ArtNet-DMX UNIVERSE DR 1.1

User Manual

Description

The **ArtNet-DMX UNIVERSE DR 1.1** has a switchable DMX-In/Output. Together with the suitable top-hat rail housing 350 the interface is optimal applicable for switch cabinet installations.

Via a RJ45 connection occurs the connection to the ArtNet network.

A user-friendly configuration via a web browser allows a fast and uncomplicated setting of all parameters.

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

An additional Extension Mode allows an output of 1024 DMX-channels on the DMX-output. The Extension Mode is optimized for controlling the MagiarLED-Products.

The ArtNet-DMX UNIVERSE DR 1.1 has another communication-interface which can receive data via TCP-packages at Port 10001.

The interface uses the DMX4ALL-Commands, so that the ArtNet-DMX UNIVERSE DR 1.1 is compatible to the LAN-DMX STAGE-PROFI.

In conjunction with the WLAN-bridge the ArtNet-DMX UNIVERSE DR 1.1 can also be integrated in WLAN-nets.

Data sheet

Power supply:	7-24V DC (150mA@12V; 80mA@24V)
Ethernet:	RJ45
DMX:	Selectable: - 512 channels OUT - 1024 channels OUT within the Extension Mode - 512 channels IN
Protocol:	Art-Net™ or Virtual COM Port with DMX4ALL Commands (just like LAN-DMX STAGE-PROFI)
LED-Display:	Green: Ethernet-Connection exists Yellow: Data are transferred
Dimensions:	29,2mm x 82mm

Connection

Ethernet

DMX
4ALL
ArtNet
UNIVERSE
DR 1.1

V+ GND GND DMX+ DMX-

POWER 7-24V

DMX
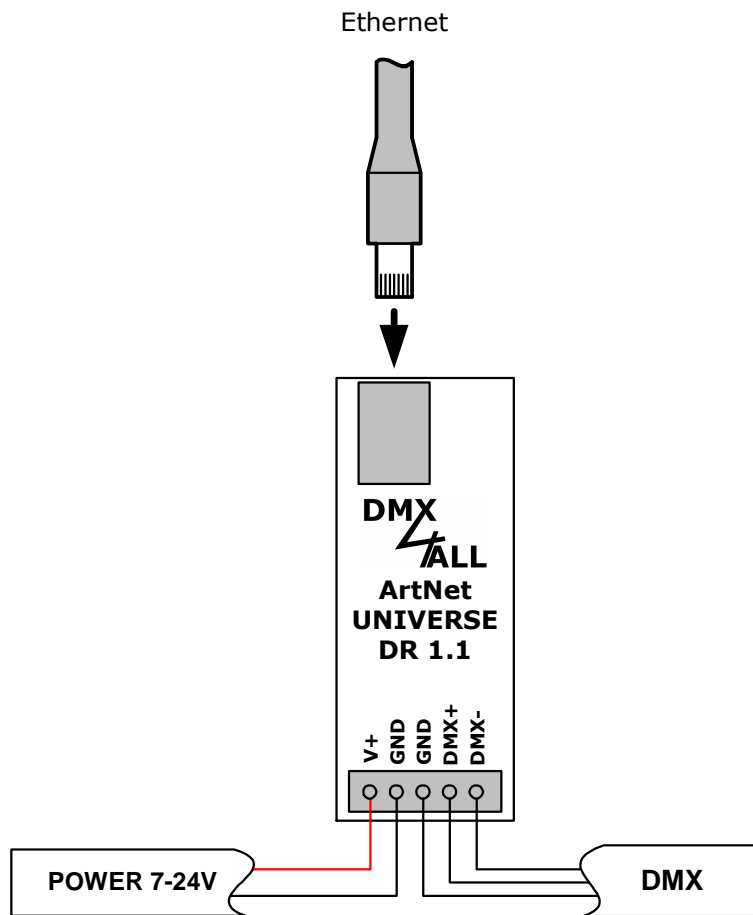
LED-Display

LED green

The green LED flashes, if no Ethernet connection exists and shines nonstop if an Ethernet connection is given.

