

ArtNet PixxControl PX2+

User manual



**ART
NET**
ETHERNET

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**DMX[®]
4
ALL**



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

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Description

The ArtNet PixxControl PX2+ is a compact ArtNet (DMX over Ethernet) interface, which converts ArtNet directly in two independent control signals for several digital LEDs.

For the ArtNet network connection a standard RJ45 network connector is used.

Two independent outputs with selectable pixel data protocol

The ArtNet PixxControl PX2+ provides two independent configurable outputs where the pixel data protocol (control signal) can be selected for different LED pixel types and other parameters are individual adjustable.

Selectable color sequence

The RGB color sequence is adjustable, which allows flexible usage. It is also possible to control RGBW pixel. Furthermore, a SingleColor option can be selected, where each pixel needs only one channel.

Adjustable pixel group

The ArtNet PixxControl PX2+ supports pixel groups with adjustable lengths. Each pixel group behaves like a single pixel that is controlled via 3 DMX channels (RGB) or 4 DMX channels (RGBW). This allows reducing channels in installations with many pixels.

Voltage monitoring

Both data outputs have a voltage input to check the LED voltage supply via network. The voltage values can be accessed via RDM or web interface.

CTRL output

The CTRL output can be used to switch off the power supply for the LED installation after 5 minutes as soon as the ArtNet PixxControl PX2+ doesn't receive data anymore or the connected digital LEDs don't light up.

5 RGB-LED Display

Five RGB-LEDs display the current operation status of the ArtNet PixxControl PX2+ clearly.

Mute able LED-Display

The LED displays on the ArtNet PixxControl PX2+ can be switched off via ArtNet command (AcLedMute), RDM (DISPLAY_LEVEL) or time-controlled. This is especially helpful on stage to avoid disturbing "light spots".

DHCP

The ArtNet PixxControl PX2+ has a DHCP function for automatic addressing in the network.

Easy Configuration

A user-friendly configuration via a web browser allows quick and uncomplicated setting of all parameters. No special software is needed a normal web browser is enough. This means that the configuration is possible at any time from a PC, smartphone or tablet.

To set the IP address easily, the IP Configurator is offered as free download as a PC tool or Android app. This allows the network settings of the PC or Android device to remain unchanged in order to configure the IP of the ArtNet PixxControl PX2+.

RDM

Important parameters such as the pixel type, the pixel group size or the color sequence can be set individually via RDM for both outputs. The voltage values of the LED power supply can be also accessed via RDM.

Free RDM-Software

To set parameters via RDM our free software RDM-Configurator is available as download on our website www.dmx4all.de .

DMX4ALL Communication-Interface

The ArtNet PixxControl PX2+ has another communication interface which uses the DMX4ALL commands via TCP or UDP.

Combinable with WiFi components

The ArtNet PixxControl PX2+ can be integrated into WLAN networks in combination with a WLAN bridge.

Firmware-Update function

To use future functions, the ArtNet PixxControl PX2+ offers a firmware update function. The update can be started from a web browser, so no access to the device is necessary!

Data sheet

Power supply:	8-24V DC (150mA @ 12V / 100mA @ 24V)
Connection:	RJ45 Ethernet 12 screw terminal
Ethernet:	10 Mbit/s 100 Mbit/s DHCP
Protocol:	ArtNet RDM
Output protocol:	APA-101, APA-104, APA-102, DycoLED PB3, DycoLED PB5, GS8208, INK1002, INK1003, LC8808, LPD1101, LPD8803, LPD6803, LPD8806, LPD1886 8Bit, LPD1886 12Bit (8Bit controlled), SK6812, SK6822, SK9822, SM16703, TM1804, TM1812, TM1814, TM1829, TM1934, UCS1903, UCS1912, UCS2903, UCS2912, WS2801, WS2811, WS2812, WS2812B, WS2813, WS2815, WS2818, WS2821 max. 1360 Pixel per output LPD1886 12Bit (12Bit controlled), UCS9812 (8Bit controlled), UCS9812 (16Bit controlled) max. 680 Pixel per output DMX512
Colour sequence:	RGB settable / RGBW SingleColor white, red, green, blue
Pixel group:	1 up to 127 Pixel / All
Gamma correction:	settable für LPD1886 12Bit (8Bit controlled), UCS9812 (8Bit controlled)
LED-Display:	5 RGB Status-LEDs Ethernet-Status-LEDs yellow and green
Dimension:	70mm x 90mm x 60mm

Content

- 1x ArtNet PixxControl PX2+
- 1x Quick guide german and english

Modell Overview

The different models of the ArtNet PixxControl series provide a different range of functions and are available in different versions.

Model	ArtNet PixxControl PX1	ArtNet PixxControl PX2	ArtNet PixxControl PX2+
Version	Board	Board	Mounted Device
Data Output	1	2	2
Universes	up to 8	2x up to 8	2x up to 8
RDM	✓	✓	✓
Voltage Monitoring	✗	✓	✓
CTRL Output	✗	✓	✓
RGB-Status-LED	✓	✓	✓
PWR LEDs	✗	✗	✓
DATA LEDs	✗	✗	✓
Pixel-Types	APA-101, APA-102, APA-104 DycoLED PB3, DycoLED PC5 GS8208 INK1002, INK1003 LC8808(B), LPD1886 8Bit, LPD1886 12Bit, LPD1101, LPD6803, LPD8806 SK6812, SK6822, SK9822 SM16703 TM1804, TM1812, TM1814, TM1829, TM1934 UCS1903, UCS1912, UCS2903, UCS2912, UCS9812 WS2801, WS2811, WS2812(B), WS2813, WS2815, WS2818, WS2821		
Color sequence	RGB (sequence settable) SingleColor white SingleColor red SingleColor green SingleColor blue RGBW		
Configuration	Web-Interface / RDM / DMX4ALL Commands		

