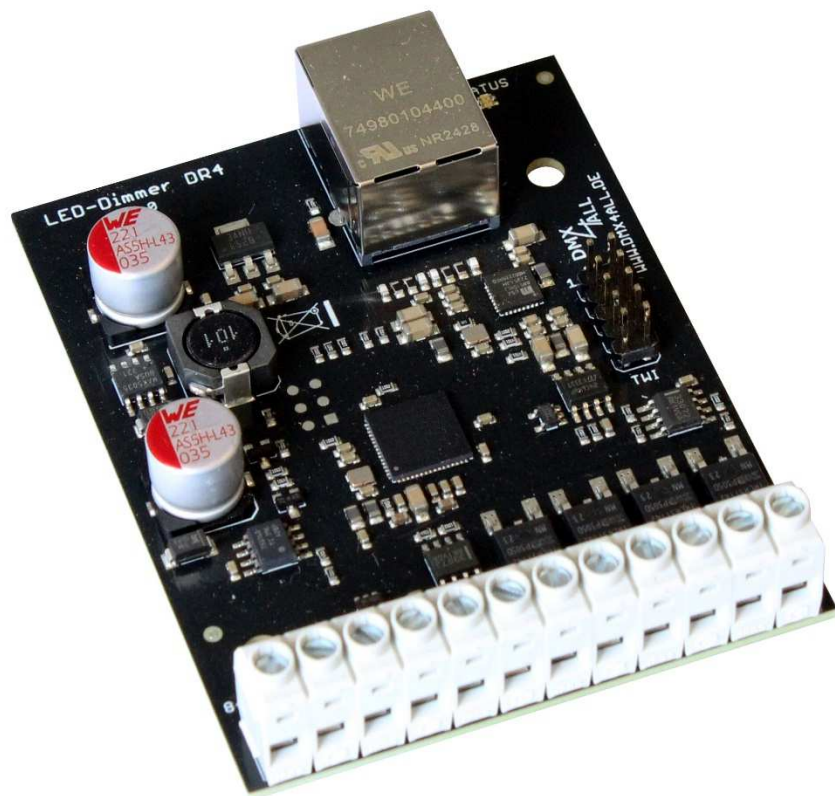


LED-Dimmer DR4F



DMX[®]
4
ALL



For your own safety, please read this user manual and warnings carefully before installation.

Content

Description.....	3
Data Sheet.....	4
Content	4
Model Overview	5
Connection	6
Multi-color LED-Strips	6
Single-Color LED-Strips	7
Control via ArtNet.....	8
Control via DMX	9
Control via ArtNet and DMX.....	10
Control via ArtNet and output via DMX	11
LED-Display.....	12
Device Settings with Web-Interface.....	13
Set IP via IP-Configurator	13
Set PC's IP.....	14
Device Settings	15
Login for Web-Interface.....	18
Master Dimmer	19
User defined color changes / programs.....	20
Control via Smart Control	23
Check connected LEDs	24
RDM	25
Factory Reset	27
Firmware-Update	28
Dimension.....	29
Accessories	30
CE-Conformity	31
Disposal.....	31
Warning	31
Risk-Notes.....	32

Description

The LED-Dimmer DR4F is a compact LED-Dimmer controlling 4 separate LED outputs. These can be used for RGB+W or for single, single-colored LED-Strips.

The LEDs connection occurs via removable screw clamps.

Via a RJ45-Connection occurs the connection to Ethernet (ArtNet network).

NEW FEATURE Top hat rail housing flat

The LED-Dimmer DR4F is supplied in a low-profile DIN-rail housing for space-saving mounting.

High Power Constant Voltage Outputs

The outputs can drive a current up to 10A.

So, a load of maximum 120W (12V) or rather 240W (24V) results.

Adjustable Output Frequency

The output frequency at the LED outputs is adjustable between 250Hz and 4000Hz.

Ten user defined Color Changes / Programs

The LED-Dimmer DR4F is equipped with more than 10 user defined color changes. These can be created via the web browser.

Switchable LED-Display

The LED-Displays at the LED-Dimmer DR4F are switchable via ArtNet-Command (AcLedMute) or time-controlled.

Most of all this is very helpful on stages to avoid disturbing "light-points".

Control via Browser with Colorwheel or App

The output control is available via an integrated web interface with a Colorwheel. Alternatively, each other app which supports Art-Net can be used.

NEW FEATURE DMX Control

The outputs can be controlled via Art-Net™ or DMX. The set priority defines which signal should be used, if both signals are connected.

RDM Support

With RDM via ArtNet or DMX the LED-Dimmer DR4F provides a device independent configuration.

Free RDM-Software

To set the RDM parameter our free software RDM-Configurator is on our web-site available as free download.

Firmware-Update-Function

To use future functions, the LED-Dimmer DR4F is equipped with a Firmware-Update-Function. This can be started from a web browser, so no direct access to the device is necessary!

Data Sheet

Power supply:	12-24V DC The power supply must be equal with LED-Strip !
LED-Voltage:	12-24V DC (no AC voltage !)
Protocol:	Art-Net™ DMX512 RDM DMX4ALL Commands
LED-Output:	4x (R/G/B/W) max. each 10A in sum 16A with common anode (+) common power supply / Constant voltage
PWM-Resolution:	256 steps (8-Bit), linear
PWM-Duty Cycle:	0-100%
PWM-Frequency:	250 Hz / 500 Hz / 1000 Hz / 2000 Hz / 4000 Hz
DMX-Support:	DMX512 input or output Priority selectable
Configuration:	via web browser
Connection:	RJ45 Ethernet Screw terminals
Version:	Top hat rail housing flat
Dimension:	70mm x 90mm x 33mm

Content

- 1x LED-Dimmer DR4F
- 1x Quick guide german and english

Model Overview

The different versions of the LED-Dimmer DR4 series provide a different range of functions and are available in different versions.

