

Wilgex<sup>®</sup>

Professional LED Light Manufacturer  
Since 2008



www.wilgex-led.com



(86) 769-28820681



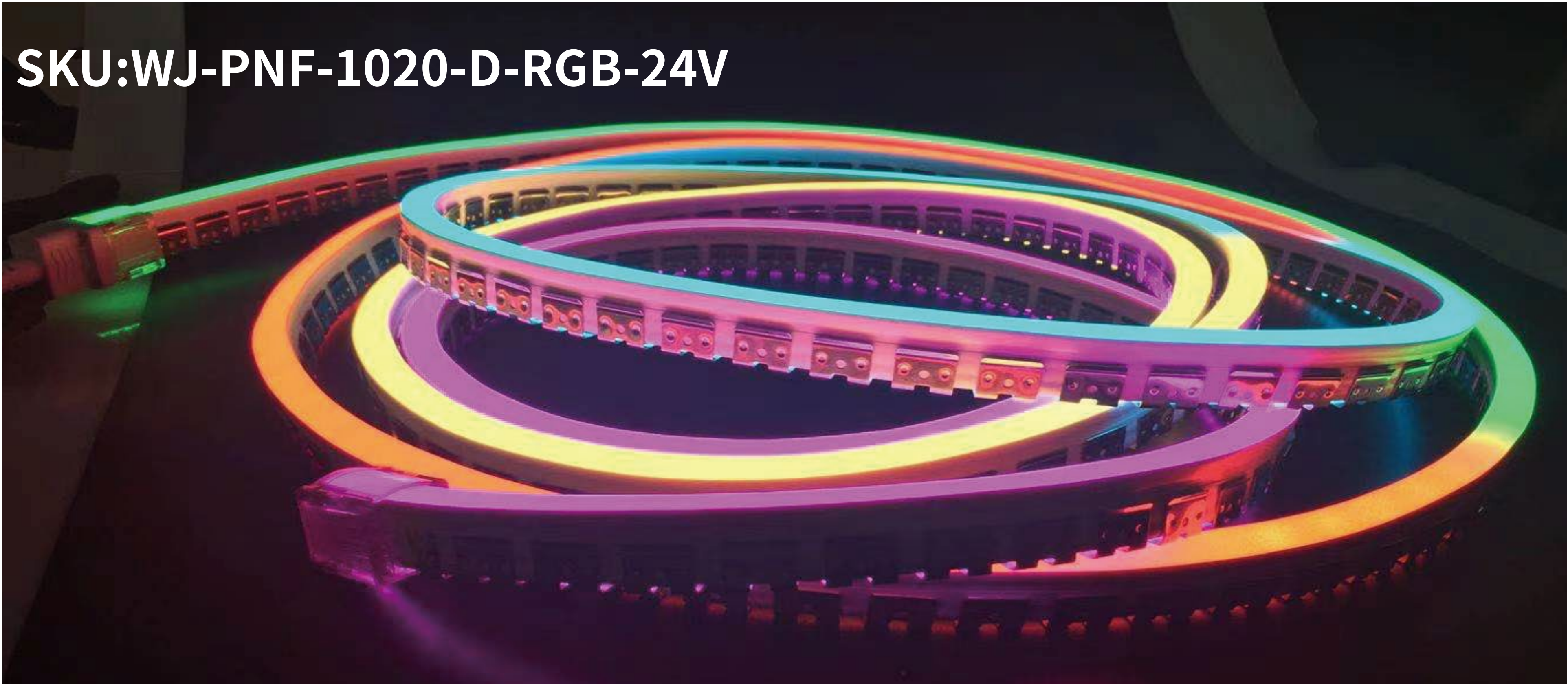
info@wilgex-led.com

10x20mm  
DOME/FLAT

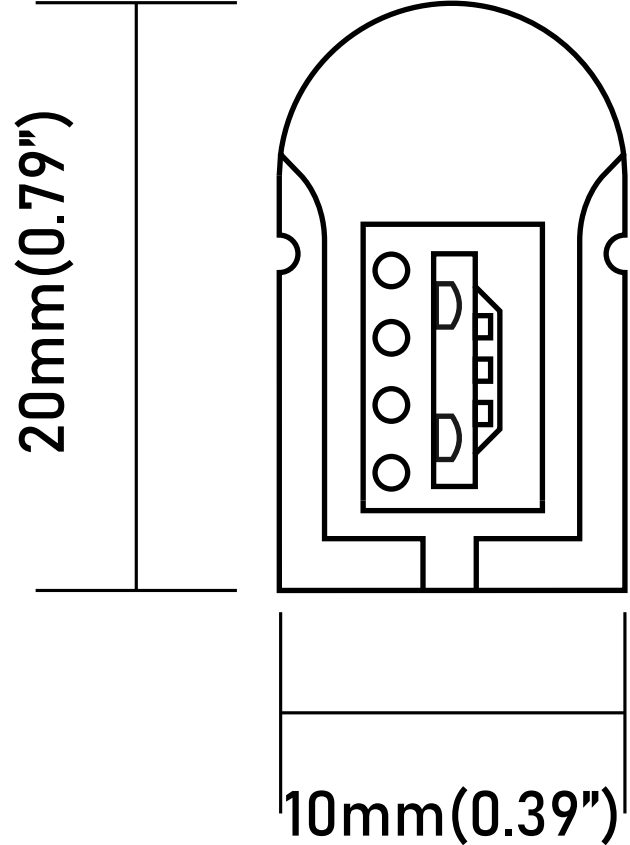
LED NEON FLEX

DYNAMIC PIXEL  
RGB COLOR  
24V

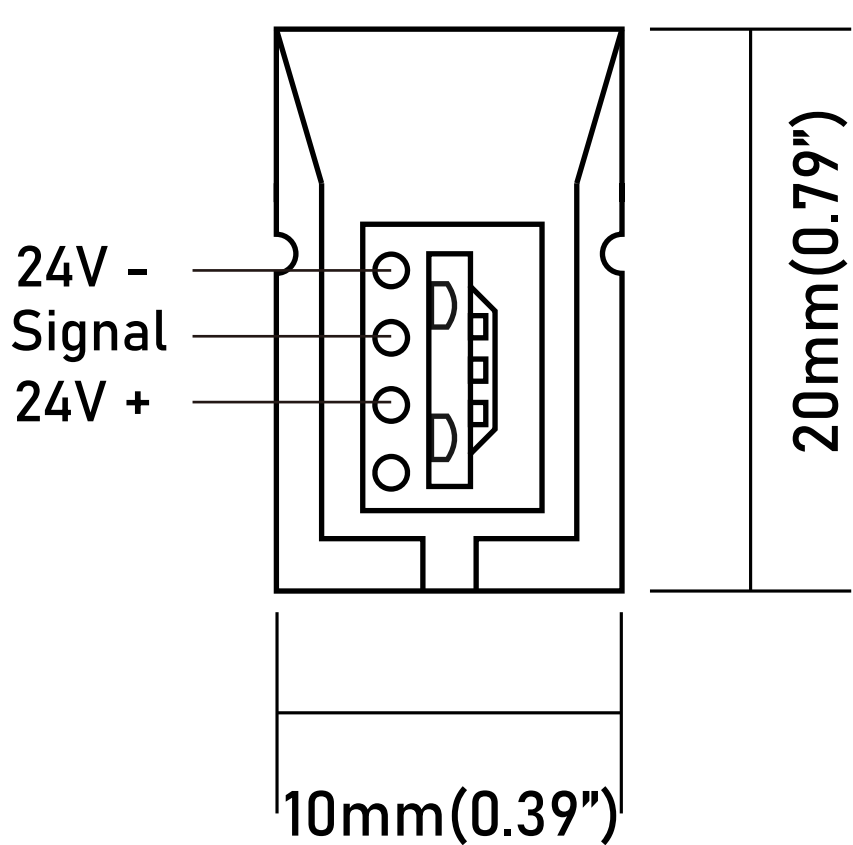
SKU:WJ-PNF-1020-D-RGB-24V



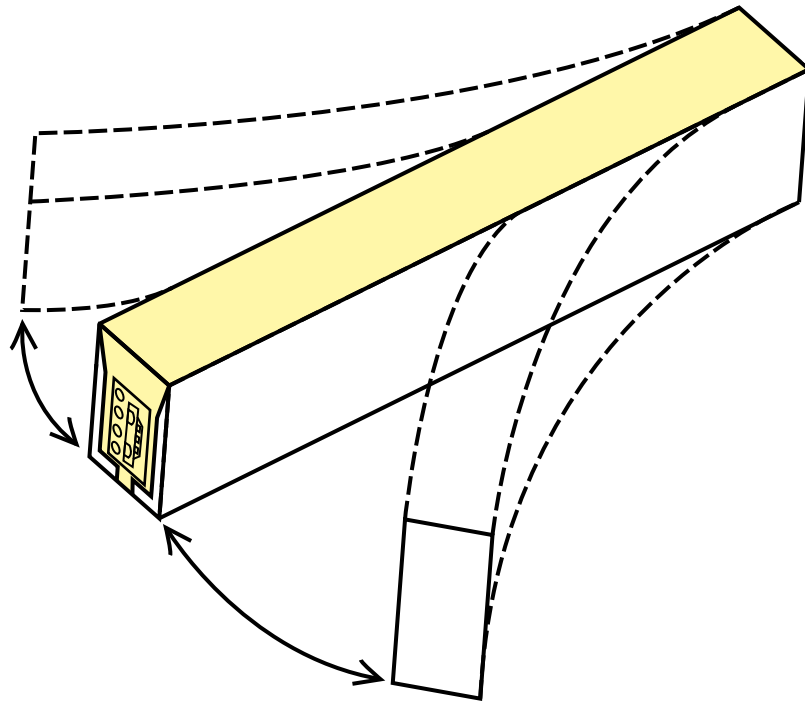
Structural Drawing & Bending Direction



