

## Features

1. Adopt TM1914A IC for long distance signal transmission without signal distortion or weakness
2. PWM signal, 256 grades brightness controllable
3. Single-line three-channel LED constant current drive, the external controller can control the chip with single line
4. The signal can resume from break point
5. Support multiple controllers to realize various light effects
6. Controller must be used to lit the product
7. Do not support PWM dimming

## Application

Suitable for outdoor architectural decoration like big logo, building, amusement park, hotel, curtain wall, sign and stage etc.

## Installation

1. Fix by self-adhesive tape
2. Fix by screws



### Specification

Model No.	Light Color	Color Temperature /Wavelength(K/nm)	Beam Angle	Ra	Typical Luminous Flux value(lm/pcs)	Efficacy (lm/W)	Voltage (V DC)	Power (W/pcs)
PQ5-B	R	620-625	120°	--	5-7	≥24	12	0.2
	G	520-525			10-12	≥49		0.2
	B	465-470			2-3	≥9		0.2
	RGB	100000			19-21	≥24.5		0.65

### Other Parameters

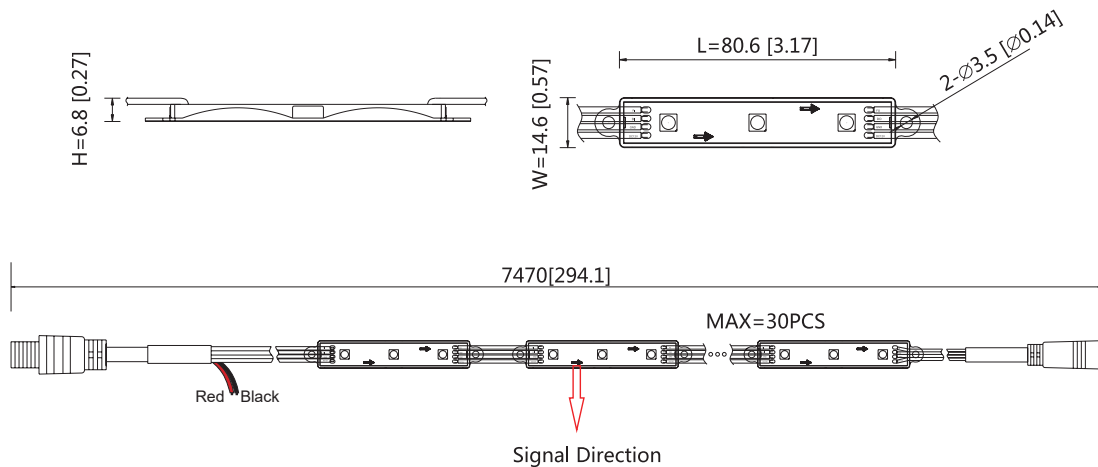
Model No.	LED Qty/pc	Standard Packing Quantity(pcs)	Max Run (pcs)	Min Cuttable Length(pcs)	Working Temperature	Storage Temperature
PQ5-B	3	30	30	1	-20~+60°C	-20~+70°C

**NOTE:**

1. Test environment temperature : 25±2°C.
2. The above data is typical values. The actual data of each single product may differ from the typical values. The data is subject to change without notice.
3. Luminous flux is tested when lighting on with the single color.
4. Different color temperature will make luminous flux different.
5. "- -" means no data for now.
6. Power and luminous flux tolerance within ±10%.

### Profile Drawings

Unit:mm

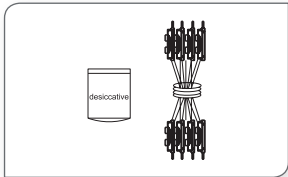


**NOTE:**

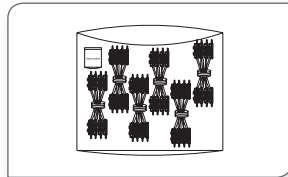
Controller must be used to lit the product. Please contact the sales for detail size.  
The signal direction is from controller to outside.



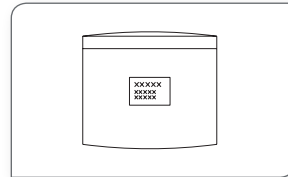
packing



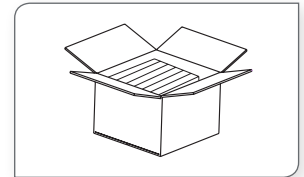
Prepare the desiccant and bind the product.



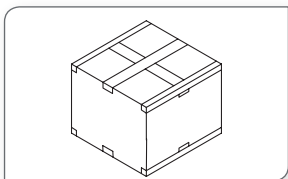
Put the product and desiccant into static shielding bag.



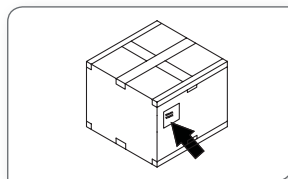
Seal and label the static shielding bag.



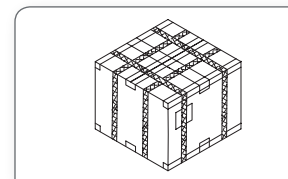
Put the static shielding bag side by side into carton box.



