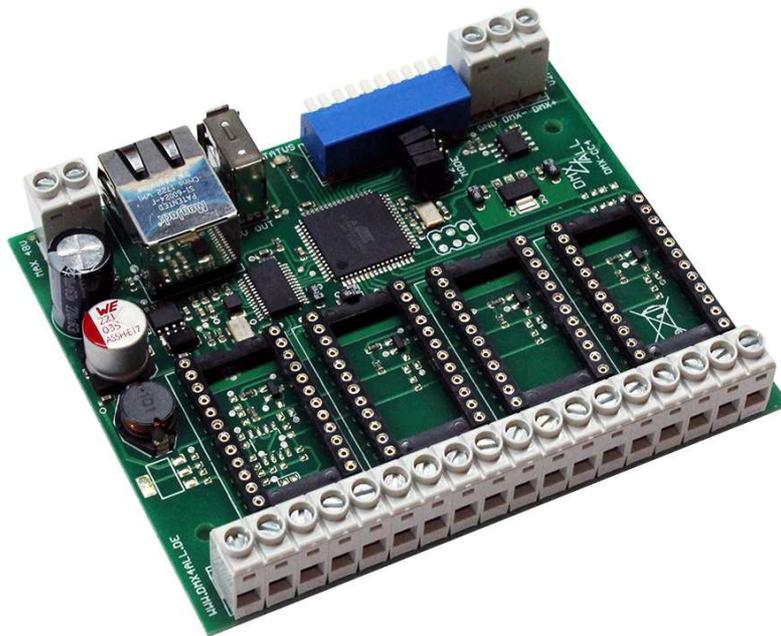


# ArtNet-LED-Dimmer CC4

## User Manual



**DMX** <sup>®</sup>  
**4**  
**ALL**

## Description

The **ArtNet-LED-Dimmer CC4** is designed for controlling LEDs, which are operated with constant current and works with up to 48V DC.

### 4 Outputs with selectable constant current modules

Several constant current modules with different output currents to insert are available. The constant current modules are available as accessory and not included in delivery.

### For power supply from 12V up to 48V

The ArtNet-LED-Dimmer CC4 works with a power supply of 12V up to 48V.

### DMX or Art-Net™

The ArtNet-LED-Dimmer CC4 can be controlled via DMX or ArtNet (DMX over Ethernet). Which signal is used prior can be selected.

### DMX-FAIL Function

A DMX-FAIL-Function, which can be activated optionally, leaves the status unchanged in case of a DMX-Signal failure, turns off the output OFF (0%) or ON (100%).

### Disengageable LED-Displays

The LED-Displays at the ArtNet-LED-Dimmer CC4 can be disengaged per ArtNet-Command (AcLedMute) or time controlled.

This is very helpful to avoid disturbing "lights points" e.g. on stage.

### 10 User defined Color Changes / Programs

The ArtNet-LED-Dimmer CC4 offers 10 user defined color changes. These can be created via a web browser or via the Android App „DMX4ALL Remote“.

### Test Function for Service Purposes

For test and service purposes it is possible to switch on the single outputs via the web interface. So each output can be checked without an external control.

### Easy Configuration

An user friendly configuration via web browser allows a fast and uncomplicated setting of all parameters. No special software is necessary, a standard web browser is enough. So, anytime the configuration is possible from PC, Smartphone or tablet. For an easy setting of the IP we provide the IP-Configurator as PC-Tool or Android-App for free. The network settings can be leaved unchanged and the IP can be configured without any problems.

### Firmware-Update-Function

To use future functions the ArtNet-LED-Dimmer CC4 offers a Firmware-Update-Function. The update can be started from a web browser, so no direct access to the device is necessary!

