ArtNet DMX-UNIVERSE 4.1

User Manual

ART NET ETHERNET

Art-Net™ Designed by and Copyright Alderamin Group Ltd.

DMX4ALL

WWW.DMX4ALL.EU

Description

The **ArtNet-DMX-UNIVERSE 4.1** interface has 4 DMX-outputs and 1 DMX-input. All DMX-outputs and inputs are galvanically isolated und can be used simultaneously. With a RJ45 connection occurs the contact to the ArtNet-network.

A user-friendly configuration with a web browser allows a fast and uncomplicated adjustment for all parameters.

An additional Extension-mode allows an output of 1024 DMX-channels on each DMX-output. All in all up to 4096 channels are supported. The Extension-mode is optimised for controlling the MagiarLED II products.

Data Sheet

Voltage supply:
7-24V DC from external power supply (included)

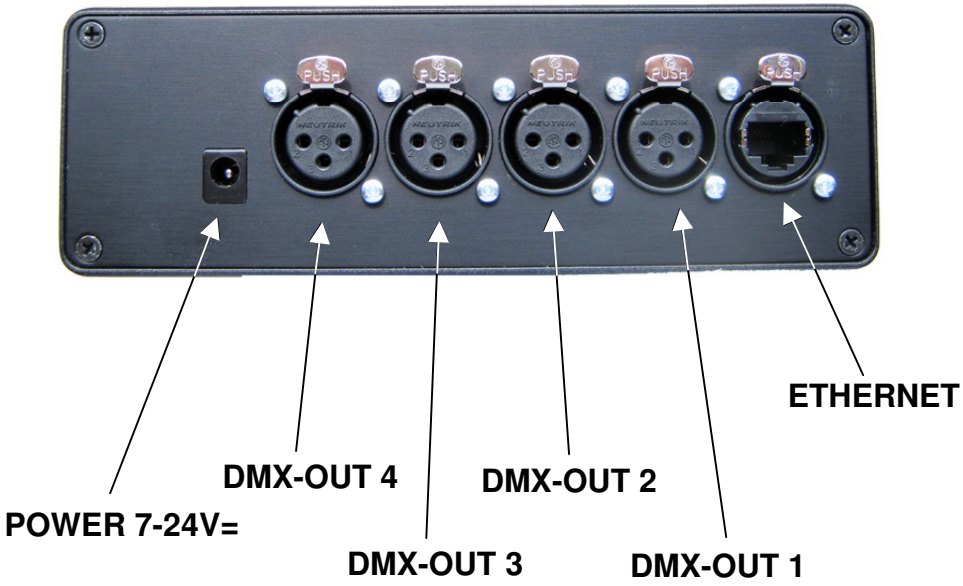
Ethernet:
1x Neutrik RJ45

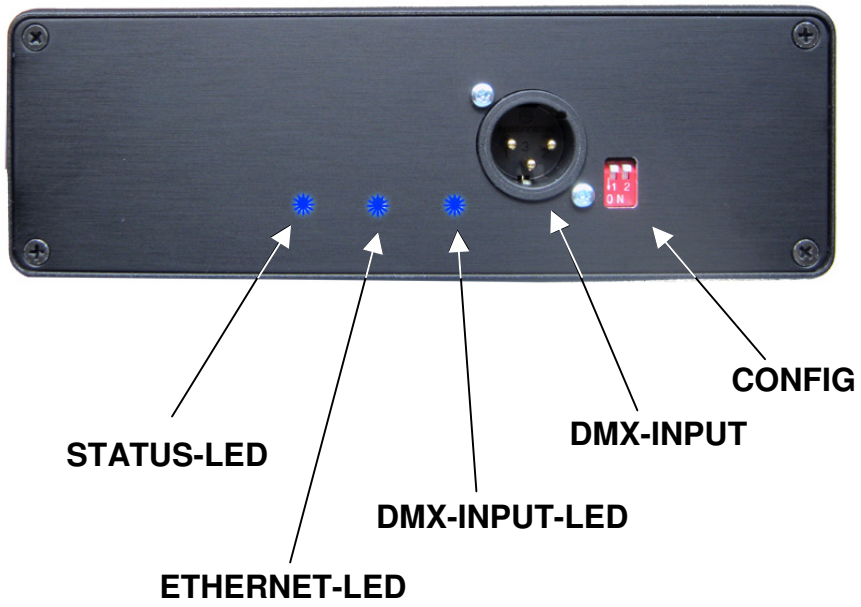
DMX-IN:
1x Neutrik XLR 3 - 512 DMX-channels

DMX-OUT:
4x Neutrik XLR 3 - 512 DMX-channels
or
4x Neutrik XLR 3 - 1024 DMX-channels in the Extension mode

Dimensions:
172 x 170 x 56 mm

Connection


ETHERNET
DMX-OUT 4
DMX-OUT 2
POWER 7-24V=
DMX-OUT 3
DMX-OUT 1


CONFIG
DMX-INPUT
STATUS-LED
DMX-INPUT-LED
ETHERNET-LED

LED-display

STATUS-LED

The STATUS-LED lights up as soon as the device is working.

