 1kHz, $R_L = 2.7\Omega$	120 V: 600 W	230 V: 725 W
BTL output power @ 1% THD+N, 1kHz, $R_L = 8\Omega$	120 V: 700 W	230 V: 900 W
BTL output power @ 1% THD+N, 1kHz, $R_L = 4\Omega$	120 V: 700 W	230 V: 1050 W
Total power amp system efficiency (2 x 250W @ 8Ω)	89 %	
Peak output current	30 A	
Peak output voltage (unloaded)	SE: 70 V	BTL: 140 V
THD+N (1kHz @ 1W)	0,003 %	
Dynamic range	SE: 118 dB(A)	BTL: 120 dB(A)
output idle noise	SE: 40 μ V(A)	BTL: 55 μ V(A)
Output impedance(1kHz)	14 mΩ	
Protection	Over current, DC, over/under voltage, temperature, high frequency	

Overall amplifier performance

Input sensitivity	+4 dBu / +10 dBu / +16 dBu
Voltage gain (unloaded)	32 / 26 / 20 dB
Voltage gain (loaded 4 Ω)	31,5 / 25,5 / 19,5 dB
THD (1 kHz @ 1 W, 4 Ω)	-79 dB
Noise (20-20 kHz, inputs terminated with 51 Ω) unweighted	-81,5 dBu

Connectors

Analog Inputs	2x Balanced XLR
Speaker output	2x Speakon (two Channels / Bridged)
Power	Neutrik PowerCON true
Error indicator relays	Phoenix zB MVSTBW 2,5/ 3-ST-5,08 Pins 1-3 contact closed in normal operation Pins 1-2 10 kΩ in normal operation, 20 kΩ in error case

The error relays switches if either an amplifier module error occurs or if there is a problem with the active cooling system.

General

	PR4x1000
Mains input voltage	85VAC – 265VAC, 45-65 Hz
Idle power consumption	70 W
operation noise level (1 m, 20 Hz-20 kHz)	19 dB(A)
Dimensions	19", 2 RU, 435 mm depth
Weight	14,7 kg

All data are subject to change without notice

6. Connectors and switches

Input (XLR)	Balanced XLR connectors for signal input
speaker out A&B	4-pole Speakon socket with both amplifier channels
speaker out BRIDGE	If the amplifier is used in bridge mode connect load to 1+ and 1- of this Speakon socket.
Switch GAIN	Set the amplifiers overall gain
Switch BRIDGE	Switches amplifier to bridge mode. Apply the signal to channel 1. Channel 2 will be muted. Use <i>BRIDGE</i> Speakon connector for bridge mode.
BTL4R	When using the amplifier in bridge mode on a 4 Ohms load this switch must be in <i>ON</i> position.



7. Figure 1 Rear View Indicators

Power LED	Amp powered and power supply is working
PROT	Amplifier module (S-PRO2) is in protect due to over-temperature, over-load or short-circuit of speaker wires
FAN (only Ch. 1)	Indicates a problem with the active cooling system (blocked or lagging fan) In this case all fans will be switched to maximum speed to ensure proper cooling of the amplifier
BTL4Q	Indicates that BTL4Q mode has been activated (switch at rear side)
BRIDGE	Indicates that this amplifier module is in bridge mode
CLIP	Indicates a too high input signal and clipping of the amplifier
SIG	Indicates that a signal (>-40 dBu) is present



Figure 2 front view

8. Contact

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9. Document revision history

Date	item	Version	author
2017-03-30	edited	1.1	StM
2016-06-28	initial revision	1.0	StM

The manufacturer reserves the right to make technical changes and modifications within the framework of legal norms as well as improving the performance characteristics of the product at any time.