Model	LED-Dimmer DR4	LED-Dimmer DR4F	LED-Dimmer DR4+
Version	Board	Top hat rail housing flat	Top hat rail housing
Dimension	60,2mm x 82mm x 20mm	70mm x 90mm x 33mm	70mm x 90mm x 60mm
LED-Outputs	4	4	4
Output Type	Constant Voltage	Constant Voltage	Constant Voltage
Universes	1	1	1
RGB-Status-LEDs	1	✗	3
DMX IN / OUT	✓	✓	✓
RDM via DMX	✓	✓	✓
RDM via ArtNet	✓	✓	✓
Configuration	Web-Interface / RDM		

✗ Not available in this version

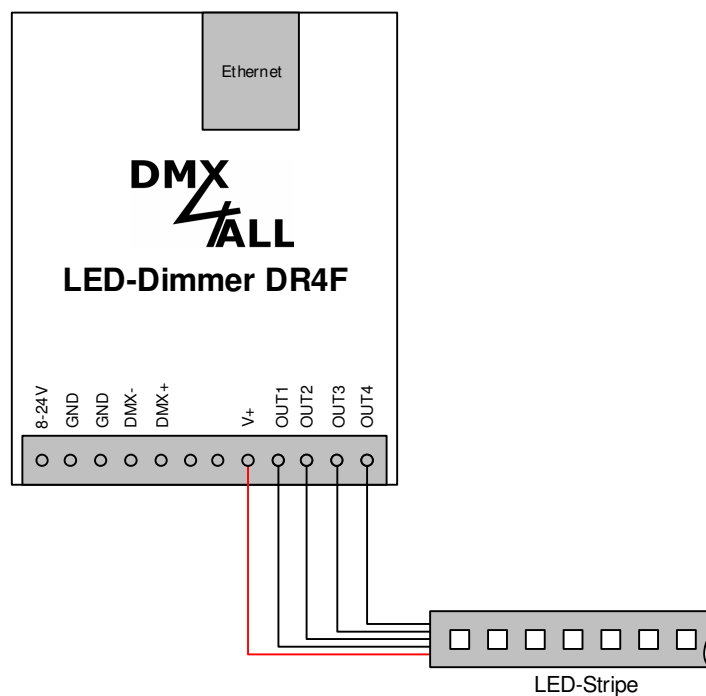
✓ Available in this version

Connection

Multi-color LED-Strips

Connecting multi-color LED-Strips like e.g. RGB or RGBW the LED-Stripe must have a common power supply.

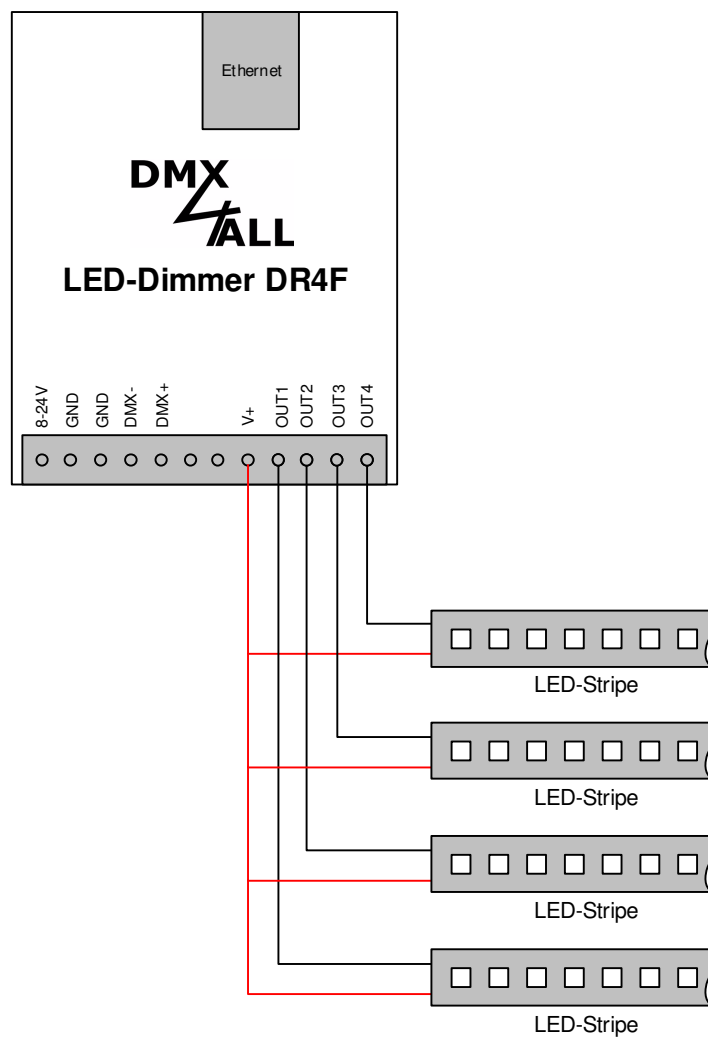
The connection must be made in accordance with the following sketch:



Single-Color LED-Strips

To connect single color LED-Strips like white, the single LED-Strips must be connected with the same power supply (V+). The single negative LED-Connections are to route to the OUT connections.

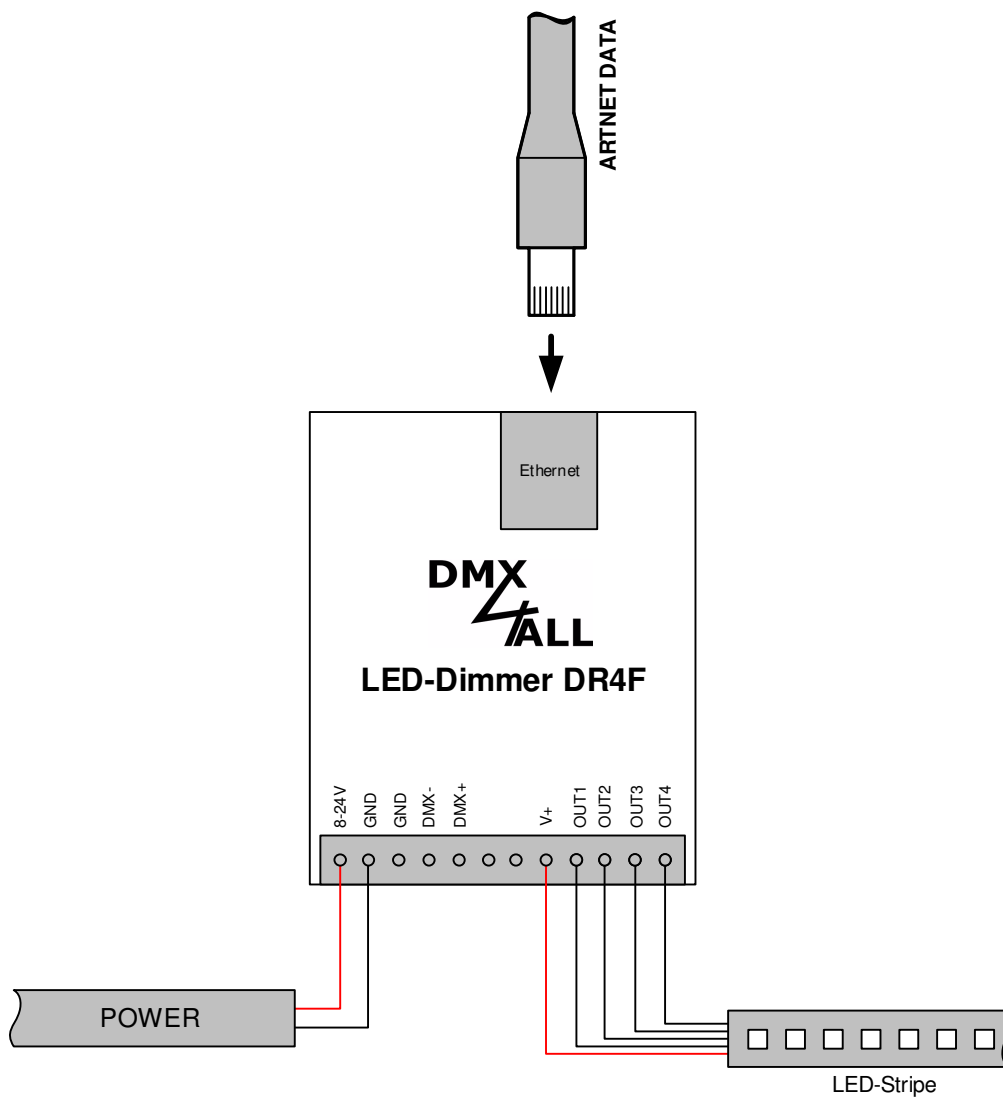
The connection must be made in accordance with the following sketch:



