

ArtNet-DMX TWIN PoE

User manual



DMX [®]
4
ALL

Description

The **ArtNet-DMX TWIN PoE** is a compact ArtNet (DMX via Ethernet) Interface which can be used for ArtNet to DMX or DMX to ArtNet.

Via a standard RJ45-network connection occurs the connection to ArtNet-Network.

Two DMX In- or Outputs

The DMX-Direction is adjustable separately on both DMX-Connections.

Adjustable DMX-Frame rate

Within the DMX-OUTPUT-Mode the DMX-Frame rate is adjustable for each DMX-Output, so this Interface is compatible to „slower“ DMX-Devices.

ArtNet Merge-Function

Two ArtNet sources are outputted merged to the DMX-Output via LTP (Latest) or HTP (Highest).

Power supply via PoE

In connection with a PoE-Switch / PoE-Injector the ArtNet-DMX TWIN PoE needs no separate power supply. The activation of the PoE-Supply occurs after PoE-Identification via the PoE-Switch / PoE-Injector.

Disengageable LED-Display

The LED-Display at the ArtNet-DMX TWIN PoE is disengageable via ArtNet-Command (AcLedMute) or time-controllable. This is very helpful on stages to avoid disturbing light points.

Easy Configuration

A user-friendly Configuration via a web browser allows a fast and uncomplicated setting of all parameters. No special software is needed; a standard web browser is enough. The configuration is possible anytime via PC, Smartphone or Tablet. For an easy IP-Setting the IP-Configurator is available free as PC-Tool or Android-App. So, you can leave the net work settings unchanged and configure the IP unproblematic.

High-quality and compact performance

The ArtNet-DMX TWIN PoE is built in a compact aluminium housing. All connections are arranged on one side.

Firmware-Update-Function

To use prospective and further functions the ArtNet-DMX TWIn PoE provides an integrated Firmware-Update-Function. It can be started by web browser. So, no direct device access is necessary!

