LNX-210DVH waterproof constant pressure high power DMX decoder manual

Ver 2.01

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This manual is the technical manual of LNX-210DVH LED decoder, applicable to LNX-210DVH series sub-models, the software version is V2.01 and above compatible software version.

Commonly used LNX-210DVH sub-models are shown in the table below。

label	model	Software version	hardware version
LNX-210DVH	LNX-210DVH	V2.01	V101

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The subsequent upgrade of related products may differ slightly from this manual, and the upgrade of the manual may not inform you in time. We apologize for that! Please pay attention to the discrepancies between the actual product and the description in this manual.

For more product information, please visit Lingen's official website: www.linetx.com

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1. Introduction to LNX-210DVH decoder

1.1. Overview

LNX-210DVH is a DMX decoder for outdoor IP68 waterproof, constant voltage and high power developed by Ling En Technology. The decoder supports RDM remote centralized control management。

LNX-210DVH can drive RGBW type lamps with constant voltage PWM dimming. The drive port has 5 terminals: V+/R/G/B/W. W white lamps can be configured in different working modes through RDM。

The operating voltage range of LNX-210DVH is 5-24V, and the maximum current of each dimming channel is 113A, so the total current of the 4 dimming channels is 452A. The decoder can be connected to a 12V/24V constant voltage light bar or lamp, and the decoder has a power supply anti-reverse function and anti-overshoot function。

LNX-210DVH can remotely configure the address code or other working parameters of the decoder through RDM。

The DMX interface of LNX-210DVH is an isolated interface, and the isolated DMX interface can ensure the equipment to work stably in more complex work scenarios, and is more secure and stable. The DMX interface is also equipped with protection circuits such as anti-overcurrent and anti-overshoot, which effectively protects the equipment from stable and long-term safe operation。

LNX-210DVH has the waterproof characteristics of IP68. The incoming and outgoing wires of the decoder pass through the waterproof plugs, and the open-cover internal wiring is used for wiring, which effectively improves the waterproof performance of the decoder for outdoor applications。

2. Installation of LNX-210DVH decoder

2.1. LNX-210DVH decoder installation diagram

2.2. LNX-210DVH decoder installation instructions

1 The input and output ends of the LNX-210DVH are connected by a single multi-core cable, and the power and signal lines are transmitted by the same cable. Usually, 4-core cables can be used, two of which are power lines and two are signal lines. It is recommended to use the integrated line with the power signal line as a whole. The power line of the integrated line is equipped with a copper wire of 1-2 square meters according to the working current. The signal line of the integrated line is generally a twisted pair。

2 For better waterproof performance, it is recommended to install the wiring inside the cover, that

is, the decoder does not have a terminal at the factory, but when installing, open the cover and connect directly to the internal terminal through the waterproof plug. Please refer to the following for the specific wiring method 。

3 The waterproof plug specification of LNX-210DVH decoder is PG13.5, so cables with diameters ranging from 7-12mm can be selected。

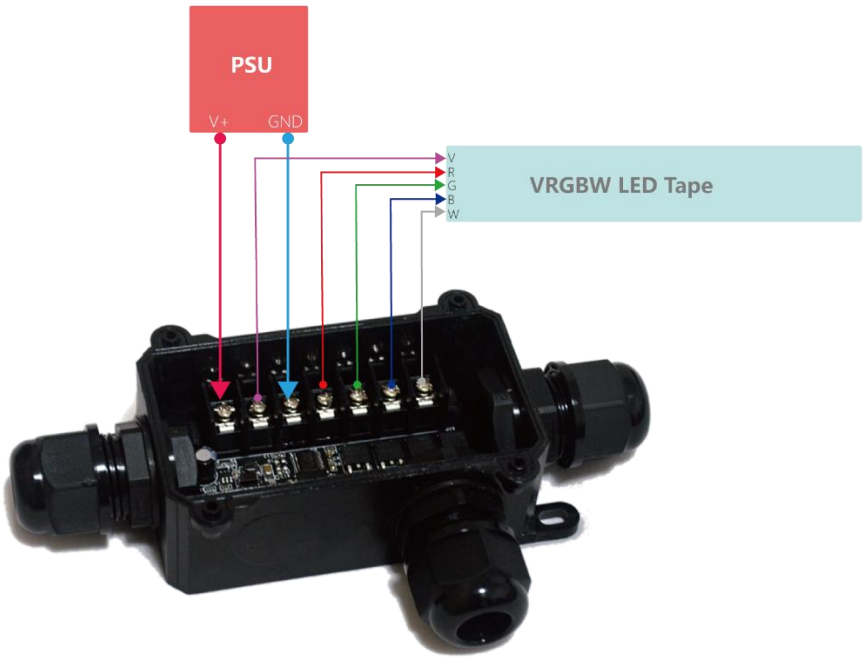
The working voltage range of the decoder is DC5-24V, and the driving voltage of the lamp is the same as the input voltage。

