



Wilgex®

Professional LED Light Manufacturer  
Since 2008

 [www.wilgex-led.com](http://www.wilgex-led.com)

 (86) 769-28820681

 [info@wilgex-led.com](mailto:info@wilgex-led.com)

Dia 18mm

LED NEON FLEX

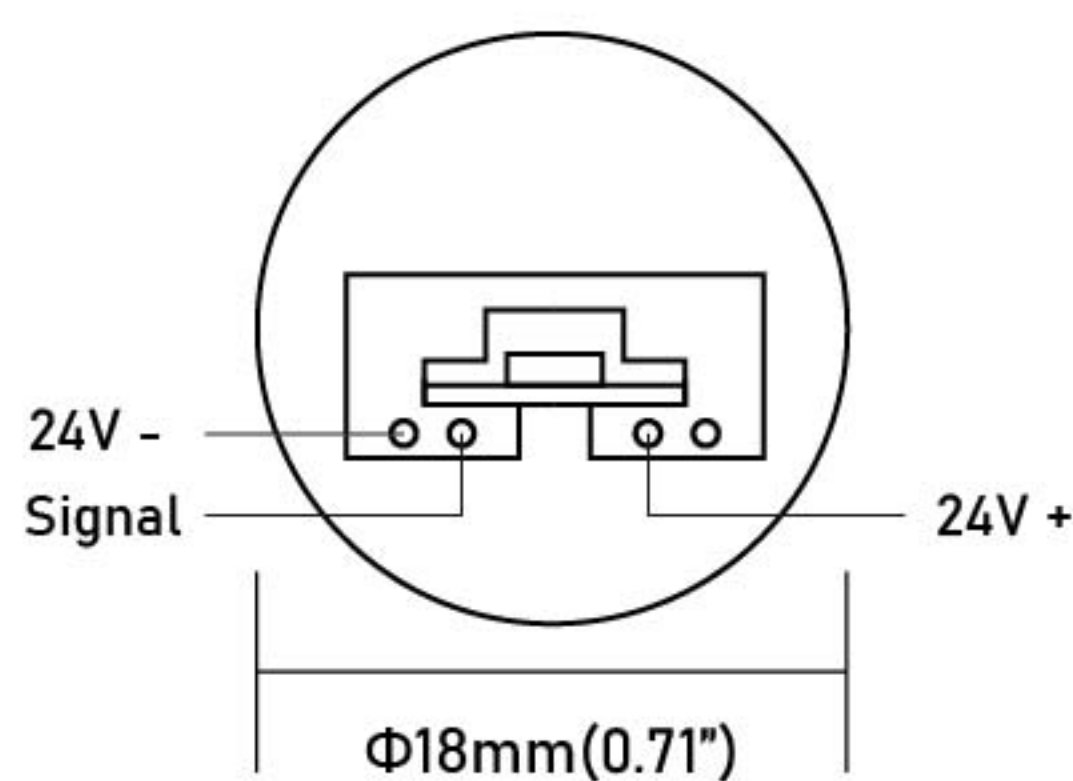
DYNAMIC PIXEL  
RGB COLOR

24V

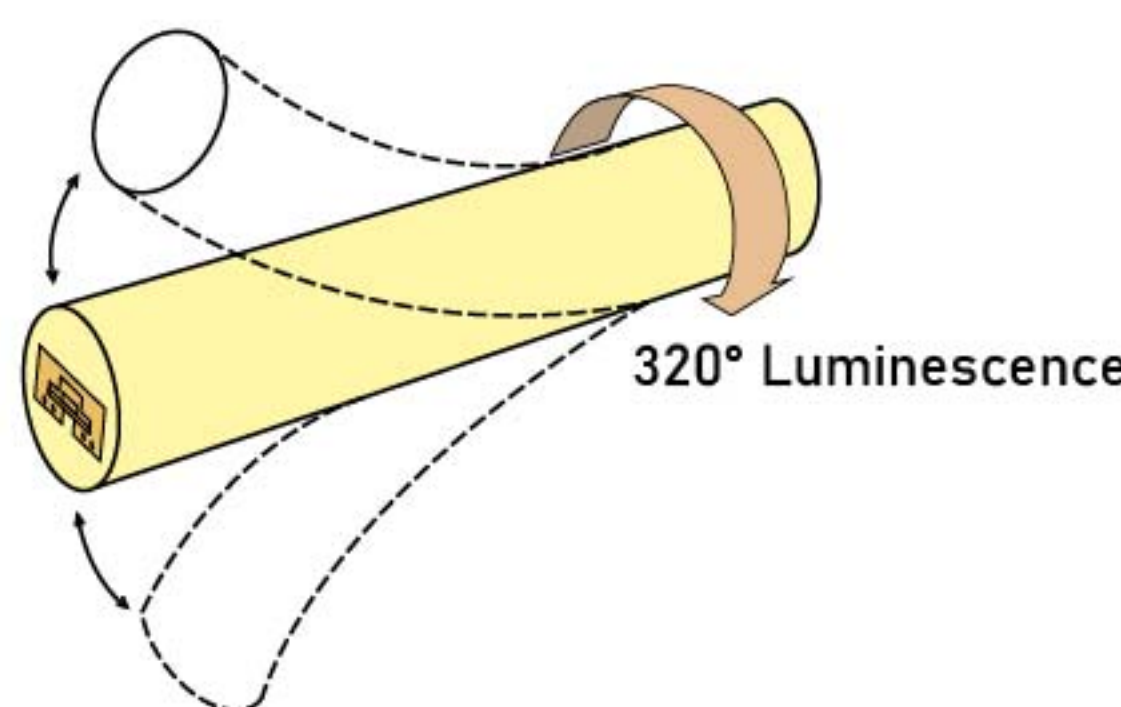
SKU:WJ-PNF-D18-D-RGB-24V



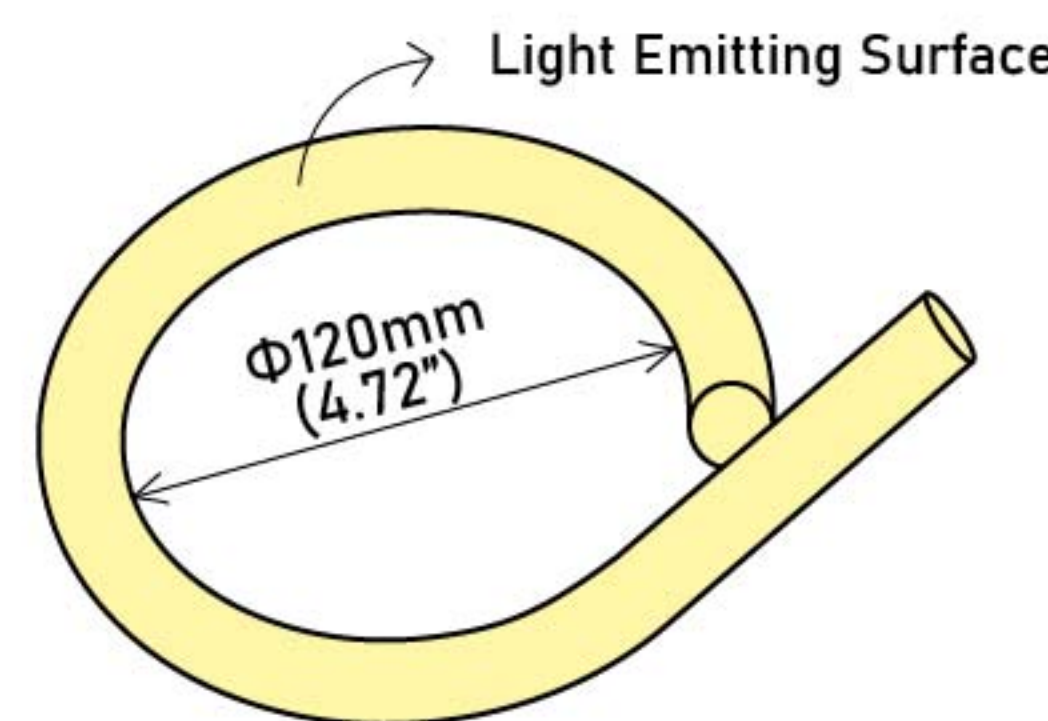
## Structural Drawing & Bending Direction



CIRCLE / LIGHT BEAM ANGLE:320°



BENDING DIRECTION:  
VERTICAL



MINIMUM BENDING DIAMETER

## Certifications



## Technical Data

SPI-RGB



Color Temp

Red:622.9nm  
Green:526.7nm  
Blue:469.6nm  
White:44514K (Color mixing)

Watts/m(24V)

Red:7.47 W  
Green:7.55 W  
Blue:7.5 W  
White:19.35 W (Color mixing)

Lumen/m (24V)

Red:144.29 lm  
Green:321.90 lm  
Blue:62.74 lm  