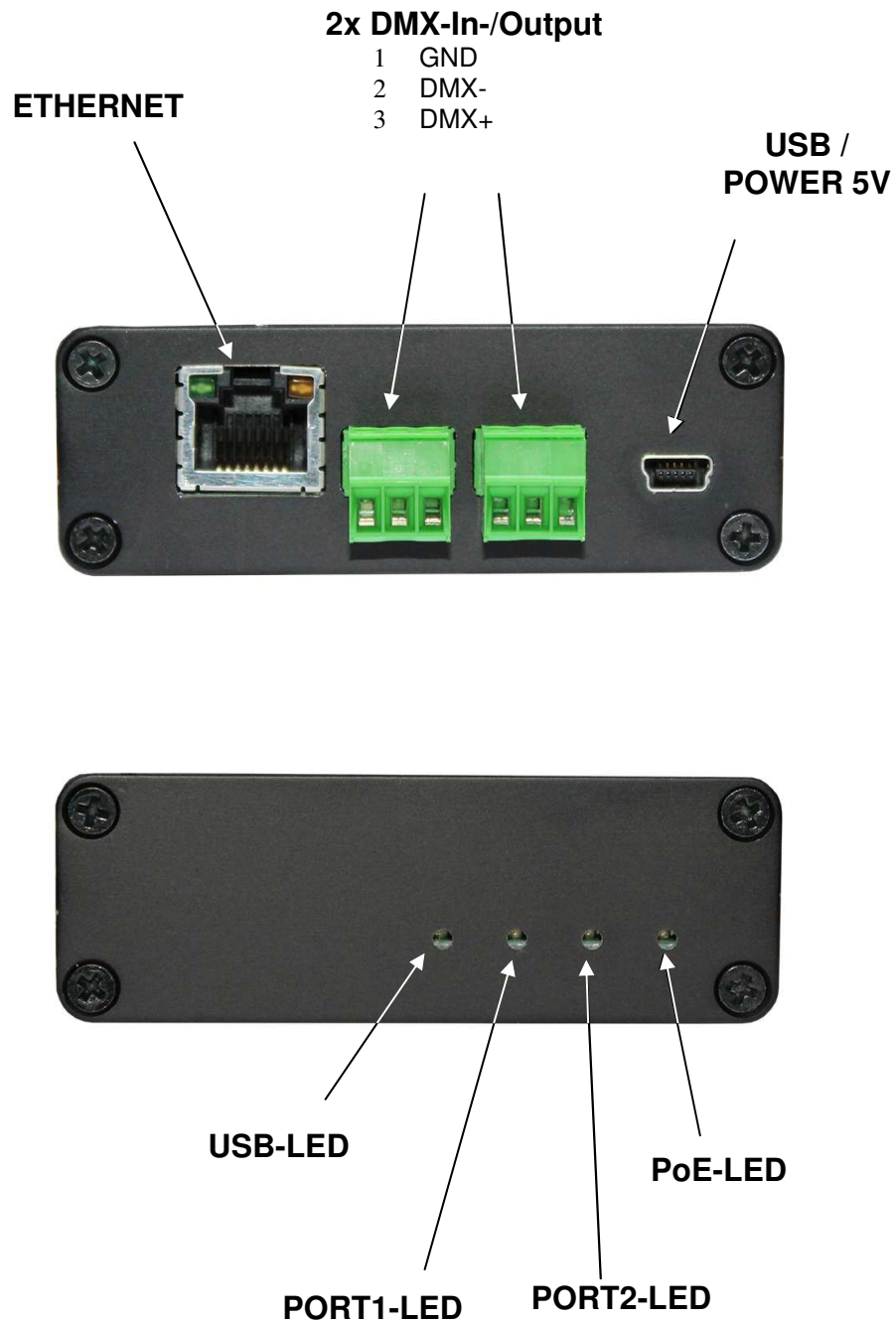
DMX4ALL Communication-Port

The ArtNet-DMX TWIN PoE has another TCP-Communication-Port. This port uses DMX4ALL-Commands via TCP-Packages to Port 10001.

Data sheet

Power supply:	PoE according to IEEE 802.af or included 5V DC-Power supply
Ethernet:	RJ45
DMX:	2x 3 pin screw connector Separated adjustable: - 512 Channels OUT - 512 Channels IN
DMX-Framerate:	Adjustable
Protocol:	Art-Net™ or DMX4ALL Commands
Dimensions:	135mm x 78mm x 27mm

Connection



LED-Display

USB-LED

The USB-LED shines as soon as the USB-Connection is used for transferring data with the ArtNet-DMX TWIN PoE.

PORT1 / PORT2 LED

The PORT-LED lights up as soon as the DMX-Data are outputted or received at the port.

The PORT-LED flashes if the port puts no DMX-Signal out or received none.

PoE-LED

The PoE-LED shines, as soon as the device is supplied via PoE.

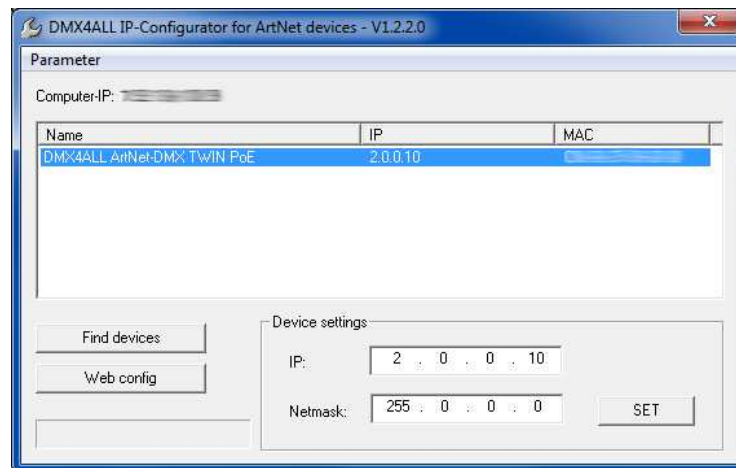
Configuration

The **ArtNet-DMX TWIN PoE** configuration occurs via a web-Interface which can be called via an arbitrary web browser.

Adjust the IP with IP-Configurator

The **IP-Configurator** allows the IP-Address and net mask setting also, if the net work settings of the PC are not within the IP-Range of the ArtNet-DMX TWIN PoE.

