Wilgex®

Professional LED Light Manufacturer
Since 2008

www.wilgex-led.com

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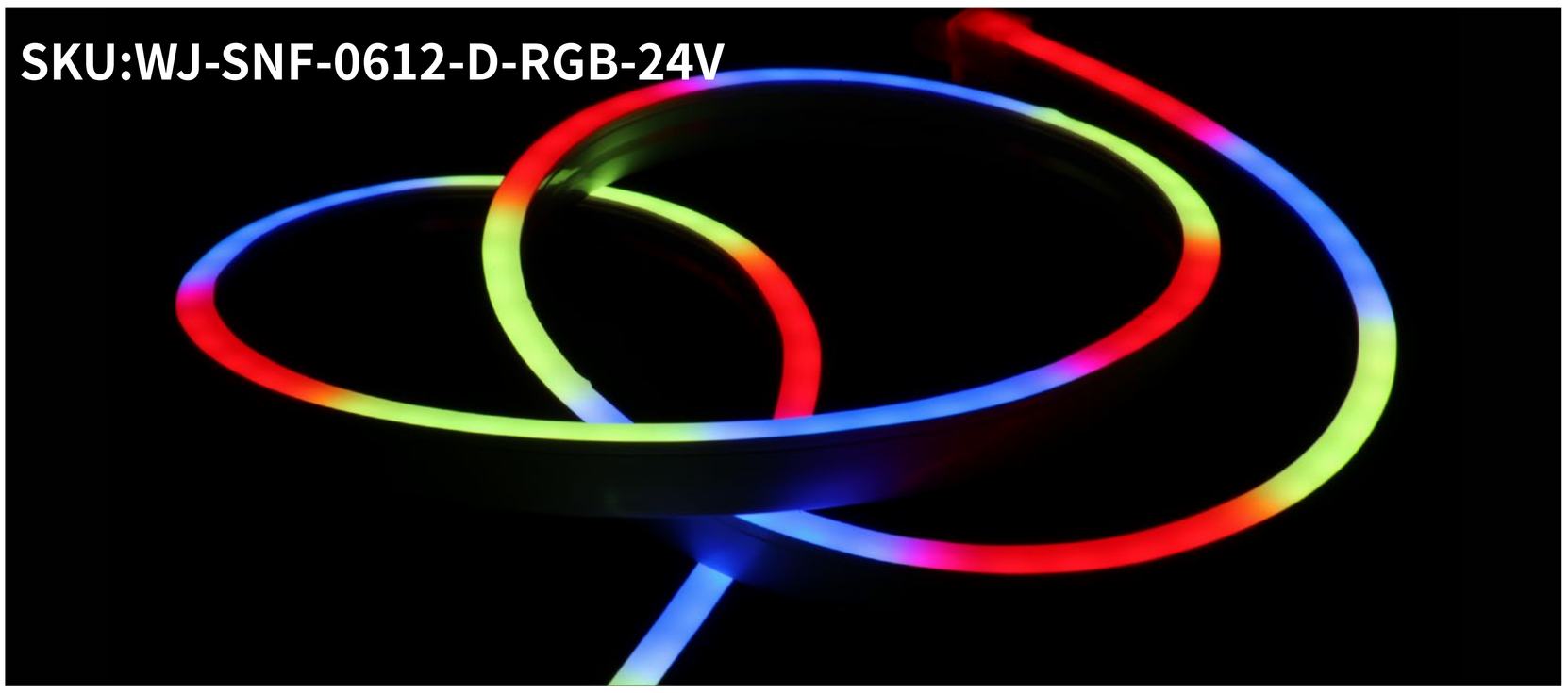
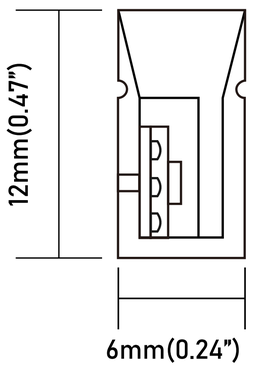
info@wilgex-led.com