White:487.85 lm (Color mixing)

Unit Cut(24V)

25cm

Max Loading(24V)

20m

LED Quantity(m)

112 LEDs + 16 ICs  
IC code: SM16703P  
(compatible with all ICs and controllers  
in the WS2811, 1804, and 1809 series)

## Optical Parameter Chart for Integrating Sphere Testing

Chroma Parameters  
Chro.Coor.: x=0.2386 y=0.2497 u=0.1729 v=0.2715 duv=0.0089  
CCT: Tc=44704K Dominant Wave.: 480.1nm Purity: 39.7%  
Flux Ratio: R=20.9%,G=67.2%,B=11.9% Peak Wave.: 464.5nm Half Width: 20.8nm

Rendering Index: Ra= 46.1  
R1 =34.6 R2 =52.5 R3 =67.0 R4 =54.2 R5 =56.2 R6 =54.0 R7 =50.8  
R8 =-0.3 R9 =-224.9R10=-10.3 R11=55.4 R12=54.8 R13=33.0 R14=77.7  
R15=10.6

Photo Parameters  
Flux: 487.39lm Effi.: 25.1lm/W Radiant: 2153.9mW Iv: 0.0mod

Ele. Parameters  
Voltage:U=24.000V Current:I=0.8060A  
Power:P=19.35W Power Factor:PF=1.000

