















# DMX 4-CHANNEL DECODER



## SPECIFICATION SHEET

## **OVERVIEW**

The DMX 4-Channel Decoder is a key component used for pairing low voltage LED tape lights and fixtures with a DMX controller. It works by translating a DMX signal sent from the DMX controller into a PWM signal used to dim or control LED lights.

This DMX Decoder features a digital display that is much easier to work with than traditional dip-switches, as well as a screw-down terminal block for secure wiring connections. When used with our DMX Splitter, there is virtually no limit to the number of color-changing LED tape lights or fixtures required for your installation.

## **FEATURES & BENEFITS**

- Compatible with most DMX controls
- Easy to use Digital Display (no dip-switches)
- Connect multiple units in series with standard CAT5 cable
- UL Recognized Component. File # E484300

## APPROVED LED LUMINAIRES

Compatible with all Diode LED 12V and 24VDC constant voltage tape lights and fixtures.

Item #	
Project	

#### **SPECIFICATIONS**

- Input from Driver1: 12-24VDC constant voltage
- Output to Load: 12-24VDC Constant Voltage
- Input Signal from DMX Control: DMX512
- Output Signal to Load: PWM
- Output Signal Frequency: 200- 1,500 Hz; 0.8 milliseconds
- Max Load: 4 CH x 96W/192W (12V/24V)
- DMX Connection Ports: RJ45 (for CAT5 cable)
- Max Daisy-Chain Units (DMX Signal)<sup>2</sup>: 10 Units. After 10 units a DMX 8-Way Splitter (DI-1804) must be installed to extend DMX signal.
- Compatible Power Supply: 12-24VDC constant voltage driver
- Power Failure Memory: Yes
- Environment: Suitable for indoor / dry location
- Ambient Temp<sup>3</sup>:-4 ~ 104°F (-20 ~ 40°C)
- Operating Temp<sup>4</sup>: -4 ~ 122°F (-20 ~ 50°C)
- Environment: Indoor / damp location
- Dimensions: 6.50 x 2.40 x 1.24 in. (L x W x H)
- Weight: 0.58 lbs. (9.4 oz.)

#### **MODELS**

**DI-1810** (formally DI-1918)

Note: UL Report will indicate model DI-1918. This is the same model as DI-1810.

## **ACCESSORIES**

For a list of compatible accessories, see the 'DMX Accessories' Specification Sheet.

#### **MAXIMUM DAISY-CHAIN DMX DECODERS**

A maximum of 10x DMX Decoders may be connected together via RJ45 DMX Connection Ports. DMX signal may be extended further by installing a DMX 8-Way Splitter (DI-1804) after the 10th DMX Decoder.

## **COMPLIANCE & REGULATORY APPROVALS**

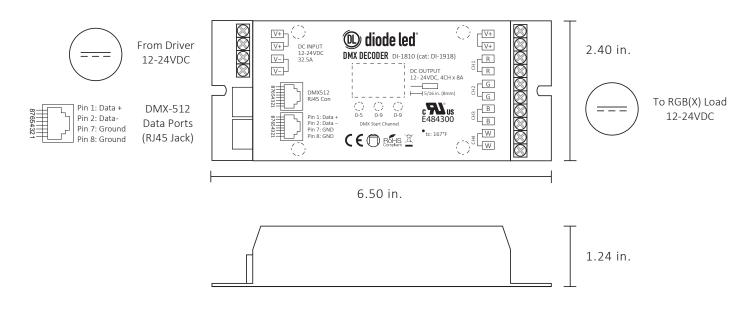
#### Safety

- UL Recognized Component US/CA- Controller. File # E484300.
- CE Compliant

#### **Environmental**

• RoHS Compliant

## **MECHANICAL DIAGRAMS**



<sup>1.</sup> Ensure to specify a compatible driver and fixture with the same voltage specifications. Multiple decoders may be connected to a compatible LED driver with a single output.