Control via ArtNet

In case that the LED-Dimmer DR4F is to control via ArtNet, the connection is to made via the ArtNet network via the Ethernet connection.

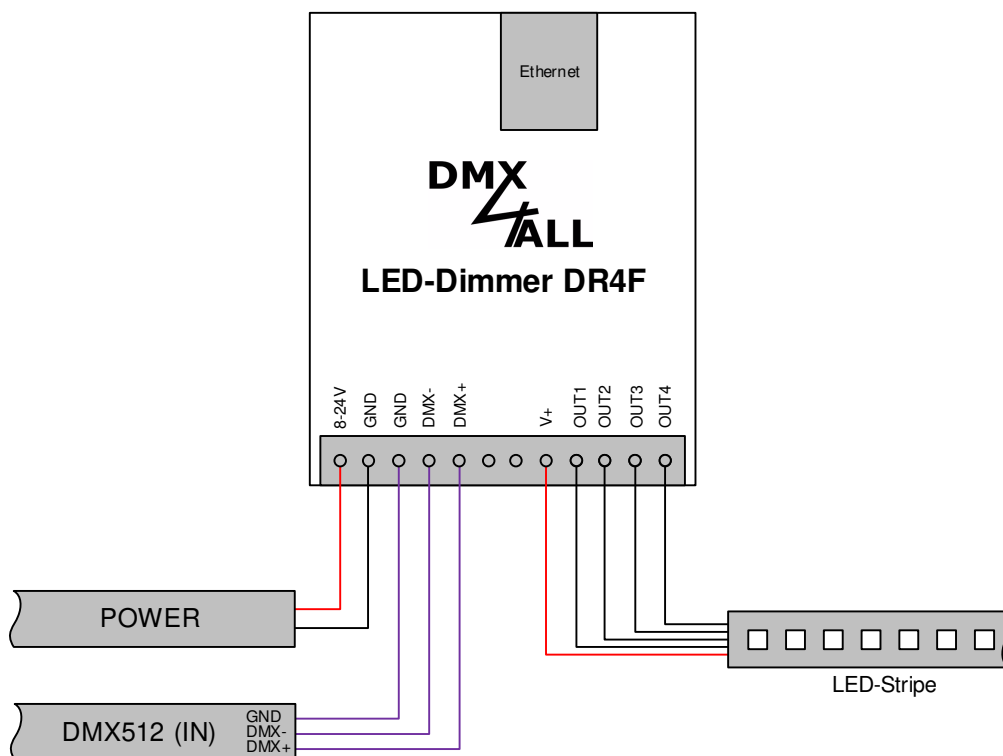
The connection must be made in accordance with the following sketch:



Control via DMX

If the control should occur via DMX, the connection to the DMX-Signal is needed via the DMX terminals.

The connection must be made in accordance with the following sketch:

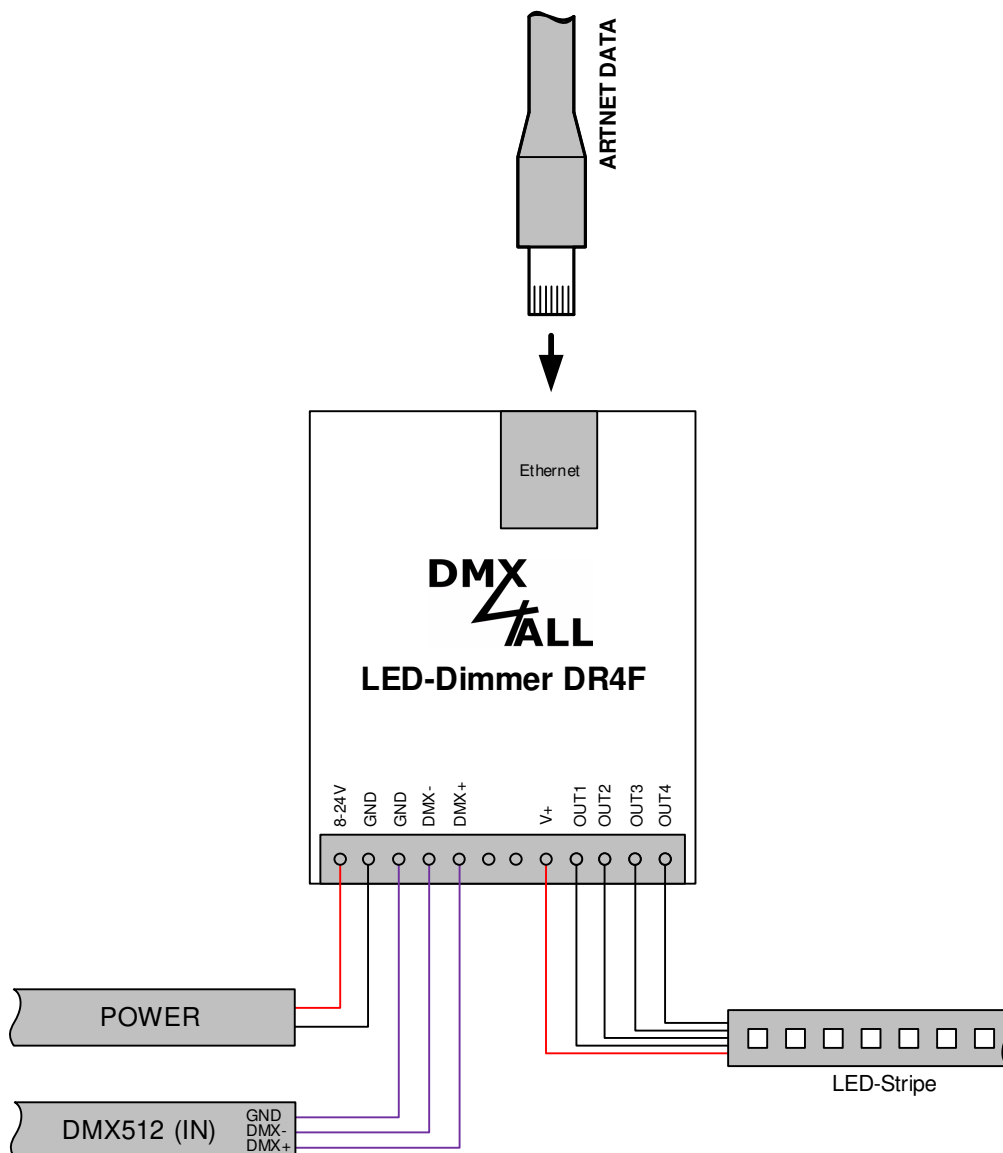


The DMX connection must be configured to DMX-IN!
(delivery state)

Control via ArtNet and DMX

Controlling the LED-Dimmer DR4F via ArtNet and DMX, the two signal sources can be merged (HTP merge), or one of the two can be prioritized.

The connection must be made in accordance with the following sketch:

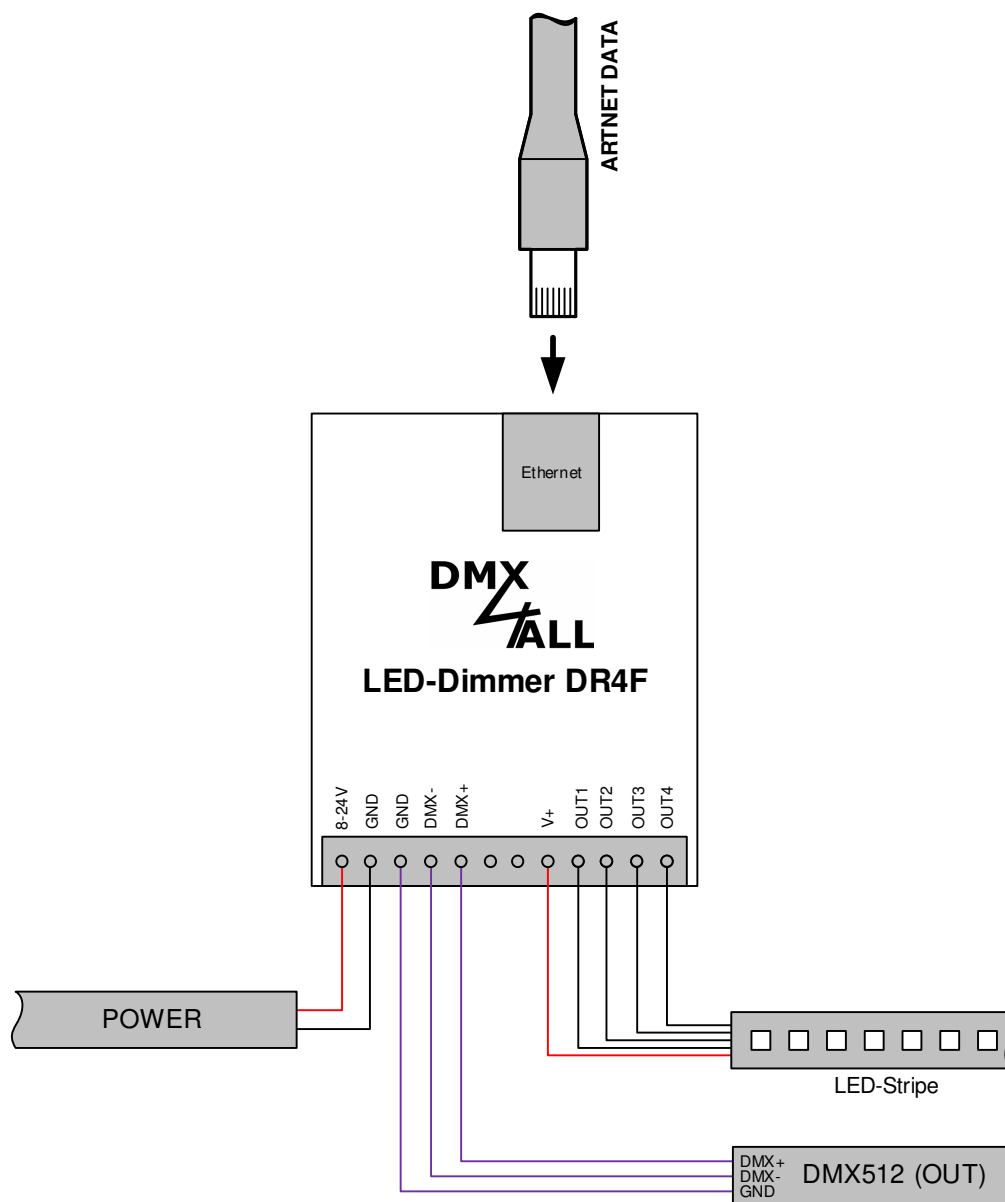


The DMX connection must be configured to DMX-IN!

Control via ArtNet and output via DMX

Control the LED-Dimmer DR4F via ArtNet the output of the DMX universe can occur on the DMX connection.

The connection must be made in accordance with the following sketch:



The DMX connection must be configured to DMX-OUT!

LED-Display

A green and a yellow LED on the Ethernet port, show the network activity.

