NANORM DEVICE OPERATION

NANORM has been designed for easy and intuitive operation. Once installed and configured, the user operates all the device's functions via a highly tactile rotary encoder dial, with all relevant information presented via a high-resolution colour display screen.

The three primary functions of the device are operated as outlined below.

1. **Twisting the rotary encoder** allows the user to adjust volume and navigate menu options.

   Twisting the rotary encoder to the left (anticlockwise) turns down the volume and twisting it to the right (clockwise) turns up the volume.

2. **Tapping the rotary encoder** allows the user to change input source.

   Switching between input sources is performed by tapping the rotary encoder dial, twisting the rotary encoder to view the sources inputs available; and confirming the desired choice by tapping the rotary encoder once more.

3. **Pressing and holding the rotary encoder** allows the user to access the settings menu.

   Note that access to the settings menu can also be restricted via use of optional PIN code protection – activated and configured via the settings of the nanoNXAMP4 or nanoNXAMP4-D web interface.

NANORM DEVICE SETUP

Note: When connecting multiple Wall-S1 devices to a single amplifier, we recommend completing all stages of the setup process, before connecting and configuring a subsequent device.

1. **Step 1: Start Up Device.**

   Once the Wall-S1 device is receiving power via the connected Ethernet cable, the product will power up and display the NEXO logo for a few seconds. The NEXO logo will disappear and be replaced by the setup screen. The setup screen displays the following:
   - Device pairing code
   - Option to change IP address ["Edit IP Settings"]

2. **Step 2: Edit the Device's IP Setting (if required)**

When the device is connected to a nanoNXAMP4 or nanoNXAMP4-D amplifier via a network router, the NANORM device will be automatically assigned an IP address (dynamic DCHP) - this is the default setting, and in this situation, there is no need to edit the IP settings.

However, if the device is connected to a nanoNXAMP4 or nanoNXAMP4-D via a network switch, you must edit the IP settings to static IP.

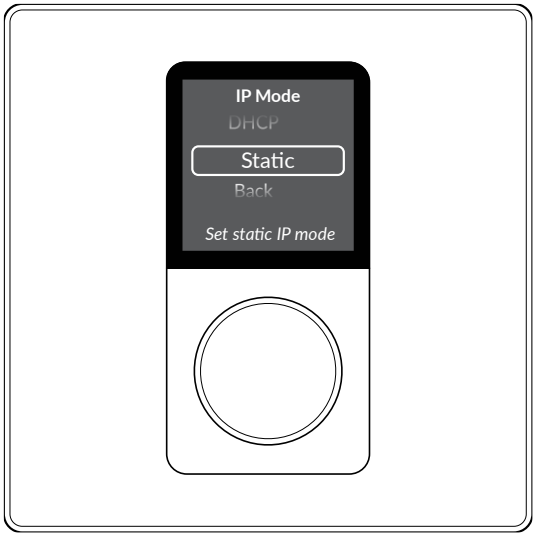
On initial set-up, this can only be done via the device itself and is performed by following the steps outlined below.

1) Tap the rotary encoder to confirm the action to "Edit IP Settings".

2) On the display you will be presented with a set of options.

   Twist the rotary encoder one click to the left (anticlockwise) and tap the rotary encoder to confirm the selection of the option labelled "MODE".

3) Tap the rotary encoder to confirm the selection of the option labelled "Static".



4) You will be automatically returned to the previous menu.

   IMPORTANT - Jump to Step 12 if this is not the first device you are connecting to the same amplifier!

5) Twist the rotary encoder 4 clicks to the right (clockwise) to navigate to the option labelled "Back".

6) Tap the rotary encoder to confirm the selection of the option "Back".

7) You will be presented with the question "Apply IP Changes?"

8) Tap the rotary encoder to confirm the selection of the option labelled "Yes"

9) You will now be presented with the exact same display as at the beginning of the process, showing a pairing code - like that shown in the image below.

10) You have now completed the necessary steps for editing the IP settings required when configuring the first device to be connected to the amplifier.

IMPORTANT - When connecting >1 devices to the same amplifier, additional actions, as described below, must be taken after Step 5 to ensure each device has a unique IP address.

11) Twist the rotary encoder one click to the right (clockwise) and tap the rotary encoder to confirm the selection of the option labelled "Address".