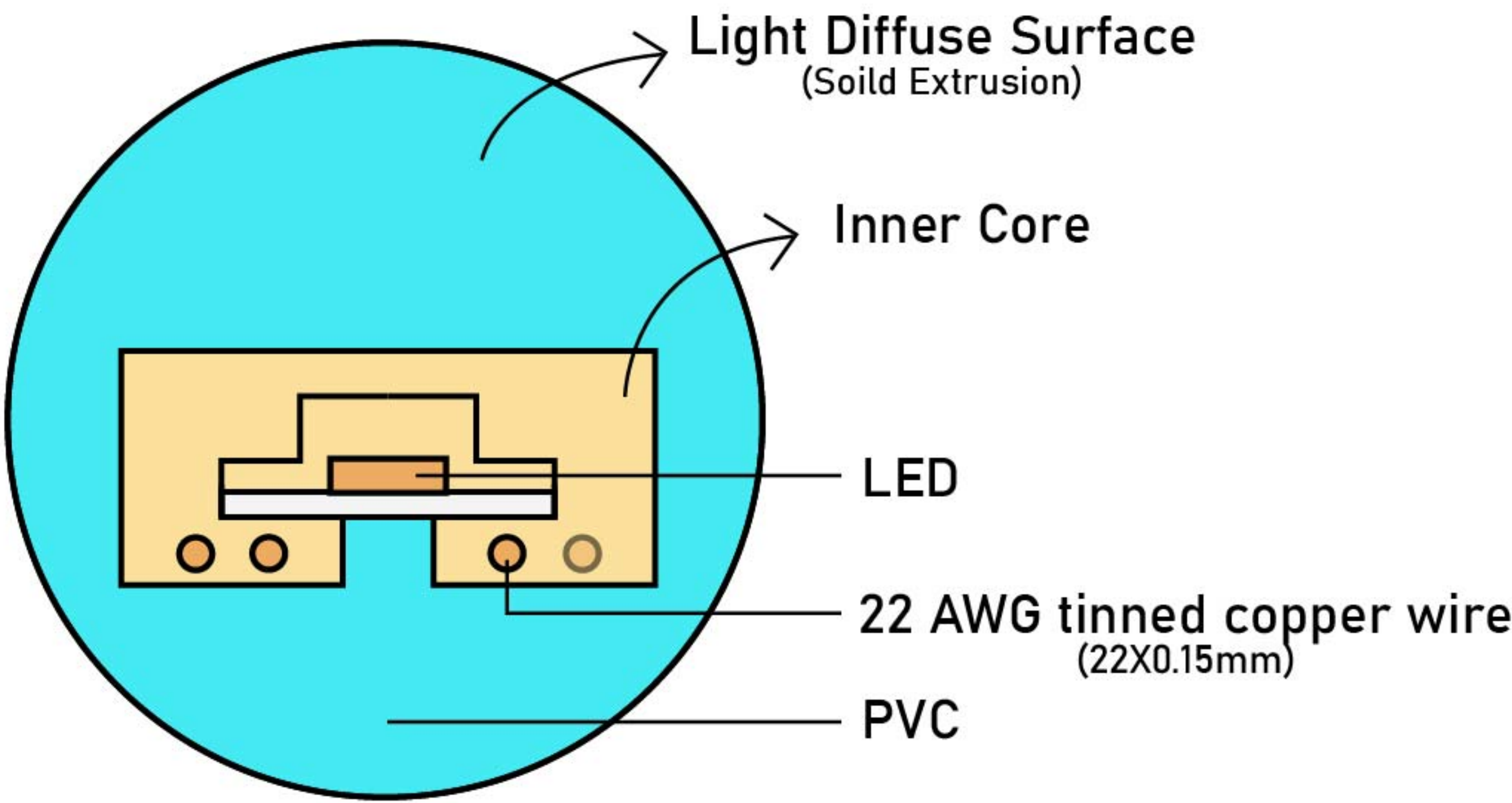
Wilgex specializes in engineering LED flexible neon lights and offers both standard and customized services. If you have specific requirements, please contact our sales department.