6x12mm
FLAT/DOME

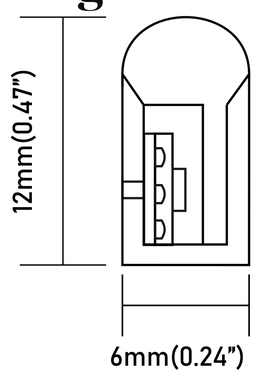
SILICONE DYNAMIC PIXEL RGB COLOR
24V



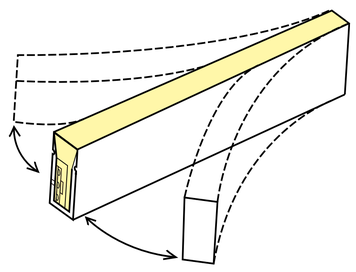
Structural Drawing & Bending Direction



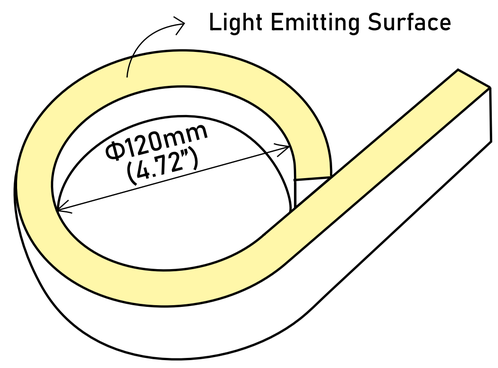
FLAT SURFACE:120°



DOME SURFACE:270°



BENDING DIRECTION:
HORIZONTAL



MINIMUM BENDING DIAMETER

Certifications

FCC · ROHS · CE · UKCA

IP65 · PROTECTION (IK08) · PSE · SMD5050 IC: WS2811F EPISTAR

24V VOLTAGE · DIMMABLE · ECO-FRIENDLY SILICONE EXTRUSION · 5 YEARS WARRANTY

Optical Parameter Chart for Integrating Sphere Testing

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Chroma Parameters
  Chro.Coor.: x=0.2149  y=0.2467     u=0.1554  v=0.2676    duv=-0.0223
  CCT: Tc=50000K   Dominant Wave.: 482.6nm   Purity: 47.6%
  Flux Ratio: R=17.3%,G=70.6%,B=12.1%   Peak Wave.: 463.7nm   Half Width: 21.2nm

Rending Index:  Ra= 55.6
        R1 =56.6  R2 =56.9  R3 =55.6  R4 =74.2  R5 =74.5  R6 =53.7  R7 =51.6
        R8 =21.8  R9 =-161.5R10=-8.8  R11=70.8  R12=61.6  R13=46.8  R14=71.7
        R15=34.1
Photo Parameters
  Flux:  129.60lm    Effi.:  7.11m/W    Radiant:  672.7mW  Iv:  0.0mcd

Ele. Parameters
  Voltage:U=24.000V                    Current:I=0.7540A
  Power:P=18.12W                       Power Factor:PF=1.000
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Wilgex specializes in engineering LED flexible neon lights and offers both standard and customized services. If you have specific requirements, please contact our sales department.

Technical Data

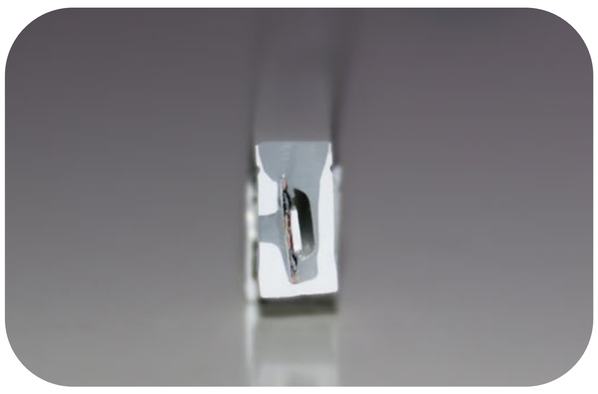
SPI-RGB (R G B)

Color Temp	Red:622.7nm Green:520.0nm Blue:468.1nm White:6500K(Color mixing)	**Watts/m(24V Flat)**	Red:6.84 W Green:7.18 W Blue:6.86 W White:18.11 W(Color mixing)
Lumen/m (24V Flat)	Red:36.83 lm Green:94.28 lm Blue:15.89 lm White:129.50 lm(Color mixing)	**Unit Cut(24V)**	5.56cm
LED Quantity(m)	108 LEDs + 18 ICs IC code: WS2811F (compatible with all ICs and controllers in the WS2811, 1804, and 1809 series)	**Max Loading(24V)**	5m