- Install the program IP-Configurator
- Connect the ArtNet-DMX TWIN PoE with the net work
- Turn on the ArtNet-DMX TWIN PoE
- Start the program IP-Configurator



- An ArtNet-DMX TWIN PoE is shown in the list
- Select the entry (click)
- Enter a new IP and net mask
- Click SET

Set the IP with web browser

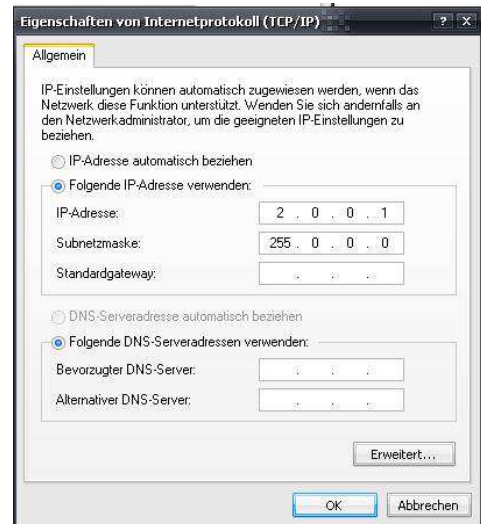
In the delivery state is the assigned **IP-Address 2.0.0.10** which can be used for the Web-Interface.

Please adjust the net work card from the PC to this IP-Range to call the web browser via IP-Address 2.0.0.10 .



The computers net work setting must be adjusted to the **IP-Address 2.0.0.1** and **sub net mask 255.0.0.0** .

Please take further details in the ArtNet-Specification.



Device Configuration

Please call within the web browser and within the address-bar the IP of the ArtNet-DMX Twin PoE (delivery state: 2.0.0.10) to get the following Configuration site:



Each node needs an own **IP-Address** so that the assignment can occur clearly. Use in accordance to the ArtNet-Specifications the IP-Address 2.x.x.x or 10.x.x.x

Any other IP-Address can also be used e.g. 192.168.1.10 . In this case the net-mask has to be fit to 255.255.255.0 !

You can assign each node with any name for a better distinction. The **Short-Name** is limited up to 18 signs and the **Long-Name** up to 64 signs.

The ArtNet-Parameter **SubNet**, **Net** and **Port** are to set according to the ArtNet-Specifications and specify the aim for the DMX-Data.

The **Netmask** is to leave according to the ArtNet-Specification 255.0.0.0 .

With **Port Mode** is to specify for each port, if it should work as DMX-Input (DMX to ArtNet) or DMX-Output (ArtNet to DMX).

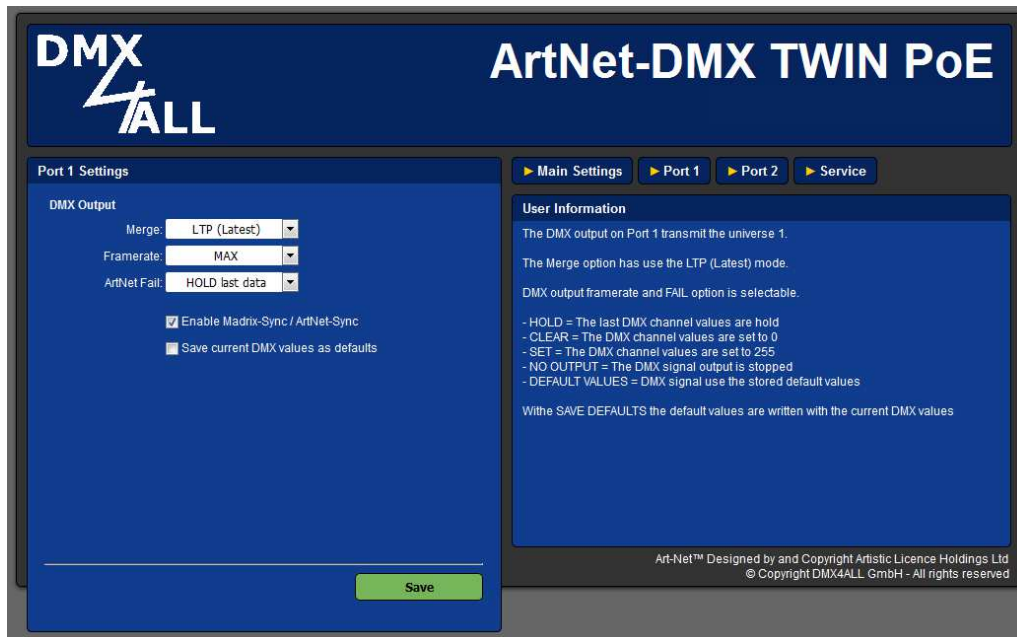
With the activated option **LED indicator auto off** the LEDs at the device are shut down after 10 minutes with permanent net work connection.

SAVE stores the Configuration respectively restores the Factory Settings.

DMX-Output

For the DMX-Output the according ArtNet-DMX TWIN PoE port must be configured as DMX-Output. Select within the Global-Settings the setting **DMX-Output**.

