EUR0420

Relay Switch Controller

Summary

Thanks for using the EUR0420 relay switch controller.The product adopt advanced microcomputer control technology, analysis is widely used DMX-512 (1990) /RDM,DALI standard protocol ,and EU-BUS protocol developed by EUCHIPS, output 4 relay switch signal and their synchronous 0-10V DC control signal. The max current of each channel of relay switch is 20A,the total 4 channel is 80A , the max current of each channel of 0-10V is 20mA.In addition, the device can be connected into the Dynalite system by the Dynalite gateway (Note: the Dynalite trademark holder is PHILPS, the relevant right is owned by the holder of the trademark, the same below)

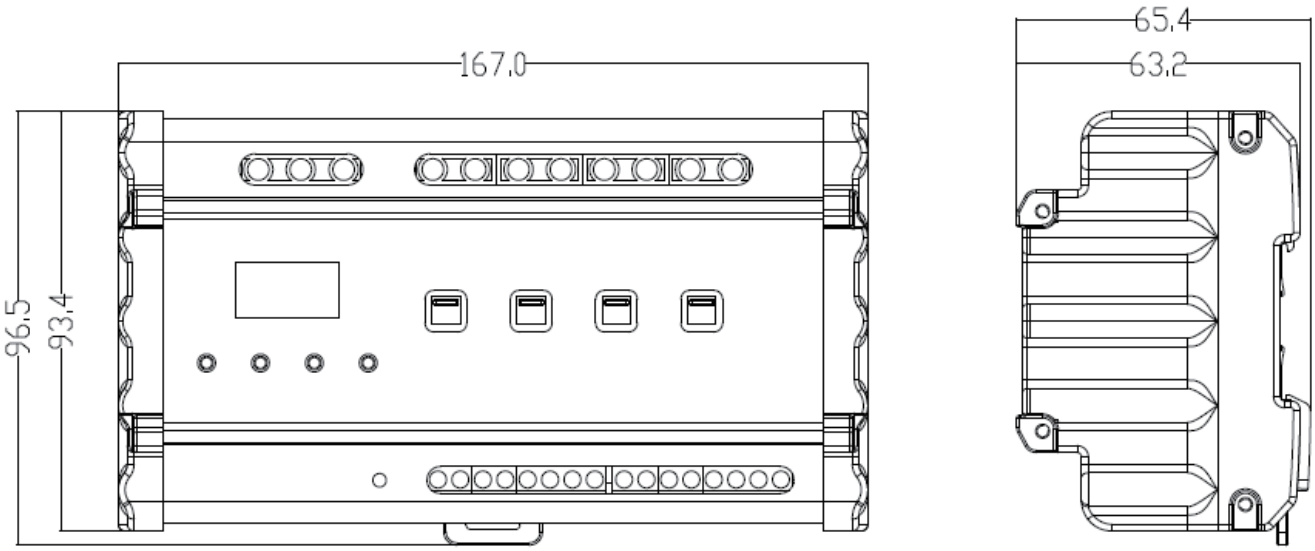
Product Features

- Meets DMX512(1990)/RDM,DALI IEC62386 protocol and EU-BUS protocol developed by EUCHIPS
- Output 4 channel relay switch signal and their synchronous DC 0-10V control signal
- Built-in LCD, the user can operate more conveniently
- Set fades time of each channel separately, range of 0.1-60.9s
- Standard 35 mm din rail, convenient installation
- Relay switch channel can be turned on and off manually
- Can save up to 8 events
- Suitable for intelligent lighting control - Home Furnishing, office buildings, schools, stadiums, outdoor architecture etc.