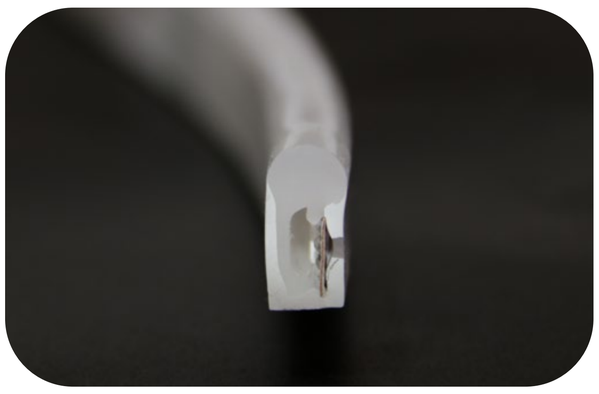
Reliability test

TEST CATEGORY	TEST ITEMS	STANDARD/VALUE
Optical Test	Spectrum Analysis	IES LM 79(CCT, lumen, CRI, SDCM, XY, wavelength)
	Photometric Distribution	IES LM 79(lumen intensity distribution & Lux diagram)
	Lumen Maintenance & Lifetime	IES LM84 & IES TM 28
Temperature Test	Nomal Temperature Test -25°C	UL 1598 & UL2388 & IEC60598-1 & IEC60598-2-21
	Abnormal Operation Test -70°C	UL 1598 & UL2388 & IEC60598-1 & IEC60598-2-21
Physics Test	Bending Test	Manufacturer-defined, 1000 cycles
	Swing Test	UL2388, >750 cycles
	Tensile Test	Manufacturer-defined, >the weight of light in max. running length by double ends feed
	Twist Test	Manufacturer-defined, 200 cycles
	IK08	IEC62262
	Ball Impact	UL 1598 & UL2388 & IEC60598-1 & IEC60598-2-21
Weathering Test	Swimming Pool Water Immersion Test	GB9667, PH6.8-7.6, free chlorine 0.3-0.6mg/L
	Sea Water Immersion Test	IEC 60598-1, Salinity 4%
	Salt Spray Test	IEC68-2-11
	Outdoor Exposure	Manufacturer-defined
Environment Test	Flame Resistant Test	UL94
	UV Exposure Test	ASTMG154, UVA@340nm
	IPX5 IPX6 IPX7 IPX8	IEC60529
	Temperature Shock Test	Manufacturer-defined, -40°C-60°C(typical temperature range)
	Constant Temperature Test	Manufacturer-defined, 70°C(typical temperature range)