By clicking **Port 1** or **Port 2** you get the following configuration site:



Framerate shows the maximum DMX-Frame rate.

MAX complies to the maximum Frame according to the maximum frame rate of ca. 44fs (Frames/Second).

With **ArtNet Fail** the behavior is adjustable which starts, if ArtNet-Data stay away for over 5 seconds.

The following options are available:

- HOLD last data All channels are leaved unchanged
- CLEAR all to 0% All DMX-Input channels will be set to 0
- SET all to 100% All DMX-Input channels will be set to 255
- NO OUTPUT No DMX-Signal is outputted
- DEFAULT VALUES The stored Default-Values are outputted

In Port 1 the option **HTP-Merge DMX-INPUT 2** is available as soon as port 2 is configured as **DMX-INPUT**. If this option is activated, the DMX-Data from Port 2 is merged to the DMX-Output (port 1) HTP (Highest).

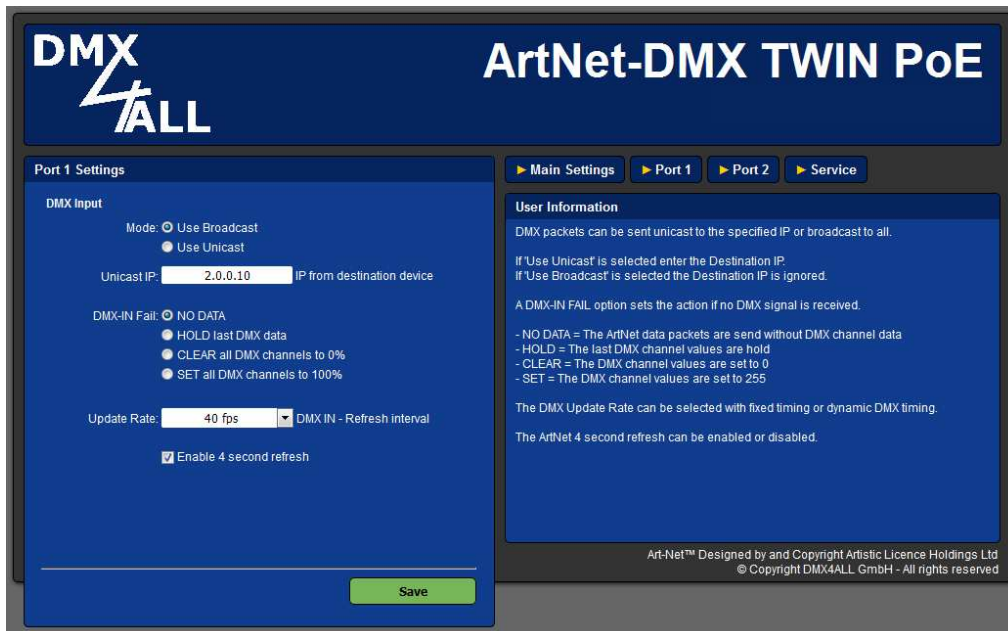
Via **Enable Madrix-Sync / ArtNet-Sync** the DMX-Output of several ArtNet-Devices can be synchronized via ArtSync or by usage the Software MADRIX[®].

The option **Save current DMX values as defaults** stores the current DMX-Data and restores these after turning on.

DMX-Input

To receive DMX via a port, the according ArtNet-DMX TWIN PoEs Port must be configured as DMX-Input. Select in the Global-Settings the setting **DMX-Input**.

Click **Port 1** or **Port 2** to get the following Configuration-Site:



Use Broadcast: The DMX-Data are sent to all ArtNet devices

Use Unicast: The DMX-Data are sent to one certain device with the **Unicast IP** within the ArtNet.

For the DMX-Input several actions can be selected in the case of a DMX-Signals failure (**DMX-IN FAIL**).

- | | |
|------------------------------|---------------------------------------|
| NO DATA | - No DMX-Input is received via ArtNet |
| HOLD last DMX data | - The latest data are maintained |
| CLEAR all DMX channels to 0% | - All DMX-Channels are set to 0 |
| SET all DMX channels to 100% | - All DMX-Channels are set to 255 |

The **Update-Rate**, outputting the DMX-Input data, can be adjusted in several times. **On change data** transferred the DMX-Input data only if these change, max all 0,1 seconds.

DMX Framerate transferred the received DMX-Values as soon as a frame ends. So the frame rate of the incoming DMX-Signals is used for the Update-Rate.

By deactivating the function **Enable 4 second refresh** no Refresh-Data package is sent.