12) Tap the rotary encoder multiple times until the last digit as of the IP address is selected.

13) Twist the rotary encoder right (clockwise) to change the final digit of the IP address for this device - so it is not matching those of any other device also linked to the same amplifier. (e.g., for the second device change the final digit to #2; for the second device change the final digit to #3, and so forth).

14) Tap the rotary encoder to confirm the change and exit (as advised on the screen).

15) Twist the rotary encoder 3 clicks to the right (clockwise) to navigate to the option labelled "Back".

16) Push the rotary encoder to confirm the selection of the option "Back".

17) You will be presented with the question "Apply IP Changes?"

18) Twist the rotary encoder one click to the left (anticlockwise) and tap the rotary encoder to confirm the selection of the option labelled "Yes".

19) You will now be presented with the exact same display as at the beginning, showing a pairing code.

20) You have now completed the necessary steps for editing the IP settings required when configuring the first device to be connected to the amplifier.

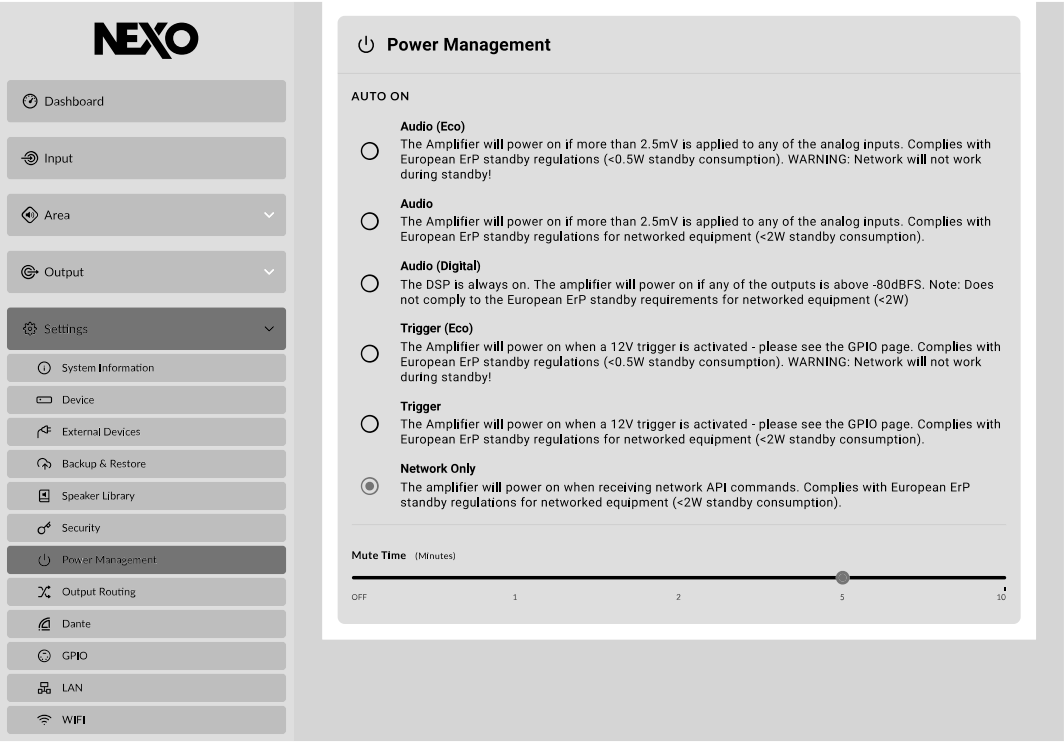
3. Step 3: Connect to the nanoNXAMP4 using the Control webpage.

If you haven't already, connect now to the nanoNXAMP4 or nanoNXAMP4-D amplifier via your phone, tablet or computer using the Control webpage. Refer to the Remote-Control Software Description above in the manual to do so.

IMPORTANT - After connecting to the nanoNXAMP4, we strongly recommend changing the Power Management setting to "Network Only".