✗ Not available in this version

✓ Available in this version

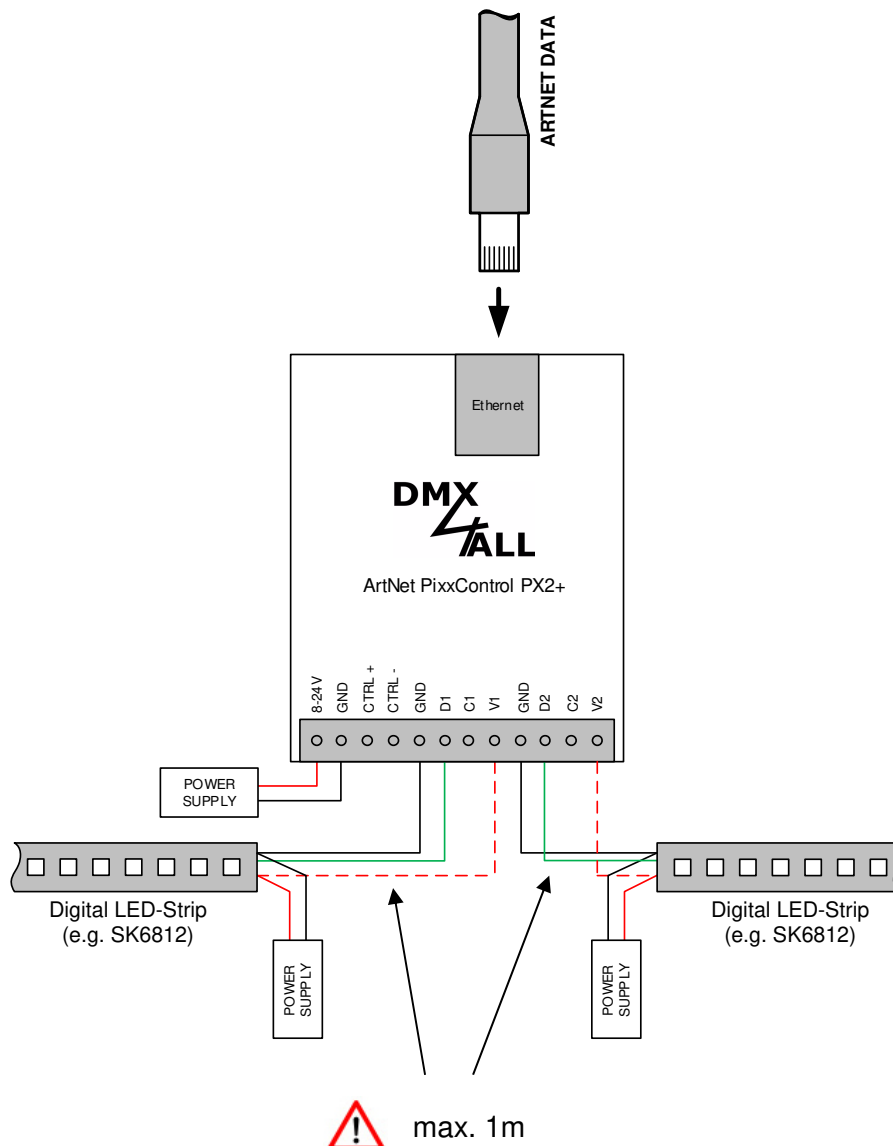
Connection

Connect digital LEDs with one control signal (DATA)

For digital LEDs with **one** control signal only DATA and GND must be connected (e.g. WS2811 / SK6812 / APA-104 / TM1804).

The data line should not be longer than 1m.

Optionally, the supply voltage of the digital LEDs can be connected to the ArtNet PixxControl PX2+ (V1, V2) to monitor the supply voltage (shown dashed in the following sketches).

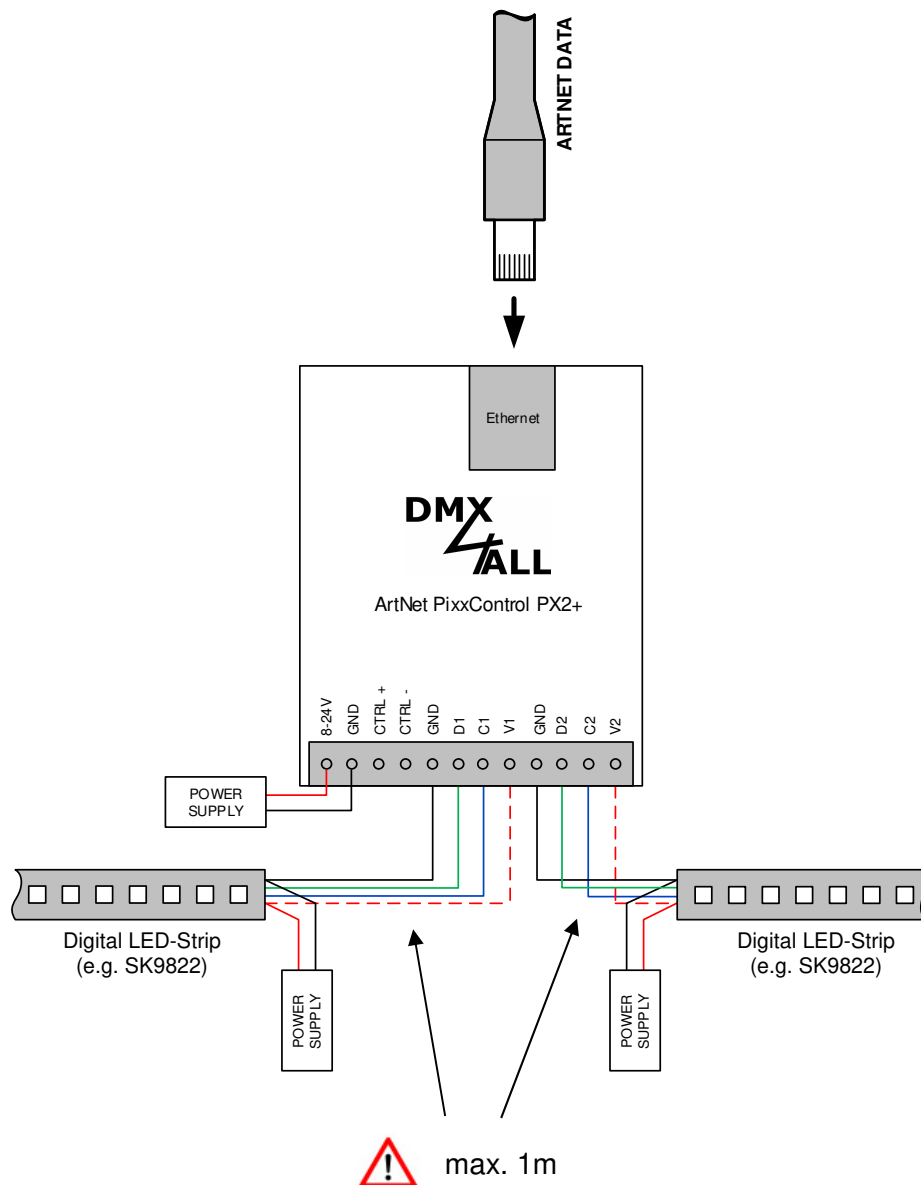


Connect digital LEDs with two control signals (CLK+DATA)

For digital LEDs with **two** control signals DATA, CLK and GND must be connected (e.g. WS2801 / SK9822 / APA-102).

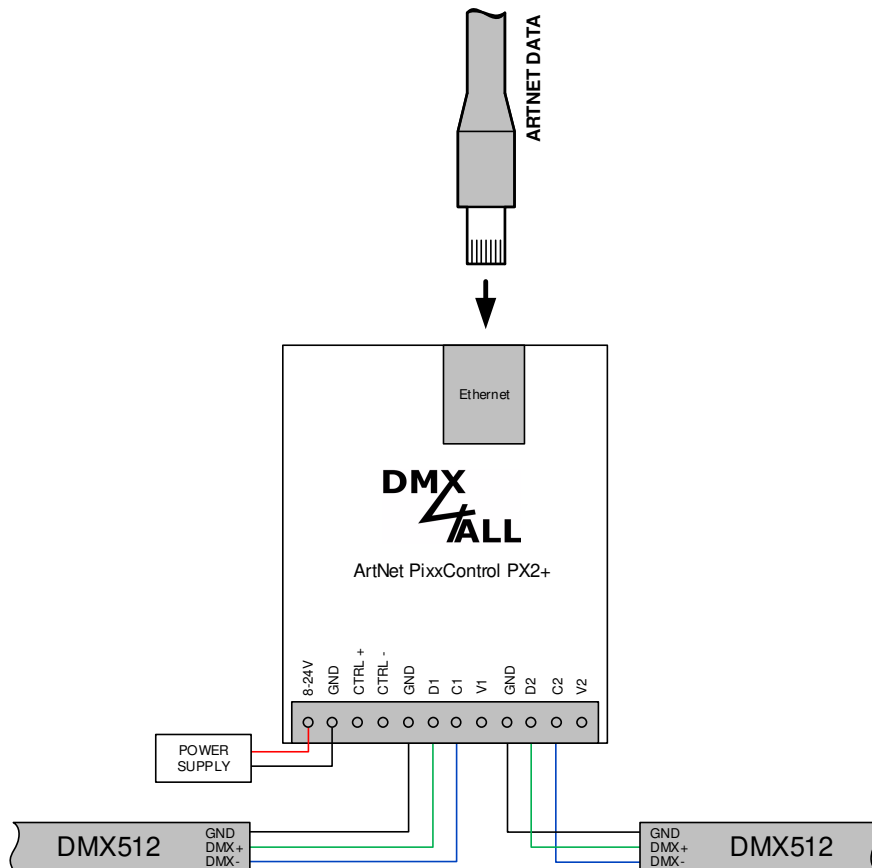
The data line should not be longer than 1m.

Optionally, the supply voltage of the digital LEDs can be connected to the ArtNet PixxControl PX2+ (V1, V2) to monitor the supply voltage (shown dashed in the following sketches).