## 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)



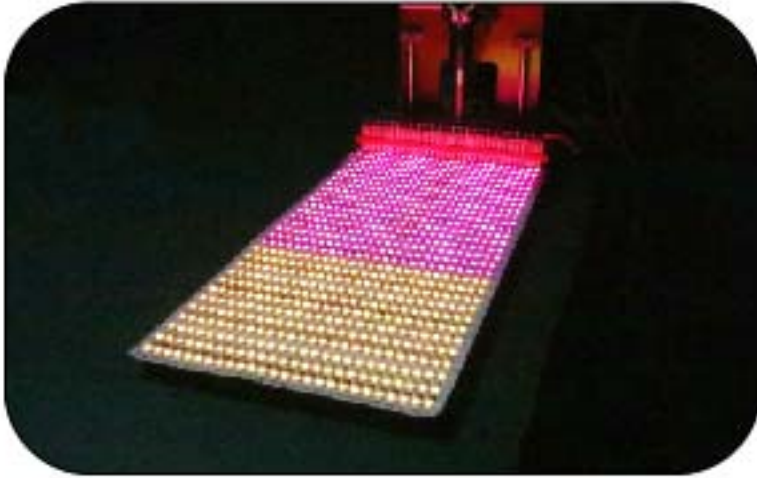
Five-star quality assurance



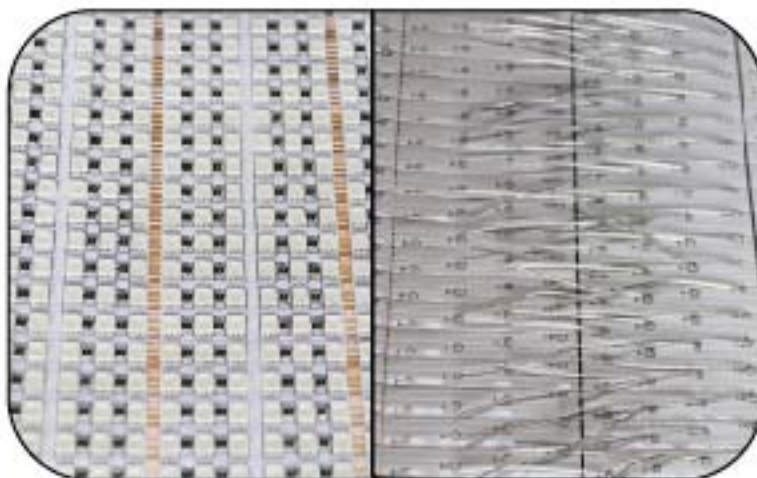
Unique Design



★ Dual Power Supply Design



★ Enhance thickness  
★ FPC design principle



★ LED anti-death design



★ Stronger inner core protection design



★ Solid extrusion design for exterior



Features:

- 1. Size: The LED chips have a size of  $\Phi 18\text{mm}$  in round shape.
- 2. High-density LED chips: The strips have a high density of LED chips, resulting in a brighter and more uniform light output
- 3. Flexible and bendable: Can be bent into various shapes and designs
- 4. Energy-efficient: Uses less power compared to traditional neon lights
- 5. Long lifespan: Can last up to 50,000 hours
- 6. Low heat emission: Does not emit as much heat as traditional neon lights
- 7. Wide color options: Available in a wide range of colors
- 8. Easy to install: Can be cut and connected to fit any desired length and shape
- 9. Durable and weather-resistant: Can withstand various weather conditions
- 10. Safe to use: Low voltage and does not contain hazardous materials like mercury
- 11. Cost-effective: Offers a cost-effective alternative to traditional neon lights.

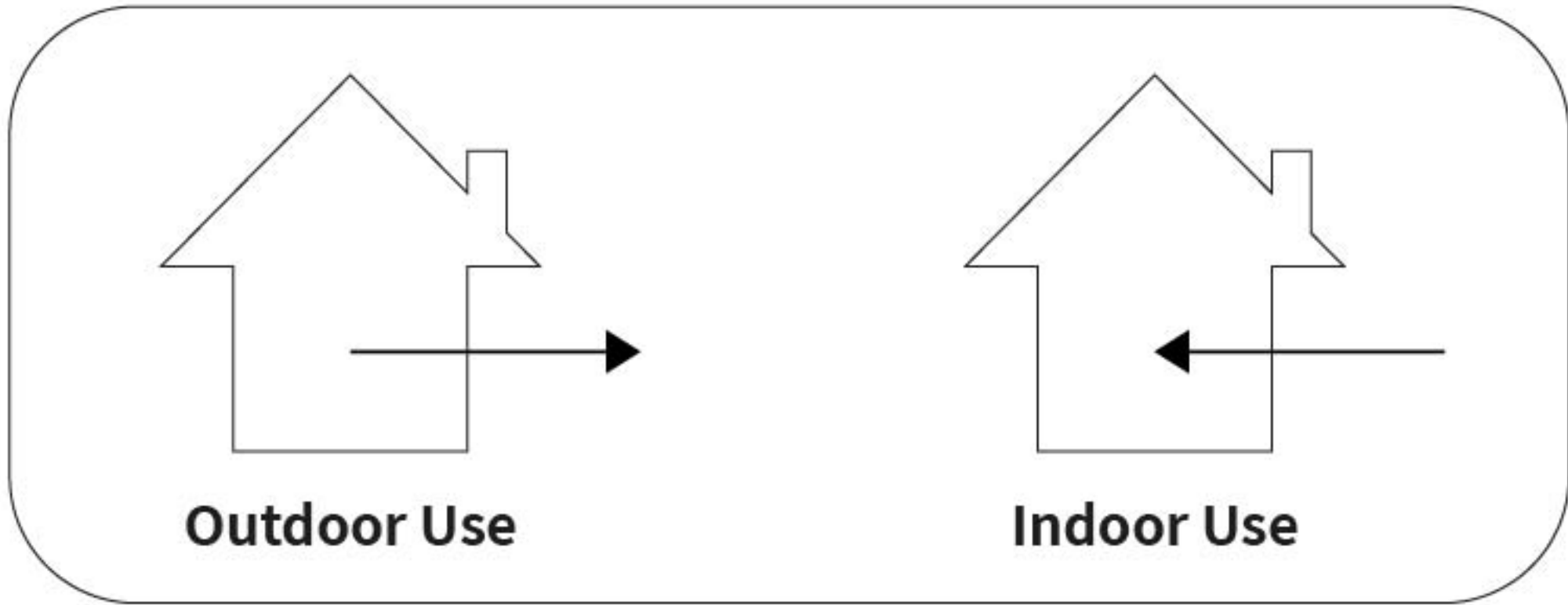
Wide Color Options



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.

