ArtNet-DMX
STAGE-PROFI 1.1

User Manual

Description

The ArtNet-DMX STAGE-PROFI 1.1 is a compact ArtNet (DMX over Ethernet) interface which can be used for ArtNet to DMX or DMX to ArtNet.

With a standard RJ45 network connector the connection to the ArtNet is made.

DMX direction selectable
The DMX direction can be switched depending on use (ArtNet - DMX; DMX - ArtNet).

Adjustable DMX-Framerate
In DMX OUTPUT mode, the DMX frame rate is adjustable so that this interface is compatible with "slow" DMX devices.

ArtNet Merge-Function
Two ArtNet sources are output with LTP (Latest) or HTP (Highest) merged on the DMX output.

Muteable LED Dispaly
The LED indicators on the ArtNet-DMX STAGE-PROFI 1.1 are muteable by ArtNet command (AcLedMute) or time-controlled.
This is helpful to disturbing "points of light" especially on stages.

Easy Configuration
A user-friendly configuration via a web browser allows a fast and uncomplicated setting of all parameters. No special software is required, a normal web browser is sufficient. Thus, the configuration is possible at any time from your PC, smart phone or tablet device. For easy setting of the IP-address, we provide the IP Configurator as a PC tool or Android app available for free. This allows you to leave the network settings unchanged and can easily configure the IP.

High quality and compact design
ArtNet DMX STAGE-PROFI 1.1 is designed with a 3-pin Neutrik metal XLR connector inside a compact aluminium body.

Use together with WiFi components
In conjunction with a WiFi-bridge the ArtNet-DMX STAGE-PROFI 1.1 can be integrated into standard WiFi networks. As WiFi-bridge we suggest: Netgear WNCE2001.

Firmware-Update-Function
In order to take advantage of future features, the ArtNet-DMX STAGE-PROFI 1.1 has a firmware update function.
This can be launched from the browser so that no access to the device is necessary!

Extension Mode with 1024 DMX channels
An additional Extension Mode allows an output of 1024 DMX-channels at the DMX-output.
The Extension-mode is optimized for controlling the MagiarLED-products.
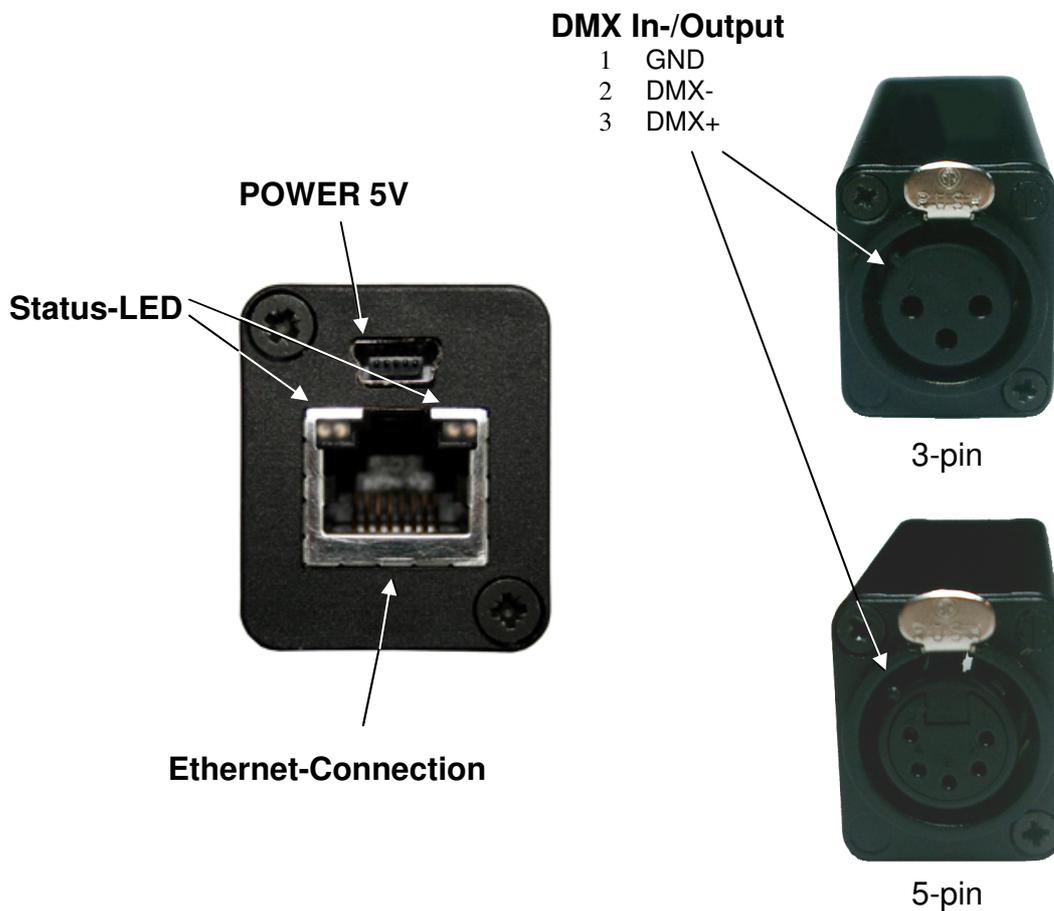
DMX4ALL-Command interface
ArtNet DMX STAGE-PROFI 1.1 has another TCP communication interface that is compatible with the LAN-DMX STAGE-PROFI.
This interface uses the DMX4ALL-commands via TCP packets to the port 10001.