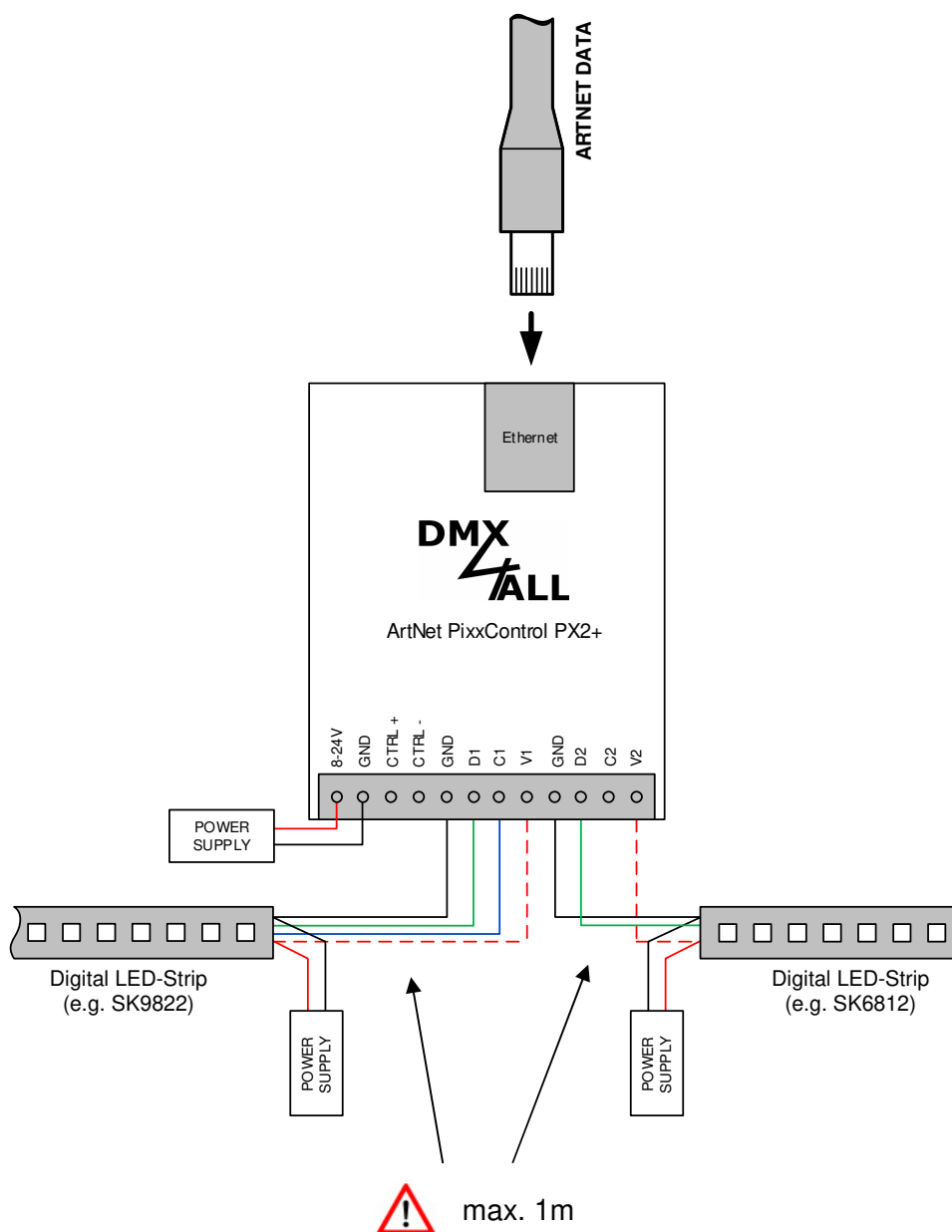
Connection of DMX Devices

Each port at the ArtNet PixxControl PX2+ can also be configured as DMX output. Thus, two DMX universes can be output via ArtNet.



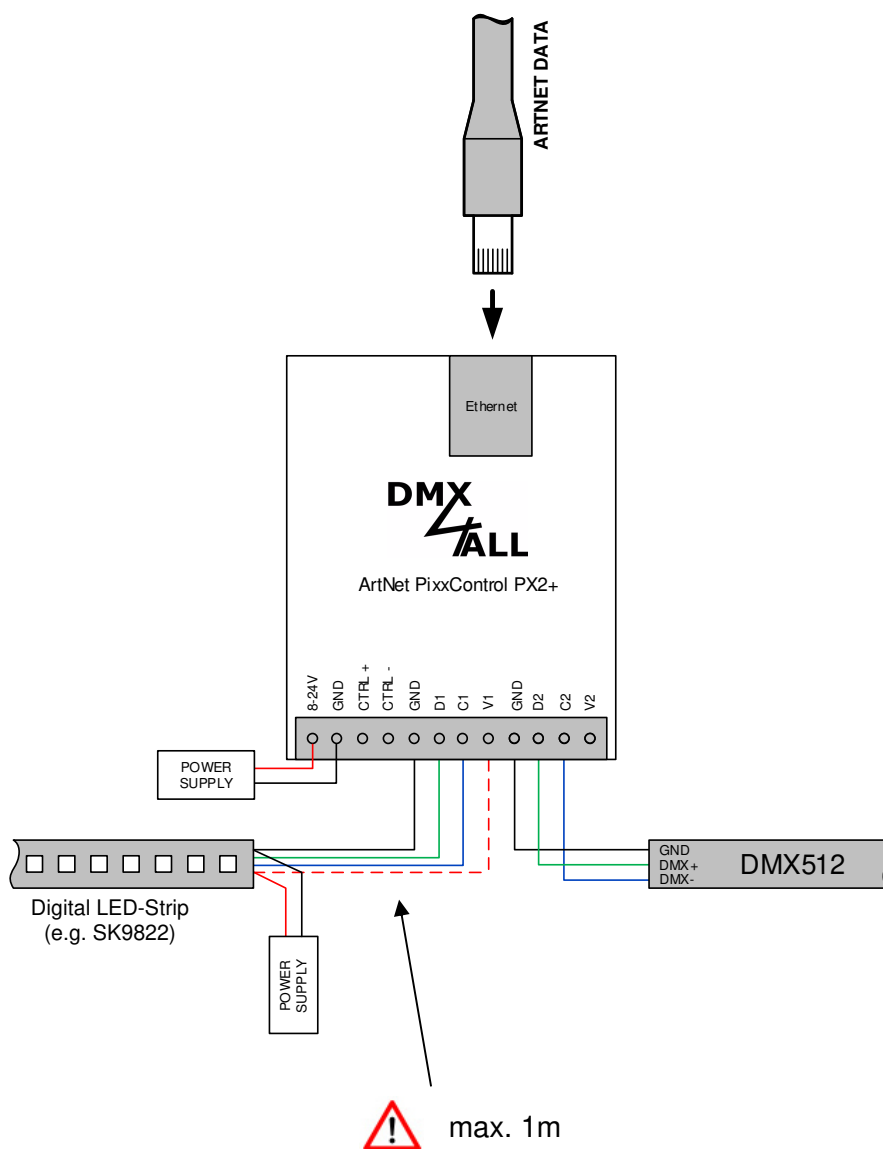
Connect digital LEDs of several types

On the ArtNet PixxControl PX2+ each port is adjustable individually. So, it is possible to connect two different types of digital LEDs with different control protocols.