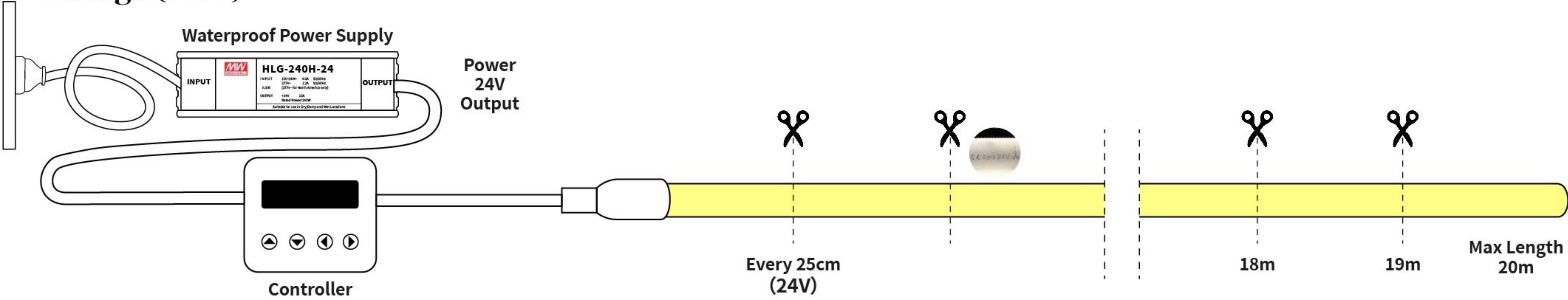






Packing Method : Reel + boardcards  
Quantity / Box : 50 meters / reel  
Gross Weight : 18.5 Kg ( 40.79LB)  
Size of outer box : 34 x 34 x 40cm  
CBM : 0.046 m<sup>3</sup> / box