Technical data

Power supply: 5V DC from external power supply

Ethernet: RJ45

DMX: Neutrik XLR connector 3 pin female (depending on design)
         Selectable:
         - 512 channels OUT
         - 1024 channels OUT within the Extension Mode
         - 512 channels IN
          For DMX-INPUT operation a DMX adapter MALE/MALE is necessary

Protocol: Art-Net™ or
         Virtual COM Port with DMX4ALL Commands
         (just like LAN-DMX STAGE-PROFI)

Dimensions (LxBxH): 75 x 26 x 35 mm

Connection

DMX In-/Output
1 GND
2 DMX-
3 DMX+

POWER 5V

Status-LED

3-pin

Ethernet-Connection

5-pin

LED-display

LED green

The green LED flashes, if no Ethernet connection exists and shines no-stop if an Ethernet connection is available.

LED yellow

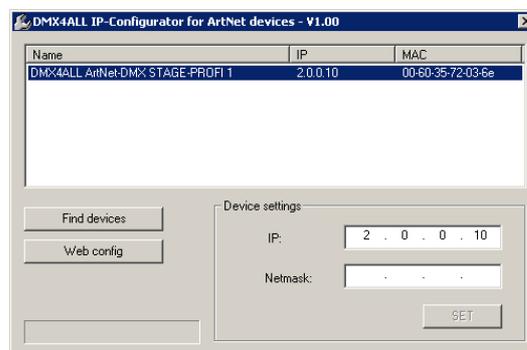The yellow LED lights up as soon as data are received.

Konfiguration

The configuration of the **ArtNet-DMX-STAGE-PROFI 1.1** occurs about an web-interface which can be called about any web browser.

Setting IP with the IP-Configurator

The **IP-Configurator** allows set the IP-address and the net mask even if the networking setting of the PC is not within the IP-range of the ArtNet-DMX STAGE-PROFI 1.1

- Install the program IP-Configurator
- Connect the ArtNet-DMX STAGE-PROFI 1.1 with the net work and turn it on
- Start the IP-Configurator

