

Waterproof StudioPro DMX Digital Decoder 4 Channel – 5A Per Channel

Part number: wpDMX-4-5A



Create eye-catching lighting effects, indoors or out, with this Waterproof StudioPro DMX Digital Decoder. This decoder takes the DMX output from any standard DMX console or controller and decodes the signal, so you can drive LED lighting. It features 4 channels of input, with a max of 5 amps per channel, allowing you to use it with anything from single color LED lighting to color-changing RGBW LED lighting. It has a vivid digital display that enables you to set your DMX address with ease. With an IP67 rating, it is water and dust resistant. Additionally, it comes with sealed leads for both input and output. It is compatible with 12 and 24 VDC and features overheating and overcurrent protection.

Features

- Supports 4 channels x 5 amps
- Digital Display
- IP67
- Compatible with 12 VDC and 24 VDC
- Adjustable PWM frequency. Choose a preset value between 500 Hz and 35,000 Hz.
- Overheating and Overcurrent Protection
- Sealed Input/Output Leads

Applications

This DMX decoder is great for indoor or outdoor applications that require a robust and water-resistant decoder

Operation

Wiring:

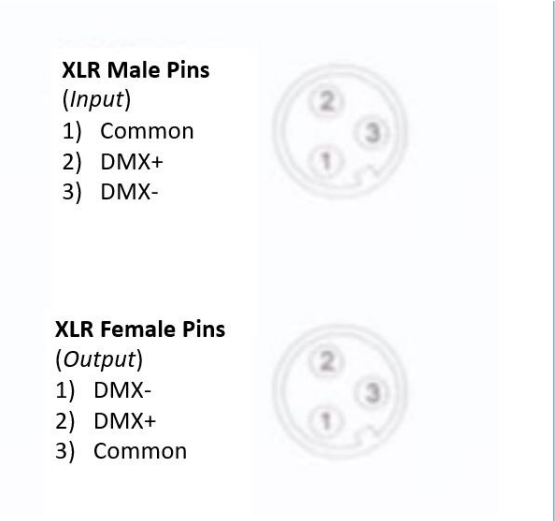


1. Confirm the output voltage of the power supply (12 or 24 VDC) is the same as the required input voltage of the LED product being used.
2. Connect the DMX-4-5A to the power supply. Connect the red and black wires to the power supply. Ignore the other three wires that have been trimmed. The green, blue and yellow wire on the input side are not connected and do not have any function.

*Special Note: The wpDMX-4-5A has waterproof XLR connectors. You will need the following cables (sold separately) to transition from the decoder to the DMX controller.

For the wpDMX-4-5A Input use the wpDMX-F-2m

For the wpDMX-4-5A output use the wpDMX-M-2m



wpDMX-F-2m



Green = DMX -
White = DMX +
Black = Common

wpDMX-M-2m



DMX Address:

Use the buttons below the display to set the starting DMX address. Hold down Button A to enter DMX address selection. Button A adjusts the hundreds digit, while buttons B and C adjust the tens and ones digits respectively. The address can be set to any number from 1-512. Hold down any button or wait for the decoder to automatically exit DMX address selection.



Output Channels:

Hold buttons B and C simultaneously to bring up channel selection. Once you see "cH" on the display you can cycle through 1, 2, 3 and 4 channel modes by pressing button A. Hold down any button to save the current selection and return to DMX address. The default setting is 4 channel output. Setting less than 4 channels will reduce the number of DMX addresses used and mirror one or more outputs. See the table below for reference.



Mode	Output Channel DMX Address (001 starting)			
	Channel 1	Channel 2	Channel 3	Channel 4
4cH	001	002	003	004
3cH	001	002	003	001
2cH	001	002	001	002
1cH	001	001	001	001

PWM Frequency

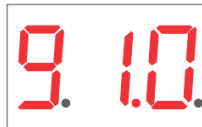


Hold buttons A and B simultaneously to adjust the PWM frequency. PWM frequencies are adjustable between 500 Hz and 35,000 Hz. The default setting is 1000Hz. It can be adjusted by pressing button C until the desired setting is selected. Use the table below as a reference.

