



# SILICONE NEON STRIP

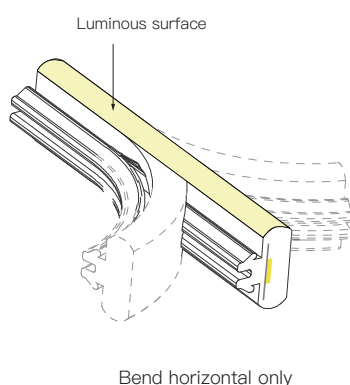
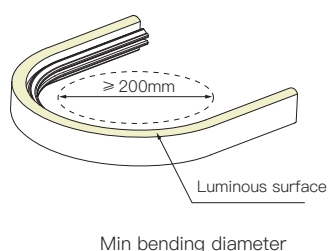
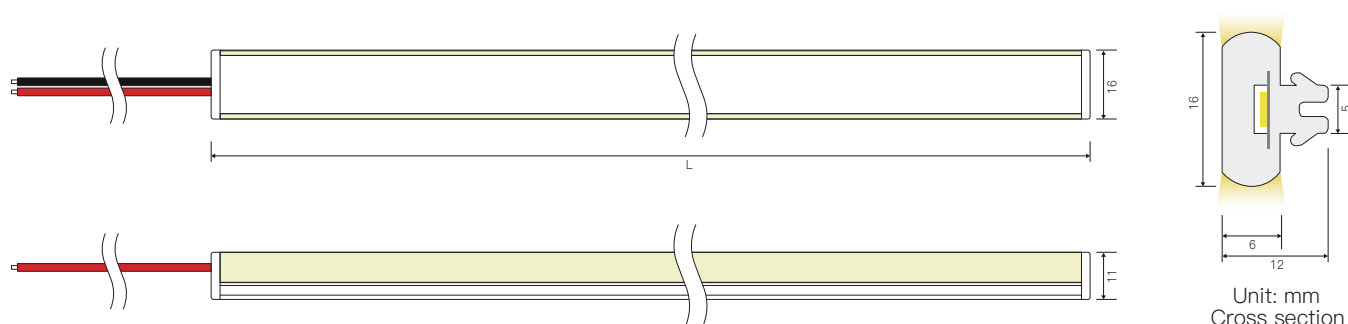
HL-DN1612V24-C<sub>xx</sub>

Two Sided Light



- It is made of Dow Chemical SILASTIC™ ET-7021 silicone rubber, which provides high transparency and high strength.
- Unique two-sided luminous structure design, can be used as a variety of scene atmosphere lighting;
- Excellent toughness, unique and simple appearance, perfect integration into each scene;
- Environment-friendly silicone material, integrated extrusion molding process;
- IP65 protection gradesalt solution resistance, acids & alkalis and UV resistance; 5 years warranty.

## Dimension structure



## Electrical Parameter

| Voltage | LED PIN Temperature | Storage Temperature | Ambient Temperature            | CRI  |
|---------|---------------------|---------------------|--------------------------------|------|
| DC24V   | Max. 65°C           | -25°C~ 60°C         | Min.-25°C<br>Max.(Table below) | ≥ 90 |

## Specification

| Power(w/m) | Efficacy(lm/w)@4000K | Max Ambient Temperature |
|------------|----------------------|-------------------------|
| 10 w/m     | 51 lm/w              | 45°C                    |

Due to the tolerance of the production and electrical components, output value and electrical power can very up to 10%

## Length Standard

| Length Range (M)       | Final Length | Tolerance(mm) |
|------------------------|--------------|---------------|
| 0M<Neon Strip(L)≤ 5M   | L+6          | ±7            |
| 5M<Neon Strip(L)≤ 10M  | L+6          | ±10           |
| 10M<Neon Strip(L)≤ 15M | L+6          | ±13           |
| 15M<Neon Strip(L)≤ 20M | L+6          | ±16           |



- The maximum series length refers to the maximum single end power supply length of the constant current strip under the condition of standard 20CM wire .
- The given color temperature is the temperature of finished product.
- The given data are typical values due to the tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.
- All products can be dimmed; the dimmer's voltage should conform to the rated voltage of the led light. The output frequency of the dimmer of the constant-current led light should be less than 2K Hz, and the output PWM can control the led light.

