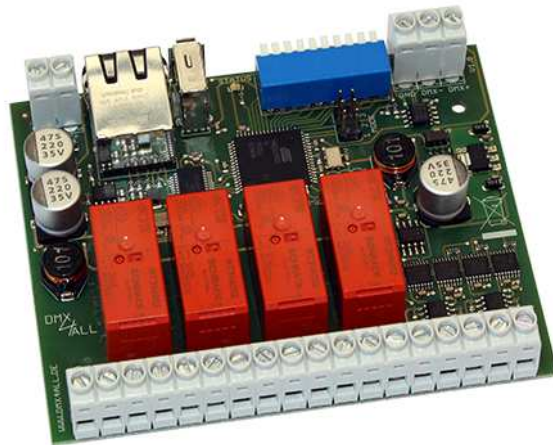


ArtNet Relais/Analog Interface 4

User Manual



DMX [®]
4
ALL

Description

The **ArtNet Relais/Analog Interface 4** is designed for several controlling tasks.

The controlling occurs via ArtNet or DMX.

In total 4 switching contacts and 4 analog output signals are available.

The switching contacts are suitable for controlling direct current (DC) or alternating voltage (AC).

The DMX-HOLD-Function, which can be activated optionally, leaves the switching states and analog values unchanged in the case of a DMX-Signals loss.

Additional the **ArtNet Relais/Analog Interface** has a USB-connection for external devices e.g. a WLAN-Bridge providing a power supply with 5V/500mA.

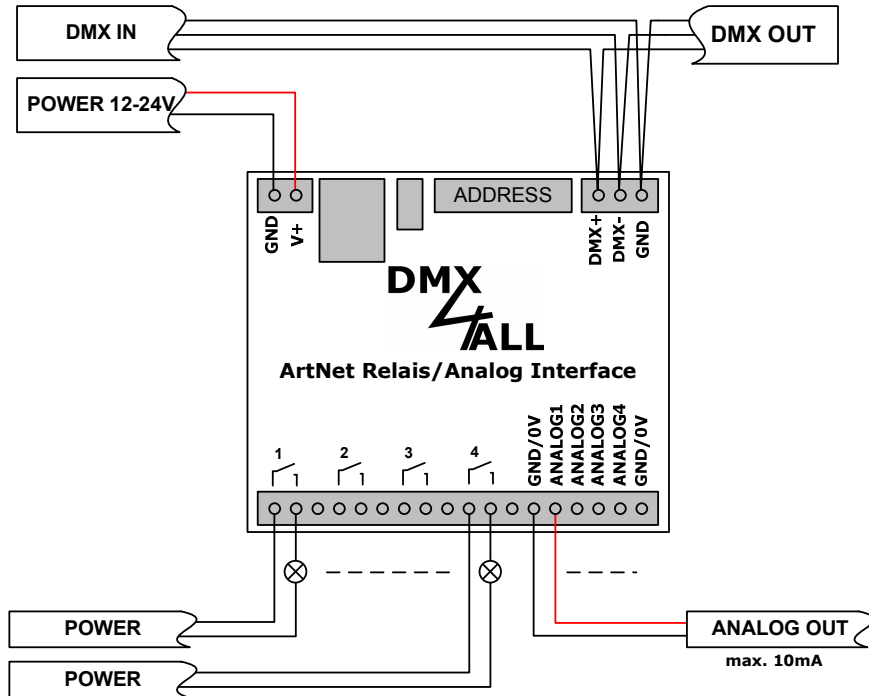
A user-friendly configuration via a web browser allows a fast and uncomplicated parameter setting.