- The ArtNet-DMX STAGE-PROFI 1.1 is shown in the list
- Select the entry (click to)
- Enter new IP and net mask
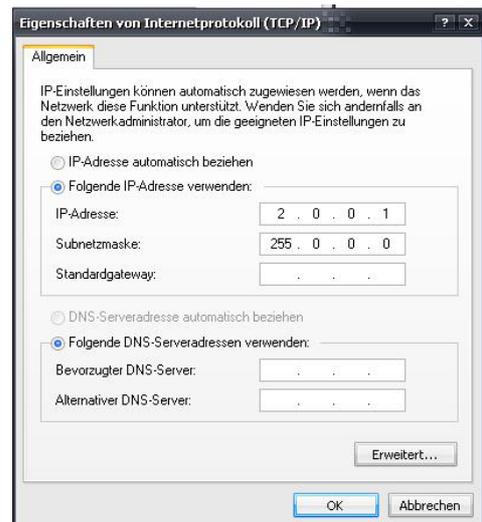- Click SET

Setting the IP via 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.

Please set the net work card to this IP-range to call the IP-address via the web browser.

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

Please take further details from the ArtNet-specifications.

Device configuration

Please call the IP-address 2.0.0.10 (delivery status) in the address bar of the web browser for getting the following configuration page:

⚠️ 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.

Each other IP addresses are also possible, for example 192.168.1.10. Then the net mask must be changed to 255.255.255.0 !

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

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

The **Netmask** is to leave in accordance to the ArtNet-specification 255.0.0.0 .

The **Interface mode** can be configured as DMX input (DMX to ArtNet) or DMX output (ArtNet to DMX).

When the option "LED indicator auto off" is active the devices LEDs are switched off after 10 minutes operation with permanent network connection.

The **Factory Settings** will be rebuilt with the entry of the number 7319.

DMX-Output

For using the **ArtNet-DMX STAGE-PROFI 1.1** as a DMX-OUTPUT interface please select the Interface Mode *DMX-Output* in the Global-Settings.

By clicking *DMX-Output* you reach the following configuration-site:

The ArtNet-parameters **SubNet, Net** and **Port** must be set in the sense of the ArtNet-specifications and show the aim for the DMX-data.

The **Merge** settings can be adjusted at LTP or HTP.

Via **Sync** the DMX-output can be synchronized for several devices by using the software MADRIX®.
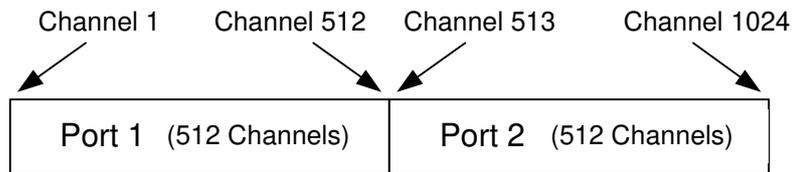
Framerate set the maximum DMX frame rate in the output.
MAX is the maximum frame rate of ~44 fps (frames per second).

The option **Save current DMX values as defaults** stores the current DMX-data and restores these after turning on.
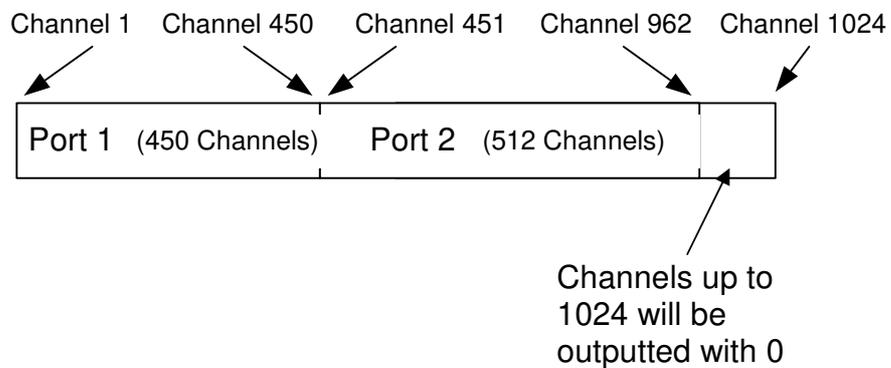
The **DMX-Routing** specifies for the DMX-output how the Ports data hang together in the Extension Mode.

The entered value specifies how many DMX-channels from the first Port should be outputted. After this the DMX-channels of the second Ports are attached.