LED yellow

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

Configuration

The configuration of the **ArtNet-DMX UNIVERSE DR 1.1** occurs about a web-interface which can be called about any web browser.

Set the IP wit IP-Configurator

The **IP-Configurator** enables the IP-Address and the net mask setting even if the PCs network setting is not within the IP range of the ArtNet-DMX UNIVERSE DR 1.1.

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

- The ArtNet-DMX UNIVERSE 1.1 DR is shown in the list
- Select the entry (click)
- Enter the new IP and net mask
- Click SET
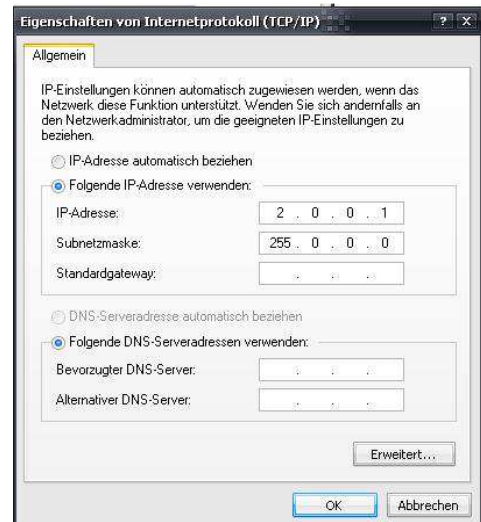
Set IP with web browser

During the delivery status the given **IP-Address** is **2.0.0.10**, which can be used via the web interface.

Set the net work card of the PC to this IP range to call the IP-Address 2.0.0.10 via the web browser.

⚠️ The net work settings of the PC must be set to **IP-Address 2.0.0.1** and
Subnet mask to **255.0.0.0**

Please take further details from ArtNet-Specifications.

Device Configuration

Call the ArtNet-DMX UNIVERSE DR 1.1 IP-Address in the web browser and address bar (delivery status: 2.0.0.10) to get the following configuration site:

⚠️ 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 or DMX-Output.

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

SAVE restores the configuration and respectively rebuilt the Factory Settings.

DMX-Output

For using the **ArtNet-DMX UNIVERSE DR 1.1** as 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 ca. 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

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)	
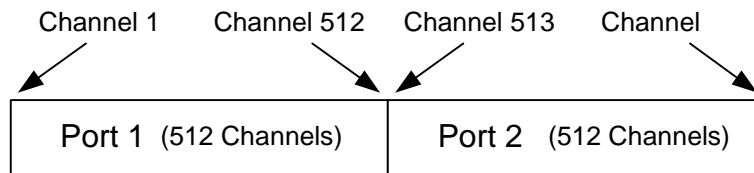
Channels up to 1024 will be outputted with 0
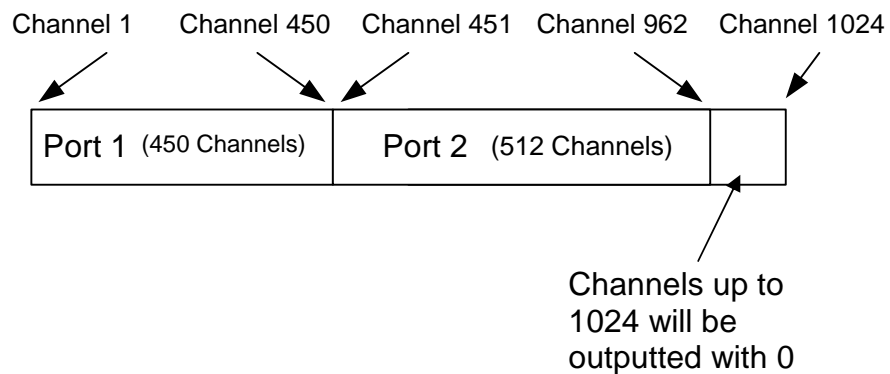
DMX-Input

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

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 will be send to all devices within the ArtNet.
Use Unicast: The DMX-data will be 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. however every 0,1 seconds.