## Single color (Lm/m)

| CCT(K)    | CRI  | Voltage | Power(W) | Lumen (LM/M) | Efficiency (LM/W) | Unit Length (mm) | Max. Run Length (M) | CC/CV |
|-----------|------|---------|----------|--------------|-------------------|------------------|---------------------|-------|
| 2400K±150 | ≥ 90 | DC24V   | 10       | 520          | 52                | 50               | 5                   | CC/CV |
| 2700K±150 | ≥ 90 | DC24V   | 10       | 520          | 52                | 50               | 5                   | CC/CV |
| 3000K±150 | ≥ 90 | DC24V   | 10       | 550          | 55                | 50               | 5                   | CC/CV |
| 4000K±300 | ≥ 90 | DC24V   | 10       | 600          | 60                | 50               | 5                   | CC/CV |
| 6500K±500 | ≥ 90 | DC24V   | 10       | 550          | 55                | 50               | 5                   | CC/CV |
| Red       | ---  | DC24V   | 10       | 210          | 21                | 50               | 5                   | CC/CV |
| Green     | ---  | DC24V   | 10       | 550          | 55                | 50               | 5                   | CC/CV |
| Blue      | ---  | DC24V   | 10       | 110          | 11                | 50               | 5                   | CC/CV |
| Yellow    | ---  | DC24V   | 10       | 210          | 21                | 50               | 5                   | CC/CV |
| Pink      | ---  | DC24V   | 10       | 480          | 48                | 50               | 5                   | CC/CV |
| Orange    | ---  | DC24V   | 10       | 200          | 20                | 50               | 5                   | CC/CV |

## CCT Tunable (Lm/m)

| CCT(K)    | CRI  | Voltage | Power(W) | Lumen (LM/M) | Efficiency (LM/W) | Unit Length (mm) | Max. Run Length (M) | CC/CV |
|-----------|------|---------|----------|--------------|-------------------|------------------|---------------------|-------|
| 2700K±150 | ≥ 90 | DC24V   | 5        | 285          | 57                | 62.5             | 5                   | CV    |
| 6500K±500 | ≥ 90 | DC24V   | 5        | 295          | 59                | 62.5             | 5                   | CV    |
| 4000K±300 | ≥ 90 | DC24V   | 10       | 580          | 58                | 62.5             | 5                   | CV    |

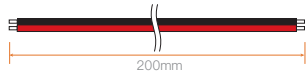
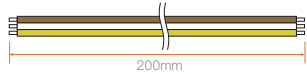
## RGB (Lm/m) Orange

| CCT(K) | CRI | Voltage | Power(W) | Lumen (LM/M) | Efficiency (LM/W) | Unit Length (mm) | Max. Run Length (M) | CC/CV |
|--------|-----|---------|----------|--------------|-------------------|------------------|---------------------|-------|
| R      | --  | DC24V   | 3.3      | 41.25        | 12.5              | 50               | 5                   | CV    |
| G      | --  | DC24V   | 3.3      | 145.2        | 44                | 50               | 5                   | CV    |
| B      | --  | DC24V   | 3.3      | 24.75        | 7.5               | 50               | 5                   | CV    |
| RGB    | --  | DC24V   | 10       | 220          | 22                | 50               | 5                   | CV    |