Data sheet

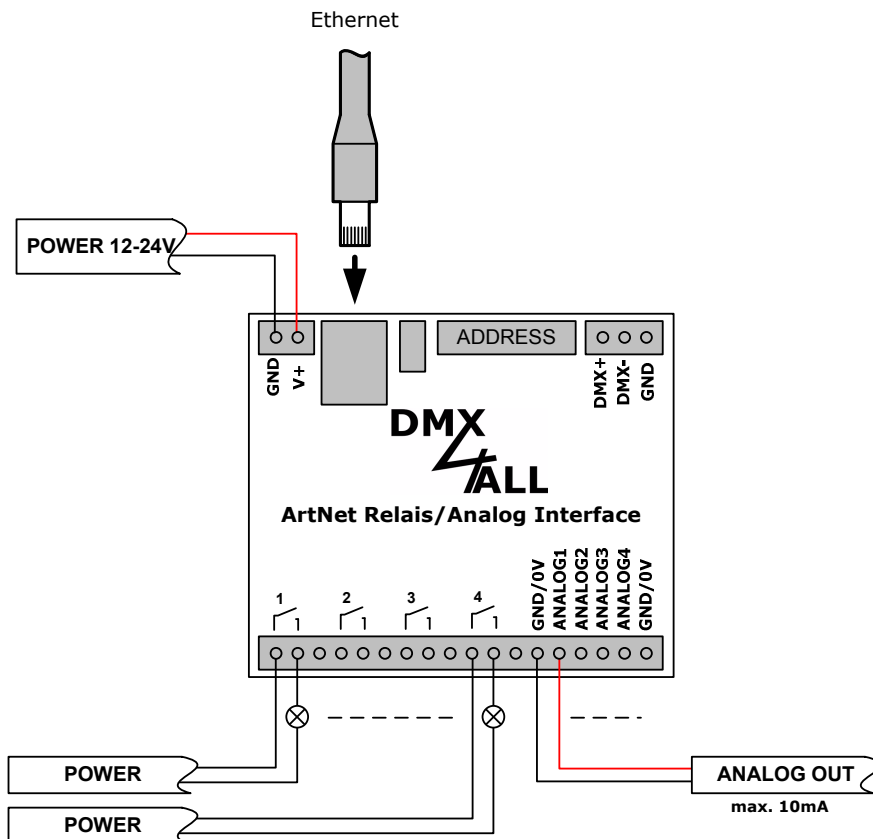
Power supply:	12-24V DC / 1A
Ethernet:	RJ45
DMX-Channels:	according to operation mode 4 or 12 Channel
DMX-HOLD:	activatable
Output:	4 switching contacts max. 8A / 250V~ 165A@20ms inrush peak current 4 analog signals 0-10V or 1-10V / max. 10mA
USB-Connection:	5V/500mA for power supplied external devices (e.g. WLAN-Bridge)
Dimension:	99mm x 82mm

Connection

Operating with DMX:



Operating with ArtNet:



LED-Display Codes

The integrated LED is a multifunctional display.

In the normal operation mode the LED lights non-stop. In this case the device is working. If the LED is permanently dark, there is no DMX512-input-signal.

Furthermore the LED signals the operation status. In this case, the LED lights up in short pitches and then turn into off mode. The number of flashing signals is equal to the number of the error status:

Error status	Error	Description
1	No DMX	There is no DMX-Signal recognized at the DMX-Entry
2	Address error	Please check if a valid DMX-starting address is adjusted

DMX-Addressing

The starting address is adjustable via the DIP-switches. Switch 1 has the valency 2^0 (=1), switch 2 has the valency 2^1 (=2) and so on... finally switch 9 has the valency 2^8 (=256). The sum of the switches showing ON, represent the starting address.

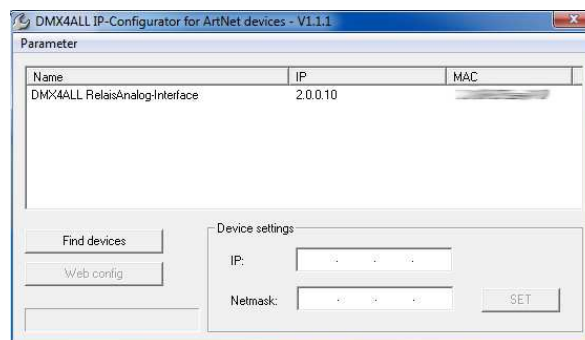


If switch1-9 are OFF, the used DMX-Starting address via the web interface will be used!

IP setting via IP-Configurator

The **IP-Configurator** allows setting the IP-address and the net mask also if the PC network setting is not in the IP-range of the ArtNet Relais/Analog Interface.

- Install the program IP-Configurator
- Connect the ArtNet Relais/Analog Interface with the network and turn it on
- Start the program IP-Configurator



- The ArtNet Relais/Analog Interface is displayed in the list
- Choose the entry (click)
- Enter the new IP and net mask
- Click SET

Setting the IP via web browser

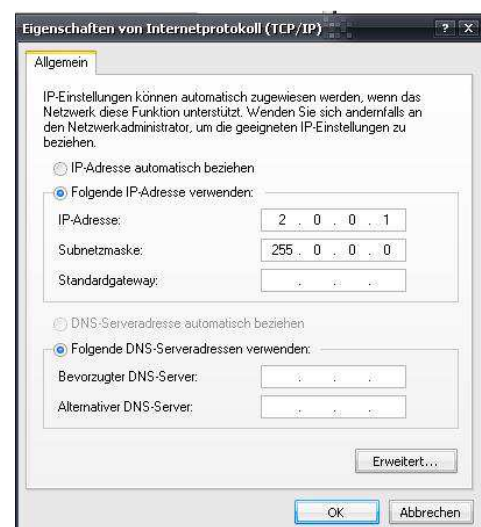
For the delivery status the **IP-Address 2.0.0.10** is assigned which is used for the Web-Interface.