Green Ethernet-LED

Off	Power supply not connected / Display in MUTE mode
Flashes	No Ethernet connection available
Lights	Ethernet connection available

Yellow Ethernet-LED

Off	No data transfer / Display in MUTE mode
Flashes	Data transfer takes place

Device Settings with Web-Interface

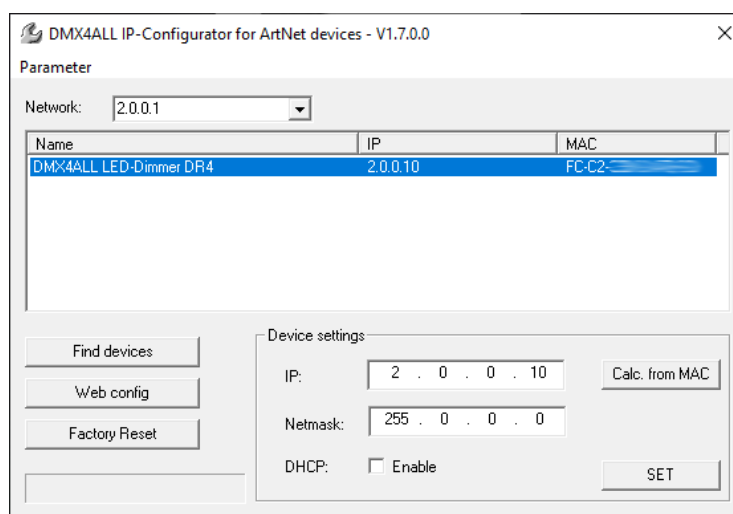
The device settings of the **LED-Dimmer DR4F** occur via a web interface, which can be called up via any web browser.

Before calling the web interface, the IP of the LED-Dimmer DR4F must match to the existing network. The IP can be set via the IP configurator or the PC must be set to the ArtNet network.

Set IP via IP-Configurator

The **IP Configurator** allows setting the IP address and net-mask even if the network setting of the PC is not in the IP range of the LED-Dimmer DR4.

- Install the IP-Configurator
- Connect the LED-Dimmer DR4F with the network and turn Dimmer on
- Start the software IP-Configurator



- The LED-Dimmer DR4 is shown in the list
- Select the device by clicking the entry „LED-Dimmer DR4“ (click)
- Enter the new *IP* and *Netmask*
- Click *SET*

Set PC's IP

Within the delivery state of the ArtNet LED-Dimmer DR4, the assigned **IP-Address** is **2.0.0.10** used for the web interface.

Set the computers network card to this IP range, to access the IP address 2.0.0.10 via a web browser.



The network setting of the computer must be set to the **IP address 2.0.0.1** and the **subnet mask 255.0.0.0**.

For further details, please take a look to the Art-Net™ specification.



Device Settings

To get the following configuration page, open the web browser and enter within the address bar the IP for the LED-Dimmer DR4F (delivery status: 2.0.0.10):

The screenshot displays the web interface for the DMX4ALL LED-Dimmer DR4F. The interface has a dark blue header with the DMX4ALL logo and the product name 'LED-Dimmer DR4'. Below the header, there are three tabs: 'Main', 'Smart Control', and 'Service'. The 'Main' tab is selected, showing the 'Main Settings' section. This section includes several configuration options: 'Network Settings' with fields for DHCP-Mode (set to 'Disable'), IP Address (2.0.0.10), Netmask (255.0.0.0), Gateway (0.0.0.0), Short Name (LED-Dimmer DR4), Long Name (DMX4ALL LED-Dimmer DR4), and Net / SubNet / Port (0 / 0 / 0); 'DMX' settings with Start-Address (1) and DMX Mode (DMX IN / Merge with); 'Master Brightness' with PowerOn Value (255) and an 'Enable ArtNet / DMX Masterdimmer' checkbox; 'Output Frequency' set to 1000 Hz; 'StandAlone' settings with Program (User 1 (Off)) and Restart (Never), plus a 'Send program via ArtNet broadcast' checkbox; and 'Advanced Settings' with an 'LED-Indicator' checkbox (Enable auto off). A 'Step Editor' button is located below the StandAlone settings, and a 'Save' button is at the bottom right. On the right side of the interface, there is a 'User Information' section with text explaining the device's capabilities and setup instructions. At the bottom right, there is a copyright notice: 'Art-Net™ Designed by and Copyright Artistic Licence Holdings Ltd © Copyright DMX4ALL GmbH - All rights reserved'.

DHCP-Mode:

With the DHCP mode setting, DHCP can be activated (enable) or deactivated (disable) for the LED-Dimmer DR4. If DHCP is enabled, the assignment of the *IP Address*, the *Netmask* and the *Gateway* will be taking over by the DHCP server of the router.



To run the LED-Dimmer DR4F permanently and without errors we recommend the use of a static IP address (DHCP mode: Disable).

IP Address, Netmask and Gateway

The *IP Address*, *Netmask* and *Gateway* input fields are used to set the static network address of the LED-Dimmer DR4.

If no network configuration is assigned by the DHCP server within 10 seconds, this configuration is automatically used.



Each device needs an own **IP-Address** so the assignment occurs clearly within the network. Please use in accordance to the ArtNet-Specification the IP-Address 2.x.x.x or 10.x.x.x with the **net mask** 255.0.0.0 .

Any other IP address can also be used, such as 192.168.1.10 .
In this case the net mask must be adjusted to 255.255.255.0 !

Short-Name and Long-Name

With the input fields Short-Name and Long-Name, the LED-Dimmer DR4F gets an individual name in the network. The short name is limited to 18 characters and the long name to 64 characters.

Net / SubNet / Port

The settings for Net, Subnet and Port defines the ArtNet universe to be received and must be used as aim in case of sending the DMX data.

Start-Address / DMX Mode

The start address specifies the channel in the DMX-Universe on which the LED-Outputs are to be addressed. The DMX-Start address is output 1 and following addresses are outputs 2-4.

The DMX mode defines the function of the DMX connection. This channel can be used as DMX-IN or DMX-OUT.

Master Brightness

The Master Dimmer is to activate if a further DMX channel should be used to control all other outputs simultaneously.

This is possible for the Stand-Alone operation as well as for the ArtNet-/ DMX operation. The first channel is the Master-Channel.

The adjustable **PowerOn Value** value specifies the value is valid for the master dimmer after turning on.

Output Frequency

The PWM output frequency of the LED outputs is adjustable between the values 250 Hz / 500 Hz / 1000 Hz / 2000 Hz / 4000 Hz. The selected values are used all over LED outputs.

