DLPJ-0524-4

Instruction manual for strobe controller

Version maintenance records		
Version	Date	Remark
V1.0	2020-8-27	New version

Revised in Aug of 2020

Safety instructions

✧ To avoid possible damage from electric shocks, remove the power cord from the power socket before moving the controller.

✧ When connecting other hardware devices to the controller, please cut off the input power supply of the controller. Please carefully check whether the input and output wires are connected correctly to ensure that the controller and peripheral devices are working Reliably.

✧ Make sure that the voltage setting for the power supply has been adjusted to the voltage standard used in the country or region. If you are not sure about the supply voltage in your area, please consult the local power company nearby.

✧ To ensure safety and improve anti-interference, ensure that the ground wire of the input power supply is reliably grounded.

✧ To ensure that the trigger of the controller is stable and correct, ensure that the trigger input signal is electrically isolated from the device.

Operating safety instructions

✧ Please read the instructions carefully before using the product.

✧ Before using the product, please confirm the appearance and other quality of the product. If any major defects are found, please contact us as soon as possible.

✧ Please try to avoid using the controller in dust, high temperature and high humidity environment.

✧ Do not put the controller in a shaky place.

✧ Do not operate the controller with live wire.

1. Product introduction

1.1 Welcome to using our product

Our products with high quality, high characteristics, please rest assured to use!
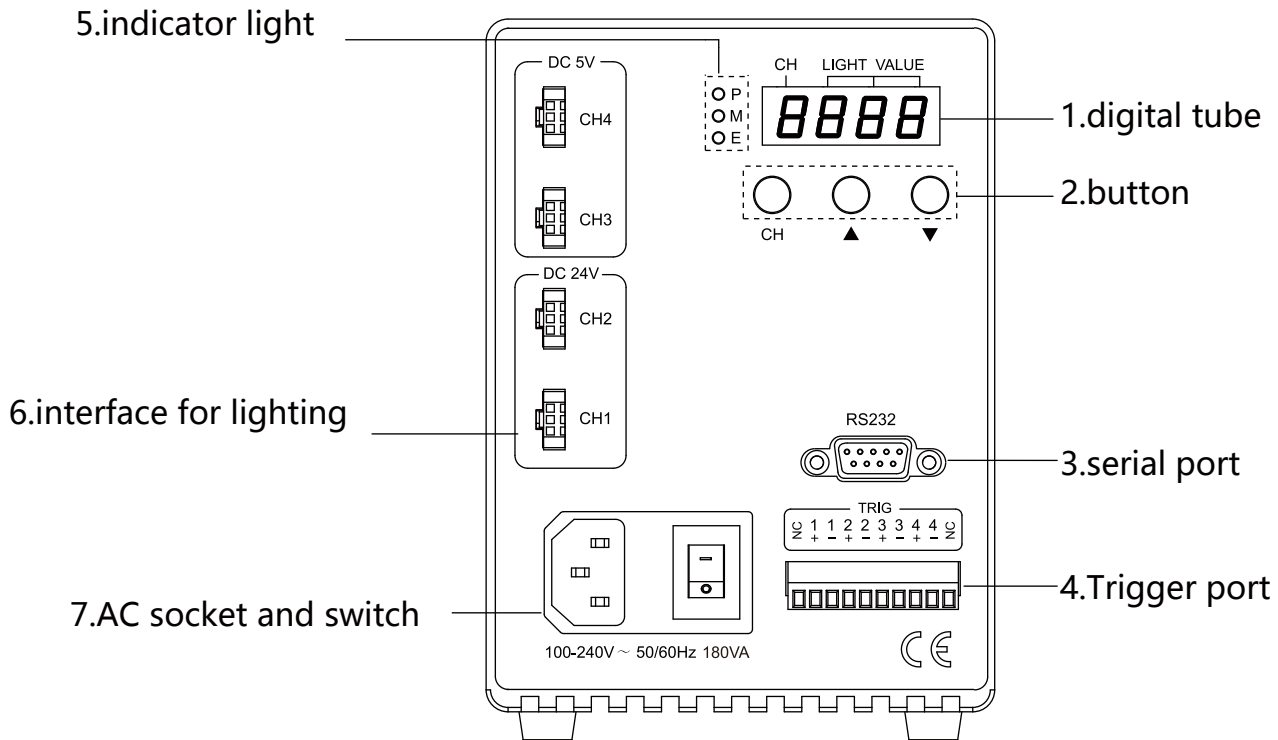
1.2 Product features

1、Constant current drive, automatic inspection of load current.