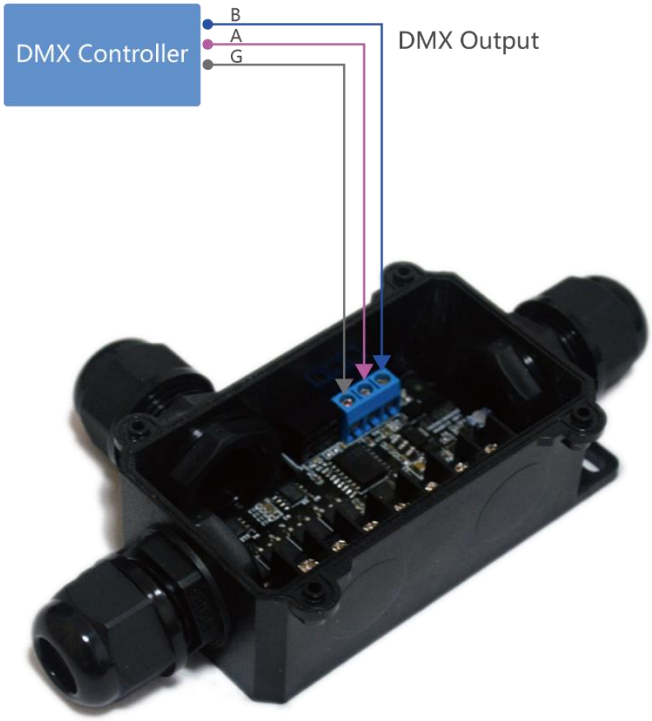
4 The LNX-210DVH decoder and the decoder are connected to the waterproof plug input of the next decoder through the hand-in-hand waterproof wiring, that is, the output cable of the waterproof plug of the previous decoder is connected to the input of the next decoder. Input cables and output cables generally have the same specifications and dimensions, and both include power and signal wires。

The lamp connection terminal of LNX-210DVH decoder is also output by a waterproof plug. The specification of the plug is also PG13.5. The constant voltage driver has five wires V+/R/G/B/W. If the lamp does not have a separate For white light W, the wiring of W can be ignored, and W of the decoder can be configured to not participate in dimming. Please refer to the following for specific configuration methods。

In long-distance or multi-node applications, power supply and signal attenuation should be considered, and power supply or DMX signal amplifiers should be added at appropriate nodes。

2.3. Wiring Diagram





3. Configuration of LNX-210DVH decoder

3.1. How to configure LNX-210DVH decoder

LNX-210DVH can be set up one-to-one by using the LNX-100C encoder from Ling En Technology, or can be used for centralized remote configuration management using RDM (Remote Device Management)。

When using the LNX-100C encoder, it is generally necessary to set and save the required parameters in the decoder after one-to-one connection before the decoder is installed. After the decoder is installed, if you need to change the configuration, you need to remove it and set it up again。

The RDM configuration is more convenient and convenient. At any time, whether it is before or after installation, you can use the RDM master control device to search for all decoder devices on the DMX bus in real time online, and separate these devices. Make various settings. The RDM main control device can choose the LNX-378SD multi-function main control of Lingen Technology. The main control fully supports various RDM search and management functions. It can search all RDM devices on the WEB with one key, and remotely configure the DMX bus All decoders that support RDM。

3.2. Configure the address code of the decoder（Start Address）

The address code of the decoder refers to the starting position of the decoder in the DMX channel, and is the most important configuration parameter of the decoder. The value can be configured directly through RDM or LNX-100C. For specific configuration methods, please refer to the manual of LNX-378SD or LNX-100C。

3.3. Configure the working characteristics of the decoder（Personality）

The working characteristics of the decoder determine whether the W of the decoder participates in dimming and how to participate in various characteristics such as dimming。

LNX-210DVH has 3 working characteristic values to choose from. Different characteristic values determine the different working methods of the decoder. 1 Please refer to the table below for specific working characteristic values:

Table 3-1 Work feature configuration items

Configuration parameter	Configuration value	Configuration value description
Working characteristics 1	1	The W of the decoder does not participate in dimming, and the RGB dimming channel of the decoder occupies a total of 3 DMX channels（footprint)。
Working characteristics 2	2	When the decoder is equal to the three colors of RGB, the three colors of RGB are turned off, and W participates in dimming alone. The decoder RGB dimming channel accounts for a total of 3 DMX channels（footprint)。
Working characteristics 3	3	The W of the decoder participates in dimming, and the RGBW dimming channel of the decoder occupies a total of 4 DMX channels（footprint)。

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3.4. Configure the boot mode of the decoder（Startup Mode）

The power-on mode of the decoder defines the independent dimming style of the decoder when there is no DMX dimming signal after the decoder is turned on. LNX-210DVH has 9 different power-on modes. Please refer to the table below for specific definitions:

Table 3-1 Power-on mode configuration items

Configuration parameter	Configuration value	Configuration value description
Configuration value boot mode 1	1	When the decoder has no DMX dimming signal, the decoder dimming color presents a smooth and gradual change effect。
Configuration value boot mode 2	2	When the decoder has no DMX dimming signal, the dimming color of the decoder presents a color flicker effect。
Configuration value boot mode 3	3	When the decoder has no DMX dimming signal, the dimming color of the decoder presents a color mutation effect。
Configuration value boot mode 4	4	When the decoder has no DMX dimming signal, the dimming color of the decoder is a static red effect。
Configuration value boot mode 5	5	When the decoder has no DMX dimming signal, the dimming color of the decoder is static green。
Configuration value boot mode 6	6	When the decoder has no DMX dimming signal, the decoder dimming color presents a static blue effect。
Configuration value boot mode 7	7	When the decoder has no DMX dimming signal, the dimming color of the decoder is static white。
Configuration value boot mode 8	8	When the decoder has no DMX dimming signal, all channels of the decoder turn off dimming, that is, the black effect。
Configuration value boot mode 9	9	When the decoder has no DMX dimming signal, the decoder dimming maintains the effect of the final DMX dimming signal。

[Prompt]: After setting the parameters of the decoder, the decoder will automatically save the parameters. Within 1 second of saving the parameters, please do not turn off the power of the decoder, otherwise it may damage the decoder and cause it to not work normally!

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