

## DMX512 PixelPro Decoder

Part number: DMX512-pixelpro



The DMX512-pixelpro is specifically designed to connect DMX-based control systems with digitally addressable PixelPro LED pixel lights using the WS2801 IC.

Use the DMX512 PixelPro Decoder to create animated RGB color effects, such as chasing, rotating graphic patterns, rain effects, text display boards, color wave backlit panels and more. The possibilities are endless! The DMX512-pixelpro is directly compatible with 3-pin XLR and RJ45 connectors for DMX in/out. 5-pin and other adapters are available separately.

The PixelPro line covers an assortment of individually addressable RGB LED products in various shapes and sizes.

## DMX512-pixelpro

### Specifications

Part Number	<b>DMX512-pixelpro</b>
Dimensions	4.92" x 2.05" x 1.57"
	125 mm x 52 mm x 40mm
Output	V+, CLK, DATA, GND
Input Voltage	5/12/24 VDC
Max. Current Load	1x12A*
Max. Output Power	60W/144W/288W (5V/12V/24V)
Max. Device Temp	-22 to 150°F (-30 to 65°C)

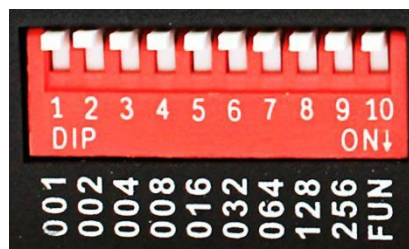
\*Note: The 12A limit does not apply to power supplies directly connected to PixelPro lights.

## Features

- Powered by 5-24 VDC.
- The input voltage connection to the decoder is passed through to the lights. Always use the same voltage for the decoder and lights
- Built-in function test modes are useable for debugging and quick tests. Simply set the DIP switches to any of the following settings without a DMX input signal.

DIP Switch Setting	Effect
1000000001	Red
0100000001	Green
0010000001	Blue
0001000001	Yellow
0000100001	Magenta
0000010001	Cyan
0000001001	White
0000000101	Color Step
0000000011	Color Fade

- Compatible with standard DMX512 signals, enabling individual pixel control.
- Male/Female XLR 3-Pin connectors for DMX in/out.
- RJ45 ports for DMX in/out.
- Decode a maximum of 512 DMX addresses, equivalent to 170 RGB pixels
- Converts standard DMX output to a digital SPI signal suitable for driving the WS2801 IC chip used in PixelPro lights.
- Compatible with the PixelPro line of individually digitally addressable RGB LED products.
- DIP switches on the side allow you to set the decoder's lowest address so it uses the address you desire from your DMX program. Each decoder has a DMX device address you can set. **Default setting with all switches OFF = 1.**



DIP switches to set address

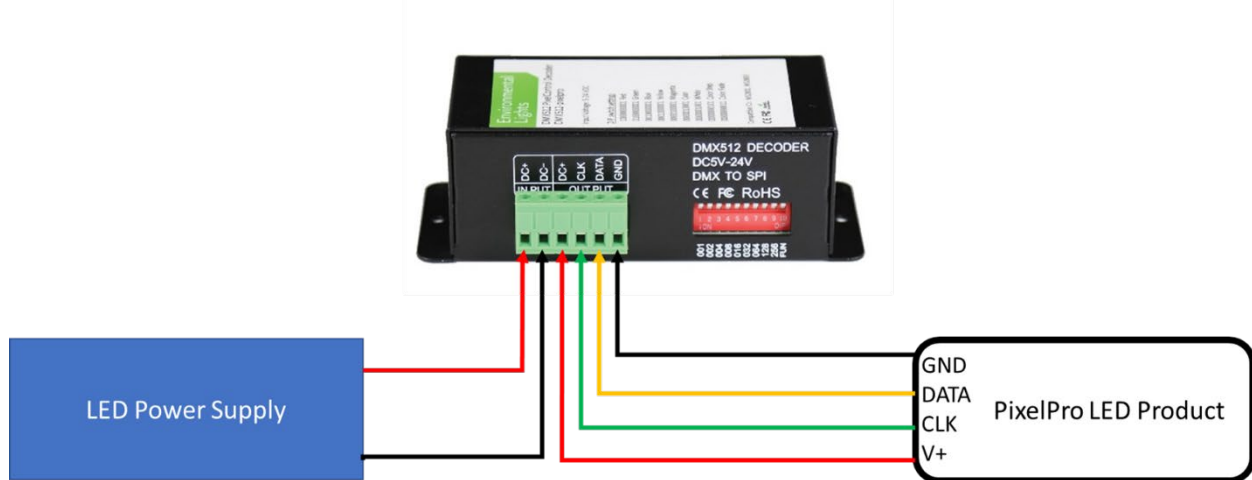
\*\*Please note: An address bit is set ON and has a value = 1 in the down position

# Wiring Instructions

## Wiring the LEDs to the decoder

To connect your LEDs to the DMX512-pixelpro decoder, please follow Steps 1-3 and refer to the figure below for terminal locations.

1. Connect the DATA terminal on the decoder to the DATA input on the PixelPro lights.
2. Connect the CLK terminal on the decoder to the CLK input on the PixelPro lights.
3. Connect the GND terminal on the decoder to the ground (-) input on the PixelPro lights.
4. Connect the power terminal (DC+) on the decoder to the power (+) input on the PixelPro lights.



## Wiring the power supply to the decoder

1. Power the DMX512-pixelpro decoder using 5-24 VDC. Apply voltage from the power supply only to the Power Input ports of the decoder. The power inputs are on the left side of the decoder as noted above. The LED power connection is on the right side.

Required input voltages for the PixelPro LED lights vary by type. Always use the appropriate power supply voltage for the LEDs you are using. Applying voltage greater than the rated voltage can cause permanent damage even if only connected momentarily.

**IMPORTANT: Be sure to connect ground wires between all power supplies and lights.** The ground wires (negative terminals) from each power supply must share the same common ground when using multiple power supplies. If all grounds are not connected, then the PixelPro lights will display erratic behavior, such as rapid flashing or flickering. Be sure to connect all ground wires together.

## Wiring the DMX Controller to the decoder

1. The DMX512-pixelpro decoder has 3-pin XLR connector ports and RJ45 ports for DMX IN and DMX OUT signals. Use only one DMX input port or connection method at a time. The other connectors may be used for DMX out to link additional DMX devices within the same DMX universe. Simply plug-in whichever connector option is most convenient for the application.