Set the PCs network card to this IP-range to call the IP-Address 2.0.0.10 via the web browser.



The PCs Network setting is to adjust on the **IP-Address 2.0.0.1** and the **Sub net mask 255.0.0.0**

Please take further details from the ArtNet – Specifications.



Device Configuration

Call within web browsers addressing bar the **ArtNet Relais/Analog Interfaces** IP (Delivery status: 2.0.0.10) to get the following configuration site:



Each ArtNet-Node needs an own **IP-Address**, so the assignment in the network is clear. Use in accordance to the ArtNet-Specification the IP-Address 2.x.x.x or 10.x.x.x .

The **Net mask** is according to the ArtNet-Specification 255.0.0.0 .

TIPP:

Each other IP-Address can also be used for a better distinction, e.g. 192.168.1.10 . In this case the net mask must be adapted to 255.255.255.0 !

For a better distinction any name can be used for the ArtNet-Node.

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

Under the ArtNet-Settings you can carry out the settings for the **Subnet**, **Net** and **Port/Universe**.

The **DMX-Start Address** shows the Channels within the according DMX-Universe from whence the outputs should be appealed.

Thereby the DMX-Starting address complies to relay 1 and the following addresses comply to relay 2-4 followed by the analog outputs 1-4.

If a DMX-Starting address is adjust via the switches so this is regarding prior.



Note, that the channel assignment can differ with placed MODE-Jumper !

Within the output settings for each relay and for each analog output individual **names** can be entered.

Furthermore after turning on (**Power on value**) the conditions for the relays can be defined. Turning on the relays can occur delayed.

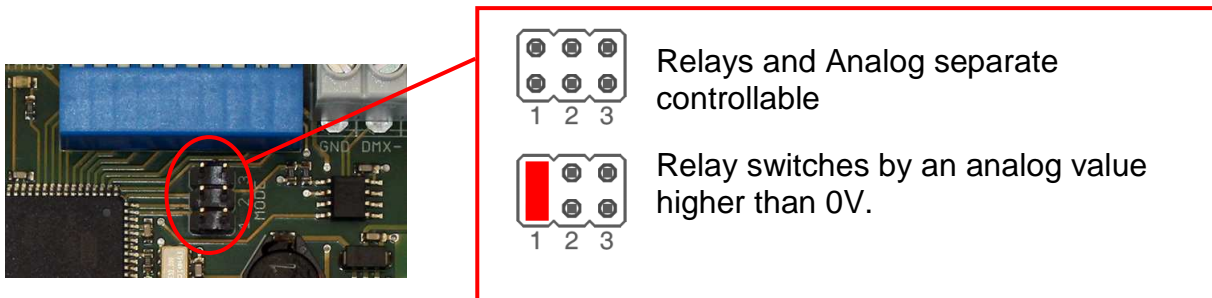
The **Factory Settings** will be restored by entering the number 7319.

SAVE stored the configurations respectively restored the Factory Settings.

Switching relays with an analog value higher 0V

This Mode uses no separated for the relays DMX-Channels. The relay switches as soon as the analog value is higher than 0V respectively the DMX-value for the analog output is higher than 0.

Via MODE-Jumper 1 this mode is activatable:



In this case the DMX-Channel assignment is as following:

DMX-Channel assignment by 8 Bit:

DMX- Channel assignment by 10 Bit:

Start address

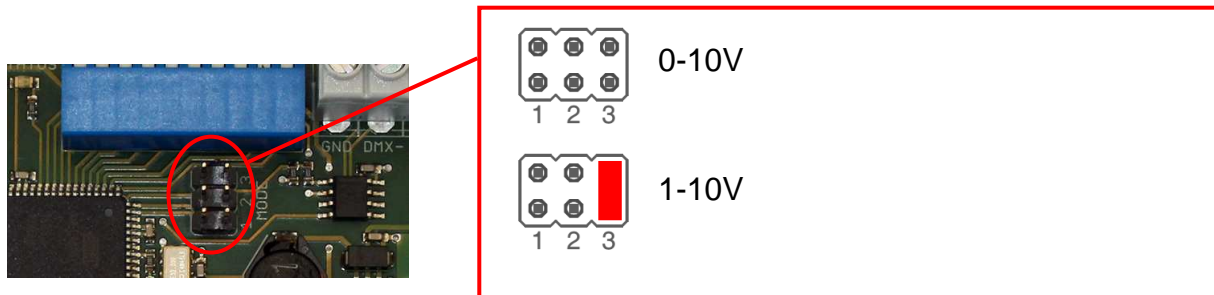
Analog+Relais 1
Analog+Relais 2
Analog+Relais 3
Analog+Relais 4