There are two main reasons for this recommendation:

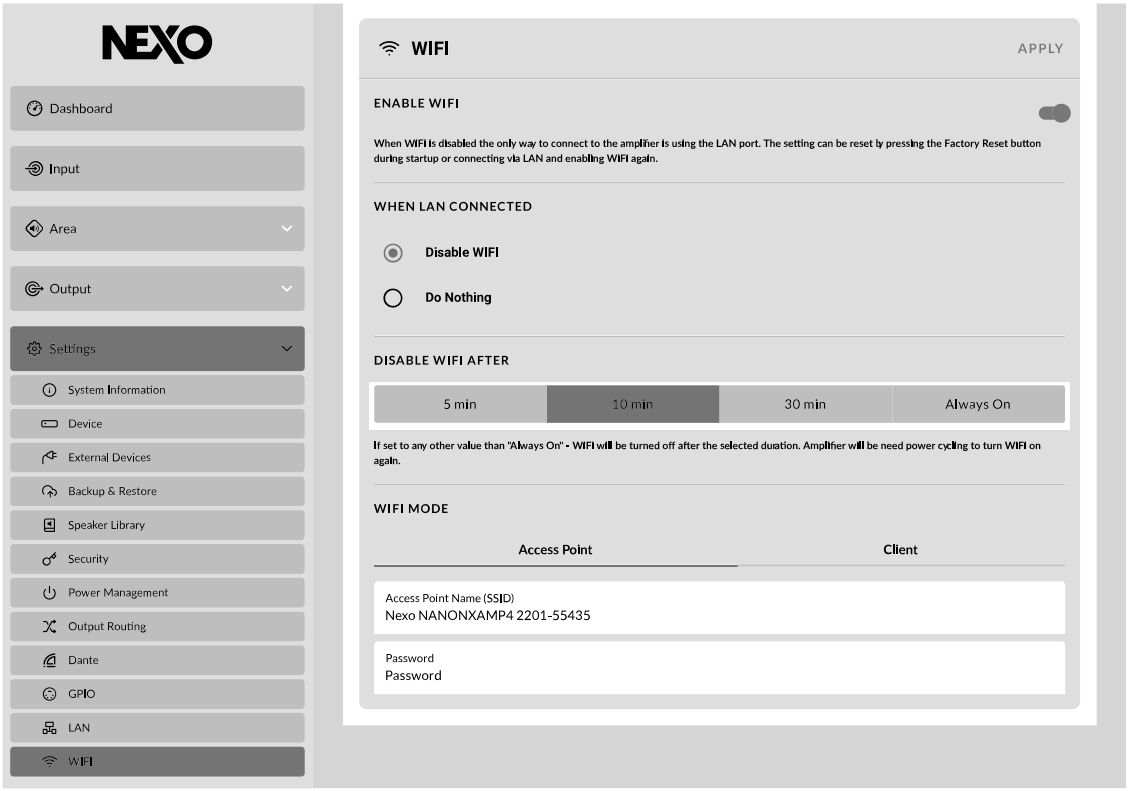
- The default setting labelled "Audio" can potentially block the (optional) function of being able to successfully power down the amplifier directly from the wall controller.
- Setting Power Management to one of the Eco modes ["Audio (Eco)" or "Trigger (Eco)"] is also not recommended, as under these settings the amplifier can easily lose connection with the networked devices.



IMPORTANT - If accessing the Control webpage by connecting to the nanoNXAMP4 via a wired (Ethernet) network connection, we strongly recommend changing the WIFI settings as outlined below.