2、 Set of negative trigger mode,strobe mode in one.

3、 Digital display, 256 degrees brightness can be set.

4、 RS232 communication, Modbus protocol, remote control.

5、 Installation: screw installation or DIN rail installation.

6、 External trigger input adopts high speed optocoupler design, high speed and reliability.

7、Two channels for spot light source, and other two channels for light source with 24V

1.3 Product specification

Model	DLPJ-0524-4
Drive mode	constant voltage
Light control mode	0～255 degrees constant current control
	Panel key/RS232
Input Voltage	AC100-240V 50/60Hz
Channel	4
Output Voltage	CH1-CH2(DC24V) CH3-CH4(DC5V)
Max output voltage	CH1-CH2（singlechannel2.5A）CH3-CH4（singlechannel1.1A）
Total power	60W
24V Output port	SMP-03V-BC（1：output+2：NC 3：output-）(Thefirstonefromtheleftispin1)
5V Output port	SMP-03V-BC（1：feedback 2：input+ 3：input-）(The first one from the left is pin1)
External trigger	DC5V～24V（currentabout5.6mA）
Trigger delay	＜8μs
Operating T&H	Temp：0～40℃、Humidity：20～85%RH（with no condensation）
Storage T&H	Temp：-20～60℃、Humidity：20～85%RH（with no condensation）
Cooling method	Forced cooling
Weight	720g or less

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5.indicator light

DC 5V
CH4
CH3

DC 24V
CH2
CH1

6.interface for lighting

7.AC socket and switch

100-240V ~ 50/60Hz 180VA

CH LIGHT VALUE

1.digital tube

2.button

CH ▲ ▼

RS232

3.serial port

TRIG

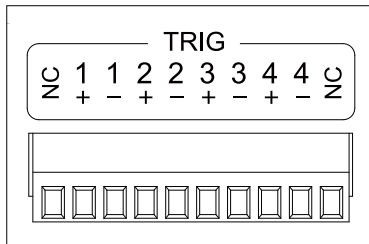4.Trigger port

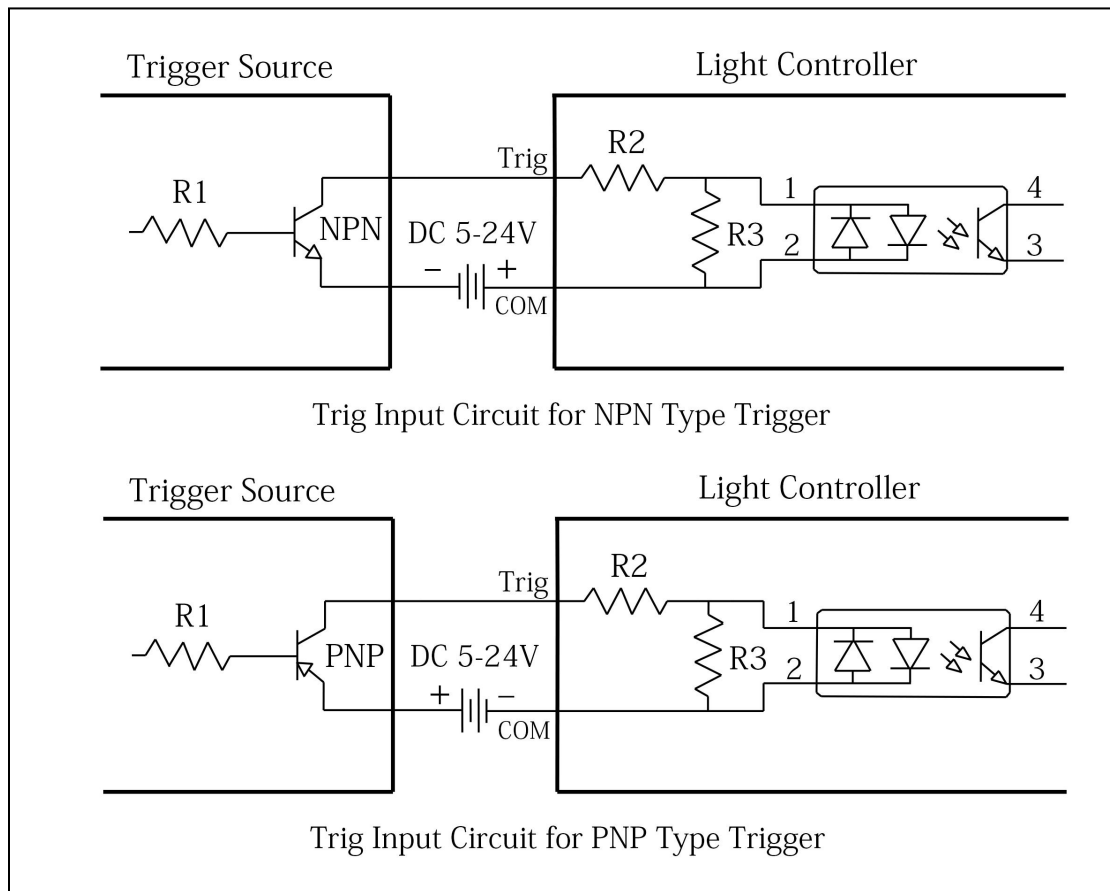| No.	Item	Desctiption
1	Digital tube	The first digit from the left is the channel for currently operation, and the last three digits are the corresponding values for currently operation
2	Key	CH is for channel and function switch，▲increase brightness▼reduce brightness
3	serial port	Through RS232 and PC
4	Trigger port	ThroughexternalinputDC 5～24V Trigger signal for synchronous output of light source
5	Indicator light	When the power is ON, the P light will be on, the M light ON to setting the controller address, when the controller abnormal then the E light will be on
6	interface for lighting	SMP-03V-BCinterface，a total of 4 light source output, each can be independently controlled
7	AC socket and switch	Input AC100-240V 50/60Hz