ETHERNET-LED

The ETHERNET-LED signals an active connection about the RJ45-Connection.

DMX-IN-LED

The DMX-IN-LED signals a DMX signal on the DMX input

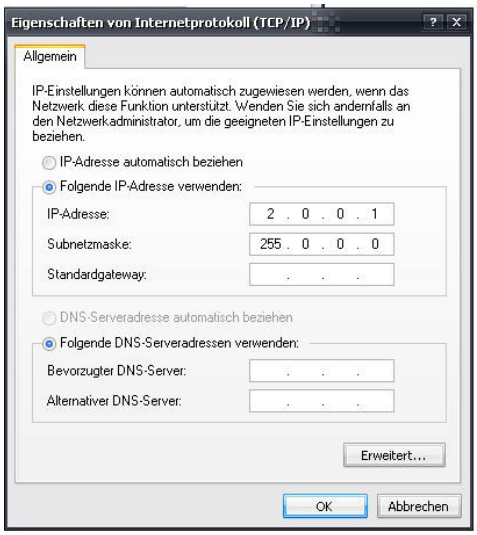
Configuration

The configuration of the **ArtNet-DMX-UNIVERSE 4.1** occurs about an web-interface which can be called about any web browser.

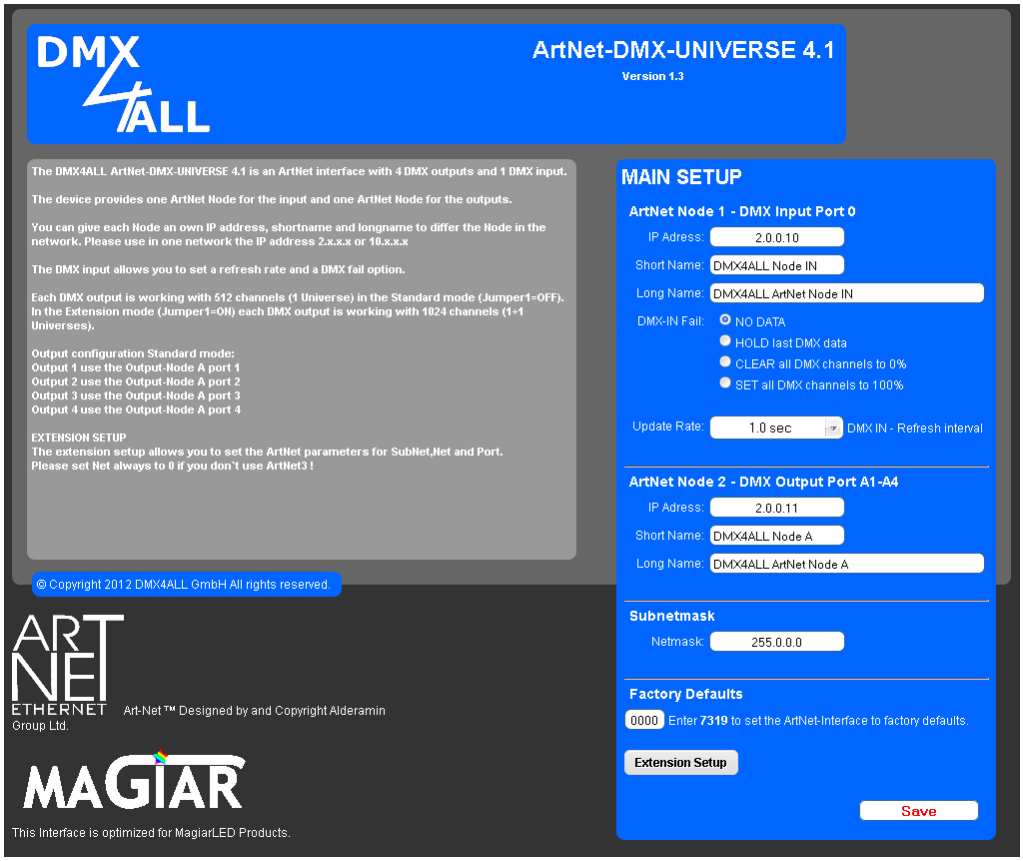
The assigned **IP-address 2.0.0.10** in the delivery status will be used for the web-interface as well as for the ArtNet.