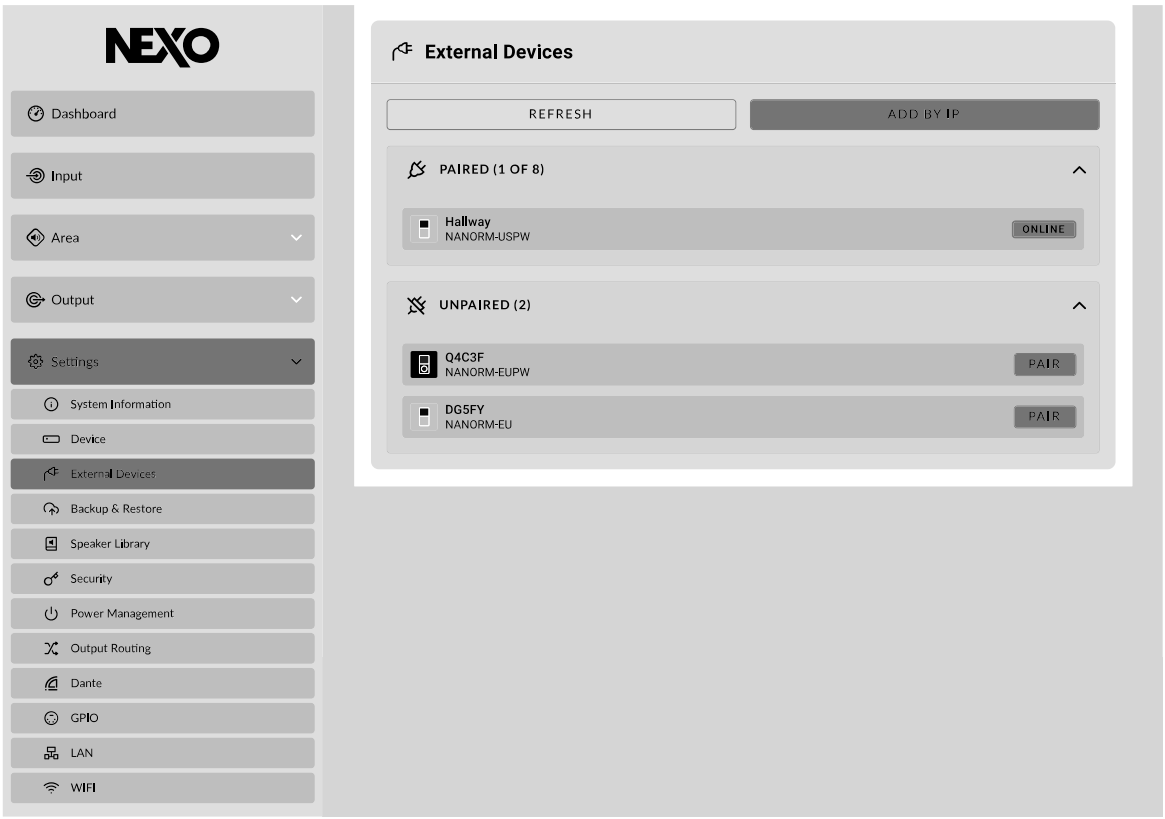
- Under the 'Settings Menu', go to 'WIFI' settings and select the option "Disable WIFI" when LAN connected. Then click "APPLY" in the upper right-hand corner.

Making this adjustment to the WIFI settings will not only avoid any potential IP address conflict, but also better secure access to the amplifier and its networked devices.



4. **Step 4: Pair the device with the nanoNXAMP4 or nanoNXAMP4-D.**

To pair the NANORM device with the nanoNXAMP4 or nanoNXAMP4-D amplifier, navigate to the menu 'Settings' > 'External Devices' in the control webpage.



The NANORM device you are configuring will be displayed under 'Unpaired' devices. Pair the device by clicking the button labelled "PAIR" next to the respective NANORM device. The process of pairing the NANORM device with the nanoNXAMP4 or nanoNXAMP4-D amplifier takes just a few seconds.

Once pairing is successful, the device will be shown under 'paired devices' in the control webpage, and the green "ONLINE" icon will be displayed alongside it.

5. **Step 5: Select the audio Area the device is intended to control.**

In the nanoNXAMP4 control webpage, click on the device shown within the paired devices menu and navigate to the tab labelled "General".
Assign the device to a specific audio area, selecting the desired area from the drop-down menu (e.g., Aera A) that the device is intended to control.

Notice how the new name of the Area associated with the wall controller is instantly displayed at the top of screen of the NANORM device.

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6. **Step 6: Name the device**

   Under the tab labelled "General" you are now recommended to type in a name for the device. We recommend using a name that describes the device's point of installation or usage (e.g., 'Basement Bar').