3,Trigger port specification

3.1

There are four trigger ports, and the internal optocoupler isolation is adopted. Effective trigger signals can be generated when the terminals of the corresponding channels "+" and "-" are connected to DC 5 ~ 24V.
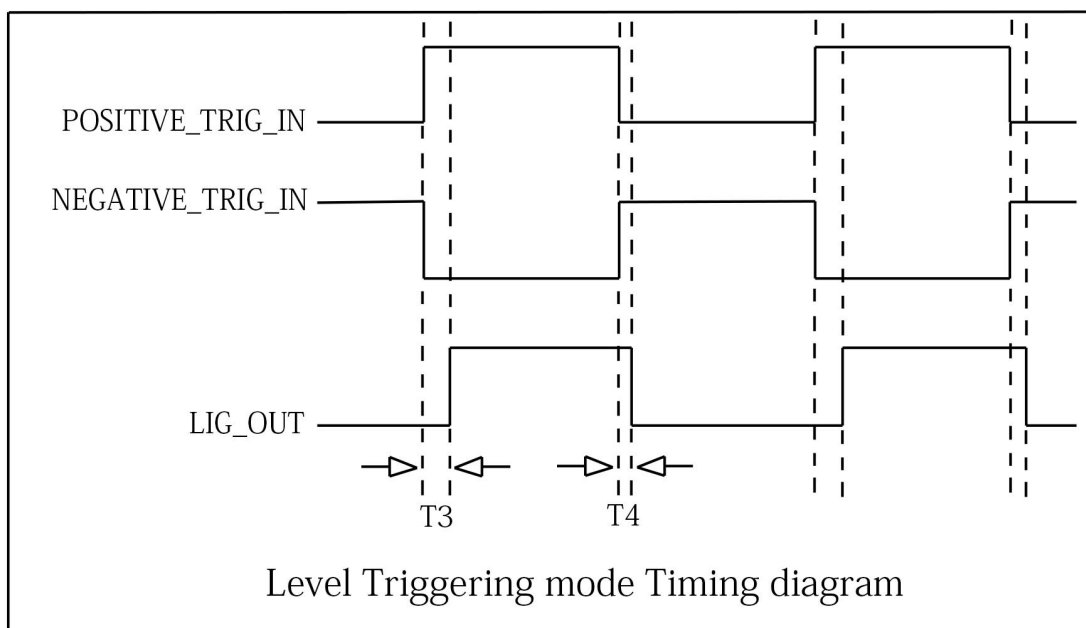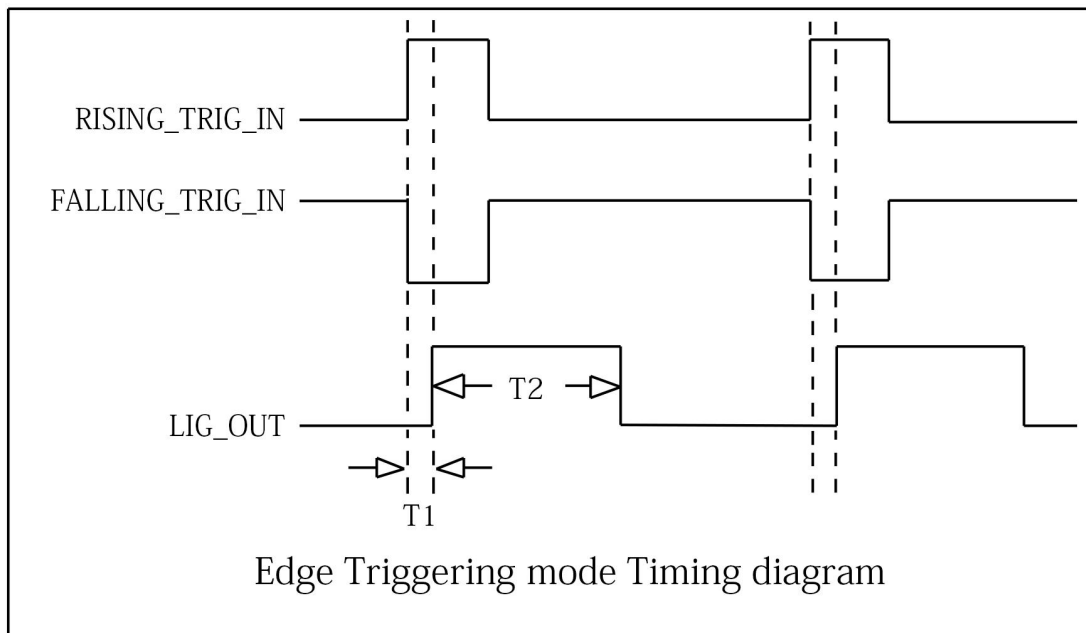
Trigger port

