

HX-SZ200-DECODER(1CH)

Category: DMX512 Controllers and Decoders

Source model: HX-SZ200-DECODER(1CH)

Internal reference: HOION-CTRL-066

Product Overview

LED DMX512 Decoder

HX-SZ200-DECODER(1CH), adopts the advanced micro control unit, designed for single color and constant voltage LED light. It can receive the DMX-512 standard digital control signal which is internationally widely used. It changes the signal into PWM control signal to actuate the LED lamp. It can also connect the DMX digital master to change the light brightness or dynamic effect.

Technical Details

Product Feature

As a constant voltage decoder, accept international popular DMX512 standard digital control signal, convert it to the PWM signal to drive LED lamps, applicable to a variety of constant voltage LED lamps, such as LED module, lights, string lights, etc.

SZ200-DECODER(1CH) special design for single color LEDs, each universal DMX decoder takes up 1 DMX address.

DMX decoder can be controlled by DMX master, and the decoder can connect the signal line to continue to expand the channels up to 512, eventually be able to achieve more change in effect.

When used alone, it also can be used as a normal single color dimmer, with 9 modes in total.

In order to achieve synchronization of more LED lamps, signal repeater can be used.

1 channel for single color output, maximum current up to 25A, 300W.

2-year warranty.

Technical Parameters

| Working temperature | -20-60℃

| Supply voltage | DC12~24V

| Output | 1 channel

| External dimension | L127*W42*H33 (mm)

| Packing size | L135*W55*H40 (mm)

| Net weight | 150g

| Gross weight | 170g

| Output gray | 256 levels

| Output current | <25A

| Output power | 12V:<300W, 24V:<300W

| Control standard | DMX512

| PWM frequency | 7.8KHz

Interface Specifications

DMX input/output interface:

Adopt screw terminals.

Address code and set feature service interface:

Adopt 10-bit side of the dial-type DIP switch.

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Power and load interface:

Adopt screw terminals.

Direction for use

This product is in compliance with DMX512 protocol, compatible autoindex addressing and manual establishment address.

Each universal DMX decoder takes up

1 DMX address . It adopts 2 ways (autoindex addressing and code switch) to set up the address. When adopting the autoindex addressing, all switches are "off" status. When adopting the code switch to set up address, the 10th bit(FUN) is "off" status, and other 9 bits are binary value code switch which are used to set up the DMX starting address code. The first bit is the lowest order bit, and the ninth is the highest order bit. That can set up 511 address codes. The DMX starting address code is equal to the sum of 1st to 9th bit. If move down one bit of code switch ("ON" set "1"), you can get the placevalue of this bit. If move up (set "0"), the placevalue is 0. For example: if you want to set up DMX starting address code for 73, you should move down the 7th, 4th, and 1st bit of code switch for "1", and others for "0", Then the placevalue's sum of 1st to 9th bit is $64+8+1$. That is to say, the DMX512 starting address code is 73. (The correspondence dials code position is as follows)

To choose the channel from the Dial in-line Package (DIP) Switch:

| Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

| Weight number | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | FUN

Example 1:

Like figure 1, to set up the DMX starting address code for 37, should move down the 6th, 3th, 1st bit for "1", others for "0". Then the placevalue's sum of 1st to 9th bit is $32+4+1$, as is for 37.

Figure 1

Example 2:

Like figure 2, to set up the DMX starting address code for 328, should move down the 9th, 7th, 4th bit for "1", others for "0". Then the placevalue's sum of 1st to 9th bit is $256+64+8$, as is for 328.

Figure 2

The function outside of the DMX

Control with DIP switch

1) Test function:

The DIP switch's 10th bit is "FUN", for built-in function key. When "FUN"="OFF", is for DMX decoder function. This is used to adopt DMX signal. When "FUN"="ON", the test function like figure 3:

1-9 switch OFF: black

Switch 1=ON: 1% brightness

Switch 2=ON: 10% brightness

Switch 3=ON: 25% brightness

Switch 4=ON: 50% brightness

Switch 5=ON: 75% brightness

Switch 6=ON: 90% brightness Figure 3

Switch 7=ON: 100% brightness

Switch 8=ON: single color flash (8 levels of speeds are adjustable)

Switch 9=ON: single color breath(8 levels of speeds are adjustable)

Speed setting of "single color flash" and "single color breath":

In test function, when switch 8=ON, is for single color flash. When switch 9=ON, is for single color breath. 8 levels of speeds are adjustable for each effect:

1-7 switch OFF: 0 grades of speeds

Switch 1=ON: 1 grade of speeds

Switch 2=ON: 2 grades of speeds

Switch 3=ON: 3 grades of speeds

Switch 4=ON: 4 grades of speeds

Switch 5=ON: 5 grades of speeds

Switch 6=ON: 6 grades of speeds

Switch 7=ON: 7 grades of speeds (maximum speed)

Figure 4

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As figure 4, when all switches are “ON” at the same time, the more value is taken as final. The state of decoder is “single color breath” of test function. Its variable speed is 7 grades. In addition, when signal indicator (green) blinks slowly, it runs the built-in program effectiveness of decoder. When the decoder receives the DMX signal, signal indicator will flash rapidly.

Typical Applications

Product information for placing order

| Product name | Item number

| LED DMX512 Decoder | HX-SZ200-DECODER(1CH)

Source reference: <https://www.hoionlighting.com/products/LEDdiaoguangqi/LEDyinlekongzhiqu/2021/0419/373.html>