DMX Framerate transferred the received DMX-Values as soon as a frame has finished. So, the framerate of the incoming DMX-Signal will be used for the Update-rate.

DMX4ALL-Command support

The **ArtNet-DMX UNIVERSE DR 1.1** has a further communication-interface which can receive data via TCP-packages at Port 10001. This interface uses the DMX4ALL-Commands in the way that the **ArtNet-DMX UNIVERSE DR 1.1** is compatible to the LAN-DMX STAGE-PROFI.

TCP-Controlling

For controlling the interface directly via the TCP-connection please use within the web browser the adjusted IP-address and use Port 10001. The sent and received data are RAW-data packages.

Please take the possible DMX-commands from 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 recommended the tool *Serial to Ethernet Connection* which we have tested. You find this tool as download in our Support-area.

During the installation you have to enter a password (see opposite figure).

After the installation please start the tool „Centos SEC" which you find on your desktop. Now, add a VCP with *Add* and enter the parameters for this VCP-Port as shown opposite.

Make sure, that the IP is used which is adjusted via the web browser.
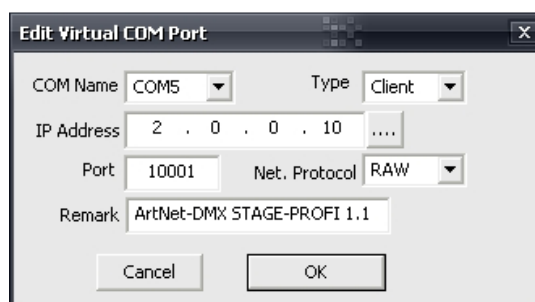
Finally, click into the main window to **Update all** to activate the VCP. Now, the status *Available* and the COM-Port will be shown into the device manager.
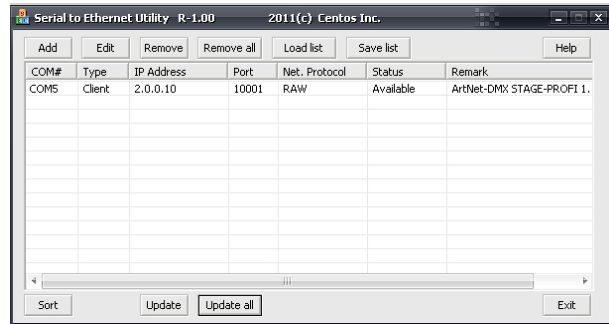
Factory Reset

The **ArtNet-DMX UNIVERSE DR 1.1** Interface can be reset into the delivery status via the web browser.

Please proceed as follows:

- Open web browser and call the **Service** site
- Enter the Service-Code „7319" within the input field
- Click *Send*
- Following wait minimum 10 seconds

⚠️ If the Factory-Reset is done via the web site the IP-Address and the Subnet Mask is reset. Set the IP-Address if necessary (see Set the IP with IP-Configurator or Set the IP via web browser).

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

- Turn on the device
- Start software **DMX4ALL LAN-Updater**
- Click *FIND* in the DMX4ALL LAN-Updater
- Select the **ArtNet-DMX UNIVERSE DR 1.1** from list
- Click **FACTORY RESET** in the DMX4ALL LAN-Updater
- The Factory-Reset occurs and the yellow and green LED lights up 3x simultaneously as confirmation.

Make Factory-Reset at device:

- Turn off the device
- Bridge the both outer Pins at the 3pin pin header
- Turn on the device
- The yellow LED flashes
- Remove bridge between pins of the 3pin pin header
- Bridge again the both outer pins of the 3pin pin header
- The yellow and green LED flashes 10x alternately
- During the 10x flashing remove bridge
- The Factory-Reset now occurs and the yellows and green LED flashes 3x simultaneously as confirmation.

Make Firmware-Update

The **ArtNet-DMX UNIVERSE DR 1.1** has an Update-Function, which allows to transer future firmware versions.