⚠ The network settings must be configured to the **IP-address 2.0.0.1** and the **subnet 255.0.0.0**.

Please consult the ArtNet-specifications for further details.



Please call the IP 2.0.0.10 in the address bar of the web browser for getting the following configuration page:



The **ArtNet-DMX-UNIVERSE 4.1** has 2 ArtNet Nodes which can be configured separate.

⚠ Each Node needs an own **IP-address,** so the assignment in the network occurs clearly. According to the ArtNet-specifications please use the IP-addresses 2.x.x.x or 10.x.x.x.

For an easier identification you can assign each node with any names.

The **Short-name** is limited to 18 signs and the **Long-name** to 64 signs.

The **Subnetmask** is left to 255.0.0.0 according to the ArtNet-specifications.

In an event of a DMX-signal failure (**DMX FAIL**) several actions can be selected for the DMX-input.

NO DATA	- with ArtNet no DMX-input will be received
HOLD last DMX data	- the last data will retained
CLEAR all DMX channels to 0%	- all DMX-input channels will be set on 0
SET all DMX channels to 100%	- all DMX-input channels will be set on 255

The **Update-rate** with whom the DMX-input data are outputted can be adjusted in different times. *On change data* transfers the DMX-input data only if it change, however max. every 0,1 seconds.

The **Factory Settings** will be restored by entering the number 7319.

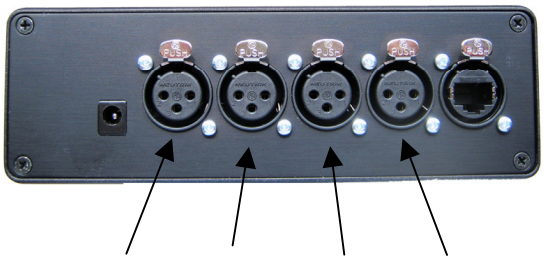
SAVE memorized the configuration respectively restored the Facory Settings.

Extension Setup

The Extension setup allows you to set up the ArtNet parameters Net, Subnet and Port.

DMX-outputs

The DMX-outputs are galvanically isolated and will be controlled with the ArtNet-protocol. Each DMX-output is assigned with a port out of node 2:

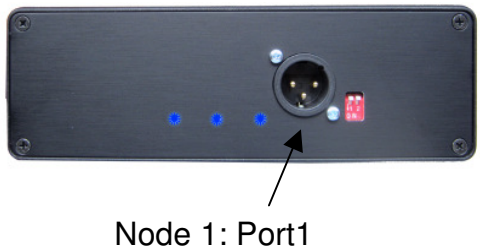


An assignment of the single ports to the DMX-universes have to occur in the used software, e.x. as follows in Madrix®:

State	Name	Universe	OUT / IN	ms / FPS
Off	ArtNet Remote (MADRIX) Port:0	1	IN	30/33.3
On	DMX4ALL Node A (2.0.0.11) Port:0	2	OUT	30/33.3
On	DMX4ALL Node A (2.0.0.11) Port:1	3	OUT	30/33.3
On	DMX4ALL Node A (2.0.0.11) Port:2	4	OUT	30/33.3
On	DMX4ALL Node A (2.0.0.11) Port:3	5	OUT	30/33.3
On	DMX4ALL Node B (2.0.0.12) Port:0	6	OUT	30/33.3
On	DMX4ALL Node B (2.0.0.12) Port:1	7	OUT	30/33.3
On	DMX4ALL Node B (2.0.0.12) Port:2	8	OUT	30/33.3
On	DMX4ALL Node B (2.0.0.12) Port:3	9	OUT	30/33.3

DMX-input

The DMX-input is galvanically isolated und is assigned to the Port 1 of Node1.

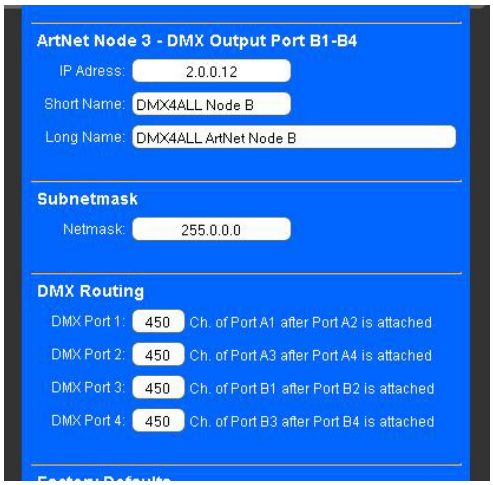


Extension Mode

The **ArtNet-DMX-UNIVERSE 4.1** interface has an Extension Mode. On each DMX-output can be spent 1024 DMX-channels. 2 ports (per 512 DMX-channels) will be spent on each DMX-output consecutively. Therefore all in all 4096 channels are possible.