**Mini Cutting Length & Connection Length**  
• Voltage ( 24V )



**Controller Selection**



**HC100**  
Updated version  
SPI magic color controller



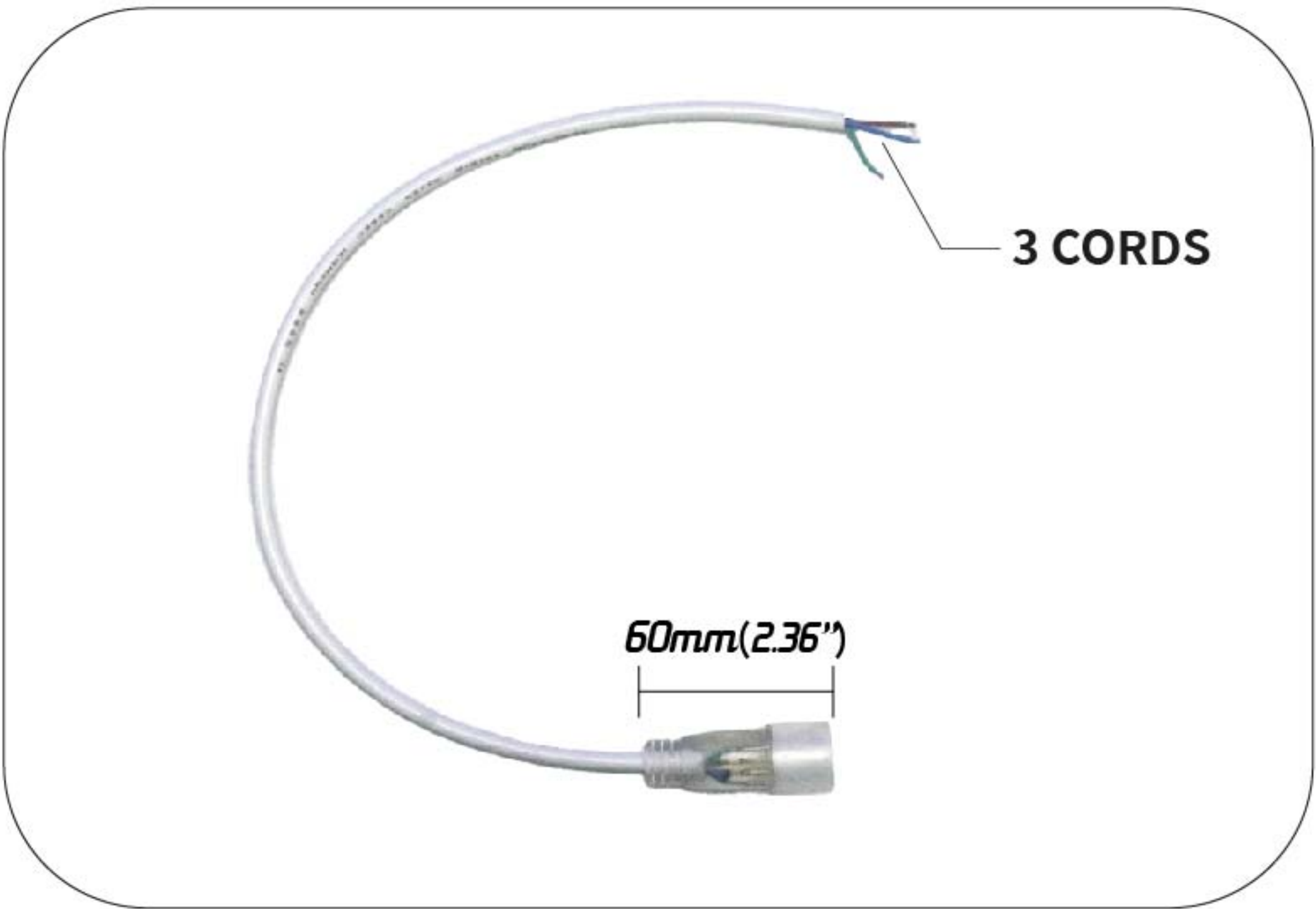
**LT-200**  
LED Digital Controller



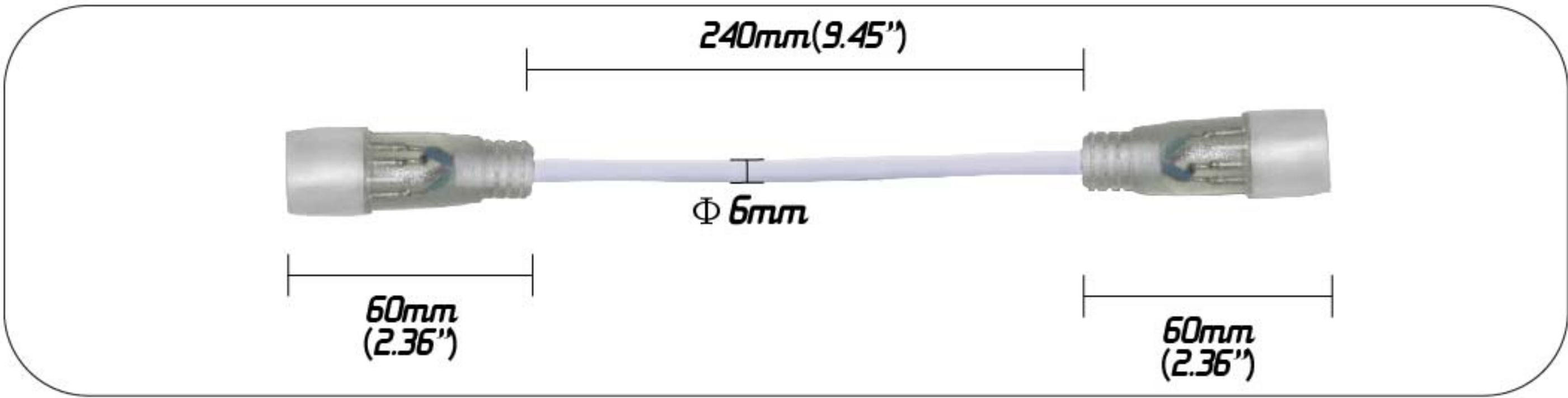
**SP108E LED WIFI Controller**

**IP65 (DIY Connector)**

• Voltage ( 24V/110V/220V )