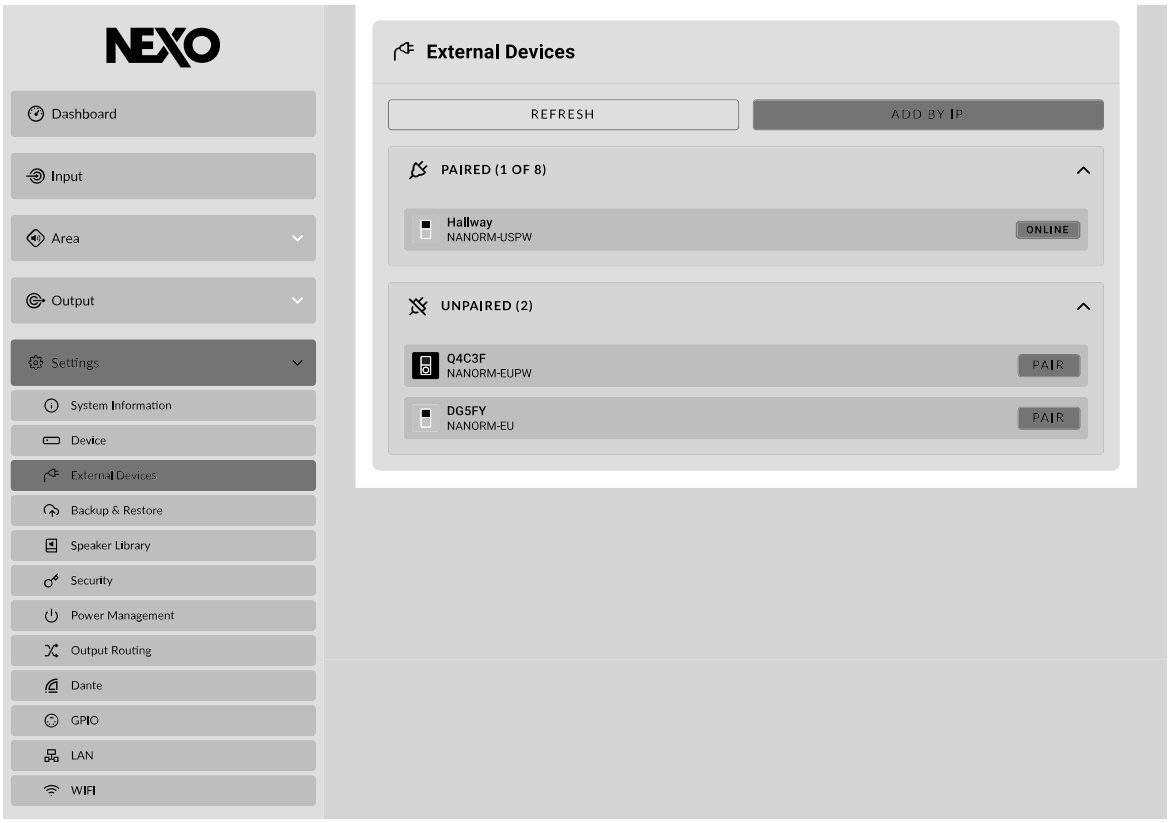
   Click "APPLY" to activate the name change.

   The NANORM device is now configured and able to remotely control the volume and source input of the Area it is associated with.

   Individual NANORM device identification can be established by selecting the Find Me option in the 'Settings'> 'External Devices' in the nanoNXAMP4 or nanoNXAMP4-D control webpage. The display and rotary encoder illumination of the connected device will flash.

NANORM DEVICE SETUP

As described above, see the Settings Page Control > External devices to have the list of functions that can be associated with the NANORM device.



REMOTE CONTROL – NEXO NEMO

IP BASED REMOTE CONTROL PROTOCOL

nanoNXAMP4 and nanoNXAMP4-D can be remote control through an Ethernet network, using remote control port at the back of the unit.

Remote control is IP based. The IP address should be set up correctly on all devices of the network to ensure a proper functioning. Both DHCP mode and static IP address mode are available for the nanoNXAMP4 and the nanoNXAMP4-D. See Settings Page Description / LAN for more details.

NB: nanoNXAMP4-D has two RJ45 ports, one for remote control and one for Dante connection. Be sure to use the Remote-Control port to connect the unit to the remote-control software.

NEMO (NEXO REMOTE): NANONXAMP4 CONTROL SOFTWARE

NEXO NeMo is the remote-control app of a set of NEXO products (NXAMP with compatible extension board, NXAMPmk2, DTD Digital TD-controllers with Dante, nanoNXAMP4 and nanoNXAMP4-D). It allows you to control from a Mac or PC through a wired or Wi-Fi network one or many NEXO devices.