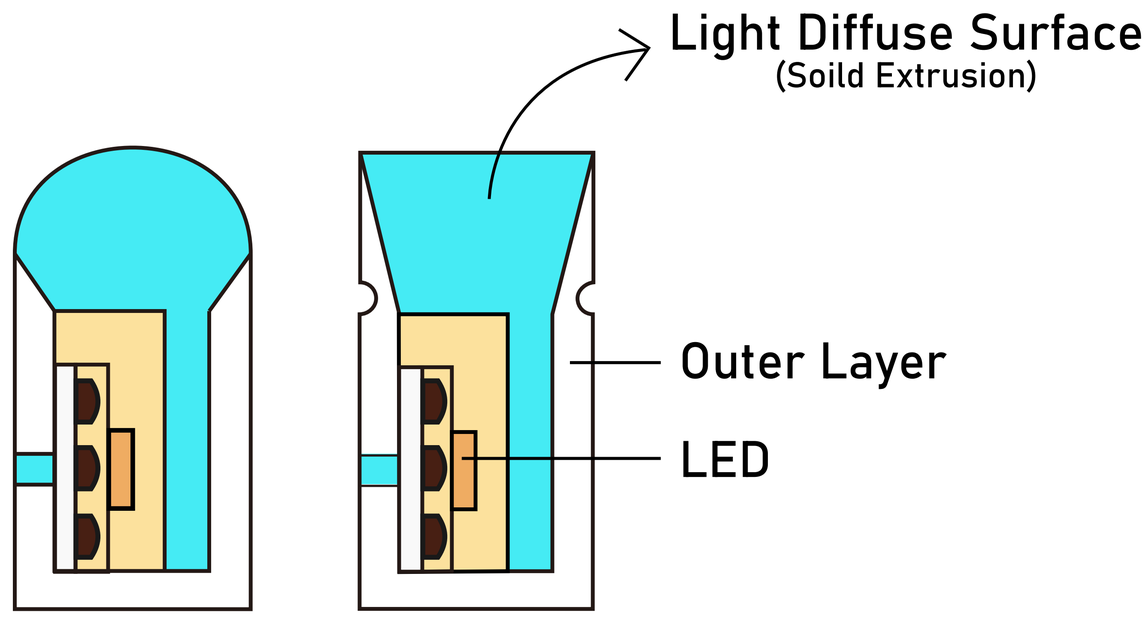
Quality assurance



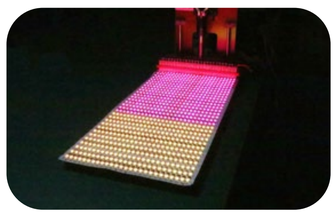
FLAT



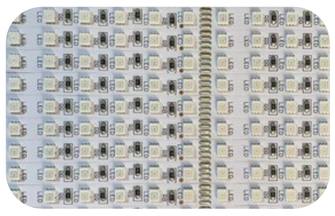
DOME



Unique Design



★ Enhance thickness FPC design principle



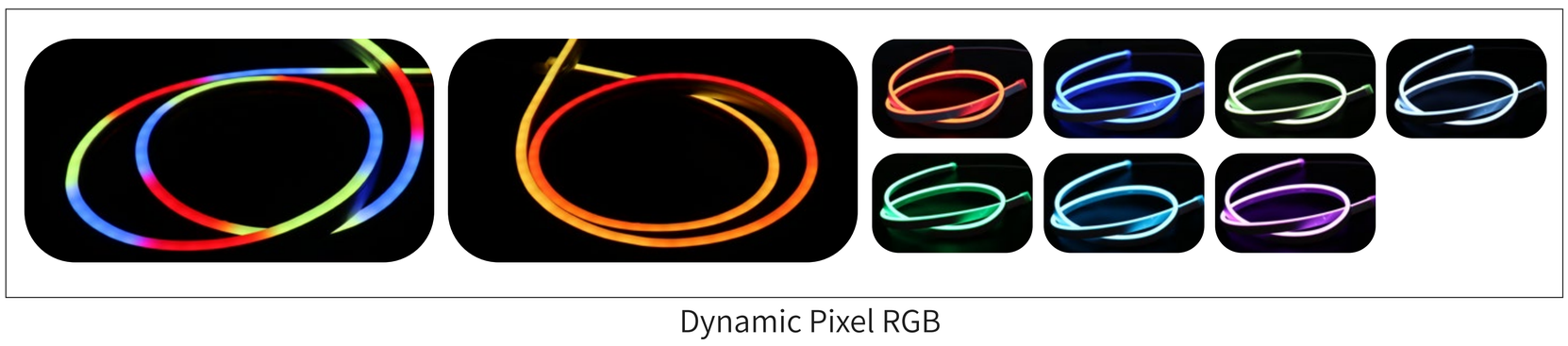
★ LED anti-death design

★ Solid extrusion design for exterior

Features:

1. Ultra-thin: The thickness of the strip is only 6mm
2. Small size: The LED chips have a small size of 6mm x 12mm
3. High-density LED chips: The strips have a high density of LED chips, resulting in a brighter and more uniform light output
4. Flexible and bendable: Can be bent into various shapes and designs
5. Energy-efficient: Uses less power compared to traditional neon lights
6. Long lifespan: Can last up to 50,000 hours
7. Low heat emission: Does not emit as much heat as traditional neon lights
8. Wide color options: Available in a wide range of colors
9. Easy to install: Can be cut and connected to fit any desired length and shape
10. Durable and weather-resistant: Can withstand various weather conditions
11. Safe to use: Low voltage and does not contain hazardous materials like mercury
12. Cost-effective: Offers a cost-effective alternative to traditional neon lights.