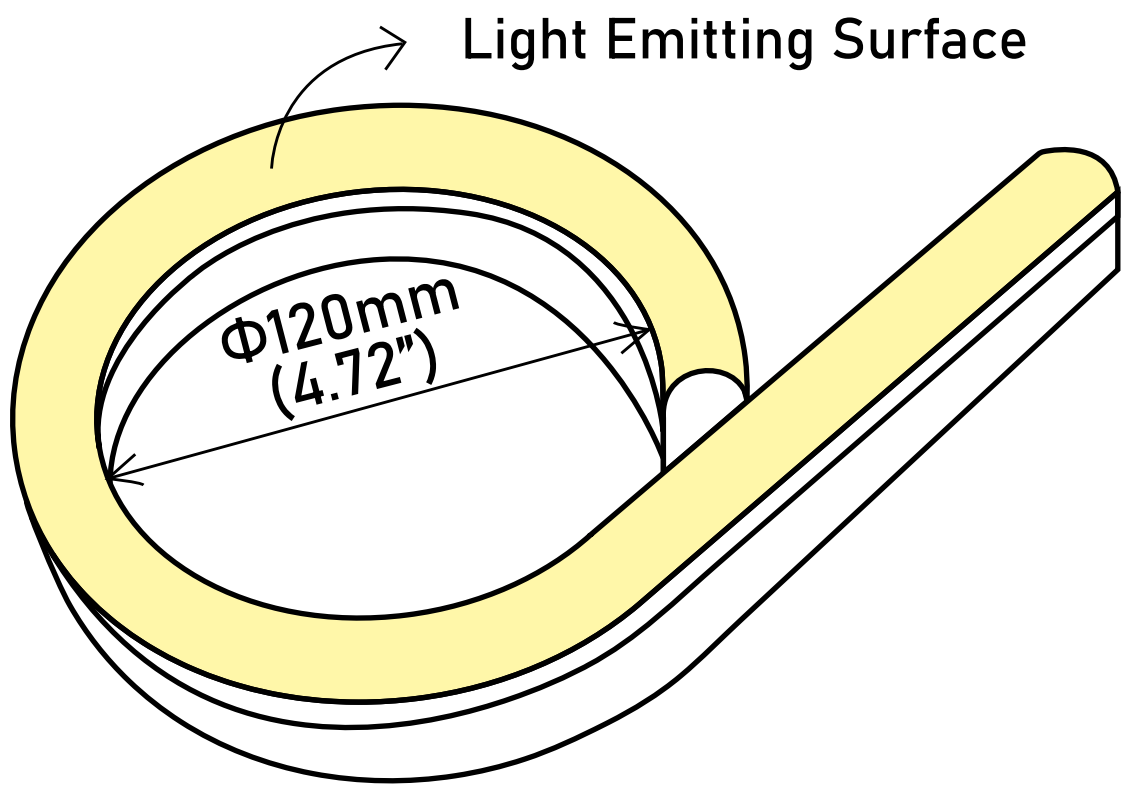
DOME SURFACE:270



FLAT SURFACE:120

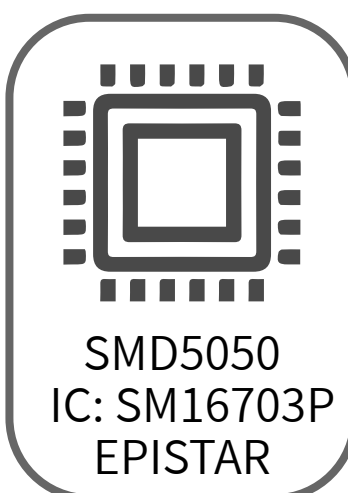
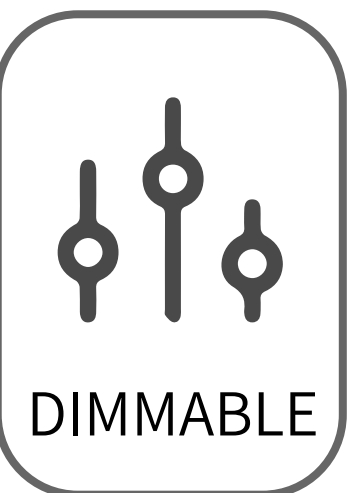
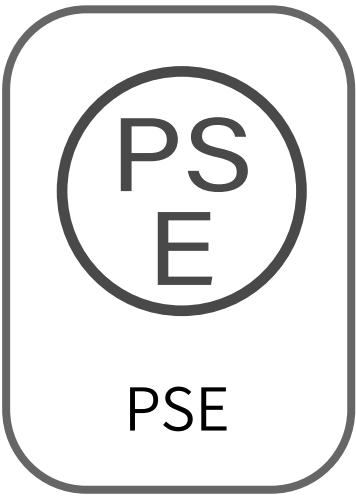
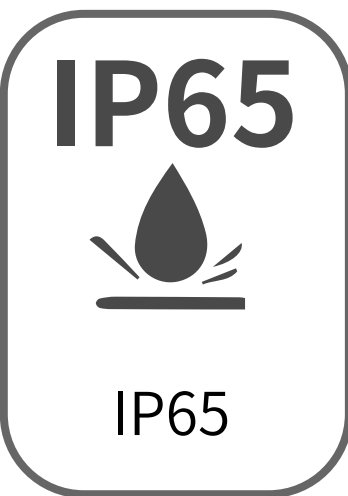
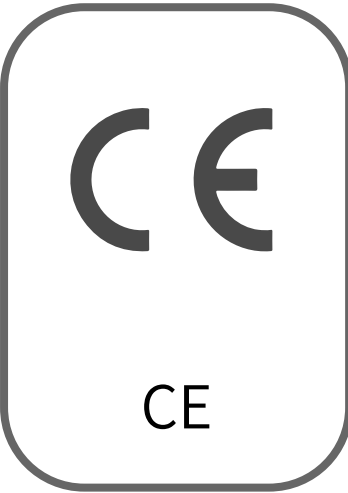
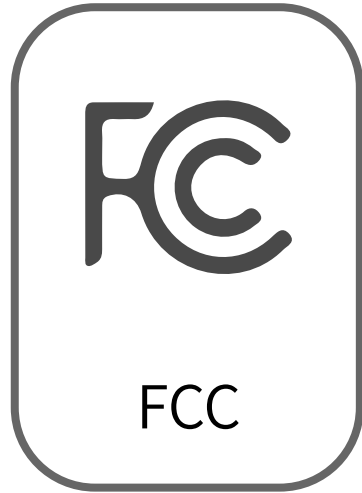


BENDING DIRECTION:  
HORIZONTAL



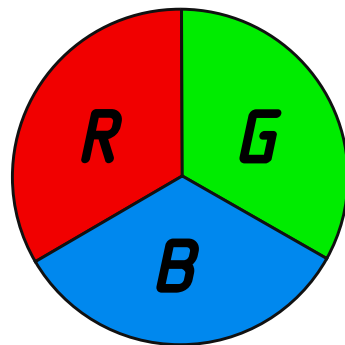
MINIMUM BENDING DIAMETER

Certifications



Technical Data

SPI-RGB