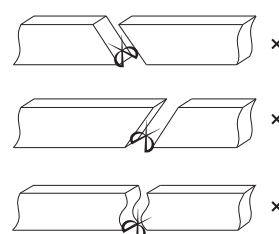
## Digital RGB

| CCT(K) | Voltage | Power(W) | Lumen (LM/M) | Efficiency (LM/W) | Pixel (PCS) | Signal Type | IC Model | Unit Length (mm) |
|--------|---------|----------|--------------|-------------------|-------------|-------------|----------|------------------|
| R      | DC24V   | 4.8      | 51.5         | 13.4              | 10          | SPI         | WS2811   | 100              |
| G      |         | 4.8      | 177.5        | 46.3              |             |             |          |                  |
| B      |         | 4.8      | 31           | 8.1               |             |             |          |                  |
| RGB    |         | 12.5     | 236          | 20.5              |             |             |          |                  |

## Cable Type

| Cable Type | Schematic Diagram                                                                 | Specification                          | Core                                                                               | Electrical Properties                          |
|------------|-----------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| PVC Cable  |  | 20AWGRed&Black2-core Cable             |   | Red V+, Black V-                               |
|            |  | 20AWGBrown&White&Yellow 3-core Cable   |   | Dual-White:<br>Brown V+, White W, Yellow WW    |
|            |  | 20AWGRed&Green&Black 3-core Cable      |   | Digital RGB:<br>Red V+, Green DI/DO, Black GND |
|            |  | 20AWGBlack&Blue&Red&Green 4-core Cable |  | Black V+, Blue B, Red R, Green G               |

## Cutting Mark



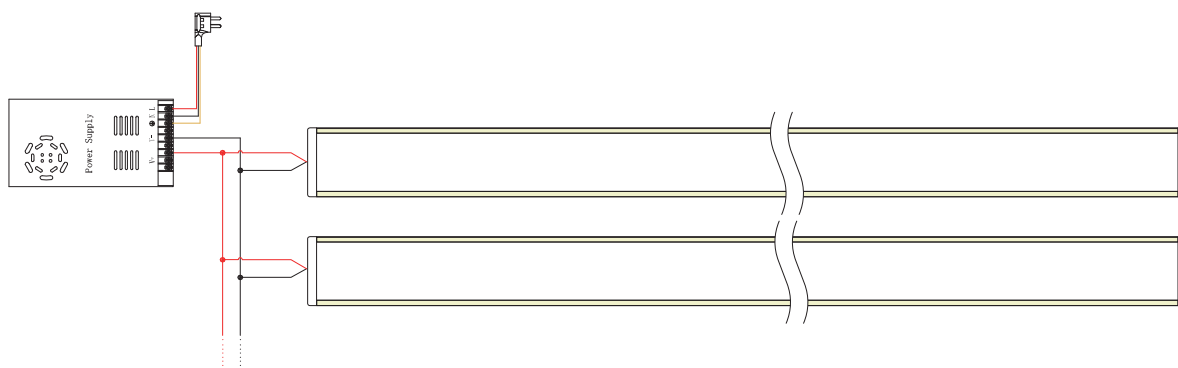
Remark:

Use professional scissors

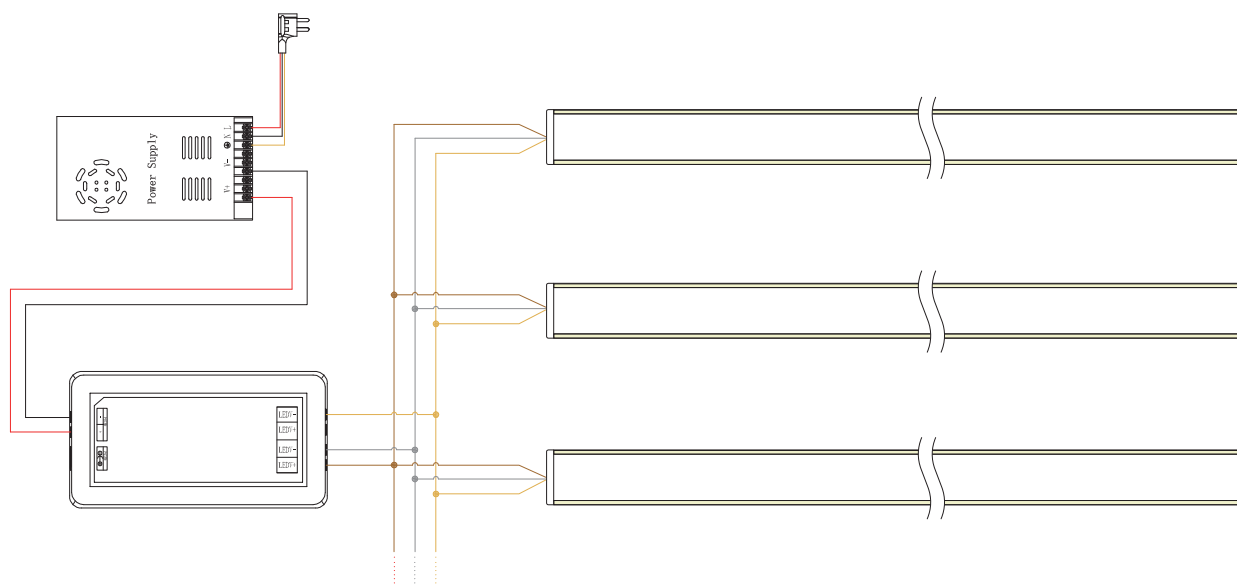
The bottom of the led strip has transparent window, to cut vertically at the cutting mark the black marker is the cutting position

Please don't be feel free to cut and cut into an oblique angle or cambered section.