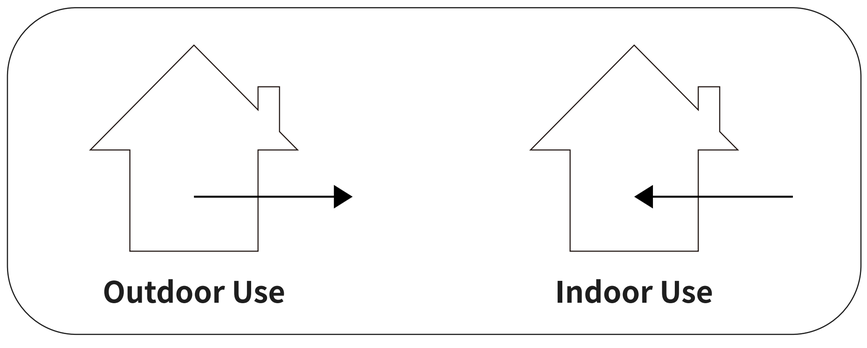
Wide Color Options



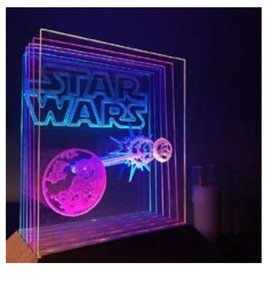
Dynamic Pixel RGB

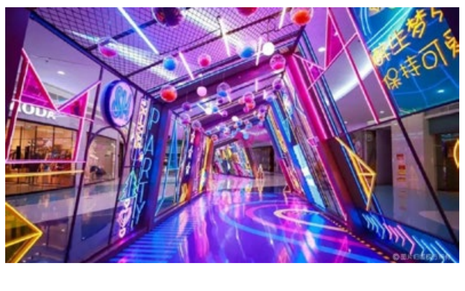
Recommended Usage Scenarios :

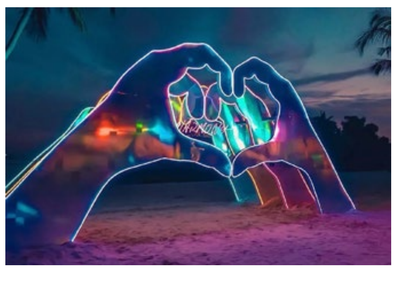
1. Indoor and outdoor architectural lighting decoration
2. Landscape lighting
3. Advertising signage lighting
4. Stage and theater lighting
5. Car and motorcycle lighting
6. Holiday and event lighting decoration
7. Cove lighting
8. Edge-lit lighting
9. Retail and display lighting
10. Restaurant and bar lighting



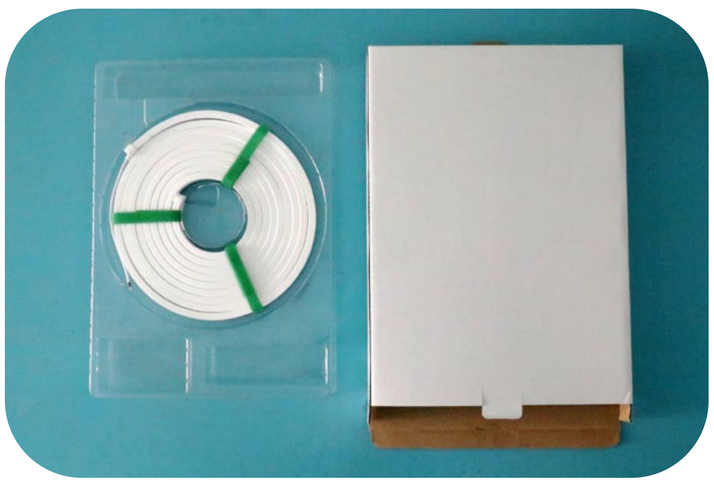
Please note that these are only recommended usage scenarios and it is important to consult the product specifications and guidelines before using flexible LED neon light strips in any application.