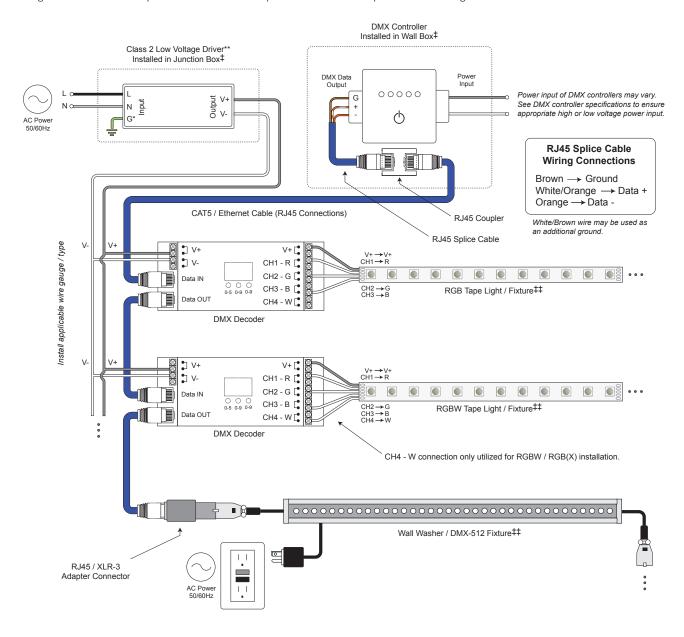
<sup>2.</sup> A maximum of 10x DMX Decoders may be connected together via RJ45 DMX Connection Ports. DMX signal may be extended further by installing a DMX 8-Way Splitter (DI-1804) after the 10th DMX Decoder.

<sup>3.</sup> Do not install product in an environment outside the listed ambient temperature. Exceeding the maximum ambient temperature may damage the controller and/or fixture.

I. Operating temperature is measured according to the minimum and maximum ambient temperature environment.

## SYSTEM DIAGRAM

The following diagram is provided as an example system design. CAT5 (RJ45 connections) data cables are the most cost-effective solution for transmitting DMX-512 signals. XLR-3 cables may also be installed but require an additional adapter for connecting to DMX decoders.



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## **ADDITIONAL RESOURCES**

DMX ACCESSORIES Specification Sheet
DMX 4-CHANNEL DECODER Installation Guide
VOLTAGE DROP CHARTS

## SAFETY / WARNINGS / DISCLOSURES

- 1. Install in accordance with national and local electrical code regulations.
- 2. This product is intended to be installed and serviced by a qualified, licensed electrician.
- 3. DO NOT connect directly to high voltage power. Install with a compatible Class 2 constant voltage LED driver (power supply).
- 4. Only install compatible 12V and 24VDC constant voltage luminaires.
- 5. This product is rated for indoor installation and is not protected against moisture.
- 6. Do not modify product beyond instructions or warranty will be void.

#### WARRANTY

## **Limited Warranty**

This product has a one (1) year limited warranty from the date of shipment. This warranty does not include the additional accessories referenced in this specification sheet. Complete warranty details for fixtures and additional accessories are available at www.DiodeLED.com under the 'Tools & Resources' tab. For warranty related questions please contact product support.

#### Consumer's Acknowledgment

Diode LED stands behind its products when they are used properly and according to our specifications. By purchasing our products, the purchaser agrees and acknowledges that lighting design, configuration and installation is a complex process, wherein seemingly minor factors or changes in layout and infield adjustments can have a significant impact on an entire system. Choosing the correct components is essential. Diode LED is able to work with the original purchaser to make an appropriate product selection to the extent of the limited information that the customer can provide, but it is virtually impossible for Diode LED to design a system that foresees every unknown factor. For this reason, this Warranty does not cover problems caused by improper design, configuration or installation issues. Any statement from a Diode LED employee or agent regarding a customer's bill of goods and/or purchase order is NOT an acknowledgment that the products purchased are designed and configured correctly. The purchase agrees and acknowledges that it is the customer's responsibility to adhere strictly to all information contained in the Product Specification Sheets.

There is often more than one way to design, configure and layout an LED lighting application properly to achieve the same lighting effect. Diode LED strongly recommends that licensed professionals be used in the design and installation of lighting systems that include Diode LED products. The specifications include important information that a designer and installer should carefully review and strictly follow. Qualified designers and certified and/or licensed installers, with access to the final installation environment, customer goals, and Diode LED product specifications can make the requisite decisions appropriate for a successful finished lighting application.