Port	Description
NC	/
1+	CH1 External trigger signal positive
1-	CH1 External trigger signal negative
2+	CH2 External trigger signal positive
2-	CH2 External trigger signal negative
3+	CH3External trigger signal positive
3-	CH3 External trigger signal negative
4+	CH4External trigger signal positive
4-	CH4 External trigger signal negative
NC	/

3.2 Trigger wiring diagram

Trigger Source   Light Controller

Trig Input Circuit for NPN Type Trigger

Trigger Source   Light Controller

Trig Input Circuit for PNP Type Trigger

3.3 Trigger sequence diagram

Edge Triggering mode Timing diagram

Level Triggering mode Timing diagram

No.	Item	Description
1	T1	T1 is the trigger delay in strobe mode
2	T2	T2 is the stroboscopic pulse width of the light source in stroboscopic mode
3	T3	T3 is the trigger delay in digital mode,<8μs
4	T4	T4 is the light source shutdown delay, depending on the load，〈10μs

4. Communication protocol specification

4.1 Communication format

The default configuration：

Adopted RS232 level ，serial port parameters as follows：

Baud rate：9600 bps

Data length ：8 bits

Stop bit：1 bit

Parity check bit ：/

4.2 Communication protocol

Adopted Modbus-rtu protocol，please refer to DLPJ-0524-4 Communication Protocol for

more details.

4.3 MODBUS Device address setting

The factory default address is 1. You can set a separate device address for each controller. Please find the methods as below:

1. Long press the "CH" key for 2 seconds and the "M" indicator light will be on. The digital tube will display "A.XXX" (XXX represents the device address).

2. Press the "+" and "-" keys to modify the device address。

3. Long press the "CH" key to exit.

4.4 Upper computer software

The controller can be set with the upper computer software

5.　Product dimension drawing(mm)

40　　71

50

DIN导轨安装

12.5

114.4　103　75

42　　62

CH　LIGHT VALUE

▶
◀
CH

○ P
○ M
○ E

RS232

TRIG
2 1 1 2 2 3 3 4 4 2
N + + + + - - - - N

100-240V ～ 50/60Hz

DC 5V　CH4　CH3
DC 24V　CH2　CH1

88　116

158

164.8