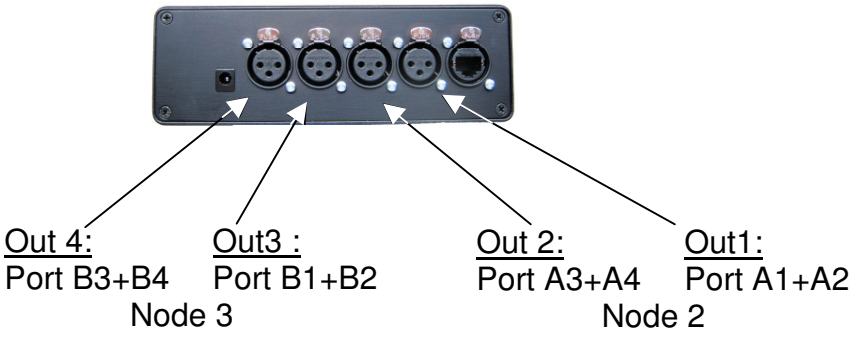
To switch on the Extension mode, please adjust switch 1 to ON.

In the Extension mode another ArtNet node will be activated which has also 4 ports. In the web-configuration it will be displayed as Node 3:



Each node needs an own **IP-address** so the assignment in the network occurs clearly. According to the ArtNet-specifications please use the IP-addresses 2.x.x.x or 10.x.x.x.

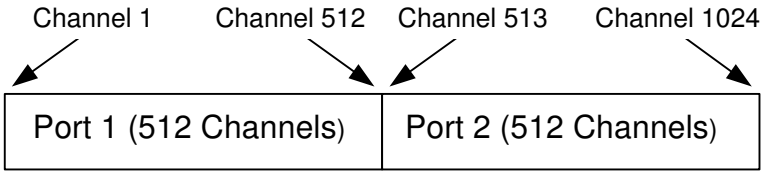
The assignment of the ports to the corresponding outputs are as follows:



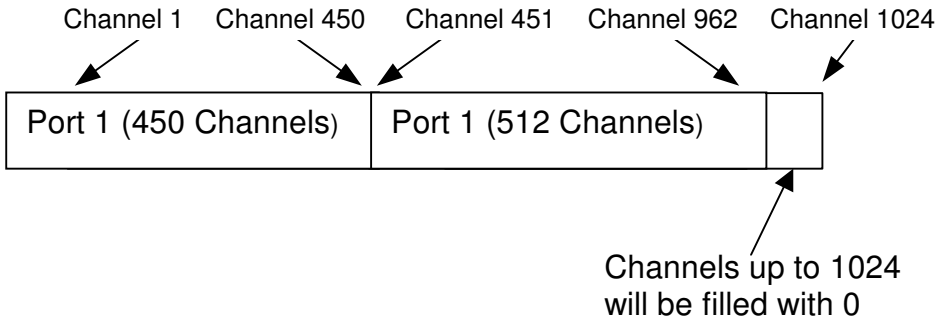
The **DMX Routing** in the configuration specifies for each DMX-output how the data of the ports are linked together.

The entered value specifies how many DMX-channels from the first port should be spent. After that the DMX-channels of the second port will be attached.

Example: DMX-Routing = 512



Example: DMX-Routing = 450



The value 0 on output 2, 3 or 4 will generate a DMX signal with 512 channels. This data comes from Port 1. In the Extension Mode this allows you to use standard DMX devices.

DMX-Routing examples

The following examples refer to the application with the indicated products.

Routing	Product
511	MagiarLED II Stripe 12xRGB
450	MagiarLED II Panel 25 Pixel
510	MagiarLED II flex Stripe without configuration channel

Factory Reset

The **ArtNet-DMX-UNIVERSE 4.1** interface can be reset into the delivery status with switch 2.

For this purpose please proceed as follows:

- Power off the device
- Switch 2 ON
- Power on the device
- STATUS LED lights up ca. 10 seconds
- While the LED is flashing please adjust switch 2 OFF
- The reset will be in progress and the LED flashes 3x as confirmation.

Equipment

Neutrik NE 8 MC
EtherCon® plug for installation
to RJ45-cables

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not excluded:

Failure risk: The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk: The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk: Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.

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