StandAlone allows running without connection to an ArtNet- / DMX-Controller. The set program is executed by turning on the device. If data are received from an ArtNet- / DMX-Controller the program shut down automatically and the outputs assume the values specified by the received ArtNet- / DMX-Signal.

Restart determines after which time the StandAlone-Program will be started, if no ArtNet-Signal is received any longer.

Send program via ArtNet broadcast is to use for StandAlone programs via ArtNet. The outputted value is send broadcast via ArtNet to the set Net/SubNet/Universe started from the defined start address.

So it is possible to run several LED-Dimmer synchron by ArtNet.

A user-friendly color gradient can be used under **User Color**. The **User Color Setup** will be described on the following pages.

If the option **LED indicator auto off** is activated, the LEDs at the device are shut down after 10 minutes of operation with a permanent network connection.

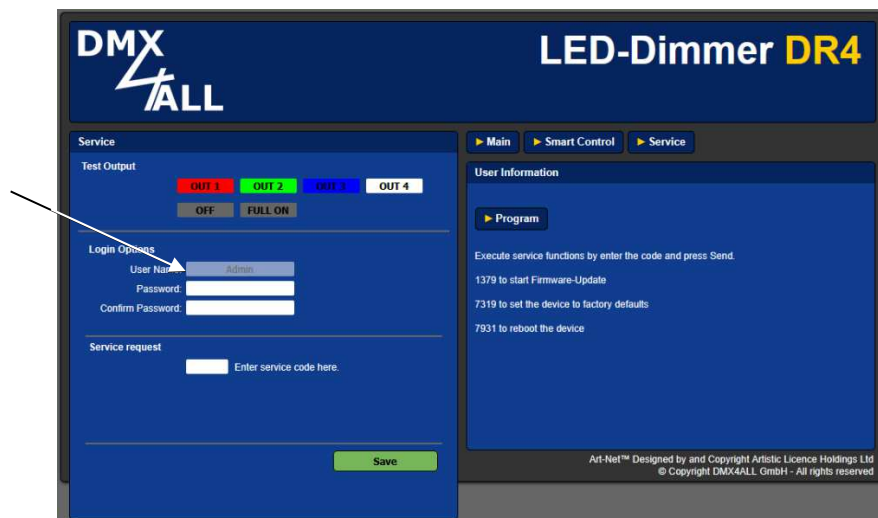
SAVE stores the configuration respectively restores the Factory Settings.

Login for Web-Interface

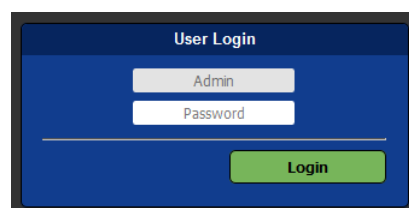
The LED-Dimmer DR4F offers the option to create a login for the web interface.

A **password** can be named on the service site under login options.
An empty password allows the access without password request.

The **User Name** is fixed, can't be changed and is always „Admin“.



If a password is defined, it will be queried, to get the web surface.

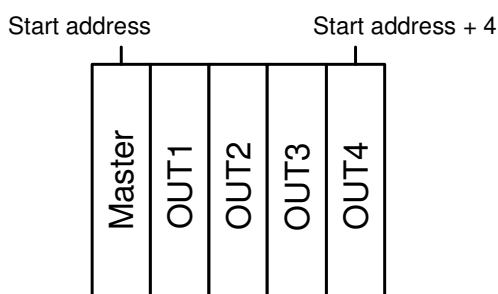


If a password is assigned and is no longer known, a Factory Reset must be executed to reset and renew the password. In this case, all settings are also reset to the delivery state!

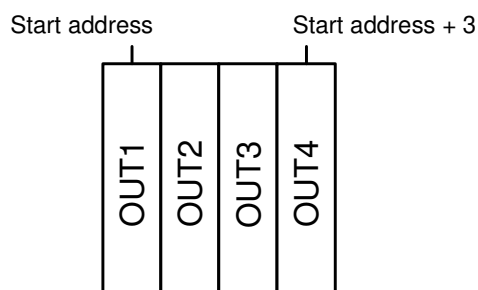
Master Dimmer

The **LED-Dimmer DR4F** has a Master-Dimmer to dim all outputs simultaneously. The Master-Dimmer is to activate via web configuration.

The ArtNet-Channel, set as start address, is used as Master-Dimmer for all 4 outputs. The assignment is as follows:



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



It is also possible to dim the replayed StandAlone-Program respectively the user defined color changes.

The Default-Value specifies the value the Master-Dimmer works with after turning on the device.



Furthermore, it is possible to change the Master-Dimmer via ArtNet during the StandAlone-Program replay. In this case all values for the outputs have to be 0!

If an output value higher 0 is received the replay shuts down and a Live-Output of the received data occurs.

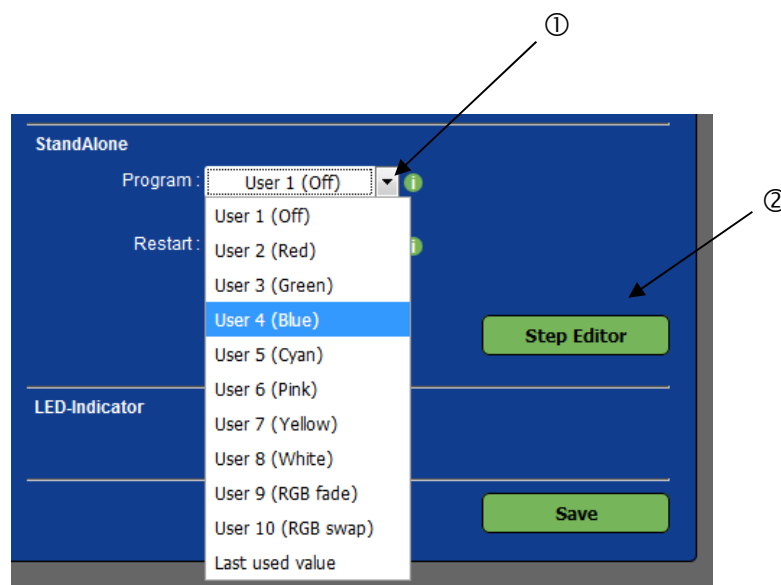
User defined color changes / programs

The **LED-Dimmer DR4F** has more than 10 user defined color changes / programs (User Color) allowing to create free defined color replays up to 16 steps.