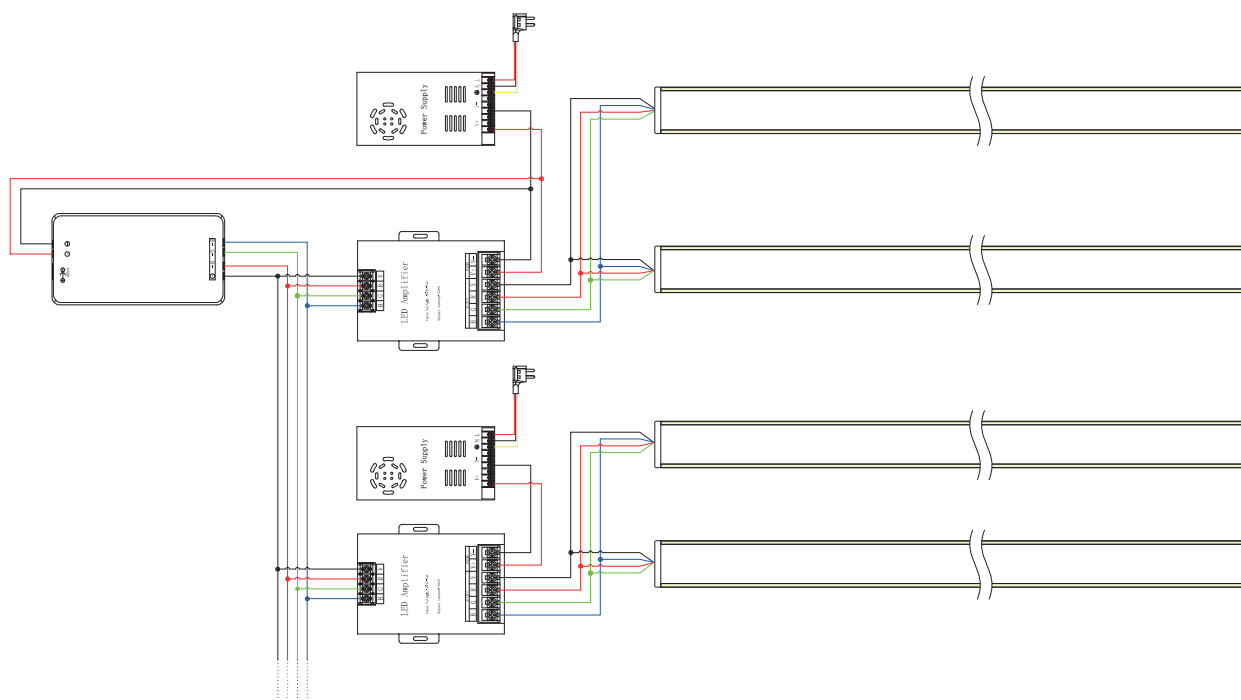
## Single Color Connection Diagram



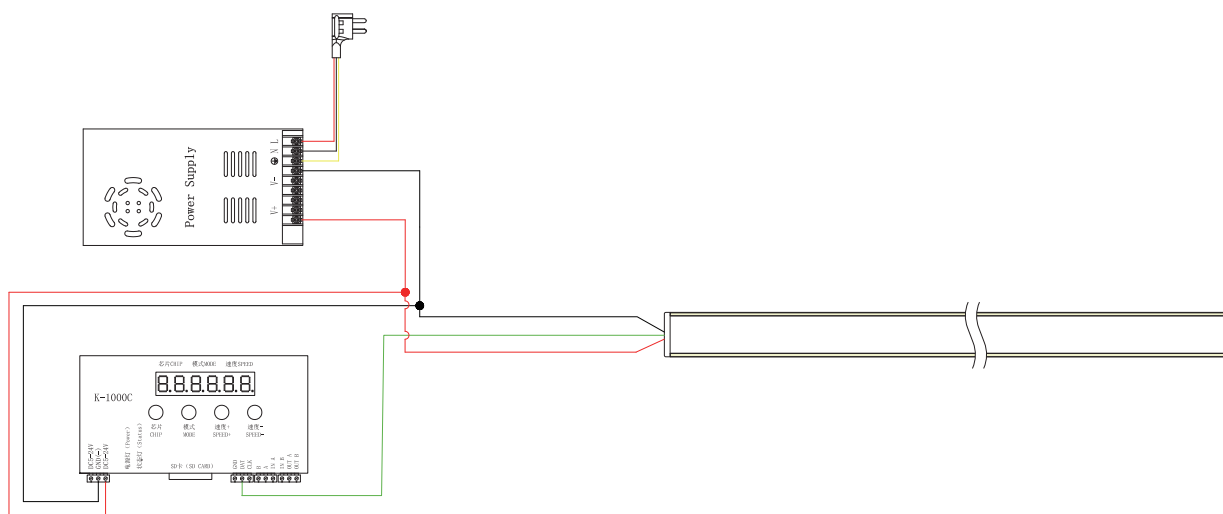
## Tunable white Connection Diagram



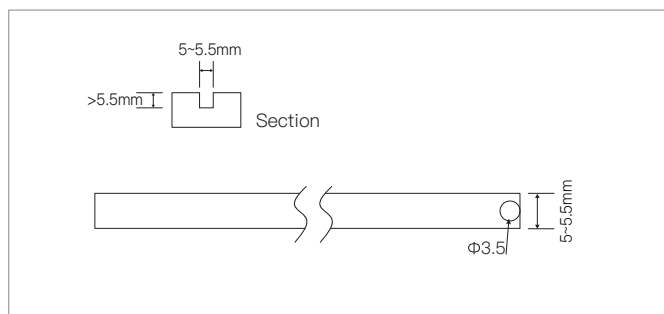
## RGB Connection Diagram



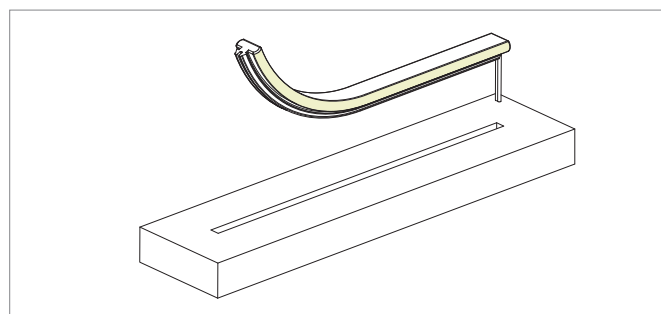
## Digital RGB Connection Diagram



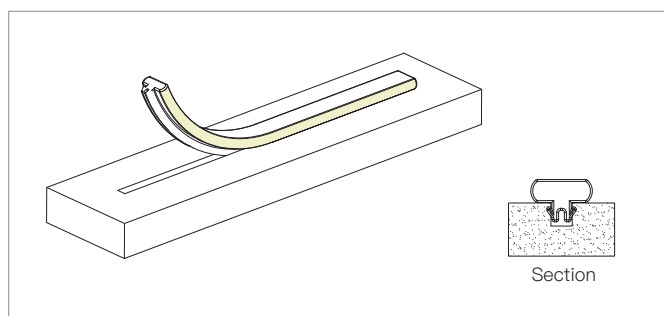
## Installation Steps



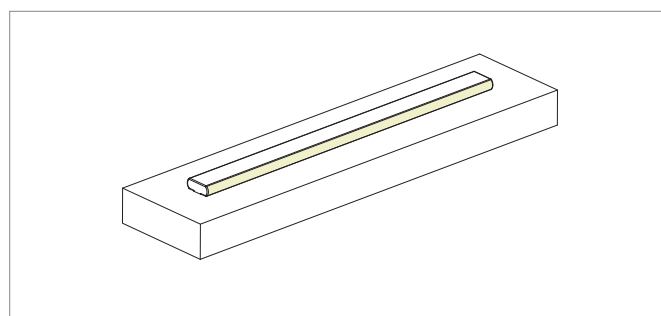
1. Make grooves and outlet holes according to the dimensions shown in the picture.