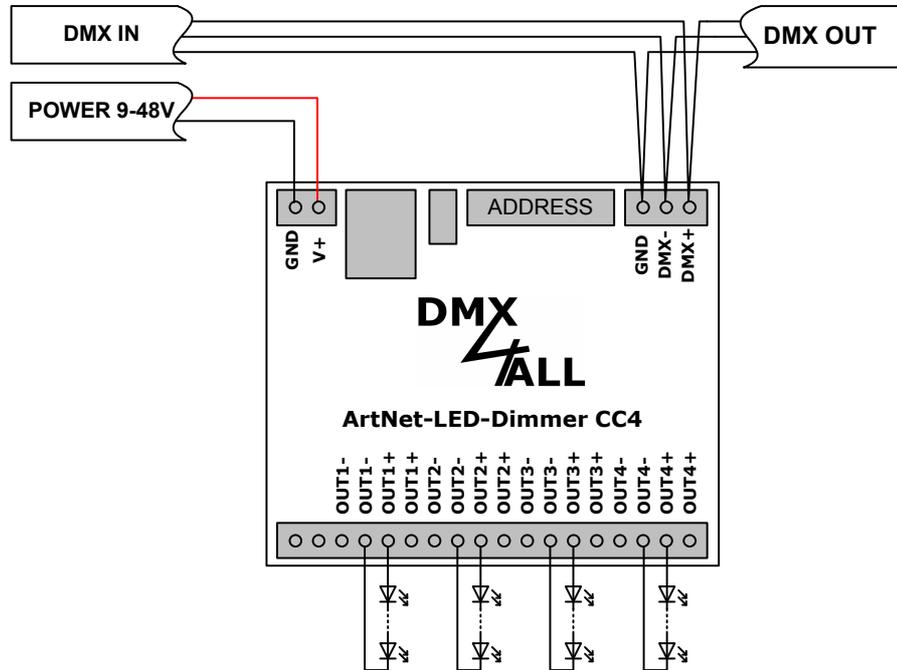
## Data sheet

<b>Power supply:</b>	9-48V DC 150mA@12V; 80mA@24V; 60mA@48V (Current consumption without LED-Driver)
<b>Ethernet:</b>	RJ45 (ArtNet™)
<b>DMX:</b>	3pin screw terminals
<b>DMX-Channels:</b>	4 Channels (without master dimmer) 5 Channels (with master dimmer)
<b>DMX-FAIL:</b>	HOLD / ALL OFF / ALL ON
<b>Master dimmer:</b>	activatable
<b>Output:</b>	4 current-limited dimmable LED-Outputs Output current depends on the used constant current module
<b>PWM-Frequency:</b>	244 Hz
<b>USB-Connection:</b>	5V/500mA for power supply external devices (e.g. WLAN-Bridge)
<b>Dimensions:</b>	99mm x 82mm

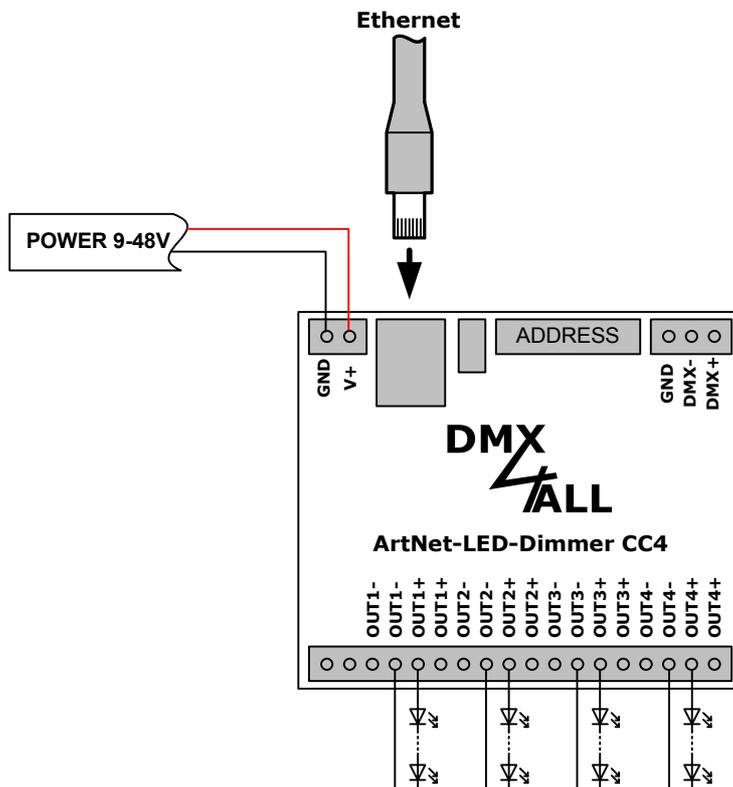
**Constant current modules are not included in delivery!**

## Connection

### Operation with DMX:



### Operation with Art-Net™:



## LED-Display-Codes

The integrated green LED is a multi function display.