Starting address

Analog+Relais 1 H
Analog+Relais 1 L
Analog+Relais 2 H
Analog+Relais 2 L
Analog+Relais 3 H
Analog+Relais 3 L
Analog+Relais 4 H
Analog+Relais 4 L

Setting the output voltage 0-10V / 1-10V

The analog-output output-voltage is adjustable via MODE-Jumper 3:



DMX-HOLD Function

The **ArtNet Relais/Analog Interface** has a DMX-HOLD function storing the last value in the case of a DMX-Signal loss and the relays and analog outputs are left unchanged.

If the DMX-HOLD function is not active, all relays are shut down in the case of a DMX-Signal loss and 0V will be outputted at the output.
 In a case of a power failure the stored values get rejected !

To activate the DMX-HOLD function use switch 10.

- Switch 10 ON → DMX-HOLD active
- Switch 10 OFF → DMX-HOLD not active

DMX4ALL-Command support

The **ArtNet Relais/Analog Interface** has another communication interface which receives data via TCP-packages at Port 10001.

TCP-Controlling

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

Please take the potential DMX4All-Commands from the separated DMX4ALL-Command description.

VCP-Controlling

For controlling via a COM-Port a TCP-VCP-program must be installed, providing a virtual Com Port (VCP).

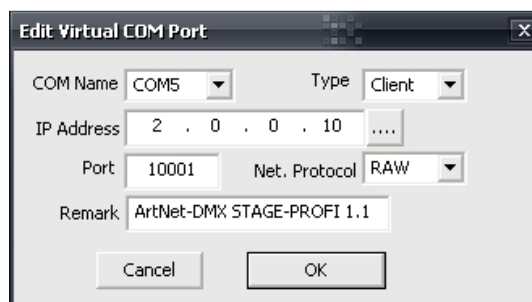
We recommend the tool *Serial to Ethernet Connection* tested by us. This tool is available as download within the support area.

It is needed to enter a password during the installation (see adjacent figure).

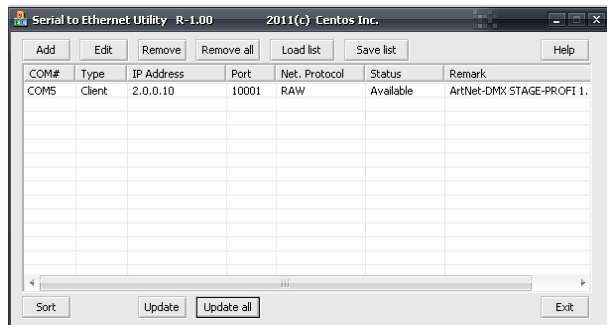


After the installation start the tool „Centos SEC“ being on the desktop. Add a VCP with *Add* and specify the parameters for this VCP-Port as per margin.

Please mind to use the IP which is entered via the web browser.



Finally click **Update all** in the main menu to activate the VCP.
Now the status *Available* is shown and the COM-Port is displayed in the device manager.

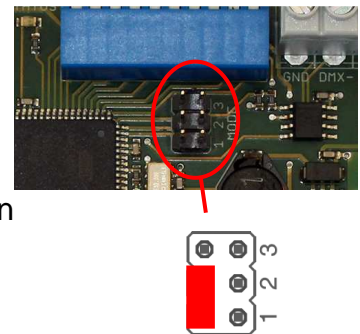


Factory Reset

It is possible to reset the **ArtNet Relais/Analog Interface** into the delivery status.

Please proceed as follows:

- Turn off the device
- Place the MODE-Jumper J1 to J as shown
- Turn on the device
- The reset executes and the LEDs at the RJ45-connection light up 3x simultaneously as confirmation



Alternatively you can generate the delivery status via the web browser:

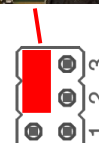
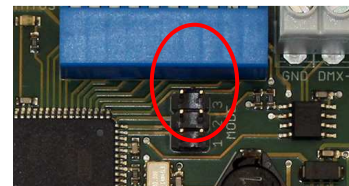
- Open the Main Settings within the web browser
- Enter the code „7319“ in Factory Defaults
- Click Save
- Subsequently wait at least 10 seconds

Executing Update

The **ArtNet Relais/Analog Interface** has an Update-Function which allows to transfer prospective Firmware-Updates.