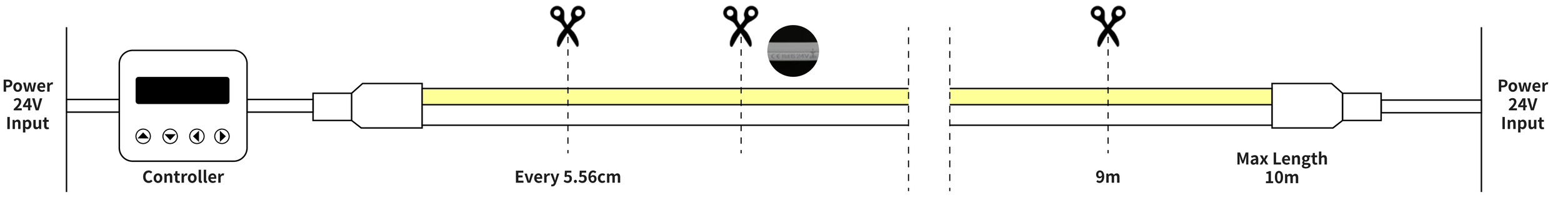
Package

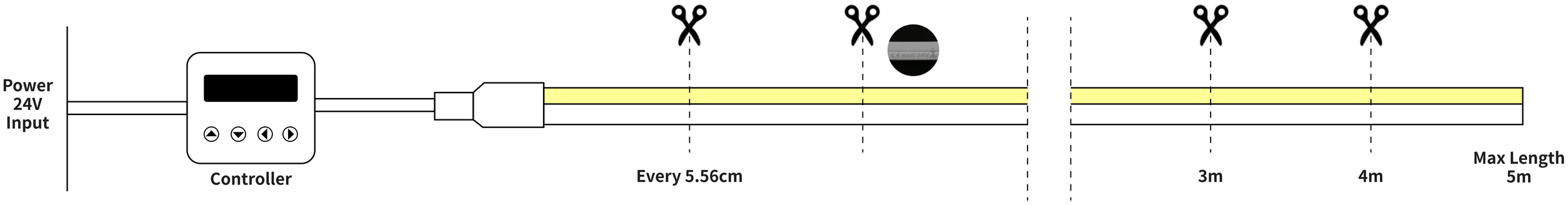


Packing Method : Blister + White box
Quantity / Box : 5 meters / reel
Gross Weight :0.59Kg (1.30LB)
Size of outer box : 46.2 x 33 x 4cm
CBM : 0.006 m³ / box

Mini Cutting Length & Connection Length

- **Voltage (24V)**





Controller Selection

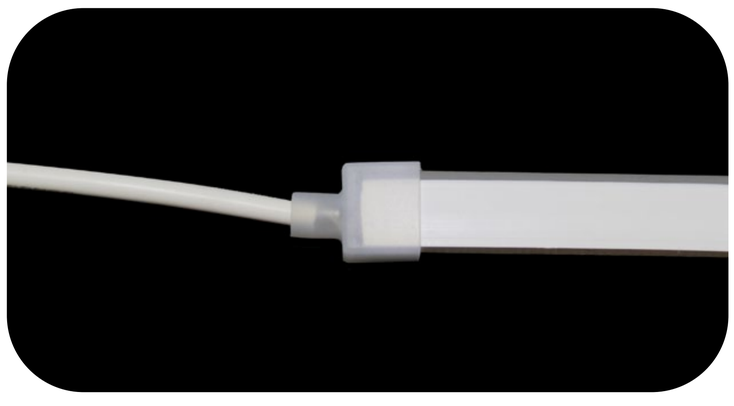
HC100
Updated version SPI magic color controller

LT-200
LED Digital Controller

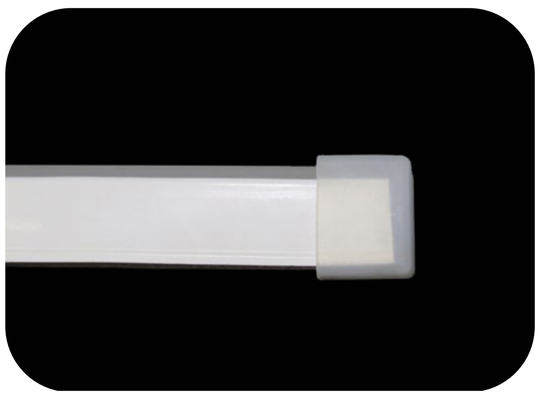
SP108E LED WIFI Controller

IP65 (DIY Connector)