During the normal operation mode the LED lights permanently. In this case the device is working.

Furthermore the LED shows the current status. In this case the LED lights up in short pitches and then are missing for longer time.

The number of the flashing lights is equal to the event number:

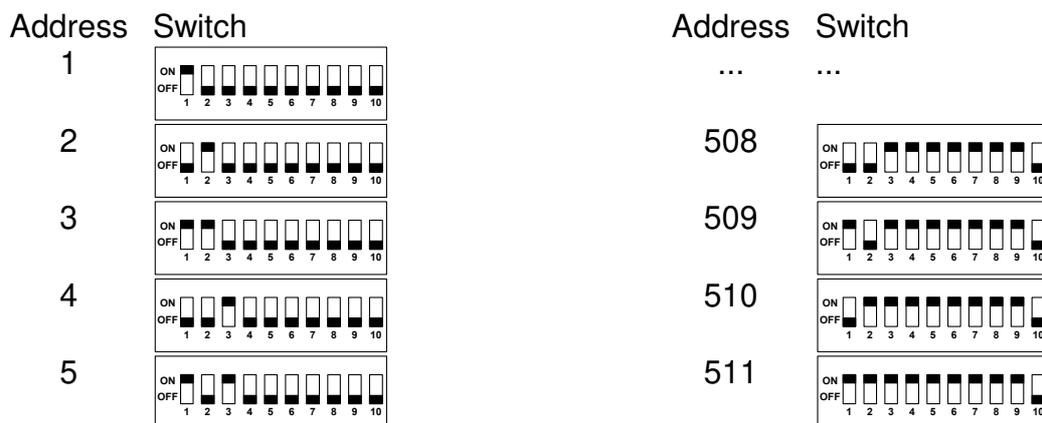
Error	Error Description	Description
1	No DMX	There is no DMX-Signal detected at the entry
2	Address-Error	Please check the adjusted DMX-Address

## DMX-Addressing

The starting address is adjustable via the DIP-Switches.

Thereby switch 1 has the valency  $2^0$  (=1), switch 2 the valency  $2^1$  (=2) etc. up to switch 9 with the valency  $2^8$  (=256).

The sum of the switches showing ON complies with the starting address.



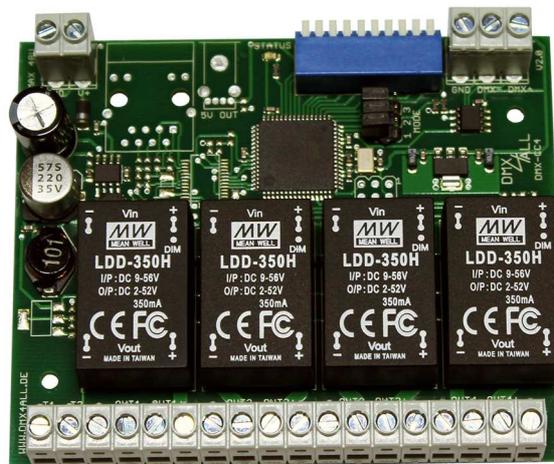
If all switches 1-9 are OFF, the adjusted DMX-Start address set via the web interface will be used!

## Constant current modules

The following constant current modules are available as accessory for the ArtNet-LED-Dimmer CC4:

- Constant current LED-Driver LDD-300H (300mA)
- Constant current LED-Driver LDD-350H (350mA)
- Constant current LED-Driver LDD-500H (500mA)
- Constant current LED-Driver LDD-600H (600mA)
- Constant current LED-Driver LDD-700H (700mA)
- Constant current LED-Driver LDD-1000H (1000mA)
- Constant current LED-Driver LDD-1200H (1200mA)
- Constant current LED-Driver LDD-1500H (1500mA)