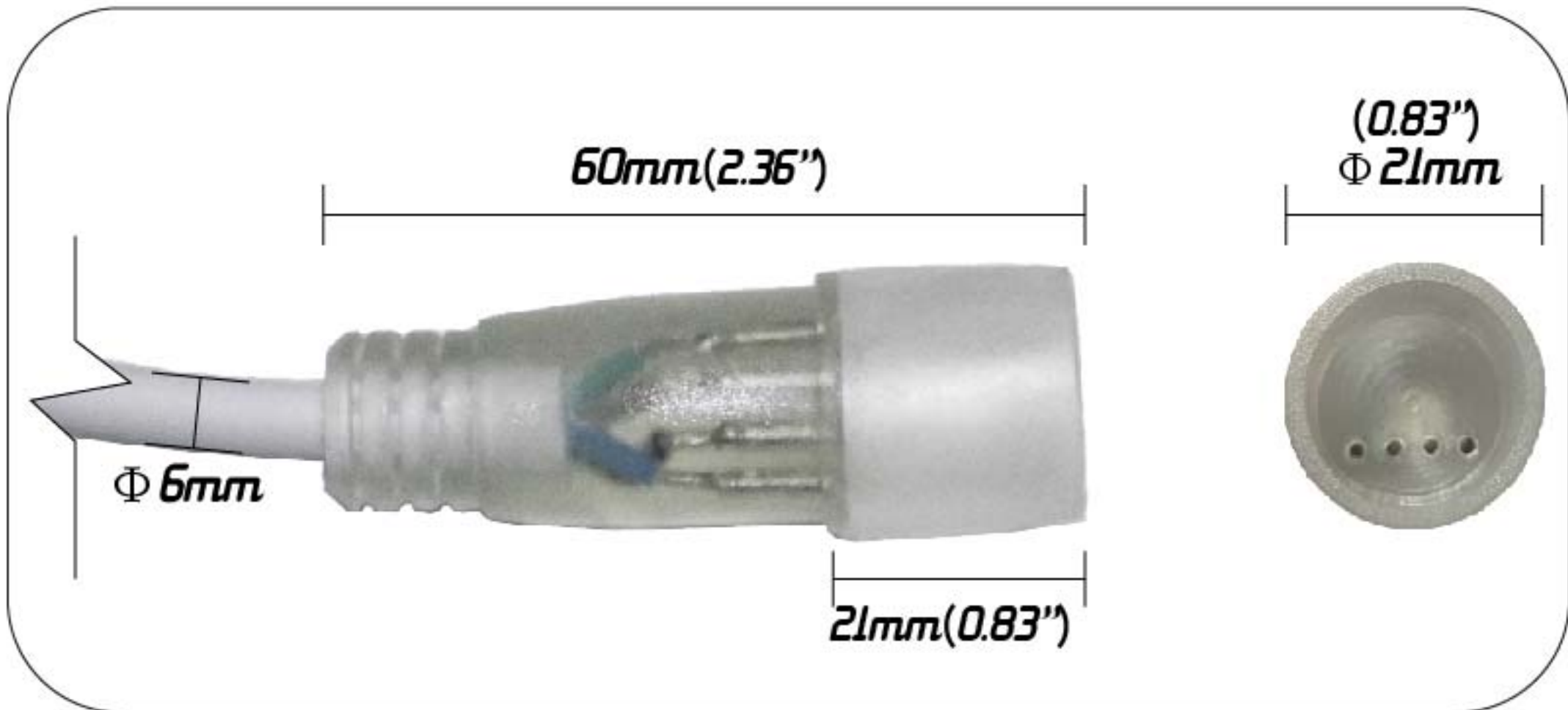


Cable Length: 50cm

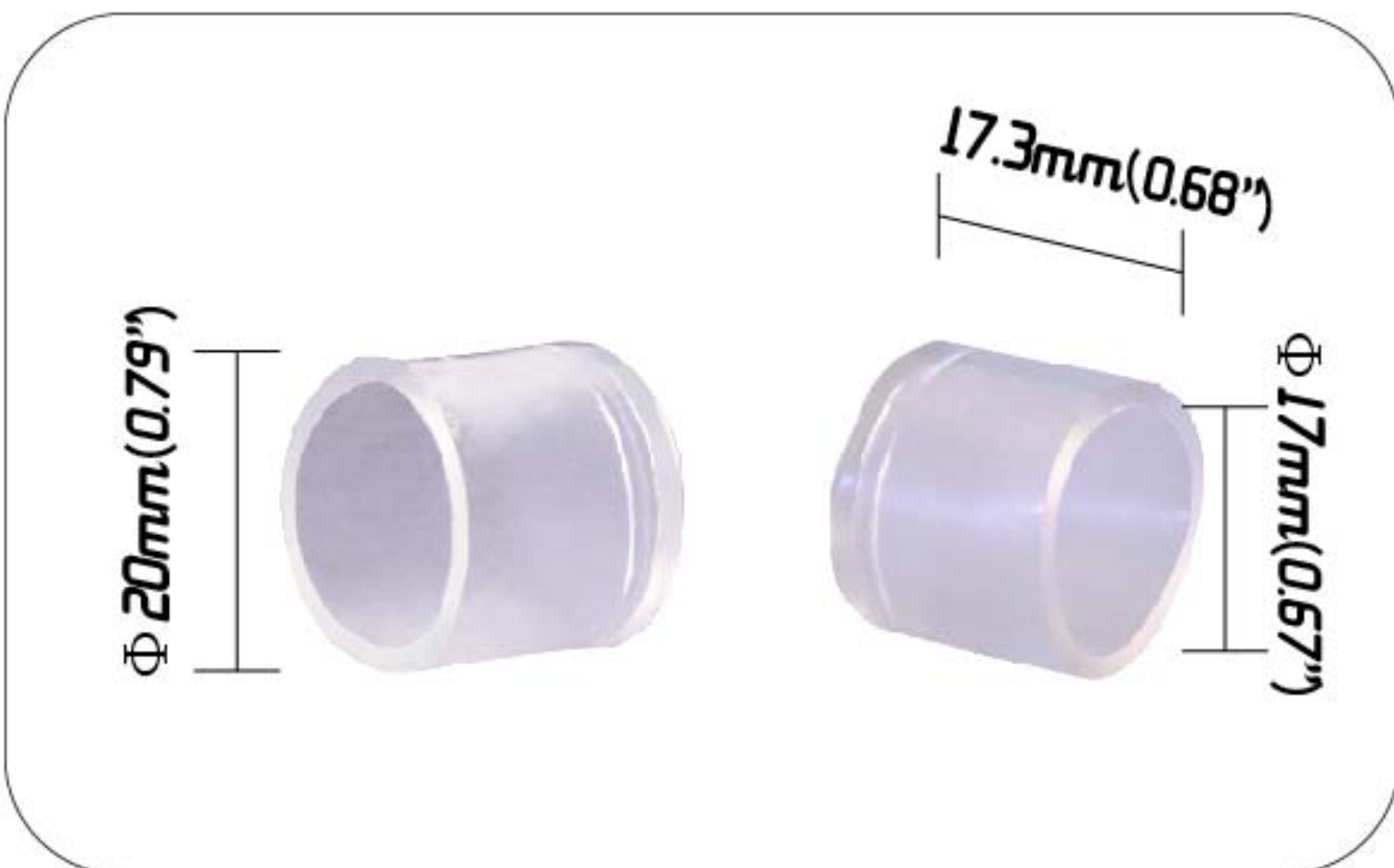


MIDDLE CONNECTOR

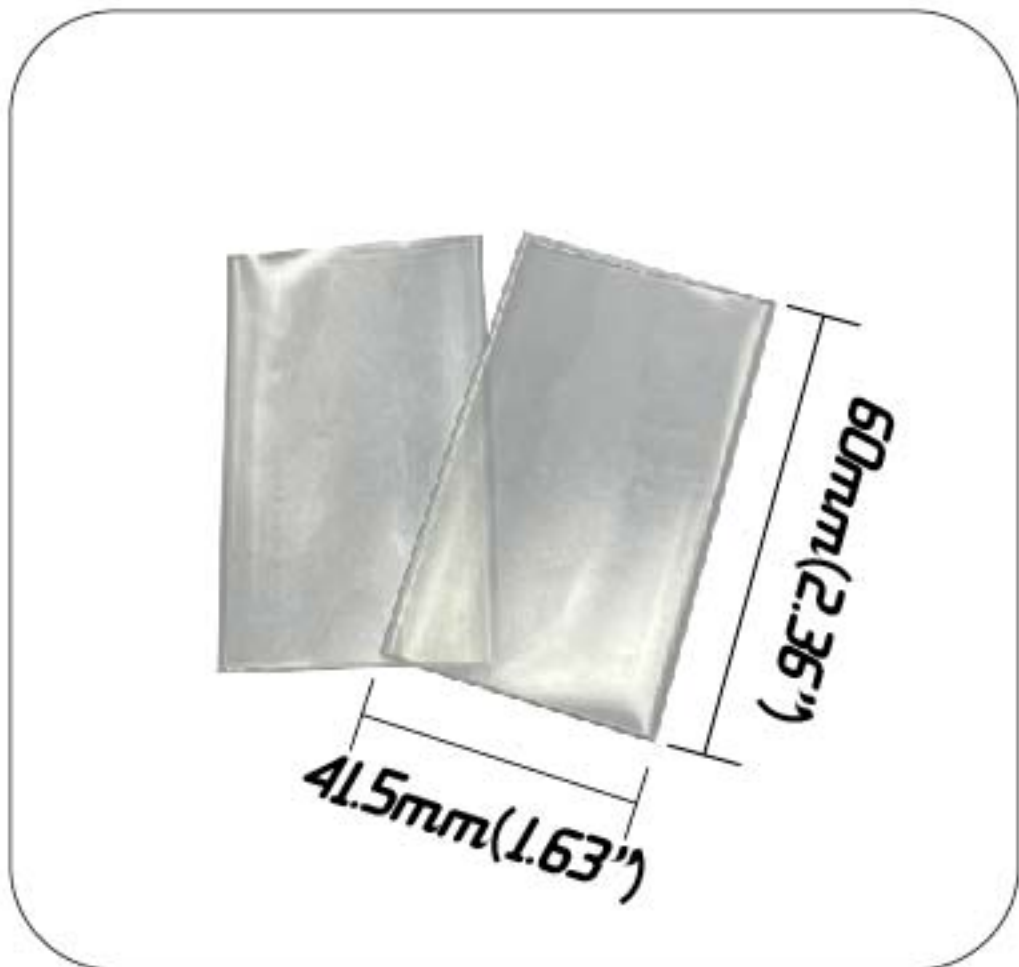