Connect digital LEDs and DMX

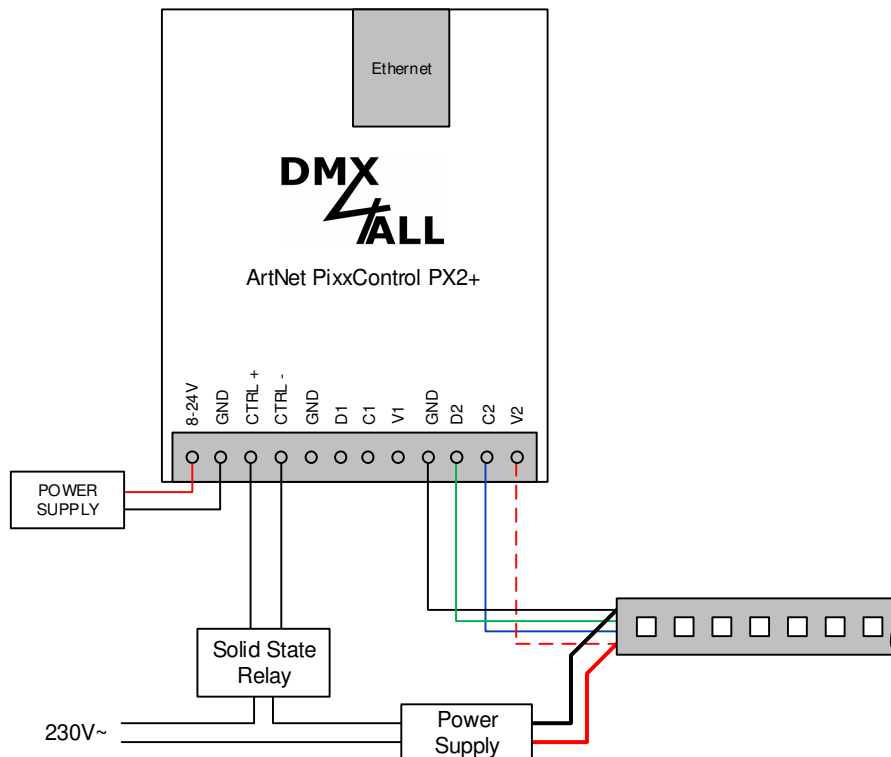
At the ArtNet PixxControl PX2+ each port is configurable individually. So, it is possible to connect digital LEDs to one output and use the other output to output a DMX512 signal.



CTRL Output

The ArtNet PixxControl PX2+ has a CTRL control output that can switch off the load power supplies for the LED installation to avoid power loss for power supplies that are not needed for a longer period of time.

This is designed as an open-collector-output that switches CTRL- to GND. The supply voltage is kept directly to the CTRL+.



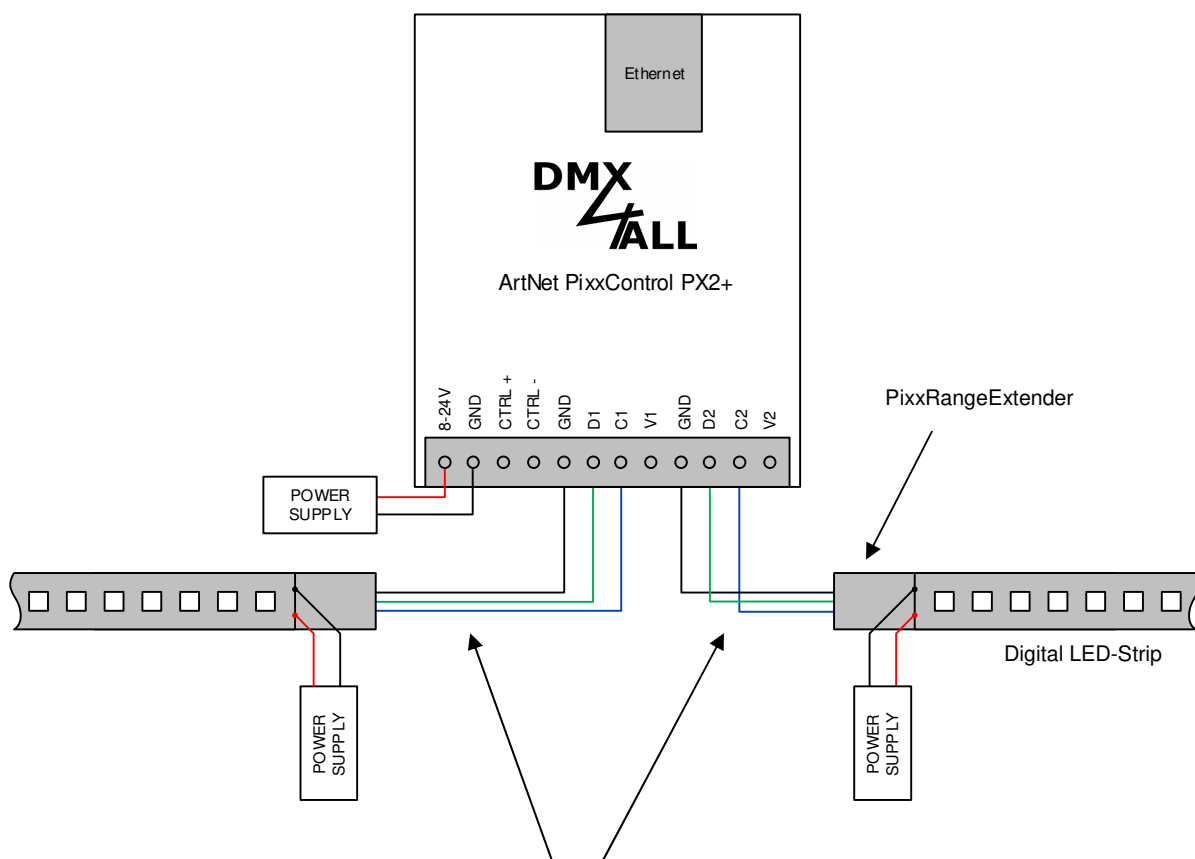
The following conditions can be selected in the web interface under *Main-Settings*:

- **OFF after 5min no LED output**
If no LED lights up for 5 minutes, the CTRL output will be deactivated. The CTRL output is also deactivated if ArtNet data are still being sent to the device (condition: all channels=0).
- **OFF after 5min no data is received**
As soon as no ArtNet data is received for 5 minutes, the CTRL output is deactivated.
- **Always ON**
Independent of the LED state or ArtNet data the CTRL output is permanently active.

Connection with long data lines

For longer data lines (more than 1m) and by using digital LED stripes, the use of a PixxRangeExtender is recommended to prepare the control signal and isolate the individual areas.

In this case, the PixxRangeExtender is connected directly in front of the signal input of the digital LED strip.



With PixxRangeExtender long data lines possible
(not more than 50m recommended).

Power supply digital LED-Stripes

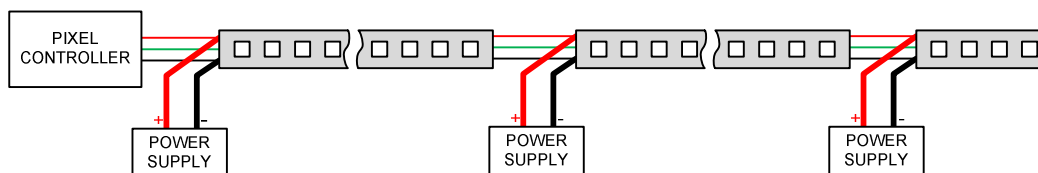
Generally digital LED-Stripes are operated with a power supply of 5V. Relatively high currents for the complete installation are the result.

A voltage drop occurs on the digital LED-Stripe itself, so little by little the brightness reduces. Furthermore, this is the reason for different color reproduction in case of using RGB/RGBW-Stripes. A steady supply of voltage is necessary.