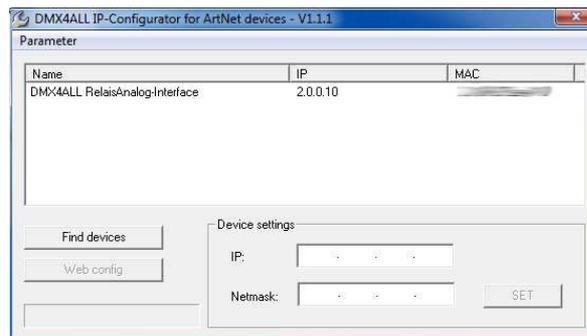
Insert the constant current module, that the output of the module (Vout) shows towards output terminal:



## Set the IP with the IP-Configurator

The **IP-Configurator** allows setting all IP-Address und net mask settings also if the net work settings of the PC are not in the ArtNet-LED-Dimmer CC4s IP-Range.

- Install the program IP-Configurator
- Connect the ArtNet-LED-Dimmer CC4 with the net work and turn it
- Start the program IP-Configurator



- The ArtNet-LED-Dimmer CC4 is shown in the list
- Select the entry (click)
- Enter the new IP and net mask
- Click *SET*

## Set the IP via web browser

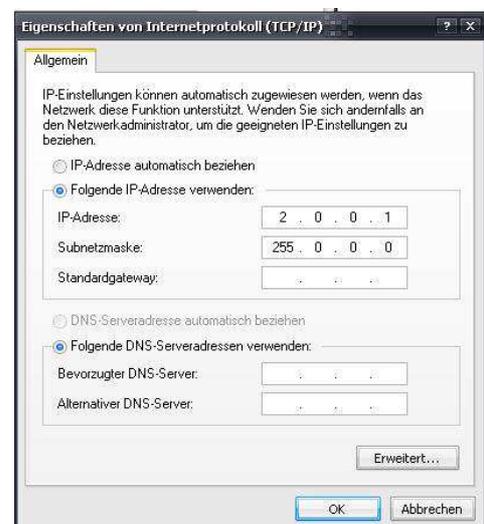
In the delivery status is the predefined **IP-Address 2.0.0.10** which can be used for the web interface.

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



The network settings of the computer must be set to the **IP-Address 2.0.0.1** and the **Subnetmask** must be **255.0.0.0** .

Please take further details from the ArtNet-Specifications.



## Device Configuration

To get the following configuration side, please call within the web browser in the address list the IP of the **ArtNet-LED-Dimmer CC4** (Delivery status: 2.0.0.10):



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

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

### TIP:

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

For the ArtNet-Node any names can be selected, so you can use it for a better distinction.

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

To set the **Subnet**, **Net** and **Port/Universe** please make the settings in the ArtNet Settings.

The **DMX-Startaddress** specifies the DMX-Universe from which the outputs are to be addressed. Thereby the DMX-Start address is according to the output 1 and the following addresses to output 2-4.

If a DMX-Start address is set via the switches, so this will be considered with priority.

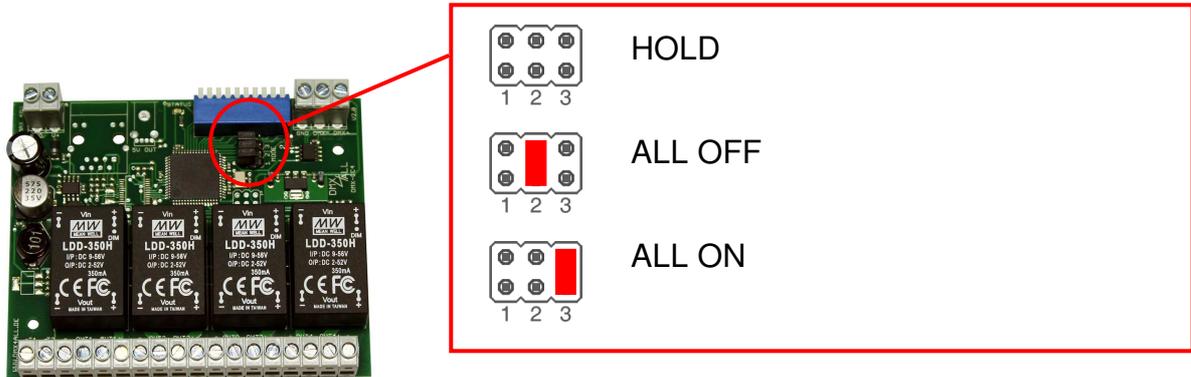


Note that the channel assignment differs when the master dimmer is activated!