Technical Parameters

Item	Parameters
Input voltage	100-240VAC 50/60Hz
Input control signal	DMX512(1990)/RDM,DALI,and EU-BUS signal
Maximum output current of relay switch channel	20A*4ch
Maximum output signal current of 0-10V	20mA*4ch
Dimension	167*93.4*63.2mm(L*W*H),standard 35mm din rail
Pack size	185*100*68mm(L*W*H)
G.W.	580g
Operational temperature	-20-40℃

Dimension(mm)



Function Show of the product

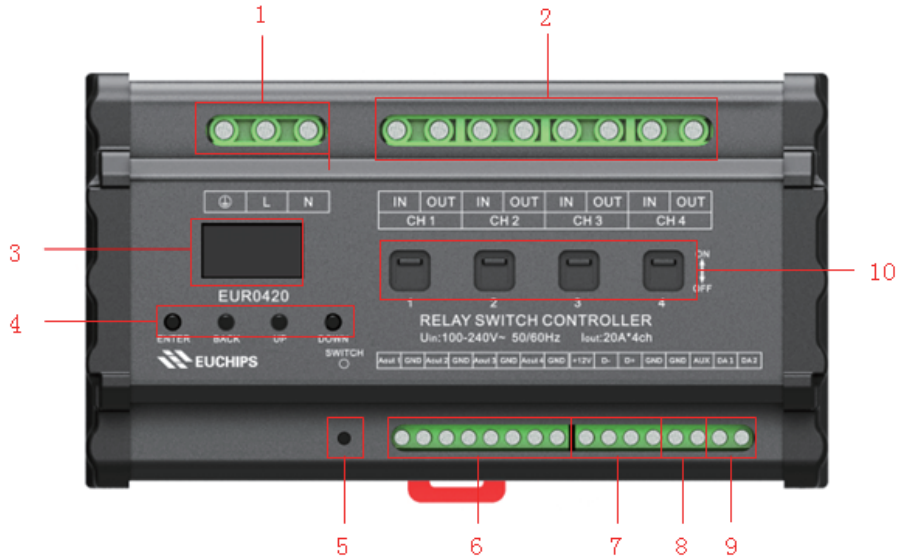


Figure 1

1	AC input port
2	4 relay switch output ports, corresponding with 4 DC 0-10 V ports of 6 from left to right in proper order. For each channel, both the addresses of relay switch signal and the corresponding 0-10V are shared.
3	LCD display
4	Function button
5	Button(it is effective under EU-BUS mode), Press 1 time: the device report its own serial number information; Press 3 times continuously: all the channels have output; Press for 4s or more: the device is reset and restarted
6	4 DC analog voltage output ports(0-10V)
7	DMX 512/RDM input port and 12 V output port
8	Input signal of dry contact(it is effective under EU-BUS mode), used for detecting external signals, and triggering device to response
9	DALI signal input&output port
10	Manual switch

LCD Function

After a successful connection, the main menu will be seen,including control mode, output mode, time event, system settings and system information,see figure 2 and figure 3. Press the button "Enter" to enter the sub menu press "BACK" to return to the upper menu, press "Up" or "Down" button to move the cursor up or down.

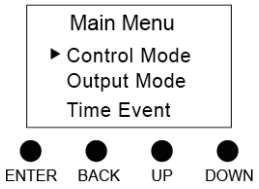


Figure 2

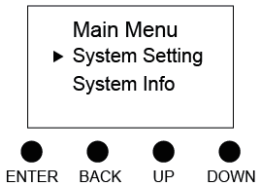


Figure 3

Button	Function
ENTER	Confirm key, confirm the selected state,enter the option to set the state
BACK	Return key, return to the upper menu,exit the option to set the state
UP	Move up the cursor; change the status of the option; when setting DMX Address, Threshold, Fade Time, long press "UP", the value will increase rapidly
DOWN	Move down the cursor; change the status of the option; when setting DMX Address, Threshold, Fade Time, long press "DOWN", the value will decrease rapidly

Control Mode

1. EU-BUS Mode

In the current mode, the output signal is controlled by EU-BUS command, the upper computer can scan the device, and assign the address, read the parameters, and the device can operate according to the instruction of the upper computer.

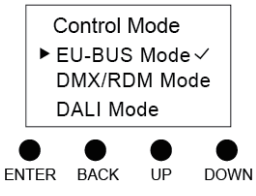


Figure 4

2. DMX mode

In the current mode, the output signal is controlled by DMX/RDM.
When using DMX512(1990) protocol, press "Enter"，then set DMX address for each channel . The value can be set from 1 to 511. The addresses of 4 channels can be continuous or discontinuous, such as 1, 2, 3, 4, or 1, 5, 8, 9. That is to say, the addresses of the 4 channels are independent, but for any channel，the addresses of relay switch channel and the corresponding 0-10V DC channel are the same. In addition ,the addresses of 4 channels can be the same, so that they can be controlled simultaneously.
When using RDM(2009), the upper computer can scan the device, and assign the address, read the parameters.