Seal the box.



Label the box;



Use packing belt to pack after adding the edge protectors.

Packaging information

Model No.	Product Size L*W*H(mm)	Carton Size(mm)	PCS/Bag	Bag/Carton Box	Net Weight(kg)	Gross Weight(kg)
PQ5-B	80.6X14.6X6.8	570X375X285	60	20	15.03(1±10%)	16.52(1±10%)

Note:

Packing materials: static shielding bag and carton box.

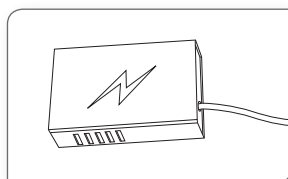
The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

Installation

1. Accessories & Tools



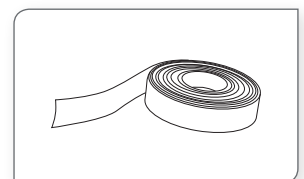
SS8



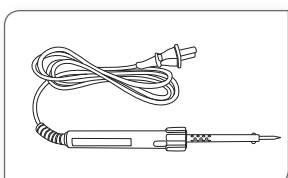
LED power supply



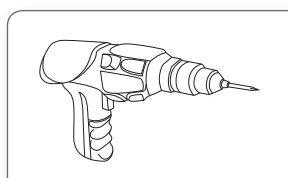
Controller



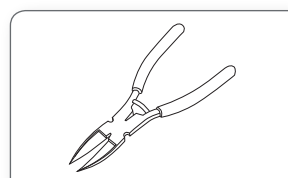
Insulation Tape



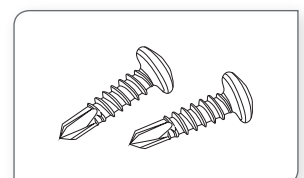
Electric iron



Electric drill



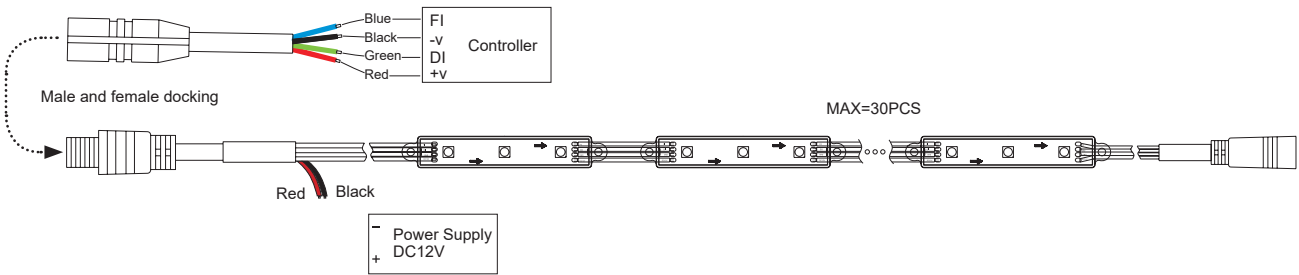
Diagonal pliers



Screws



## 2. Wiring Method



## 3. Power Supply & Controller Connection

Power Supply Wiring Diagram

Power Supply Rated Power(W):P

Module Rated Power(W):P<sub>Module</sub>

Controller Load:M(pcs)

Product Max Run: MAX=30PCS

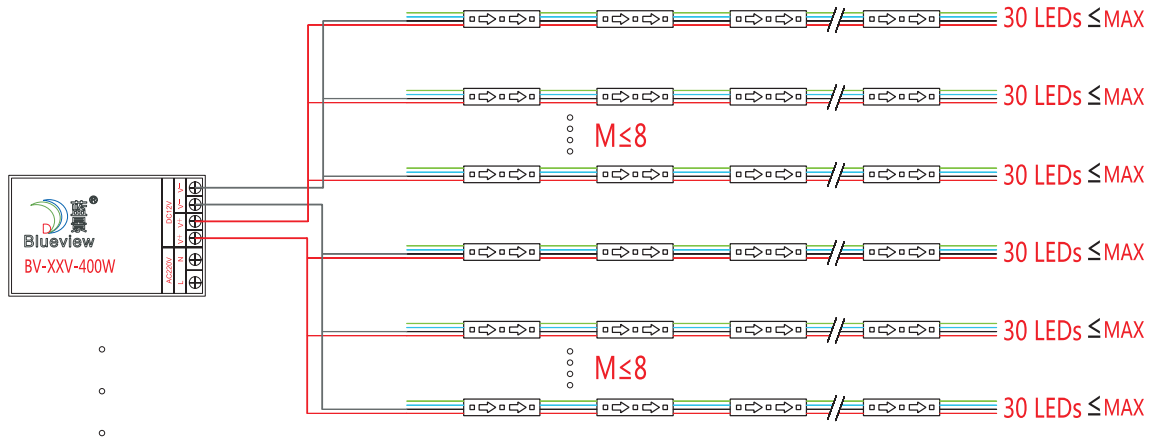
$$\text{Power Supply LED Loading: } N = \frac{PX0.8}{P_{\text{Module}}}$$