Managing and positioning amplifiers, monitoring their parameters (levels, etc.), and setting new values (preset, volume, delay, EQ, etc.) is made possible thanks to an attractive and intuitive user interface. NEXO NeMo also comes with a powerful engine for logging, alerting and emailing.

Its main functionalities include:

- Creating and editing offline sessions and matching to real NEXO devices when going online.
- Intelligent matching of online and offline devices and a way of locating the online devices.

- Visualizing and positioning the connected NEXO devices within a 2D space.
- Adding custom background pictures and editing their brightness and blurriness.
- Grouping devices or channels for multi-device control, and visualizing groups and zones on the 2D space.
- Quickly muting, soloing, and monitoring the status of devices, groups or zones, including peak and protect, for the entire network.
- Selecting setups from the standard library and building custom setups.
- Monitoring and controlling simultaneously parameters of several NEXO devices, among which mute-solo, input and output levels, and volume, delay, gain, array-EQ and headroom of each output channel.
- Patching input channels to output channels.
- Viewing and editing EQ and compressor. EQs can be saved in an EQ Library.
- Saving and recalling scenes.
- Undoing and redoing every control step.
- Copying and pasting parameters and scenes from one-to-many NEXO devices.
- Saving and sharing user configurations, thanks to Sessions (.nemo documents).
- A configurable way of managing alerts of different levels.
- Visualizing and exporting a log of all the values of the NEXO devices (including temperature, voltage, current…) that you can record when NeMo is online.
- A fully configurable Live mode.
- A Demo mode to test the app.

MAINTENANCE

HARDWARE MAINTENANCE

> ⚠ WARNING!
>
> Always unplug the nanoNXAMP4 from the main before cleaning it.

Regularly check the dust level of the air intakes of the nanoNXAMP4. If some dust is inserted into the cooling tunnel of the amplifier, use compressed air to remove it from the amplifier.

The chassis and the front panel can be cleaned using a dry cloth.

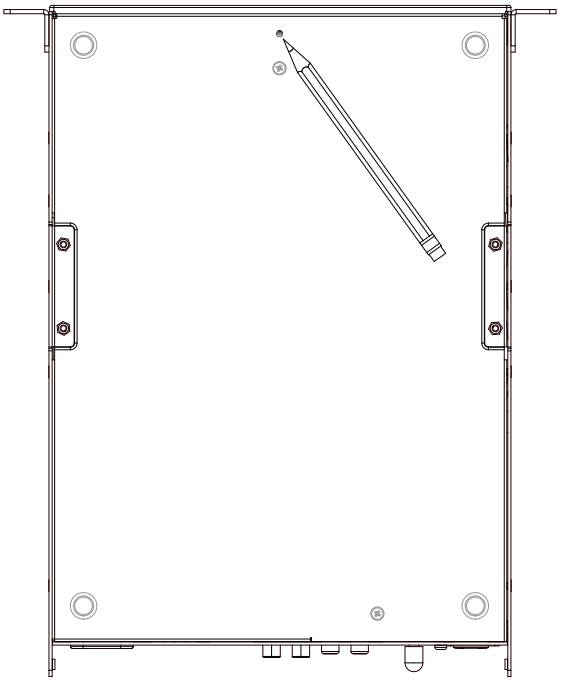
DEFAULT RESET

nanoNXAMP4 and nanoNXAMP4-D can be returned to their default settings via either the Control Web page (see Settings Page Description > Backup & Restore) or the hardware reste pinhole button. The reset pinhole button is located on the underside panel of the amplifier.

To reset the amplifier using the pinhole button, follow the steps below:

- Disconnect the amplifier from mains power.
- Use an appropriate tool to press and hold the reset pinhole button while simultaneously reconnecting mains power.
- Continue to hold the reset pinhole button for 5 seconds as the amplifier restarts.

The amplifier will restart with all settings at their default state. Any previous configured settings will be deleted.