The delivery status has predefined programs for the operation with RGB-LED-Stripes. All programs (User 1 – User 10) are editable freely.

Editing via web browser

To edit a program it must be selected in the main menu under program ① and then the program *Step Editor* ② is to call up.



By selecting *Step Editor* in the main menu of the web interface the dialog window USER STEP EDITOR is shown for editing the user defined color changes / program:

DMX4ALL LED-Dimmer DR4

User Step Editor

Program Name:

Step List Overview

	FADE	WAIT	OUT 1	OUT 2	OUT 3	OUT 4
Step 1 :	10	10	0	0	255	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)
 Output 1 : 0 - 255
 Output 2 : 0 - 255
 Output 3 : 0 - 255
 Output 4 : 0 - 255

☐ Use actual output values

User Information

The LED-Dimmer DR4 provide a Step Editor.
 Up to 16 steps can be programmed for each program.
 Each step provide a FADE time, a WAIT time and for each output a channel value.
 To ADD a step with the parameters inside the edit boxes press the Add Step button.
 To CLEAR all steps inside the table press the Clear all Steps button.
 All inputs are made without storing them !
 To SAVE the Step table press the Save all Steps button and wait until the operation is done.

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In *Step List Overview* a table shows the 16 current steps (Step1 up to Step 16). Not assigned steps are not shown in the table.

Each steps contains a fade time (FadeTime), a wait time (WaitTime) and 4 brightness values for the outputs (OUT1 - OUT4).

Name user defined programs

For an easy recognition of the created program it is named. This name is used for calling up within the Remote-App.

Delete user defined programs

By clicking *Clear all Steps* the whole table is deleted.

Create steps

In *Add 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 complies with one second and a value of 600 complies with 1 minute.

The *Wait Time* is the same in 0,1s units between 0 and 65000. A value of 10 complies with one second and a value of 600 complies with 1 minute.

In the fields *Channel 1* up to *Channel 4* the brightness values 0-255 for the outputs 1 up to 4 is entered. A value of 255 complies with 100%.

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

By activating the selecting box *Use actual channel values* the brightness values from the entering fields are not transferred but the values currently set.

It is possible to set a random color and to transfer it as step in the user defined color change. The *Fade Time* and *Wait Time* are to set also.



The table is to save with *Save*. If *Save* is not executed the settings are not transferred permanently.

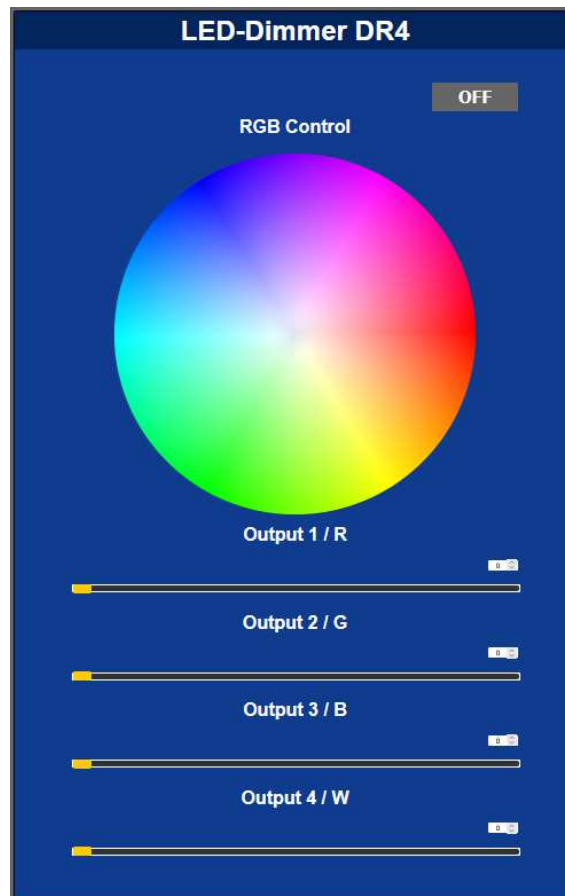
Save user defined programs

With click to *Save all Steps* the table is stored in the LED-Dimmer DR4F. After turning on the device the color change is replayed until another setting occurs via Ethernet e.g. in the App.

Control via Smart Control

The **LED-Dimmer DR4F** offers the ability to control the outputs via the web interface using a color picker or slider.

For this, the site Smart Control must be called up:



Moving the PC-mouse over the color wheel transfers the color to the sliders and the value display. By left-click the current color value will be transferred to the LED outputs of the **LED-Dimmer DR4F**.

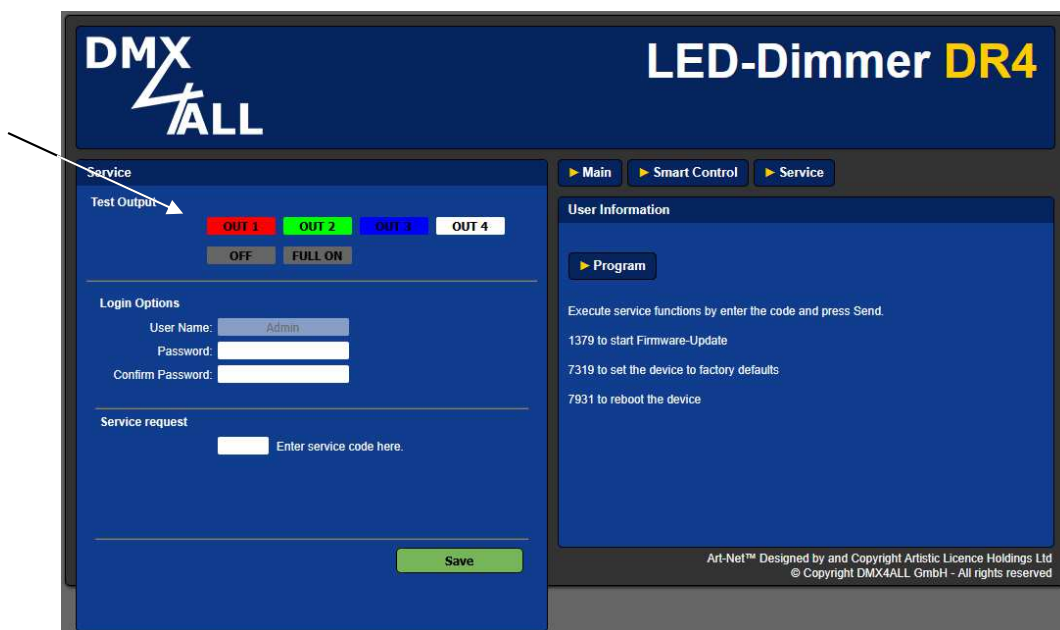
By moving a slider the value display is updated. Upon release the current value is transferred to the LED output of the **LED-Dimmer DR4F**.