**• Part Details**



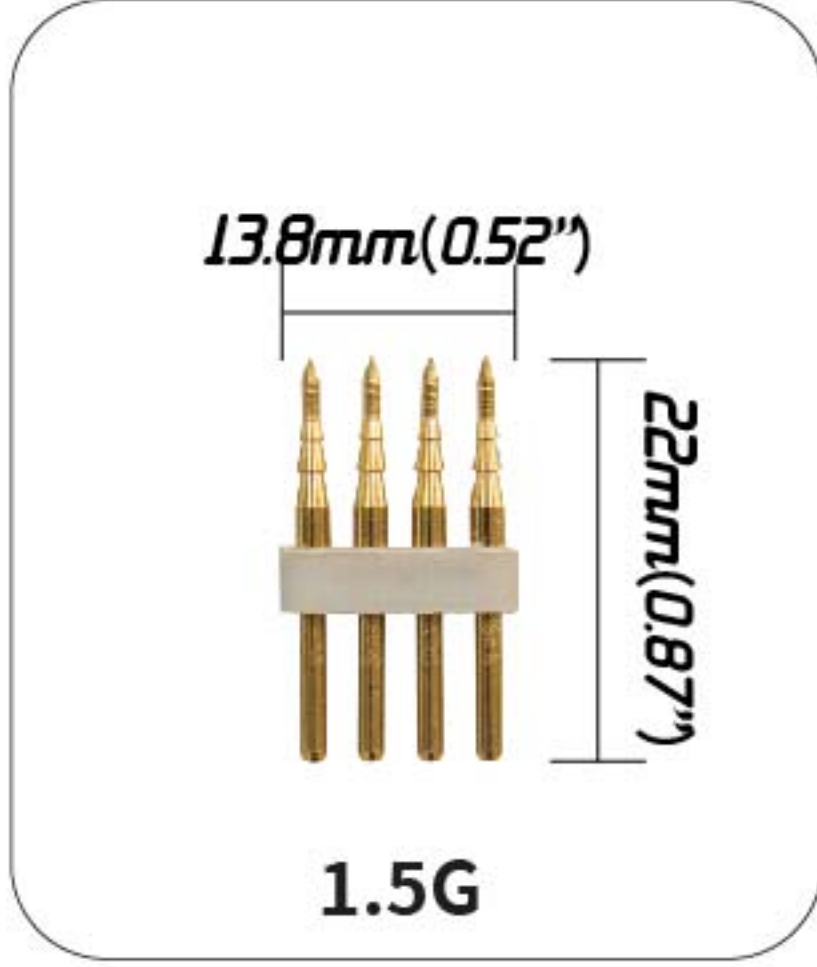
FRONT CONNECTOR



END CAP



HEAT-SHRINK TUBE



**1.5G**  
PIN2-PINS  
FOR MONO COLOR



Mounting Plastic Transparent Channel