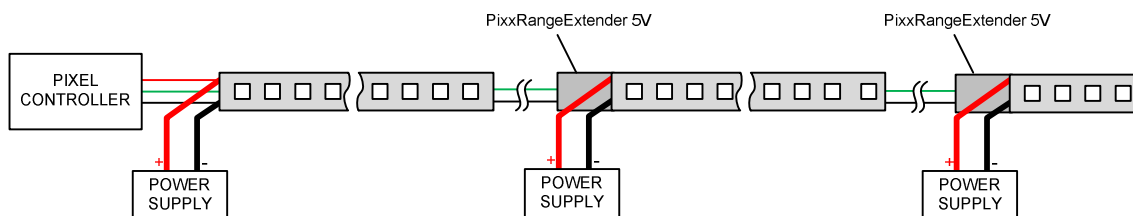
Several decentral power supplies or one central power supply can be used for voltage/power supply. The cross-sections of the supply lines to the digital LED-Stripe must be sufficiently dimensioned !

Connecting LED-Stripes with several power supplies

If several power supplies are used, these can be installed decentral. The supply lines can be shorter in this case.

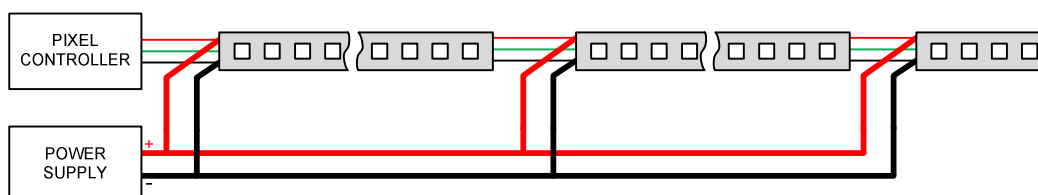


In case of long distances within the installation the PixxRangeExtender 5V can be used to purify the control signal and to isolate single areas.



Connecting LED-Stripes with one power supply

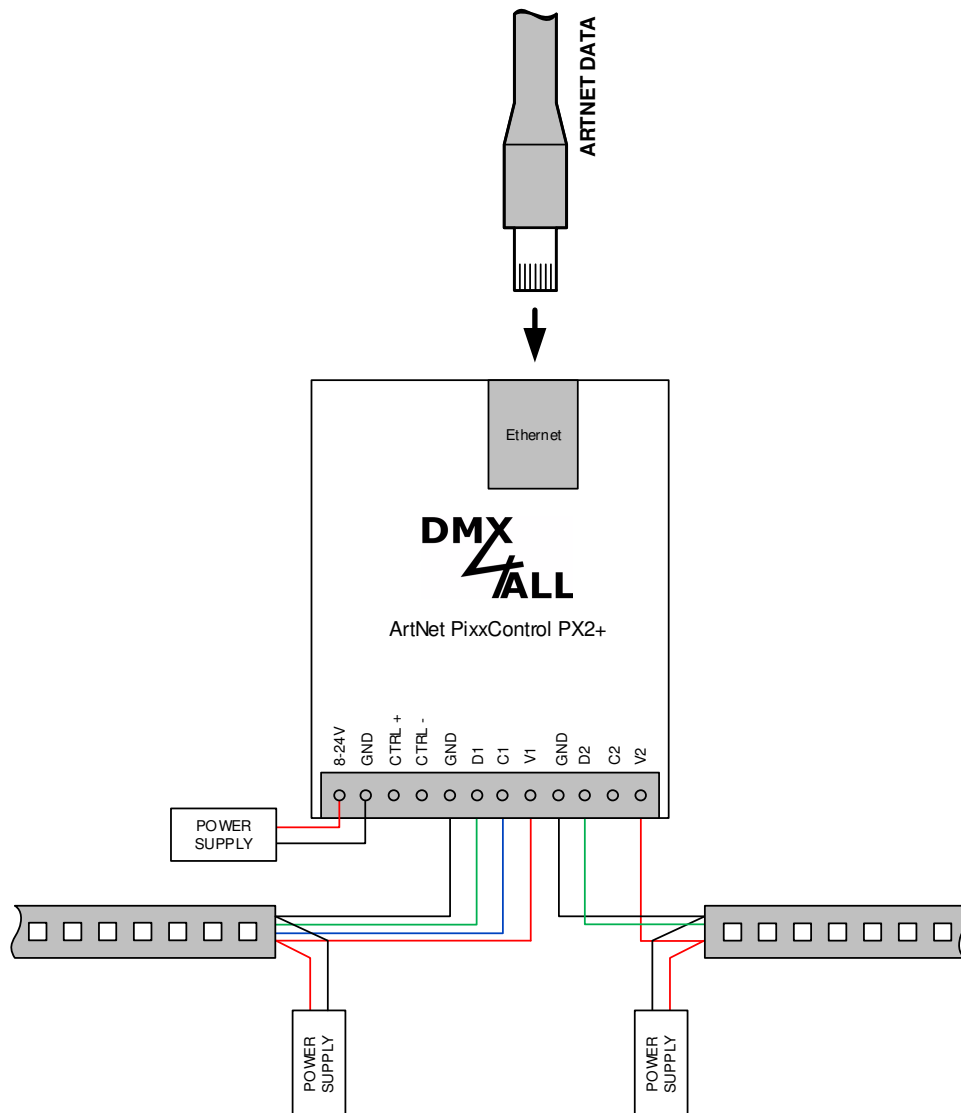
The supplies must be calculated adequately in its dimension if only one power supply with the needed high power is provided. To ensure a low voltage drop on the cable route this is necessary.



Voltage Monitoring

The ArtNet PixxControl PX2+ can monitor the power supply of the connected LED strips.

For this, the operating voltage of the LED strip must be connected to the ArtNet PixxControl PX2+ in addition to the control signal.



The voltage measured at input V1 or V2 is displayed in the web interface on the output settings pages.

Furthermore, this sensor value is available via RDM.

LED Display

The **ArtNet PixxControl PX2+** has several display status LEDs.

A green and a yellow LED on the Ethernet port, showing 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

Furthermore, five RGB-LEDs signal the device status:



POWER / STATUS

Off	Power supply not connected / Display in MUTE mode
RED lights	No Ethernet connection
GREEN lights	Device works normally
BLUE lights	Device is ready to switch to update mode
BLUE flashes	Device is in update mode
RED / GREEN in rotation	The device is waiting for DHCP-IP-Address assignment
RED / GREEN / BLUE in rotation	RDM Identify or Art-Net Locate is signaled

PWR OUT1 / PWR OUT2

Off	Power supply not connected / Display in MUTE mode
RED lights	The voltage supply has fallen below the set threshold value
GREEN lights	The set threshold value for the power supply has been reached or exceeded
RED / GREEN / BLUE in rotation	RDM Identify or Art-Net Locate is signaled

DATA OUT1 / DATA OUT2

Aus	Power supply not connected / Display in MUTE mode / No data is received for this output
BLAU leuchtet	Data for this output is received
RED / GREEN / BLUE in rotation	RDM Identify or Art-Net Locate is signaled

Device Settings with Web-Interface

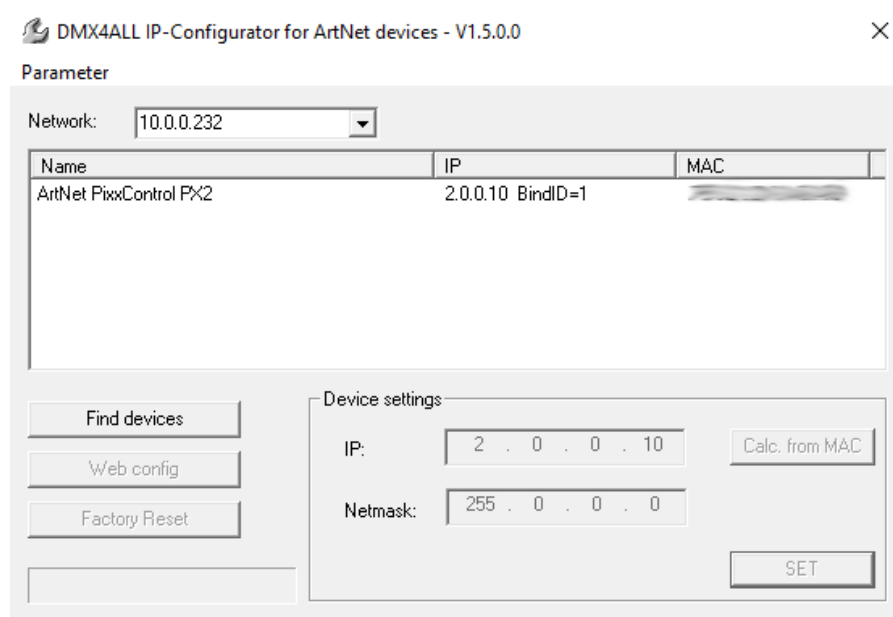
The device settings of the **ArtNet PixxControl PX2+** occur via a web interface, which can be called up via any web browser.