Check connected LEDs

The **LED-Dimmer DR4F** provides a test output function, to check the connected LEDs easily.

On the web-interface page under *Service* the function *Test Output* with OUT 1, OUT 2, OUT 3, OUT 4, OFF and FULL ON buttons is available.

By clicking the button, the LEDs on the correspondents are switched on.



No ArtNet or DMX control signal must be sent to the LED-Dimmer DR4F during test output! An external control signal always takes precedence over test output.

RDM

RDM is the short form for **R**emote **D**evice **M**anagement.

As soon as the device is within the system, device-dependent settings occur remotely via RDM command due to the uniquely assigned UID. A direct access to the device is not necessary.

This device supports the following RDM commands:

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
DISC_UNIQUE_BRANCH	✓			E1.20
DISC_MUTE	✓			E1.20
DISC_UN_MUTE	✓			E1.20
DEVICE_INFO			✓	E1.20
SUPPORTED_PARAMETERS			✓	E1.20
PARAMETER_DESCRIPTION			✓	E1.20
SOFTWARE_VERSION_LABEL			✓	E1.20
DMX_START_ADDRESS		✓	✓	E1.20
DEVICE_LABEL		✓	✓	E1.20
MANUFACTURER_LABEL			✓	E1.20
DEVICE_MODEL_DESCRIPTION			✓	E1.20
IDENTIFY_DEVICE		✓	✓	E1.20
FACTORY_DEFAULTS		✓	✓	E1.20
DMX_PERSONALITY		✓	✓	E1.20
DMX_PERSONALITY_DESCRIPTION			✓	E1.20
DISPLAY_LEVEL		✓	✓	E1.20
MODULATION_FREQUENCY		✓	✓	E1.37
MODULATION_FREQUENCY_DESC			✓	E1.37
LOCK_STATE		✓	✓	E1.37
LOCK_STATE_DESCRIPTION			✓	E1.37
LOCK_PIN		✓		E1.37

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
SERIAL_NUMBER ¹⁾			✓	PID: 0xD400

1) Manufacturer depending RDM control commands (MSC - Manufacturer Specific Type)

Manufacturer depending RDM control commands:

SERIAL_NUMBER

PID: 0xD400

Outputs a text description (ASCII-Text) of the device serial number.

GET Send: PDL=0
 Receive: PDL=21 (21 Byte ASCII-Text)

Factory Reset

To reset the **LED-Dimmer DR4F** into the delivery status please proceed as follows:

Restore the delivery status via **web browser**:

- Open the service site in the web browser
- Enter the service code „7319“
- Click *Save*
- Following please wait minimum 10 seconds



If a reset is executed via website, the IP-Address as well as the subnet mask are reset. A return can't take place always. If necessary please set the IP again (see *Set the IP with IP-Configurator* or *Set IP with web browser*).

Restore the delivery status via **DMX4ALL LAN-Updater**:

- Turn on the device
- Start software **DMX4ALL LAN-Updater**
- Click **FIND**
- Select the **LED-Dimmer DR4** from list
- Click **FACTORY RESET**
- The reset will be executed now

Restore the delivery status via **DMX4ALL IP-Configurator**:

- Turn on the device
- Start software **DMX4ALL IP-Configurator**
- Click **FIND**
- Select the **LED-Dimmer DR4** from list
- Click **FACTORY RESET**
- The reset will be executed now

Firmware-Update

The **LED-Dimmer DR4F** has an update-function which enables transferring prospective firmware-versions.

Proceed as follows:

- Turn off the device (**No** power supply connected)
- Start update software **DMX4ALL LAN-Updater**
- Generate a network connection to PC
- Turn on the device (power supply on)
- The yellow LED lights for ca. 3 seconds
- During the yellow LED is on press **FIND**
- Select the **LED-Dimmer DR4** from list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the update has finished

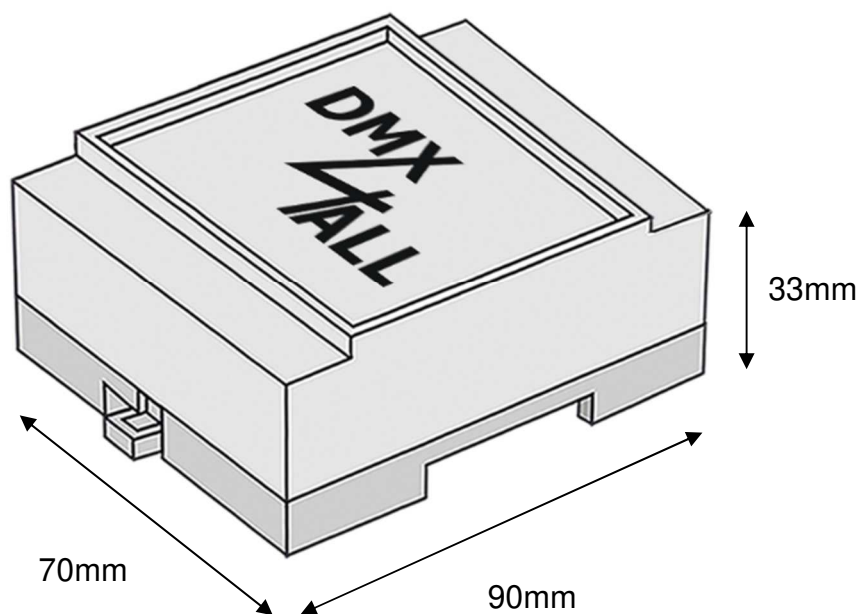


If an error occurs you can start again at any time.

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

- The web browser open within *Service*
- Enter the service code „1379“ and click *Save*
- Start update software **DMX4ALL LAN-Updater**
- Select **LED-Dimmer DR4** from list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the update has finished
- Click *Back* within the web browser

Dimension



All details in mm

Accessories

Wall mount clips



LED-Strip RGB



LED-Strip White



Power supply 12V / 24V



RJ45 Ethernet Cable



CE-Conformity



This assembly (board) 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.

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.

Warning



This device is no toy. Keep out of the reach of children. Parents are liable for consequential damages caused by nonobservance for their children.

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 depend on this device.



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Last changes: 24.09.2026

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