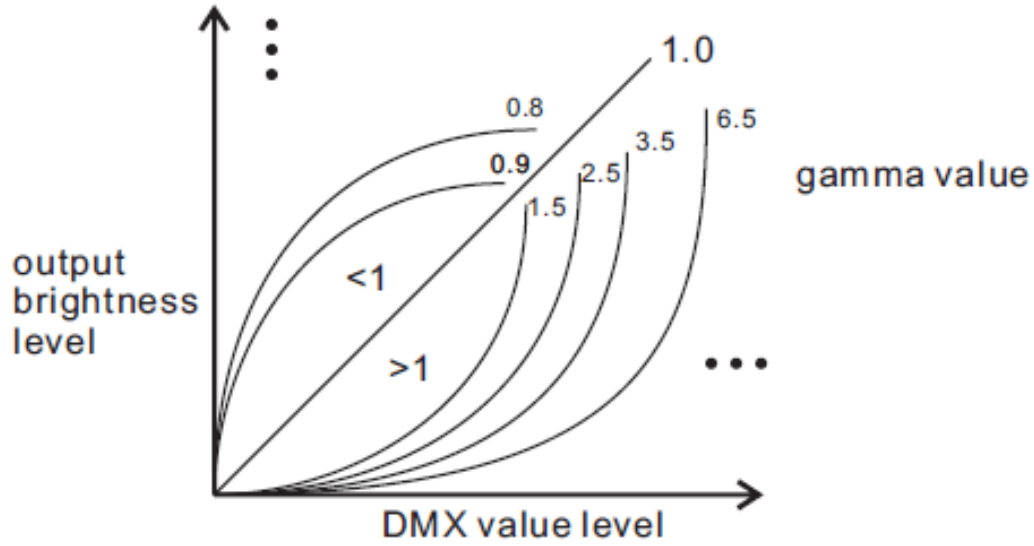
0	1	2	3	4	5	6	7	8
500 Hz	1000 Hz	2000 Hz	3000 Hz	4000 Hz	5000 Hz	6000 Hz	7000 Hz	8000 Hz
9	A	B	C	D	E	F	H	J
9000 Hz	10,000 Hz	12,000 Hz	14,000 Hz	16,000 Hz	18,000 Hz	20,000 Hz	25,000 Hz	35,000 Hz

The output PWM frequency can be adjusted to avoid flicker in different settings. It can be left at 1kHz for most applications. For oncamera use, settings around 5kHz are typically sufficient to eliminate flicker. Very high frequency settings (over 10kHz) should be used only if necessary. Very high frequency signals can be distorted by long cable runs and/or environments with a lot of electrical signals.

Dimming Curve:



Hold buttons A, B and C simultaneously to adjust the dimming curve. Press buttons B and C to adjust the values. The “gamma” value of the dimming curve is set with this parameter. This changes the rate at which the brightness changes at different DMX values. It can be used to make dimming less sensitive at the high or low end for greater precision in that brightness range. Default value is 1.0 and can be adjusted from 0.1-9.9. Values less than 1 give greater dimming precision at high brightness and values greater than 1 increase precision at low brightness. Human vision is more sensitive at low light levels, so values greater than 1 are most common.



Restore Default Settings:

Hold buttons A and C to reset to default settings. The default settings are 4 output channels, 1000 Hz frequency, and a gamma value of 1.0.

Safety Precautions

Please take the following precautions:

1. This equipment, like all electrical equipment, should be installed by a qualified person.
2. Do not expose these LEDs, dimmers or power supplies to intense electro-magnetic fields, including lightning.
3. The controllers and power supplies are not waterproof. Keep them dry.
4. Always observe proper polarity.

When installing LED lighting, it is a good idea to follow this "dry-run" procedure:

1. Be sure you have everything you need before you start.
2. Lay out your lights and power supply on the floor or table.
3. There is some resistance in the LED lighting. If you see any color fading or dimming at the end of a long run, you may have too many LEDs for your power supply and you might need a bigger supply or shorter runs. Call if you need assistance with larger projects.
4. Connect everything and test it to be sure it works and you have it connected properly. It is unlikely, but possible, that some part of your system is defective or was damaged during shipment. If that is the case, it will be very helpful to you to know that before you do all the work involved in installing custom LED lighting systems. You will also know if you damage anything during installation, which is really helpful in trouble-shooting because manufacturing defects and installation damage typically have very different solutions.

Once you have tested the system successfully, you are ready to install it. We recommend you install LEDs, electronic controls and dimmers in such a way that you have access to them in case they fail. All electrical components can fail.