Before calling the web interface, the IP of the ArtNet PixxControl PX2+ 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 the Netmask even if the network setting of the PC is not in the IP range of the ArtNet PixxControl PX2+.

- Install the IP-Configurator
- Connect the ArtNet PixxControl PX2+ with the network and turn it on
- Start the software IP-Configurator



- The ArtNet PixxControl PX2+ is shown in the list
- Select the device by clicking the entry „ArtNet PixxControl PX2“
- Enter the new *IP* and *Netmask*
- Click *SET*

Set IP of the PC

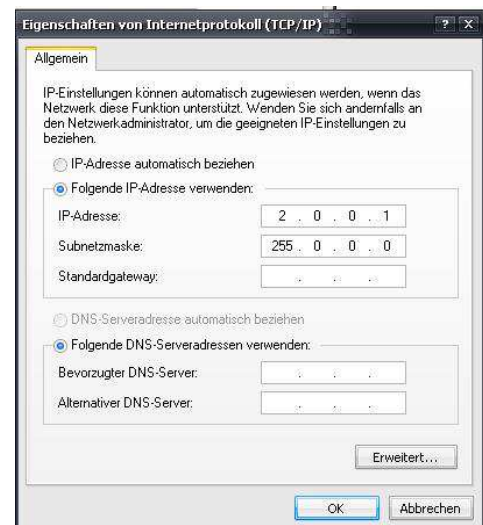
Within the delivery state of the ArtNet PixxControl PX2+, the assigned **IP-Address** is **2.0.0.10** used for the web interface.

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, the IP of the ArtNet PixxControl PX2+ must be called up via a web browser in the address bar (delivery state: 2.0.0.10):

DHCP-Mode:

With the DHCP mode setting, DHCP can be activated (enable) or deactivated (disable) for the ArtNet PixxControl PX2+. 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 ensure a permanent and undisturbed operation of the ArtNet PixxControl PX2 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 ArtNet PixxControl PX2+.

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** that 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 netmask must be adjusted to 255.255.255.0 !

Short-Name and Long-Name

With the input fields Short-Name and Long-Name, the ArtNet PixxControl PX2+ is displayed with an individual name in the network. The short name is limited to 18 characters and the long name to 64 characters.

CTRL Output

During the control of the digital LEDs/ DMX output the CTRL output is permanently active.

- **OFF after 5min no LED output**
If no LED lights for 5 minutes, the CTRL output is deactivated.
- **OFF after 5min no data is received**
As soon as no ArtNet data are received for 5 minutes, the CTRL output is deactivated.
- **Always ON**
The CTRL output is permanently active.

DMX4ALL Command Options

The protocol of the DMX4ALL commands with which the control of the ArtNet PixxControl PX2+ is possible, can be switched between TCP and UDP. With the input field "Port" the receive port for the DMX4ALL commands is configured. A change of this parameter needs a restart of the device.

LED Auto Off

The LED Auto Off option is used to set whether and after how many minutes the status LEDs on the device are switched off when there is a permanent network connection.

SAVE stores the configuration.

Output settings

The **Output 1** and **Output 2** pages are used to change the settings for Output 1 respectively Output 2.

ArtNet PixxControl PX2+

Output 1

ArtNet Parameter

	Universe	=	Port	SubNet	Net
1	0	=	0	0	0
2	1	=	1	0	0
3	2	=	2	0	0
4	3	=	3	0	0
5	4	=	4	0	0
6	5	=	5	0	0
7	6	=	6	0	0
8	7	=	7	0	0

Channels : 510

1st Uni Start Ch. : 1

Output Parameter

LED Type : SK6812

Color Sequence : R-G-B

Pixel Group : 1

Pixel Count : 1360

Current FPS : 22

Advanced Options

☒ Enable ArtSync

Min Voltage : 2.5

Current Voltage : 0.0V

Save

User Information

For RGB pixels:
Each LED needs 3 channels to control, so each universe have max. 170 pixels.
In this case, channel 1 - 510 of each universe can be used.

For RGBW pixels:
Each LED needs 4 channels to control, so each universe have max. 128 pixels.
In this case, channel 1 - 512 of each universe can be used.

The setting CHANNELS is normally 510 for RGB / 512 for RGBW or single color.
Decreasing this value appends the next universe before reaching the last channel in the universe.

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ArtNet Parameter

Up to 8 ArtNet universes can be output with each of the two data outputs. These can be configured under *ArtNet Parameter*.

Depending on the ArtNet output software, the setting for the output is made there in universes or in Port, SubNet and Net. The specification "Universe" is put together of the parameters Port, SubNet and Net. In the web interface of the ArtNet PixxControl PX2, the configuration can be done via two linked input areas.

Changing the "Universe" information on the left side for one of the eight input universes, the corresponding values for Port, SubNet and Net are automatically shown on the right side in the configuration table. If one of the values on the right side is changed, the "Universe" number on the left side of the configuration adapts.

Channels

The Channels parameter specifies how many channels are used for output to the digital LEDs.

1st Uni Start Ch

Under 1st Uni Start Ch the start channel of the first universe can be defined, from which the output of the data on the outputs takes place. Thus it is possible to select the first control channel of the output freely, within the first universe.

LED Type

The LED Type drop-down selection defines for which digital LED type the data is sent at the output.

Color Sequence

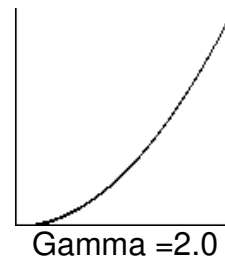
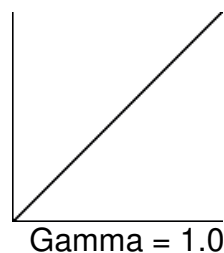
With the drop-down selection Color Sequence, the RGB or RGBW color sequence or one color control (SingleColor) is possible. With SingleColor only one channel per pixel is used for control. According to the color selection, the control occurs in one color (e.g. for running lights in blue) or for white of all colors.

Pixel Group

By the drop-down selection Pixel Group the grouping of several pixels is possible. The length of a pixel group can be selected between 1 and 127. It is also possible to group all pixels connected to the respective output (drop-down selection: ALL). Each pixel group behaves like a single pixel. All pixels of a pixel group are controlled in the same way.

According to the selected LED type, several settings can be made:

- **Speed Factor**
Speed Factor is a setting for the transmission speed of digital LEDs with separate clock and data lines.
- **Master-Brightness**
Master-Brightness defines the master brightness. This is settable between 1/31 up to 31/31 or on channel 512 within universe 1 respectively 9 (U1C512 respectively U9C512).
(Available for MagiarLED III flex, APA-102, LPD8806, LPD1101, SK9822)
- **Gamma**
Gamma specifies the curve of the output characteristic line. The possible values are 1.0 / 1.2 / 1.4 / 1.8 / 2.0 / 2.2 . The higher the gamma value, the more the output characteristic curve is curved:



Available for LPD1886 12 Bit (8Bit controlled), UCS9812 (8Bit controlled), TLS3001 (8Bit controlled)

- **Master-Brightness Red/Green/Blue/White** defines the master brightness separately for the colors red, green, blue and white.
(Available for TM1814)

Pixel Count

The input field Pixel Count can be used to set how many digital LEDs are controlled with the data signal of the output.