**SAVE** stores the configuration respectively restores the Factory Settings.

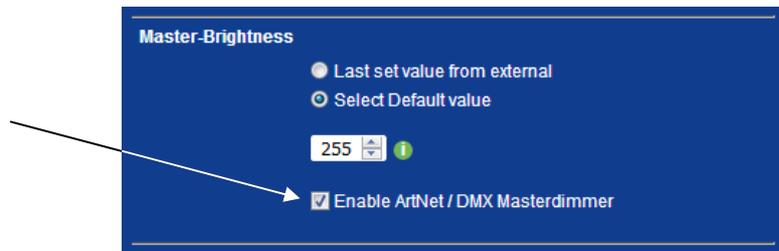
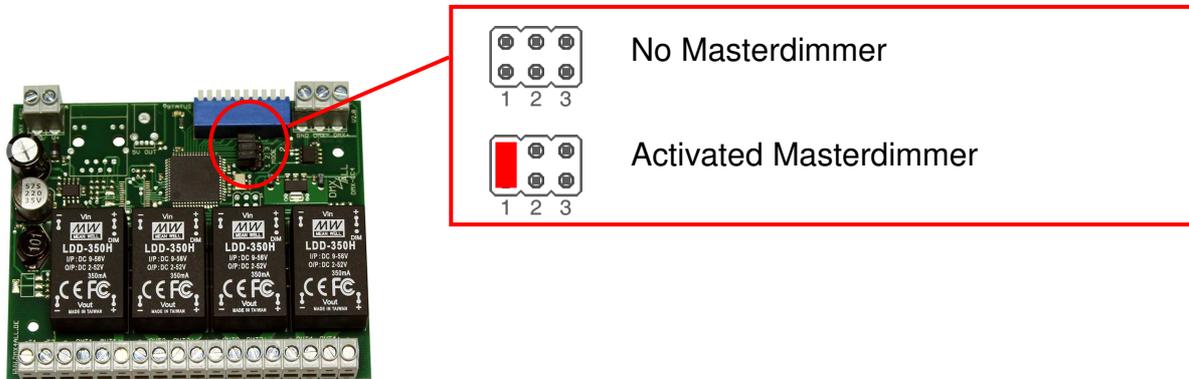
## Set DMX-FAIL-Option

The ArtNet-LED-Dimmer CC4 has several DMX-FAIL-Options adjustable via Jumper 2 and 3 as shown:



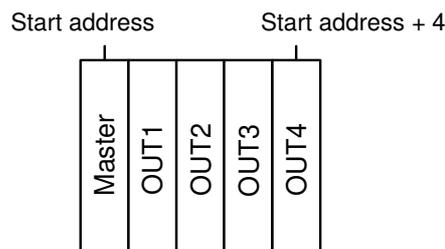
## Activate Master-Dimmer

The ArtNet-LED-Dimmer CC4 has a Master-Dimmer which can be activated. The activation occurs via the jumper or web interface:

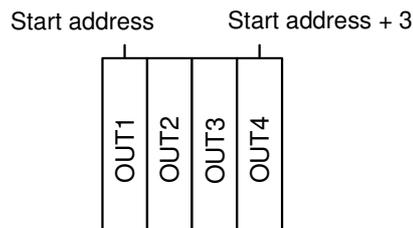


## Masterdimmer

The ArtNet-Channel respectively the DMX-Channel, which is set as start address, is used as master dimmer for all 4 outputs. The address assignment is as follows:



If no Master-Dimmer is activated the address assignment is as follows:



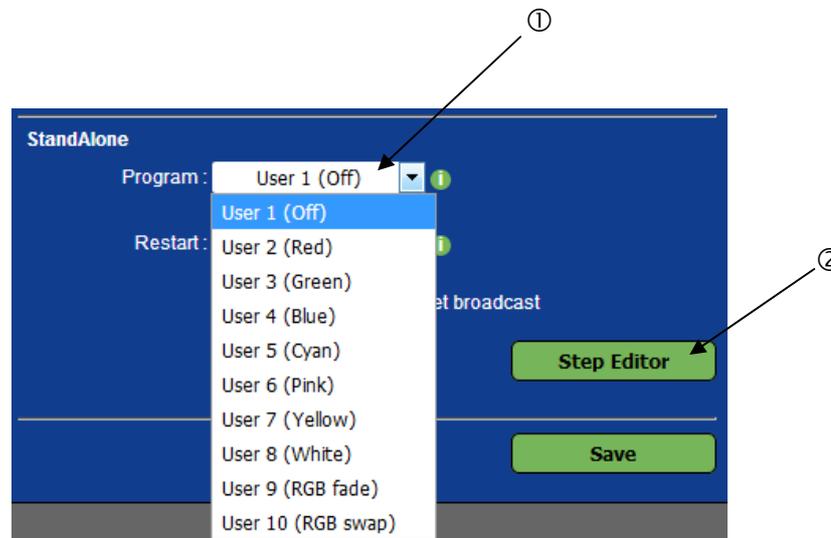
## User defined color changes / programs

The **ArtNet-LED-Dimmer CC4** has 10 user defined color changes / programs (User Color) allows generating free defined color replays with up to 16 steps.

Within the delivery status these programs are predefined for an operation with a RGB-LED-Stripe. All programs (User 1- User 10) are freely editable.

### *Editing per web browser*

To edit a program this must be selected in program in the main menu ① and after that call up with *Step Editor* ②.



By clicking *Step Editor* in the main menu of the web interface the *User Step Editor* for editing user defined color changes / programs is shown:

**User Step Editor**

Program Name:

**Step List Overview**

	FADE	WAIT	CH 1	CH 2	CH 3	CH 4
Step 1 :	10	10	0	0	0	0
Step 2 :						
Step 3 :						
Step 4 :						
Step 5 :						
Step 6 :						
Step 7 :						
Step 8 :						
Step 9 :						
Step 10 :						
Step 11 :						
Step 12 :						
Step 13 :						
Step 14 :						
Step 15 :						
Step 16 :						

**Add a new Step**

Fade Time :  \*0,1s (max. 65534)

Wait Time :  \*0,1s (max. 65534)

Channel 1 :  0 - 255

Channel 2 :  0 - 255

Channel 3 :  0 - 255

Channel 4 :  0 - 255

Use actual channel values

In *Step List Overview* a table of all current 16 steps is shown (Step1 up to step16). Not used steps are displayed in the table with none value.

Each step consists of a fade time (Fade Time), a wait time (Wait Time) and the 4 brightness values for the outputs (CH1 – CH4).

## ***Name the user defined programs***

For an easy recognition of the created program it is named. The name is used for calling in the Remote-App.

## ***Delete the user defined programs***

By clicking *Clear* the whole table is deleted.

## ***Create steps***

In *New color Step* the values for a new step are entered.

The *Fade Time* is in 0.1s units between 0 and 65000. A value of 10 corresponds to 1 second and a value of 600 corresponds to 1 minute.

The *Wait Time* is also in 0.1s units between 0 and 65000. A value of 10 corresponds to 1 second and a value of 600 corresponds to 1 minute.

The brightness value 0-255 for the outputs 1 until 4 is entered in fields *Channel 1* up to *Channel 4*.

By clicking *Add* the step after the last assigned step is added and transferred to then table.

If the selection box *Use actual channel values* is activated, not the brightness values of the entering fields are transferred but the current set values.

So it is possible to adjust any color and transfer this as step into the user defined color changes. The *Fade Time* and *Wait Time* are to enter furthermore.



It is necessary to store the table with *Save*. If *Save* is not executed the settings are not transferred permanently.