Example: DMX-Routing = 512

Channel 1   Channel 512   Channel 513   Channel 1024

Port 1 (512 Channels)	Port 2 (512 Channels)

Example: DMX-Routing = 450

Channel 1   Channel 450   Channel 451   Channel 962   Channel 1024

Port 1 (450 Channels)	Port 2 (512 Channels)	

Channels up to 1024 will be outputted with 0

DMX-Input

For using the **ArtNet-DMX STAGE-PROFI 1.1** as a DMX-Input interface please select the Interface-Mode *DMX-Input* in the Global-settings.

⚠️ Please use a 1:1 MALE-MALE adapter for the connection which is separately available.

By clicking *DMX-Input* reach the following configuration-site:

The ArtNet-parameters **SubNet, Net** and **Port** must be set in the sense of the ArtNet-specifications and show the source for the DMX-data.

Use Broadcast: The DMX-data are send to all devices within the ArtNet.
Use Unicast: The DMX-data will are send to a specified device with the *Unicast IP* within the ArtNet.

Several actions are available for the DMX-input in the case of a breakdown of the DMX-signal (**DMX FAIL**)

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

The **Update-Rate** with which the DMX-input data are outputted can be switched in several times.
On change data transferred only the DMX-input data if these changes, max. every 0,1 seconds.
DMX Framerate transferred the received DMX-values as soon as a frame has finished. So, the frame rate of the incoming DMX-signal will be used for the Update-rate.

DMX4ALL-Command support

The **ArtNet-DMX STAGE-PROFI 1.1** interface has an additional communication-port which can receive the data from TCP-bundle at the port 10001. This port uses the DMX4ALL-Commands in this way, that the **ArtNet-DMX STAGE-PROFI 1.1** interface is compatible to the LAN-DMX STAGE-PROFI.

TCP-Control

For control the interface directly with the TCP-connection please use the preset IP-address and use the port 10001. The sent and received data are RAW-data bundle.

Please take the DMX4ALL-Commands which are possible from the separate DMX4ALL-Command description.

VCP-Control

For the control with a COM-port a TCP-VCP-program must be installed which provides a virtual Com port (VCP).
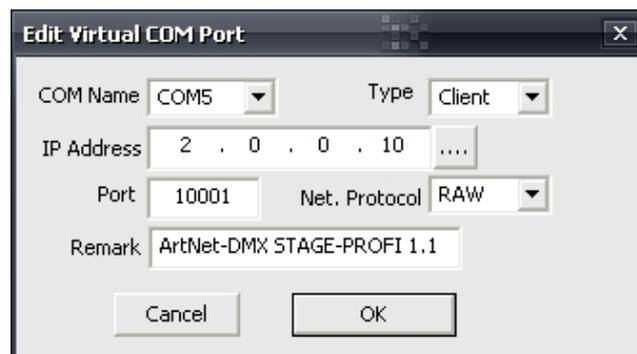
We recommend the tool *Serial to Ethernet Connection* which has been tested by us. You find this tool on the enclosed CD and as download in our support-area.

During the installation you have to enter a password (see illustration).
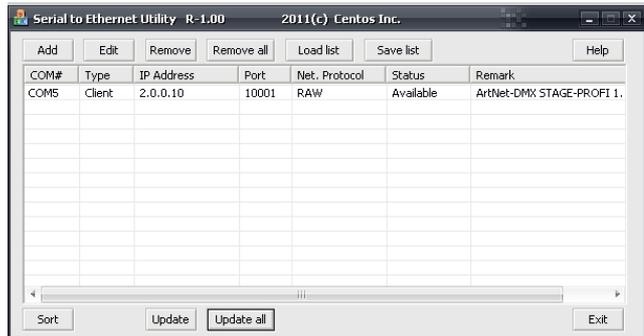
After the installation start the tool „ Sentos SEC" which is on the desktop. Now add a VCP with *Add* and specify the parameter for the VCP-port.

Make sure, that you use the IP which is adjusted about the web browser.