Enable ArtSync

The Enable ArtSync option synchronizes the output of multiple ArtNet devices when using software with ArtSync support or the MADRIX® (MadrixSync) software.

Current Voltage

The shown value for Current Voltage is the current measured voltage value at clamp V1 (Output1) respectively V2 (Output 2), and is designed for voltage monitoring of the connected LED strip supply voltage.

Login for Web-Interface

The **ArtNet PixxControl PX2+** 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“.

The screenshot shows the 'Service' menu of the ArtNet PixxControl PX2+ web interface. The 'Login Options' section is highlighted with a white arrow. It contains the following fields:

- User Name:** A text box containing 'Admin'.
- Password:** A text box.
- Confirm Password:** A text box.

Below the login options is a 'Service request' section with a text box labeled 'Enter service code here.' and a 'Save' button at the bottom right. The right side of the interface shows 'User Information' with a list of service codes and their functions:

- 1379 - Start Firmware-Update
- 7319 - Set device to factory defaults
- 7931 - Reboot device

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'.

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

The screenshot shows a 'User Login' dialog box. It contains the following fields:

- User Name:** A text box containing 'Admin'.
- Password:** A text box.

Below the password field is a green 'Login' button.



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!

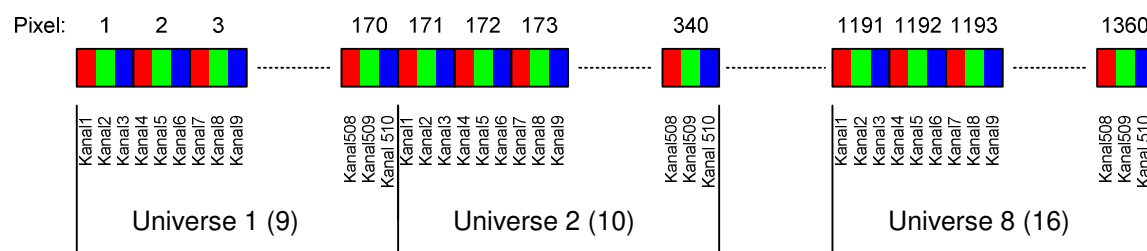
Pixel Assignment

8-Bit Control

The **ArtNet PixxControl PX2+** controls up to 130RGB pixel. For this up to 8 ArtNet universes are used. With 8-bit control, one channel is used for R, one channel for G and one channel for B, which results in a maximum of 170 RGB pixels per universe.

The single pixels are assigned to the universes as follows:

Data in brackets () refer to output 2.



(Color sequence RGB | Channels = 510 | 1st Uni Start Ch. = 1)

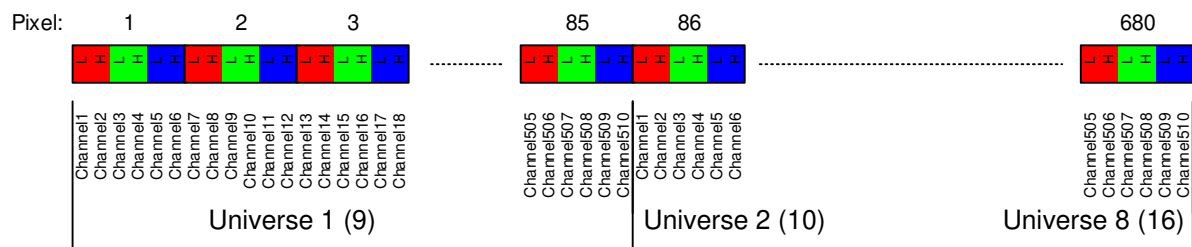
Universe	Pixel
1 (9)	1-170
2 (10)	171-340
3 (11)	341-510
4 (12)	511-680
5 (13)	681-850
6 (14)	851-1020
7 (15)	1021-1190
8 (16)	1191-1360

16-Bit Control

The 16-bit control is available for LED types with more than 8 bits.
These are the LPD1886 with 12 bit and the UCS9812 with 16 bit.

In the 16-bit control always 2 DMX channels are used for one color control.
This means that up to 85 RGB pixels can be controlled per universe.

The single pixels are assigned to the universes as follows:
Data in brackets () refer to output 2.



(Color sequence RGB | Channels = 510 | 1st Uni Start Ch. = 1)

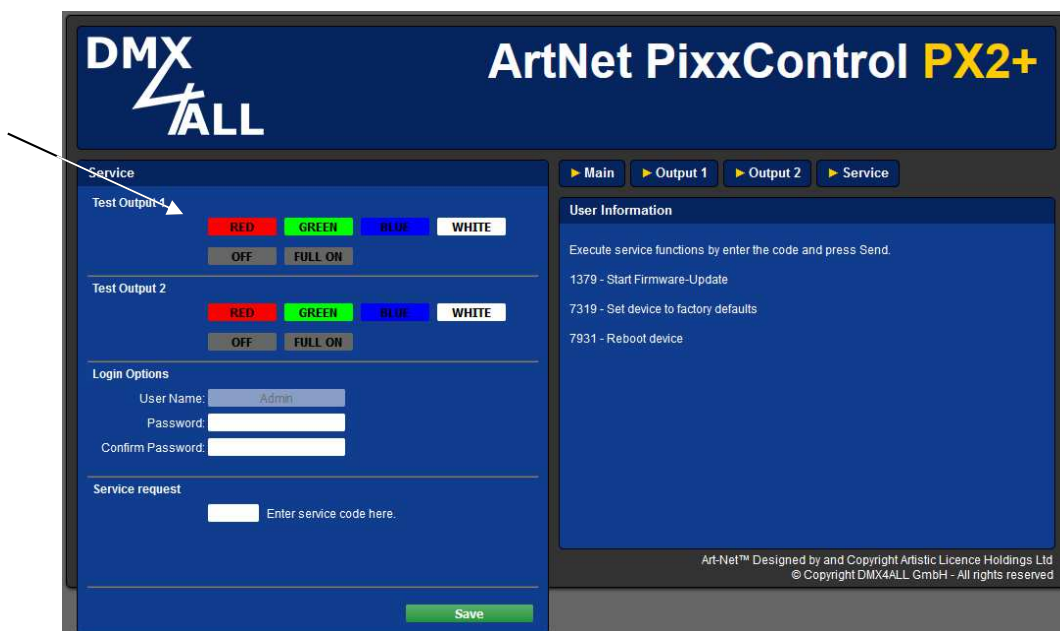
<u>Universe</u>	<u>Pixel</u>
1 (9)	1-85
2 (10)	86-170
3 (11)	171-255
4 (12)	256-340
5 (13)	341-425
6 (14)	426-510
7 (15)	511-595
8 (16)	596-680

Check connected LEDs

The **ArtNet PixxControl PX2+** provides a test output function, to check the connected LEDs easily.

On the web-interface page under *Service* the function *Test Output* with RED, GREEN, BLUE, WHITE, OFF and FULL ON buttons is available.

By clicking the button, the LEDs on output 1 respectively output 2 are controlled in the selected color.



For the *Test Output* no control signal is to send to the ArtNet PixxControl PX2+! An external control signal always has priority over a test output.

RDM

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

The ArtNet PixxControl PX2+ provides the RDM functionality via the ArtNet interface. Device information and settings can be read or set. 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

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
SERIAL_NUMBER ¹⁾			✓	PID: 0xD400
DISPLAY_AUTO_OFF ¹⁾		✓	✓	PID: 0xD401
PIXEL_TYPE ¹⁾		✓	✓	PID: 0xD410
GROUP_SIZE ¹⁾		✓	✓	PID: 0xD412
COLOR_SEQUENCE ¹⁾		✓	✓	PID: 0xD413

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)

DISPLAY_AUTO_OFF

PID: 0xD401

Sets the time after which the display is switched off (DISPLAY_LEVEL = 0).