Eg: Use 0.65W PQ5-B, 400W power supply and 8 ways output controller

$$N = \frac{PX0.8}{P_{\text{Module}}} = \frac{400 \times 0.8}{0.65} \approx 492(\text{pcs})$$

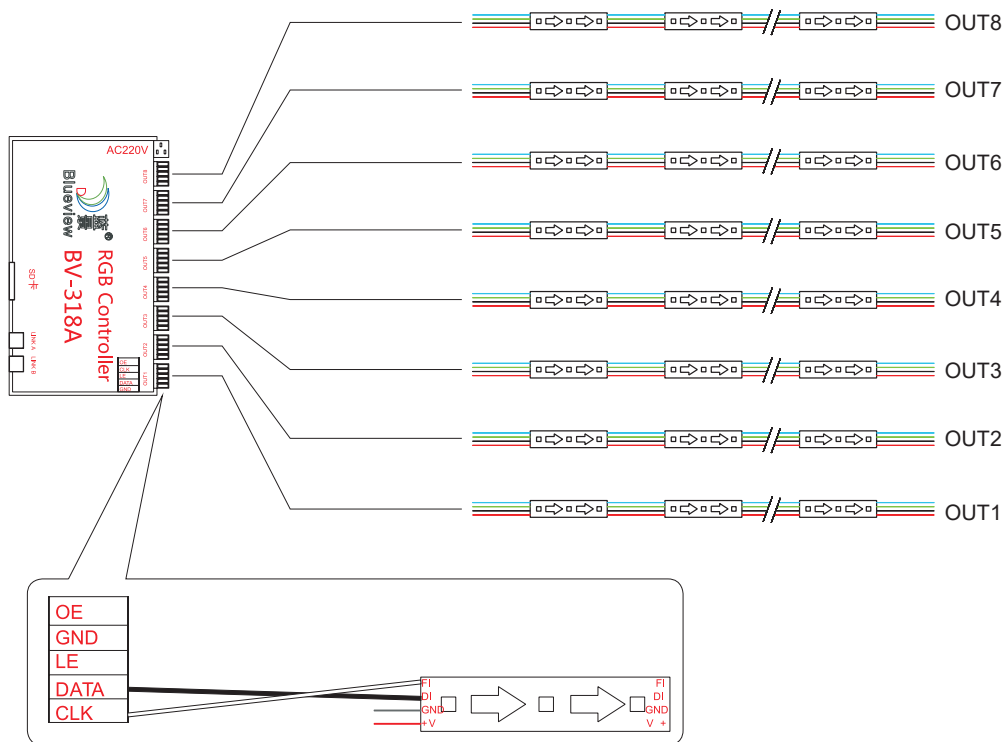
**Note:**

1. The value of N is taken as an integer.
2. Try to use same amount of products in each output way.
3. The working voltage of module must be matched with power supply and controller.



Controller Wiring Diagram(M=8)

Connection of Controller BV-318A



Note:

If the controller is too far from the product, or the signal is too weak, an amplifier must be added.  
Common market controller: MR-218A,MR-512,T1000,T8000,SP105E,BV-318A etc.



## Attentions before installation

Before installation, check that the product parameters are consistent with the requirements (Seeing product specifications or product labels) Load voltage, current, power and power supply should be matched with the product.

Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.

Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the light will not be on.

Make sure the power cord firmly screwed into the terminal and it should not be pulled out by hands.

The terminal should have insulation,waterproof and anti-corrosive treatment.

If the working length exceeded the max run length, make sure to have extra power supply.

If it needs higher current of a LED, make sure having extra cooling.

## Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light on.	No electric supply.	Power on
	Automatic power protection from the open or short circuit in output of the power supply.	Fix the short circuit problem.
	Wrong connection of power supply.	
LEDs can not light on partly.	Some switching mode power supplies are not powered.	Check the power supply system to fix it.
	Power supply line error.	
	Mistaken wire connection of some of products	Correctly connection
Brightness of LED is inconsistent tor insufficient.	Power overloaded.	Replace with more powerful power
	Power supply circuit excessive consumption.	Make sure the working voltage of the product within $\pm 5\%$ of standard voltage, or keep balance by circuit power consumption.
	Excessive quantities in series connection of the product	Reduce the quantities of the product in series connection to meet requirement.
LED flicker.	Connection point fault.	Remove bad connection point.
	Switching power supply failure.	Replace a new power supply.
	Wrong Installation or use of products	Please follow the instructions

### Warning

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation,especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 4 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation,waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm<sup>2</sup> cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters.Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

## Statements and Recycling

### Statements:

Repair should be operated by a qualified technician, if the external circuit or main line of this product is damaged.

The parameters given in this manual are typical values and for reference only.

All illustrations and drawings in this manual are for reference.

This product is subject to change without notice.

### Recycling:

LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.