TECHNICAL SPECIFICATIONS NANONXAMP4 & NANONXAMP4-D

POWER SPECIFICATIONS FOR nanoNXAMP4

Number of channels	4x amplifiers channels, 2 by 2 bridgeable
Max. output power (4 channels mode /8 Ohms load per channel)	4x 200 Watts
Max. output power (4 channels mode /4 Ohms load per channel)	4x 250 Watts
Max. output power (4 channels mode /2 Ohms load per channel)	4x 250 Watts
Max. output power (2 channels mode /8 Ohms load per bridged channels)	2x 200 Watts
Max. output power (2 channels mode /4 Ohms load per bridged channels)	2x 350 Watts
Power consumption (Idle)	20 Watts
Power consumption (Standby)	<2 Watts
Power consumption (Standby without network)	<0.5 Watts

INPUT TO POWER OUT SPECIFICATIONS

Frequency response	+0/-0.25 dB from 20 Hz to 20 kHz
Input impedance / Input Sensitivity	20 KΩ / +13 dBU
Dynamic range / THD + N	>106 dB A-weighted / <0.05% on a flat setup
Latency	1 ms on a flat setup
Audio AD and DA Converters	24 bits @ 48 kHz
Processing	64 bits processing DSPs

BACK PANEL FEATURES

Analog audio inputs	4x balanced analogue inputs on Euroblock 3.5 mm pitch or unbalanced on RCA
Power outputs	4x Euroblock 5 mm pitch outputs
Digital audio input/output	1x SPDIF 2ch input/output on RCA + 1x Dante 4ch input (nanoNXAMP4-D only)
GPIO port	1x Euroblock with 4x Global purpose Inputs and 1x Global purpose Output
Network inputs	1x 100 Mb Ethernet port (Remote control)
Mains sockets	1x IEC C14 socket

FRONT PANEL AND REMOTE CONTROL

Front panel LEDs	5x LEDs (WiFi / Network / Output / Input / Status)
Remote control	Through 100 Mb Ethernet port or through integrated WiFi (Access Point or Client)

MAINS REQUIREMENTS

Mains voltage	Universal Power Supply with Active PFC 100 - 240 Volts (50/60 Hz)
Power consump.1/8 max. 2 Ohms	250 Watts

DIMENSIONS AND CERTIFICATIONS

Dimensions and weight	1U, 1/2 19" Rack, 44.5 x 220 x 296 mm (1.75 x 8.66 x 11.65"), 2.8 kg (6.2 lbs)
Electrical safety certification	IEC62368-1 2nd edition and UL62368-1
EMC certification	FCC Part 15 Class B, CAN/CSA-CISPR 22-10, EN55032/CISPR32, EN61000
Green status	Compliant with ROHS & Reach directive

TECHNICAL SPECIFICATIONS NANORM

Model	NANORM-EU	NANORM-EUPW	NANORM-US	NANORM-USPW
COMPATIBILITY				
Amplifier Compatibility	nanoNXAMP4 and nanoNXAMP4-D			
MECHANICAL SPECIFICATIONS				
Colour	Black (RAL9005)	White (RAL9003)	Black (RAL9005)	White (RAL9003)
External dimensions	87 x 87 mm (3.42 x 3.42”)		115 x 71 mm (4.53 x 2.78”)	
Depth (from rear side of mounting plate to outer side of shield box)	24 mm (0.93”)		23 mm (0.91”)	
Depth (from tip or rotary encoder dial to outer side of shield box)	43 mm (1.68”)		43 mm (1.68”)	
Mounting Holes, Distance (Center to center)	60 mm (2.36”)		84 mm (3.29”)	
Weight	120 g (4.2oz.)		120 g (4.2oz.)	
Operating temperature	0-40° C (32-104°F)			
DISPLAY SPECIFICATIONS				
Display Dimensions	28 x 28 mm			
Display Screen Area	768 mm²			
Display Screen Resolution	240 x 240 mm			
Display Screen Type	RGB, Transmissive / Normaly Black			
Display Screen Material	High gloss polished transparent acrylic			
MATERIAL SPECIFICATIONS				
Exterior & Mechanical parts	Plastic (ABC-PC)			
Base & shield material	Pre-galvanized Steel			
IP Rating	IP30			
ELECTRICAL SPECIFICATIONS				
Power Consumption	PoE Class 1 / 3.84 Wmax			
Power Supply	Through RJ45 ethernet port using CAT5e cable with standard PoE Switch or PoE injector			
Standby Modes	6 settings available : 30 secs, 2 mins, 5 mins, 15 mins, 30 mins, 60 mins			
Connection	RJ45 with CAT 5e (of faster STP)			
Maximum Cable Length	100 m (328ft) with CAT 5e			