DMX4ALL-Command Support

The **ArtNet-DMX TWIN PoE** has an additional communication-serial port which can receive DMX4ALL Commands via TCP-Packages at Port 10001 or USB.

TCP-Controlling

To control the Interface directly via a TCP-Connection, use the adjusted web browser IP-address and use Port 10001. The sent and received data are RAW-Data packages.

Please take the possible DMX4ALL-Commands the separated DMX4ALL-Command description.

VCP-Controlling

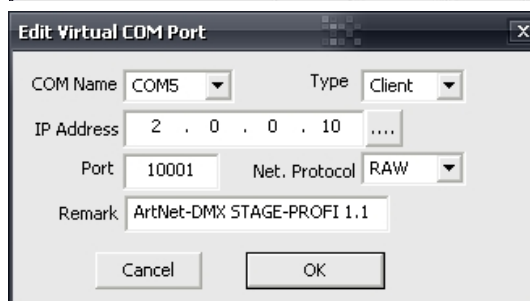
For controlling via a COM-Port a TCP-VCP-Program must be installed, which provides a virtual Com Port (VCP).

We recommend the tool *Serial to Ethernet Connection* which is tested in our house. This tool is to found in our Support-Area.

During the installation you must enter a password (as per margin picture).

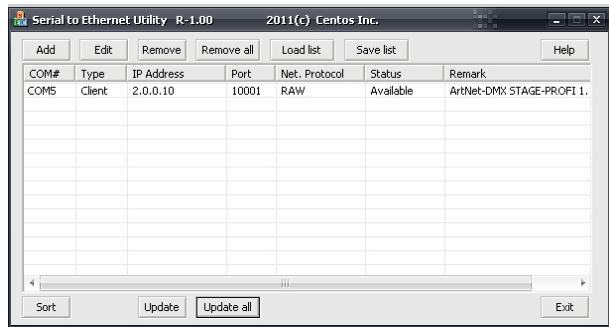


After the installation start the tool „Centos SEC“ which is on the desktop. Add a VCP with *Add* and enter the parameter for the VCP-Port as per margin.



Make sure, that the IP is used which is possibly entered via the web browser.

Finally click **Update all** in the main window to activate the VCP. Now the status *Available* and COM-Port are shown within the device manager.



Factory Reset

The **ArtNet-DMX TWIN PoE** can be reset into the default conditions with the Reset-Button.

Please proceed as follows:

- Open the Web browser and call the page **Service**
- Enter the Service-Code „**7319**“
- Click **Send**
- Please wait then minimum 10 seconds

Alternatively you can restore the default conditions with **DMX4ALL LAN-Updater**:

- Turn off the device
- Start the software **DMX4ALL LAN-Updater**
- Create a connection between net work and PC
- Turn on the device
- Within 3 seconds click **FIND** in the DMX4ALL LAN-Updater
- Select **ArtNet-DMX TWIN PoE** in the list
- Click **FACTORY RESET** in the DMX4ALL LAN-Updater
- The reset will be proceed

Execute Update

The **ArtNet-DMX TWIN PoE** is equipped with an Update-Function which allows transferring prospective Firmware-Versions.

Please proceed as follows:

- Turn off the device
- Start the software **DMX4ALL LAN-Updater**
- Create a connection between net work and PC
- Turn on the device
- Within 3 seconds click **FIND** in the DMX4ALL LAN-Updater
- Select **ArtNet-DMX TWIN PoE** in the list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the Update is ready



If an error occurs during the Update you can start from beginning any time.

Alternatively you can activate the Firmware update via the Web browser:

- Open the Web browser an call site **Service**
- Enter the service code „**1379**“
- Click **send**
- Start Update-Software **DMX4ALL LAN-Updater**
- Select **ArtNet-DMX TWIN PoE** from list
- Click *Firmware-Update*
- *Select Firmware (.bin)* and confirm
- Wait until the Update is ready
- Click Back in Web browser

CE-Conformity



This assembly is controlled by a microprocessor and uses high frequency. In order to maintain the properties of the module with regard to CE conformity, installation into a closed metal housing in accordance with the EMC directive 2014/30/EU is necessary.

Risk-Notes

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

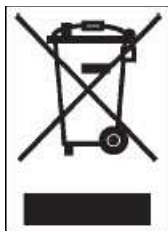
Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

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.

Disposal



Electronical and electronic products must not be disposed in domestic waste. Dispose the product at the end of its service life in accordance with applicable legal regulations. Information on this can be obtained from your local waste disposal company.



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