Please proceed as follows:

- Turn on the device and connect net work cable
- Start Update-Software **DMX4ALL LAN-Updater**
- If necessary click FIND to update the entries
- Select the **ArtNet-DMX UNIVERSE DR 1.1** from list
- Click *Firmware-Update*
- Select Firmware-File (.bin) and confirm
- Wait until the update has finished
  (Entry *RUN application.* appears)

Activate Firmware-Update via web browser (older devices):

- Open web browser and call the **Service** site
- Enter the Service-Code „**1379**" within the input field
- Click *Send*
- Start the Update-Software **DMX4ALL LAN-Updater**
- **ArtNet-DMX UNIVERSE DR 1.1** aus der Liste auswählen
- Click *Firmware-Update*
- Select Firmware-File (.bin) and confirm
- Wait until the update has finished
  (Entry *RUN application.* appears)
- Click *Back* in the web browser

Activate Firmware-Update at device:

- Turn off the device
- Bridge the both outer Pins at the 3pin pin header
- Turn on the device
- The yellow LED flashes
- Remove bridge between pins of the 3pin pin header
- Generate net work connection to PC
- Start the Software **DMX4ALL LAN-Updater**
- Select the **ArtNet-DMX UNIVERSE DR 1.1** from list
- Click *Firmware-Update*
- Select Firmware-File (.bin) and confirm
- Wait until the update has finished
  (Entry *RUN application.* appears)

If an error occurs during the update it is possible to start the firmware update at the device again at any time and from beginning.

Dimensions
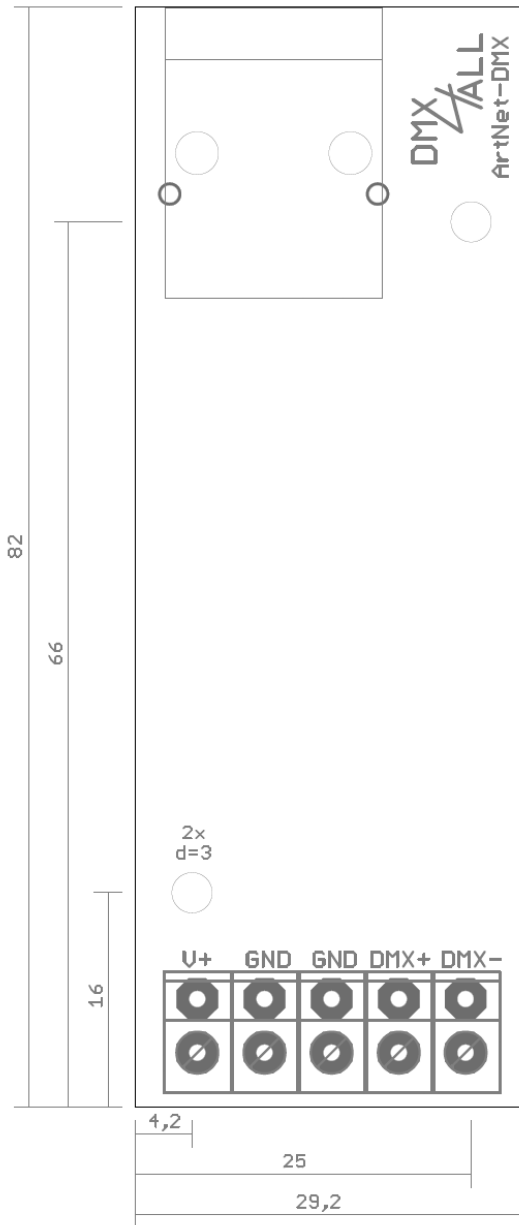
All details in mm

Accessory

Top hat rail mounting 350

Power supply 12V / 20W

Net work cable

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 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.
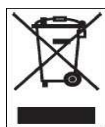
Disposal

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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DMX4ALL

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WWW.DMX4ALL.DE

DMX4ALL GmbH
Reiterweg 2A
D-44869 Bochum
Germany

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