Finally, click **Update all** in the main menu window for activating the VCP. Now, the status became *Available* and the COM-port will be displayed in the device manager.

Factory Reset

The **ArtNet-DMX STAGE-PROFI 1.1** can be reset in the delivery status.

Proceed as follows:

- Open the Main Settings within the web browser
- Enter the shown Code „7319" within the entry field Factory Defaults
- Click *Save*
- Wait minimum 10 seconds

Alternatively you can reset the delivery status via the **DMX4ALL LAN-Updater**:

- Turn off the device
- Start Update-Software **DMX4ALL LAN-Updater**
- Generate a network connection to PC
- Turn on the device
- The yellow LED lights up for approx. 3 seconds
- While the yellow LED is ON, click **FIND**
- Select the **ArtNet-DMX STAGE-PROFI 1.1**
- **Click FACTORY RESET**
- Now, the reset will be executed and the LEDs lights up 3 times simultaneously for confirmation

Execute Firmware-Update

The **ArtNet-DMX STAGE-PROFI 1.1** has an update-function which enables transferring prospective firmware-versions.

Proceed as follows:

- Turn off the device
- Start Update-Software **DMX4ALL LAN-Updater**
- Generate a network connection to PC
- Turn on the device
- The yellow LED lights up for approx. 3 seconds
- While the yellow LED is ON, click *FIND*
- Select the **ArtNet-DMX STAGE-PROFI 1.1** from the list
- Click *Firmware-Update*
- Select Firmware-file(.bin) and confirm
- Please wait until the update has finished

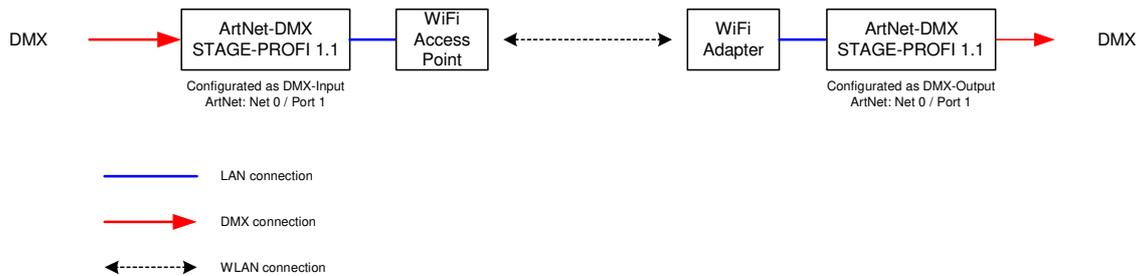⚠️   If an error occurs you can begin from the start anytime

Alternativ können Sie das Firmwareupdate auch über den Webbrowser aktivieren:

- Open the Firmware Update page inside the web browser
- Enter the code „1379" inside the input field and click *Send*
- Start the update-software **DMX4ALL LAN-Updater**
- Select from the list the ArtNet-DMX STAGE-PROFI 1.1
- Click *Firmware-Update*
- Select and confirm Firmware-data (.bin)
- Please wait until the update has finished
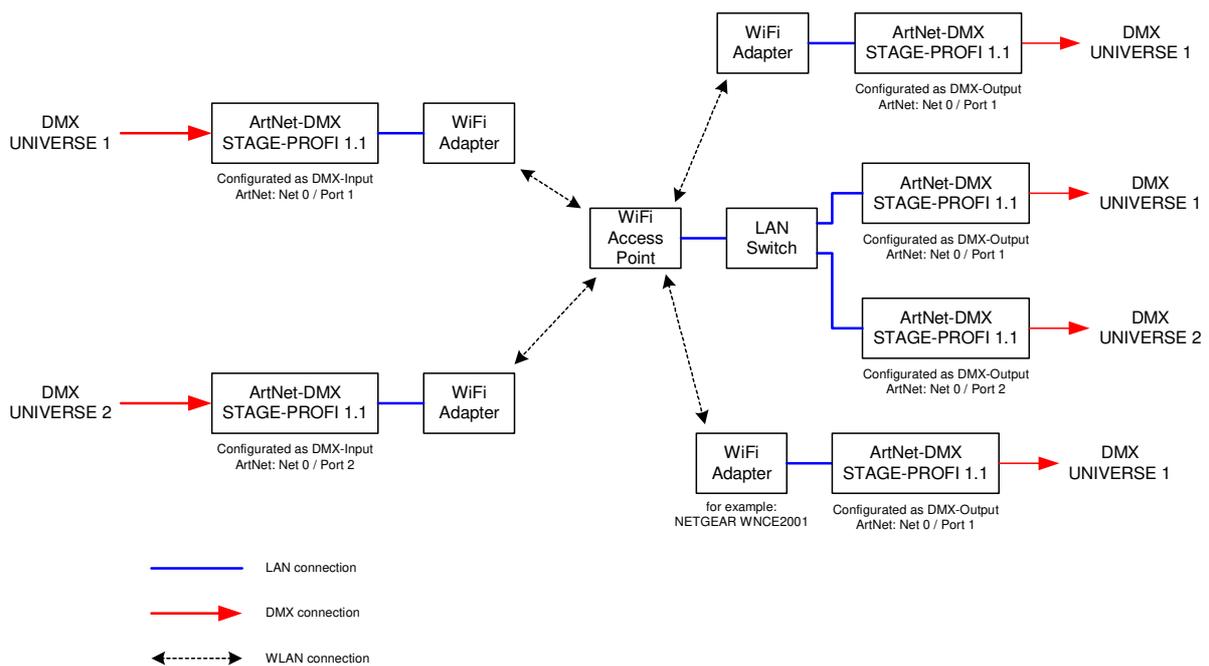- Click *Back* within the web browser

DMX über WLAN

The **ArtNet-DMX STAGE-PROFI 1.1** can be used together with WiiFi components to transfer the DMX data wireless. It is possible to transfer one or more DMX universes.
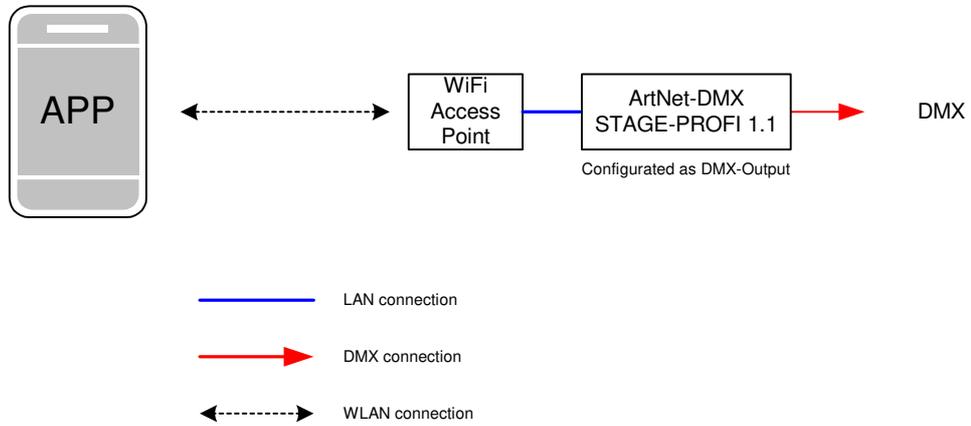
The following picture shows the operation with one DMX-Universe:

In the same way several DMX-Universes can be used:

Alternatively an APP, which redisplays ArtNet on a smart phone or PC, can be used as data source:

———————	LAN connection	
──────▶	DMX connection	
◀- - - - - - -▶	WLAN connection	

Equipment

XLR-cable 3pin
Lenghts:
1m, 5m, 10m, 15m

XLR-adapter
Available in various designs
XLR 3 male – XLR 3 male
XLR 3 male – XLR 5 female
XLR 3 female – XLR 5 male

Ethernet-Cable
In different length

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.

DMX4ALL

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