Valid values are:

0	- NO AUTO OFF
600	- 1 minute
1200	- 2 minutes
1800	- 3 minutes
2400	- 4 minutes
3000	- 5 minutes
3600	- 6 minutes
4200	- 7 minutes
4800	- 8 minutes
5400	- 9 minutes

GET Send: PDL=0
 Receive: PDL=2 (1 Word)

SET Send: PDL=2 (1 Word)
 Receive: PDL=0

PIXEL_TYPE

PID: 0xD410

Sets the used LED-Pixel-Type.

GET Send: PDL=0
 Receive: PDL=1 (1 Byte PIXEL_TYPE_ID)

SET Send: PDL=1 (1 Byte PIXEL_TYPE_ID)
 Receive: PDL=0

PIXEL_TYPE_ID	Function
2	DycoLED PB3
3	TM1804
4	WS2801
5	WS2811
6	LPD8806
7	UCS1903 / UCS1912
8	APA-102
9	TM1812
13	LPD1886 8Bit
14	LPD1886 12Bit (8bit controlled)
15	WS2812
17	TM1829 High Speed
18	UCS9812 (8bit controlled)
19	UCS9812 (16bit controlled)
20	LPD6803
21	INK1002
22	INK1003
23	UCS2903 / UCS2912
25	LPD1886 12Bit (12bit controlled)
26	SK6812
27	APA-104
29	DycoLED PC5
30	TM1829 Low Speed
31	TM1814
32	SK9822
33	APA-101
34	TLS3001 8Bit
37	SK6822
40	GS8208
41	WS2815
42	WS2818
43	LC8808(B)

GROUP_SIZE

PID: 0xD412

Sets the size of the pixel group.

GET Send: PDL=0
 Receive: PDL=1 (1 Byte pixel group size)

SET Send: PDL=1 (1 Byte pixel group size)
 Receive: PDL=0

Parameter	Function
1-127	Pixel group size
254	All

COLOR_SEQUENCE

PID: 0xD413

Sets the used color sequence.

GET Send: PDL=0
 Receive: PDL=1 (1 Byte COLOR_SEQUENCE_ID)

SET Send: PDL=1 (1 Byte COLOR_SEQUENCE_ID)
 Receive: PDL=0

COLOR_SEQUENCE_ID	Function
0	R-G-B
1	R-B-G
2	G-R-B
3	G-B-R
4	B-R-G
5	B-G-R
6	WHITE Single color
7	RED Single color
8	GREEN Single color
9	BLUE Single color
10	RGBW
11	RGBRGBRGBWWW

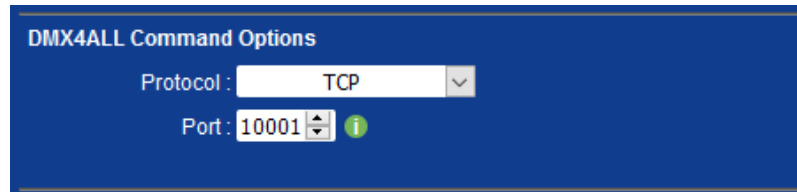
DMX4ALL-Command Interface

The **ArtNet PixxControl PX2+** has a further communication interface, using DMX4ALL-Commands.

Please take a look in the separate DMX4ALL Command description for the possible DMX4ALL-Commands.

The settings are to be made in the Main Settings under DMX4ALL Command Options.

Under **Protocol** please select the **TCP** or **UDP**
Furthermore, the **Port** must be specified:

A screenshot of a software window titled "DMX4ALL Command Options". The window has a dark blue background. It contains two settings: "Protocol" with a dropdown menu showing "TCP" and a small downward arrow, and "Port" with a numeric input field showing "10001" and a small green information icon to its right.

To control the interface directly via a UDP/TCP connection, use the IP address set in the web browser and use the port set (default setting 10001).
The sent and received data are RAW data packages.

Factory Reset

To reset the **ArtNet PixxControl PX2+** to the delivery state, proceed as follows:

To get the delivery status via **web browser** please proceed as follows:

- Open service site in web browser
- Enter the service code „7319“ into input field
- Click Save
- Wait at least 10 seconds



If a factory reset is performed via the web page, the IP address and subnet mask will be also reset.

It is not always possible to return. The IP must be reset if necessary.

(see *Setting the IP with IP Configurator* or *Setting the IP via web browser*).

To get the delivery status via **DMX4ALL LAN-Update**

- Turn on the device
- Start software **DMX4ALL LAN-Updater**
- Click **FIND**
- Chose device **ArtNet PixxControl PX2+** from list
- Click **FACTORY RESET**
- The reset is now executed

To get the delivery status via **DMX4ALL IP-Configurator**:

- Turn on the device
- Start software **DMX4ALL IP-Configurator**
- Click **FIND**
- Chose device **ArtNet PixxControl PX2+** from list
- Click **FACTORY RESET**
- The reset is now executed

Firmware-Update

The **ArtNet PixxControl PX2+** has an update function which allows to transfer further firmware versions.

Proceed as follows:

- Start the update software **DMX4ALL LAN-Updater**
- Click **FIND** as long as the device is not shown in the list
- Chose **ArtNet PixxControl PX2+** from list
- Click Firmware-Update
- Chose and confirm firmware file (.bin)
- Wait, until the update is completed



If an error occurs during the update, a firmware update can be started again after turning on (alternative 1).

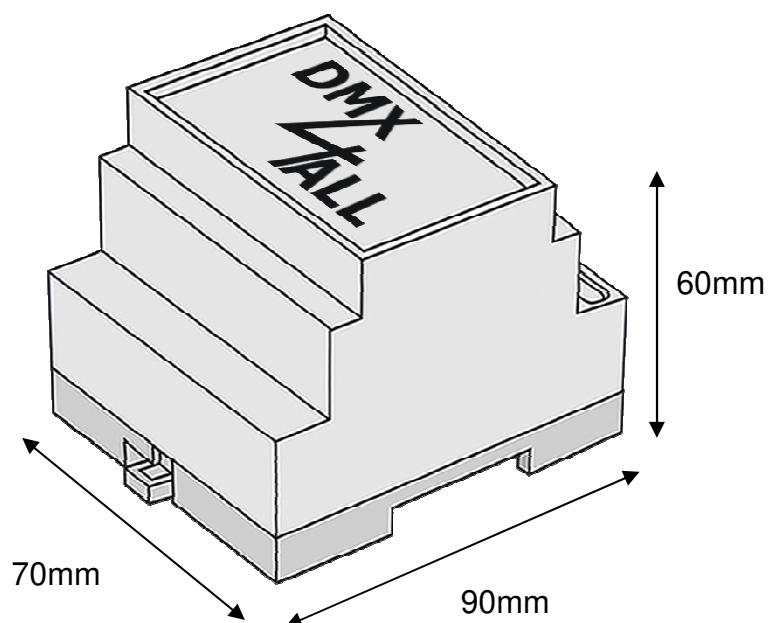
Alternative 1: Firmware Update after power-on (in case of firmware):

- Turn off device
- Start update software **DMX4ALL LAN-Updater**
- Generate network connection
- Turn-on device
- The status LED lights for ca. 3 seconds blue
- During the status LED lights blue click FIND
- Chose **ArtNet PixxControl PX2+** from list
- Click Firmware-Update
- Chose and confirm firmware file (.bin)
- Wait, until the update has finished

Alternative 2: Activate firmware update via web browser:

- Open service site on web browser
- Enter the service code „1379“ into input field and click Save
- Start the update software **DMX4ALL LAN-Updater**
- Chose **ArtNet PixxControl PX2+** from list
- Click Firmware-Update
- Chose and confirm firmware file (.bin)
- Wait, until the update has finished
- Click Back in web browser

Dimension



All details in mm

Accessories

Wall bracket for top hat rail housing



Power supply 12V

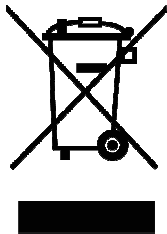


CE-Conformity



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. 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.



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Last changes: 23.08.2023

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