- **Voltage (12V / 24V)**

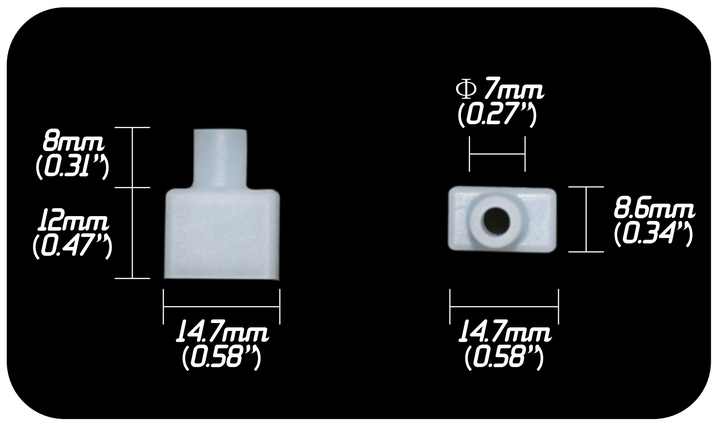


FRONT CONNECTION

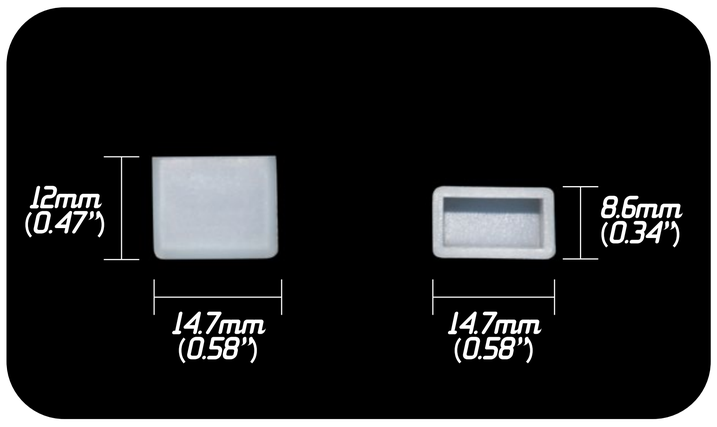


END CONNECTION

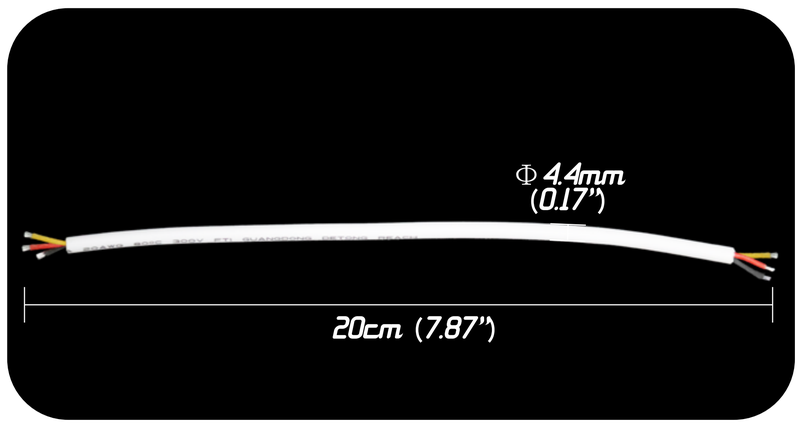
• Part Details



FRONT CONNECTION FITTING

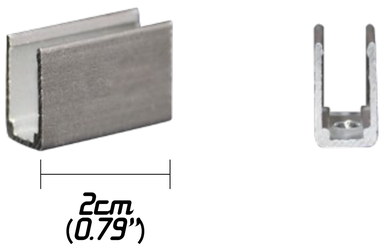


TAIL FITTING

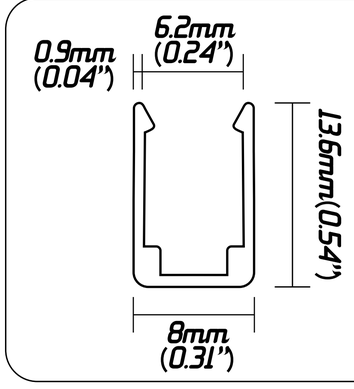


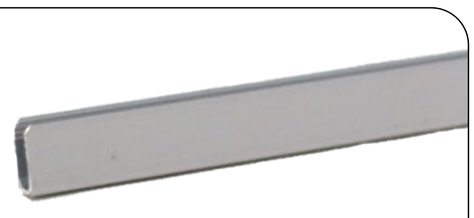
SILICONE POWER WIRE (3 CORDS)

Mounting Aluminum Channel



2CM ALUMINUM PROFILE





ALUMINUM CHANNEL
(1M)

Note: The specifications listed above are subject to change without prior notice.