Please proceed as follows:

- Turn off the device
- Place the MODE-Jumper J2 to J3 as shown
- Turn on the device
- The yellow LED lights up
- Occur an connection between PC and network
- Start the Update-Software **DMX4ALL LAN-Updater**
- Select the **ArtNet Relais/Analog Interface** from the list
- Click *Firmware-Update*
- Select the Firmware-Data (.bin) and confirm
- Wait until the Update has finished
- Set the MODE-Jumper to the original condition

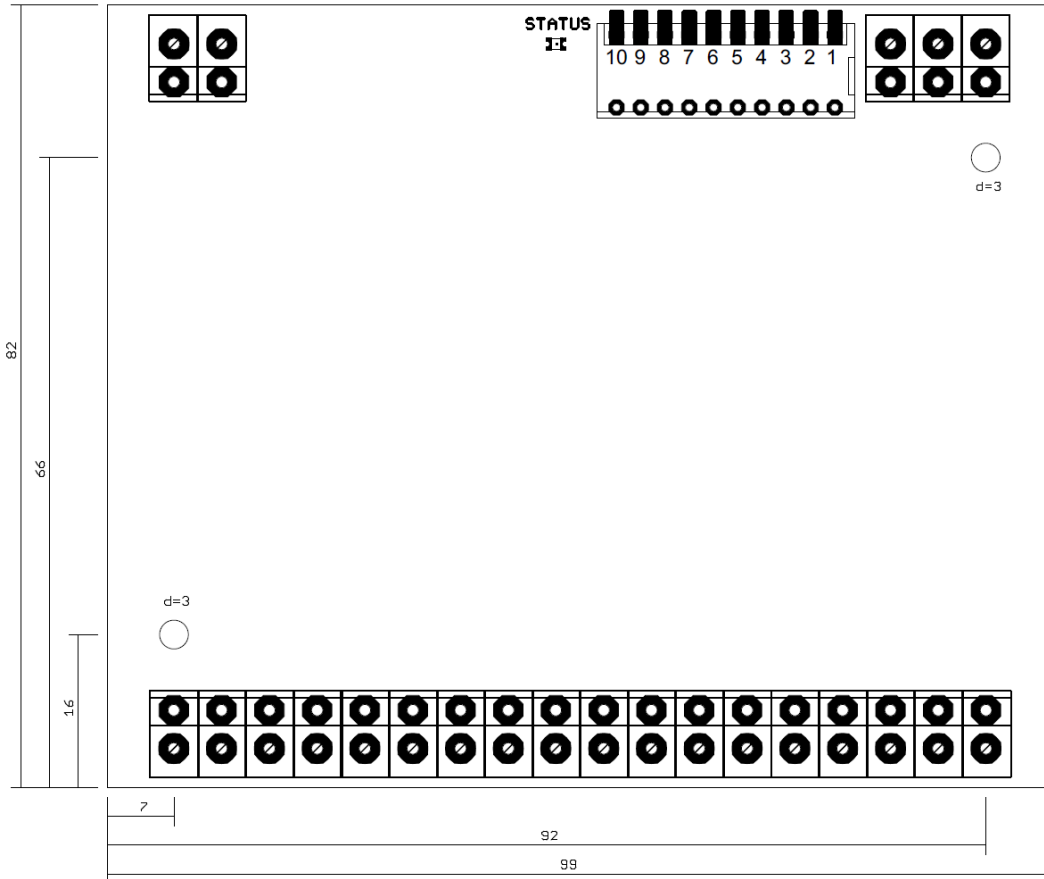


If during the Update occurs an error you can start the Update again any time.

Alternatively the Firmware Update can be activated via web browser:

- *Open the Firmware Update* within the web browser
- Enter the shown code "1379" in the entry field and click *Send*
- Start the **DMX4ALL LAN-Updater**
- Select the **ArtNet Relais/Analog Interface** from the list
- Click *Firmware-Update*
- Select the Firmware-Data (.bin) and confirm
- Wait until the Update has finished
- Click *Back* in the web browser

Dimension



(all details in mm)

Equipment

Top-hat rail housing 1050



Power supply 12V / 20W



Risk-Notes

You purchased a technical product. Conformance 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 depends on this device.



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