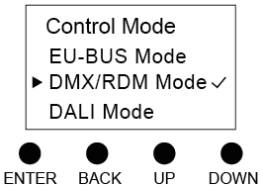


Figure 5

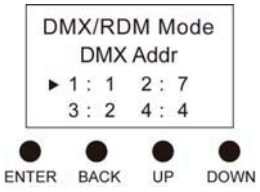


Figure 6

3. DALI mode

The output signal is controlled by the DALI command in this mode. The address of the DALI mode is defined by the system itself or modified by the host computer. Press “ENTER” to read the short addresses of 4 channels, The addresses of 4 circuits are independent of each other, but the address of each relay switch is the same as the corresponding 0-10V DC channel.

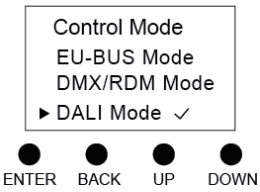


Figure 7

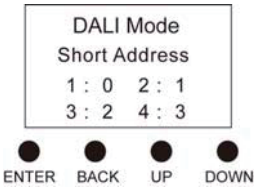


Figure8

3.Manual mode

In the current mode, you can manually turn on or off relay switch signal, and can also set the brightness of the lamp controlled by the 0-10V signal, range of 0-100%.

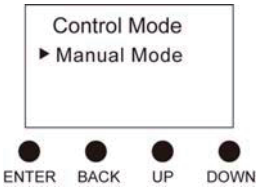


Figure 9

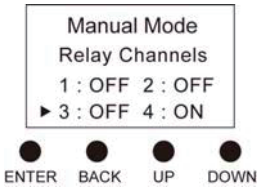


Figure 10

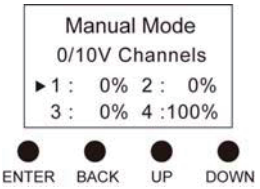


Figure 11

Output mode

1. Fade Time (note1)

In the current mode, set fade time of each channel. The range is 0-60.9s.

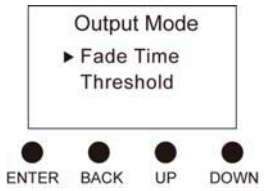


Figure 12

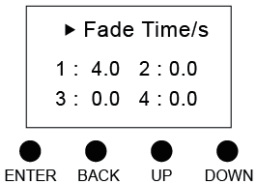


Figure 13

2. Threshold (note2)

You can set the switch threshold for each relay switch channel. When the received brightness value is more than or equal to the threshold value, open the output, or else shut down the output. The setting range of brightness threshold value is 0-100%, corresponding to the brightness level of 0-255. Threshold settings is invalid for the 0-10V channels, the 0-10V channel will output according to the received brightness value.

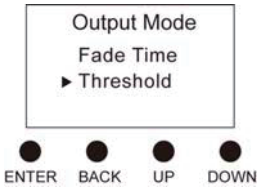


Figure 14

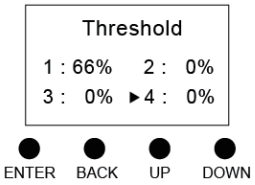


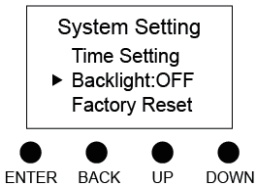
Figure 15

System Setting

After entering the system settings, you can set the current time of the system, the light of the backlight and restore the factory settings.

1. Backlight

When the backlight is set to "ON",the display unattended operation over 30s, LCD will enter the clock mode, showing the current date and time. After 60s, the system will automatically enter the sleep mode, press any key to end the sleep mode, enter the setting state. When the backlight is set to "OFF", the display will remain the current setting state.



2. Factory Reset

Press ENTER to choose whether to reset factory settings.

