



5 - Channel Constant Voltage DMX512 RDM Decoder, 12 - 24 V DC, 5x8 A PWM Output

- Five common-anode PWM outputs rated 8 A per channel
- DMX channel quantity settable from 1CH to 5CH
- Selectable 8-bit or 16-bit PWM output resolution
- Output PWM frequency adjustable from 500 Hz to 35 kHz
- DMX in and out via RJ45, 3/5-pin XLR and screw terminals
- Metal housing measuring 164 × 73 × 38 mm with digital display

OVERVIEW

A five-channel constant voltage DMX512 and RDM PWM decoder for RGB, RGBW and single-color LED loads. Master and decoder modes allow it to run as a stand-alone controller with 31 built-in color programs or as an addressable node on a DMX line, with signal in and out available on RJ45, 3/5-pin XLR and screw terminals.

Input is 12 - 24 V DC with 8 A per channel, or 480 - 960 W total across five common-anode outputs. PWM resolution is selectable at 8-bit or 16-bit, output frequency is settable from 500 Hz to 35 kHz, and the dimming curve gamma is adjustable from 0.1 to 9.9. The metal housing carries a digital display for DMX address, channel quantity and decoding mode, and the input stage is galvanically isolated.

Supplied with a 1-year warranty.

SPECIFICATIONS

OPTICAL

LED Lifetime 50,000 h

ELECTRICAL

Operating Voltage 24 V

Wattage 480-960 W

Current Draw 5 A

Dimmer Type DMX512 / RDM PWM decoder

Input Connection Type RJ45, 3/5-pin XLR, screw terminal

MECHANICAL

Product Dimensions 164×73×38mm

Material Metal housing

Weight 1 lb

ORDERING

Warranty 1 y

DIMENSIONS & DIAGRAMS

1. Work as Master mode

2. Work as Decoder mode

Note: 1) the terminal blocks used for the input have two spaces for Voltage + and two spaces for GND which allow for the huge current capability this unit has 5 X 8A = 40 AMPS of power!
2) Please make sure that the stripped wires are fully inserted into the terminal blocks and screws are tightened!

1. Firmware OTA update:
This function can be used when there is a firmware update from the manufacturer, the update can be executed through a Windows computer and an USB to serial port converter, the converter will connect the computer and the decoder's hard wire DMX port. A software RS485-OTW on the computer will be used to push the firmware to the decoder.

Connect the computer and the decoder through the USB to serial port converter, if you need to update multiple decoders' firmware, connect the converter to first decoder's DMX port, then connect other decoders to the first decoder in daisy chain through the DMX port. Please do not power on the decoders.

Run the OTA tool RS485-OTW on the computer, select the correct communication port "USB-SERIAL", baudrate "250000", and data bit "9", use default settings for other configurations. Then click "file" button to select the new firmware from the computer, then click "Open Port", the firmware will be loaded. Then click "Download Firmware", the right side state column of the OTA tool will show "send link". Then power on the decoders before "wait erase" displaying on the state column, the digital display of the decoders will show **IRP1**. Then "wait erase" will show on the state column, which means the updating starts. Then the OTA tool starts writing data to the decoders, the state column will show the progress, once writing data finishes, the digital display of the decoders will flash **IRP1**, which means firmware updated successfully.

2. DMX address setting:
select menu **8 XXX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to set DMX address (click is slow, hold is fast.), then click button "Back" to confirm.

CH02=2 DMX addresses, output 1&3 is address 001, output 2,4&5 is address 002
CH03=3 DMX addresses, output 1, 2 is address 001,002, output 3,4&5 is address 003
CH04=4 DMX addresses, output 1,2,3 is address 001,002,003, output 4&5 is address 004
CH05=5 DMX addresses, output 1,2,3,4,5 is address 001,002,003,004,005.

4. PWM output resolution Bit setting:
select menu **6E XX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 08 or 16 bit, then click button "Back" to confirm.

5. output PWM frequency setting:
select menu **PF XX**, click button "Enter", display flashes, then click button "Up" / "Down" to choose 00~35, then click button "Back" to confirm. 00=500HZ, 01=1kHz, 02=2kHz.....25=25kHz, 35=35kHz.

6. output dimming curve gamma value setting:
select menu **9R XX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose 0.1~9.9, then click button "Back" to confirm.

7. DMX decoding mode setting:
Select menu **8P XX**, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose the decoding mode, then click button "Back" to confirm. "dPx" means the DMX address quantity used for control of corresponding PWM output channel quantity. 1st "x" is DMX address quantity, 2nd "x" is PWM channel quantity.

Fine dimming: the fine dimming effect can only be visible when the dimming curve gamma value is set lower than 1.4, and the lower the value is, the more visible the fine dimming effect will be.

DMX address is 001, CH01

DMX Console Slider number	dp1.1	dp2.1
1	for all output dimming	for all output dimming
2	No use	for all output fine dimming

DMX address is 001, CH02

DMX Console Slider number	dp1.1	dp2.1	dp3.2
1	for output 1&3 dimming	for output 1&3 dimming	for output 1&3 dimming
2	for output 2,4 &5 dimming	for output 1&3 fine dimming	for output 2,4 &5 dimming
3		for output 2,4 &5 dimming	for all output dimming
4			for output 2,4&5 fine dimming

DMX address is 001, CH03

DMX Console Slider number	dp1.1	dp2.1	dp4.3	dp5.3
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 fine dimming	for output 2 dimming	for output 2 dimming
3	for output 3,4 &5 dimming	for output 2 dimming	for output 3,4&5 dimming	for output 3,4&5 dimming

POLI LED & SIGNS

WIRING DIAGRAM

APPLICATIONS

Architectural facade lighting

Theatrical and stage rigs

Retail and hospitality color-changing coves

Entertainment venue LED strip runs

Museum and exhibit lighting control

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slug	value	source	confidence
led_lifetime_h	50,000 h	db	high
operating_voltage	24 V	pdf	high
wattage	480~960 W	pdf	high
current_draw	5 A	pdf	high
dimmer_type	DMX512 / RDM PWM decoder	pdf	high
input_connection_type	RJ45, 3/5 - pin XLR, screw terminal	pdf	high
product_dimensions	164×73×38mm	pdf	high
material	Metal housing	pdf	high
weight	1 lb	db	high
warranty_years	1 y	db	high

Specifications subject to change without notice.