## ***Store the user defined programs***

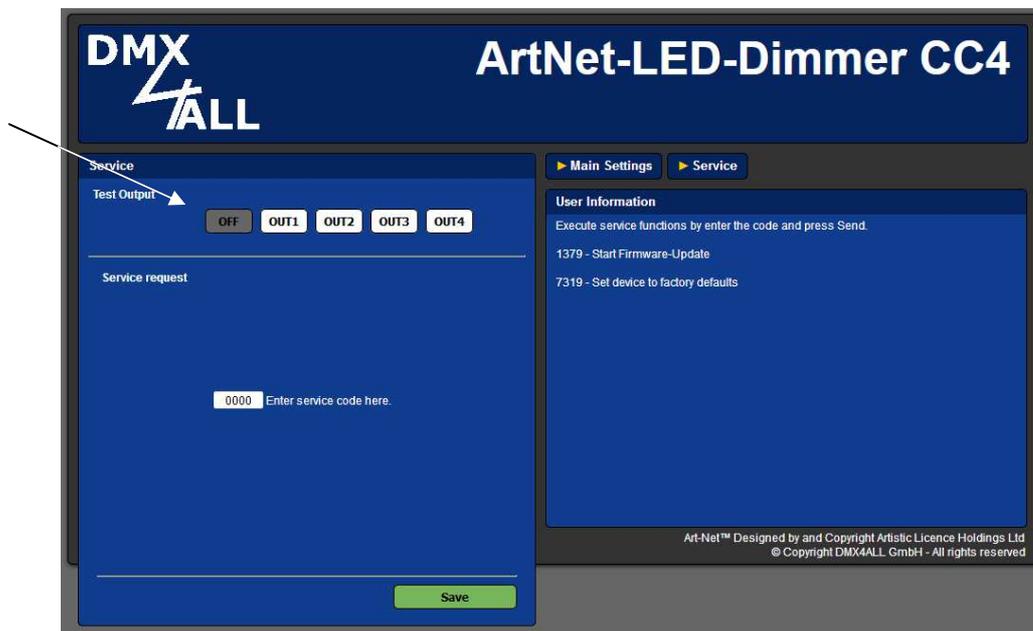
By clicking *Save* the table is stored within the ArtNet-LED-Dimmer CC4. After turning on the device the color change will be replayed as long as an adjustment per Ethernet, e.g. via App, occurs.

## Check outputs

The **ArtNet-LED-Dimmer CC4** offers a test output to check the connected LEDs easily.

The service side has Test Output buttons OFF, OUT1, OUT2, OUT3 and OUT4.

By clicking the button the according output switches to 100% on and the connected LED can be checked.



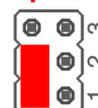
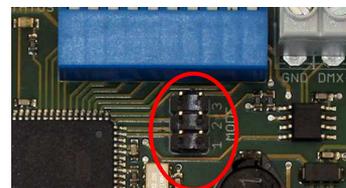
To use the test output it is not allowed that another control signal is send to the ArtNet-LED-Dimmer CC4! An external control signal is treated with priority.

## Factory Reset

The **ArtNet-LED-Dimmer CC4** can be reset in to the delivery status.

Please proceed as follows:

- Turn off the device
- Place MODE-Jumper J1 to J2 as shown
- Turn on the device
- Now the reset is executed and the LEDs at the RJ45-Connection flashes 3x simultaneously as confirmation



Alternatively the delivery status can be rebuilt via a web browser:

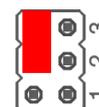
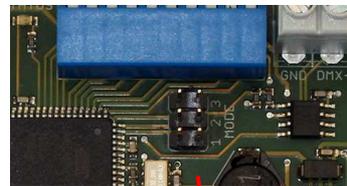
- Open within the web browser *Service*
- Enter the code „7319“ for Factory Reset in the Service Request enter field
- Click *Save*
- Following wait minimum 10 seconds

## Execute Firmware-Update

The **ArtNet-LED-Dimmer CC4** has an Update-Function, which enables transferring prospective firmware versions.

Proceed as follows:

- Turn off the device
- Place jumper as shown to J2 to J3
- Turn on the device
- The yellow LED flashes
- Generate net work connection to PC
- Start Update-Software **DMX4ALL LAN-Updater**
- Select the **ArtNet-LED-Dimmer CC4** from list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the update has finished
- Place MODE-Jumper back into the original position