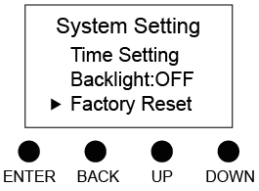


Figure 34

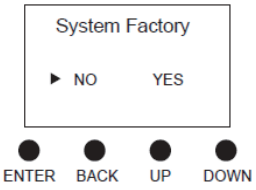


Figure 35

System Info

In this mode, the current system information can be displayed, as follows:

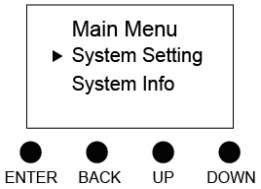


Figure 36

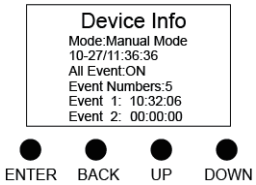


Figure 37

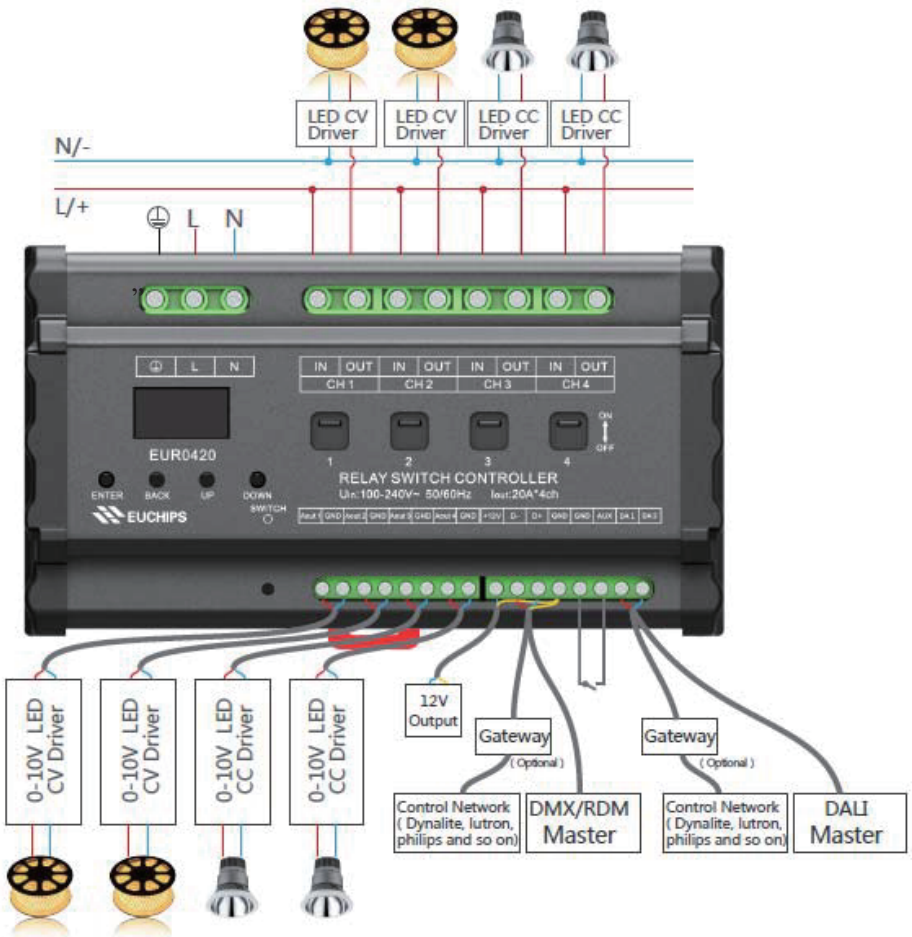
Line 2	control mode
Line 3	current date and time
Line 4	All Event state
Line 5	events number
Others	event name, event status or time

Manual switch

4 channel relay switch signal output, each channel corresponds to a button, you can open or close the relay switch channel output manually.

Wiring Diagram

The maximum current of each channel of 0-10V is 20mA, the maximum number of 0-10V dimming driver which can be connected to each channel is determined by signal interface current consumption. When the signal current is not enough, you can use EUCHIPS 0-10V signal converter to amplify the power, numerous dimming driver can be connected theoretically.



Note 1:Fade Time settings are valid only in DMX/RDM mode.

Note 2:Threshold settings are valid only in DMX/RDM and DALI mode.