2. Pass the cable of the light through the reserved hole as shown in the figure.

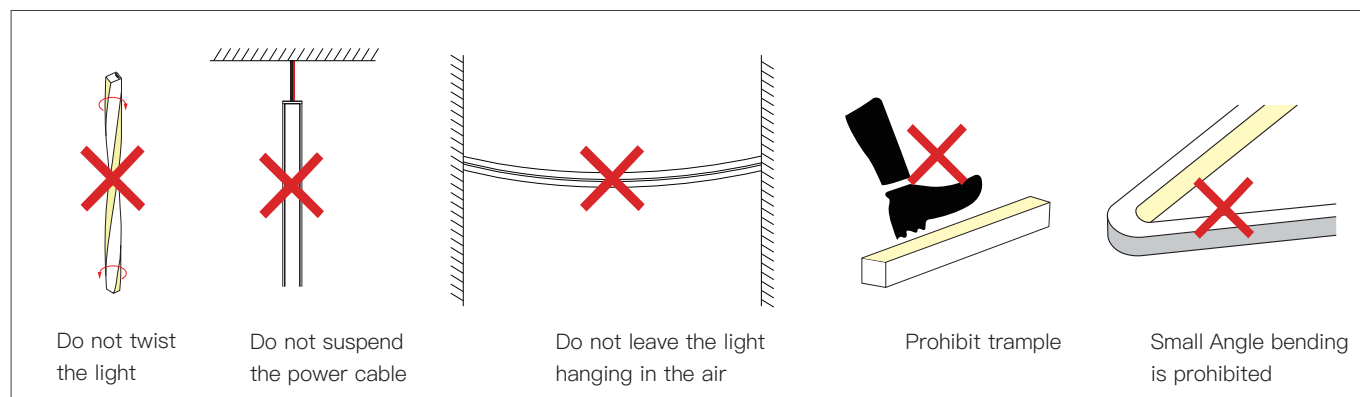


3. Align the light to the groove, press the glowing surface of the light, and fully embed the light into the groove.



4. Completed.

## Cautions



The selection of the cable specification at the output end of the power supply, it depends on the total current of the load and the length of the cable. It is recommended to select according to the following table:

| Current of the light | Specifications of the cable |       |       |       |       |       |       |       |       |
|----------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      | L=1M                        | L=2M  | L=4M  | L=6M  | L=8M  | L=10M | L=12M | L=14M | L=16M |
| 1A                   | AWG26                       | AWG23 | AWG21 | AWG18 | AWG18 | AWG17 | AWG16 | AWG15 | AWG15 |
| 2A                   | AWG23                       | AWG21 | AWG18 | AWG16 | AWG15 | AWG14 | AWG13 | AWG12 | AWG12 |
| 3A                   | AWG22                       | AWG18 | AWG16 | AWG14 | AWG13 | AWG12 | AWG11 | AWG11 | AWG10 |
| 4A                   | AWG21                       | AWG18 | AWG15 | AWG13 | AWG12 | AWG11 | AWG10 | AWG9  | AWG9  |
| 5A                   | AWG20                       | AWG17 | AWG14 | AWG12 | AWG11 | AWG10 | AWG9  | AWG9  | AWG8  |
| 6A                   | AWG18                       | AWG16 | AWG13 | AWG11 | AWG10 | AWG9  | AWG8  | AWG8  | AWG7  |
| 7A                   | AWG18                       | AWG15 | AWG12 | AWG11 | AWG9  | AWG8  | AWG8  | AWG7  | AWG6  |
| 8A                   | AWG17                       | AWG15 | AWG12 | AWG10 | AWG9  | AWG8  | AWG7  | AWG7  | AWG6  |
| 9A                   | AWG17                       | AWG14 | AWG11 | AWG10 | AWG8  | AWG7  | AWG7  | AWG6  | AWG5  |
| 10A                  | AWG16                       | AWG14 | AWG11 | AWG9  | AWG8  | AWG7  | AWG6  | AWG6  | AWG5  |

- ※ The unused light should be sealed with the packaging bag to avoid prolonged exposure.
- ※ Please use DC24V isolated constant voltage power supply with ripple voltage less than 5%. Using other types of power supply may damage the light or cause other safety risks.
- ※ In practical application, 20% allowance should be reserved for power supply to ensure the stability of power supply.
- ※ It is recommended that professionals connect the power supply. Do not connect the power supply with live power to avoid electric shock.
- ※ Please confirm whether the voltage of the power supply is consistent with the voltage of the light; Pay attention to the positive and negative poles of the power cord, do not connect wrong, so as not to cause product damage;
- ※ When multiple power supplies are used, ensure that the positive poles of the power supply are not connected in parallel. Otherwise, the power supply system may be unstable or damaged after long-term operation.
- ※ If the actual application length exceeds the specified length, it will lead to overload, heating and uneven brightness of the light.
- ※ During installation, please do not scratch, twist, or bend the light irregularly. Otherwise, the light may be damaged beyond repair.
- ※ To ensure the life and reliability of the light, please do not over bend the light, which will damage the product itself.
- ※ To protect your eyes, please avoid staring at the glowing surface of the light for a long time.
- ※ Non-professionals are forbidden to install, disassemble and maintain the product.
- ※ Do not use any acid or alkaline adhesive to fix the light (including but not limited to glass glue, etc.)
- ※ Products of different waterproof levels apply to different environments. For example, IP65 cannot be used underwater.
- ※ IP65 products are factory assembly only. If the user cut it, its waterproof grade will decline.
- ※ Because of the difference in structure, even if the same color temperature value, different sizes of light will look slightly different colors. Please confirm it before use.

Tests showed that methanol and benzenes will have yellowing effects on silicone.  
 In the newly decorated interior environment, epoxy floor paint, wall paint, wallpaper adhesive, various decoration materials or new furniture, they are likely to release of methanol and benzenes.  
 It is recommended to remove methanol and benzenes first, or ventilate for a period of time in the newly decorated interior environment before install the silicone neon light, to avoid affecting the silicone body.

H E L I A N

**Specialized  
LED strip  
Manufacturer**

**Shenzhen Helian Electronics Co.,Ltd**



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