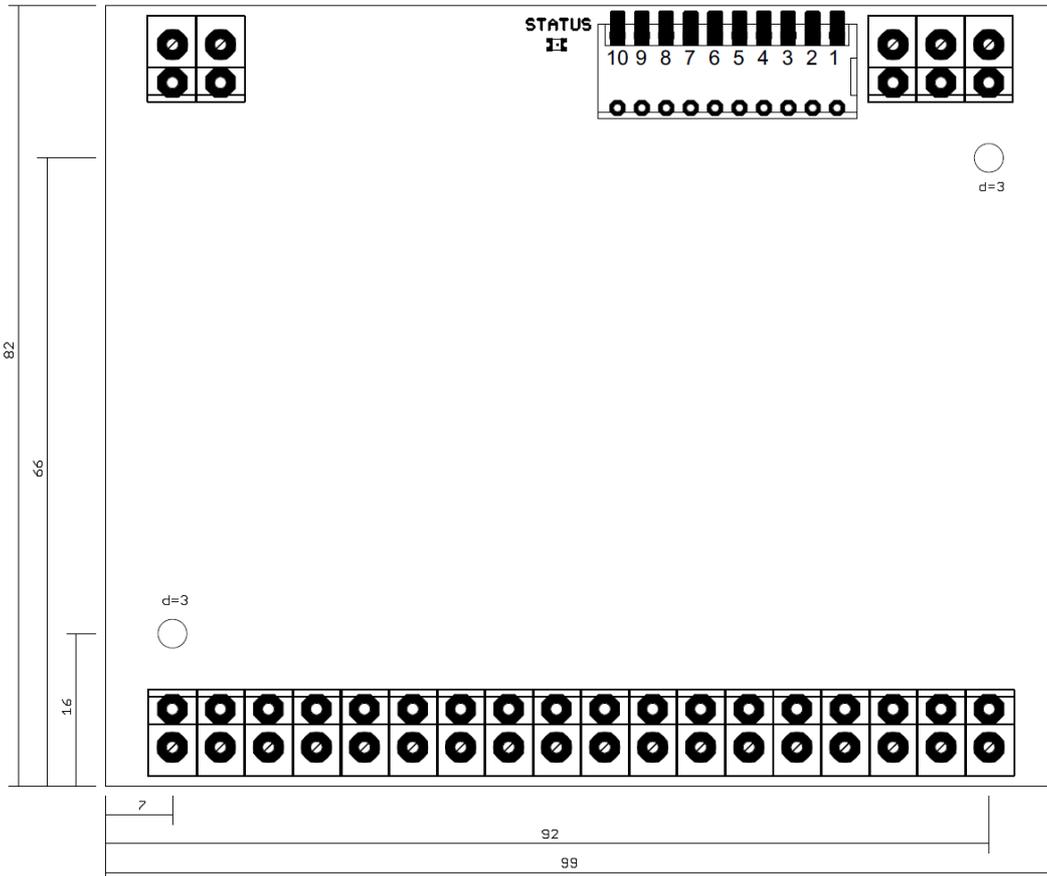


If an error occurs you can begin from the start anytime.

Alternatively, you can activate the firmware update via web browser:

- Open within the web browser *Service*
- Enter the service code „1379“ and click *Send*
- Start update software **DMX4ALL LAN-Updater**
- Select **ArtNet-LED-Dimmer CC4 4** from list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the update has finished
- Click *Back* within the web browser

# Dimensions



(all details in mm)

## Accessories

### Top hat rail mounting 1050



### Constant current LED module

- Constant current LED-Driver LDD-300H
- Constant current LED-Driver LDD-350H
- Constant current LED-Driver LDD-500H
- Constant current LED-Driver LDD-600H
- Constant current LED-Driver LDD-700H
- Constant current LED-Driver LDD-1000H
- Constant current LED-Driver LDD-1200H
- Constant current LED-Driver LDD-1500H



## 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 depends on this device.

## Disposal



Electrical and electronic products must not be disposed of 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.



DMX4ALL GmbH  
Reiterweg 2A  
D-44869 Bochum  
Germany

Last changes: 30.11.2018

© Copyright DMX4ALL GmbH

All rights reserved. No part of this manual may be reproduced in any form (photocopy, pressure, microfilm or in another procedure) without written permission or processed, multiplied or spread using electronic systems.

All information contained in this manual was arranged with the greatest care and after the best knowledge. Nevertheless, errors are to be excluded not completely. It is pointed out that neither a guarantee nor the legal responsibility or any liability for consequences which are due to incorrect information is assumed. This document does not contain assured characteristics. The guidance and the features may be changed at any time and without previous announcement.