Color Temp

Red:624.7nm  
Green:524.2nm  
Blue:470.0nm  
White:16572K (Color mixing)

Watts/m( 24V Flat)

Red:4.76 W  
Green:5.13 W  
Blue:5.17 W  
White:12.2 W (Color mixing)

Lumen/m ( 24V Flat)

Red:33.68 lm  
Green:66.23 lm  
Blue:12.99 lm  
White:108.16 lm (Color mixing)

Unit Cut(24V)

10cm

Max Loading(24V)

20m

LED Quantity(m)

60 LEDs + 10 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=0.2635 y=0.2607 u=0.1882 v=0.2793 duv=-0.0034  
CCT: Tc=16518K Dominant Wave.: 477.2nm Purity: 30.6%  
Flux Ratio: R=25.1%,G=64.3%,B=10.7% Peak Wave.: 464.3nm Half Width: 22.2nm

Bending Index: Ra= 26.1  
R1 =6.5 R2 =40.9 R3 =64.7 R4 =27.5 R5 =28.2 R6 =34.6 R7 =42.4  
R8 =-36.0 R9 =-296.2R10=-41.5 R11=15.9 R12=41.2 R13=11.1 R14=75.5  
R15=-16.6

Photo Parameters  
Flux: 108.28lm Effi.: 8.8lm/W Radiant: 488.4mW Iv: 0.0mcd

Ele. Parameters  
Voltage:U=24.000V Current:I=0.5080A  
Power:P=12.20W Power Factor:PF=1.000

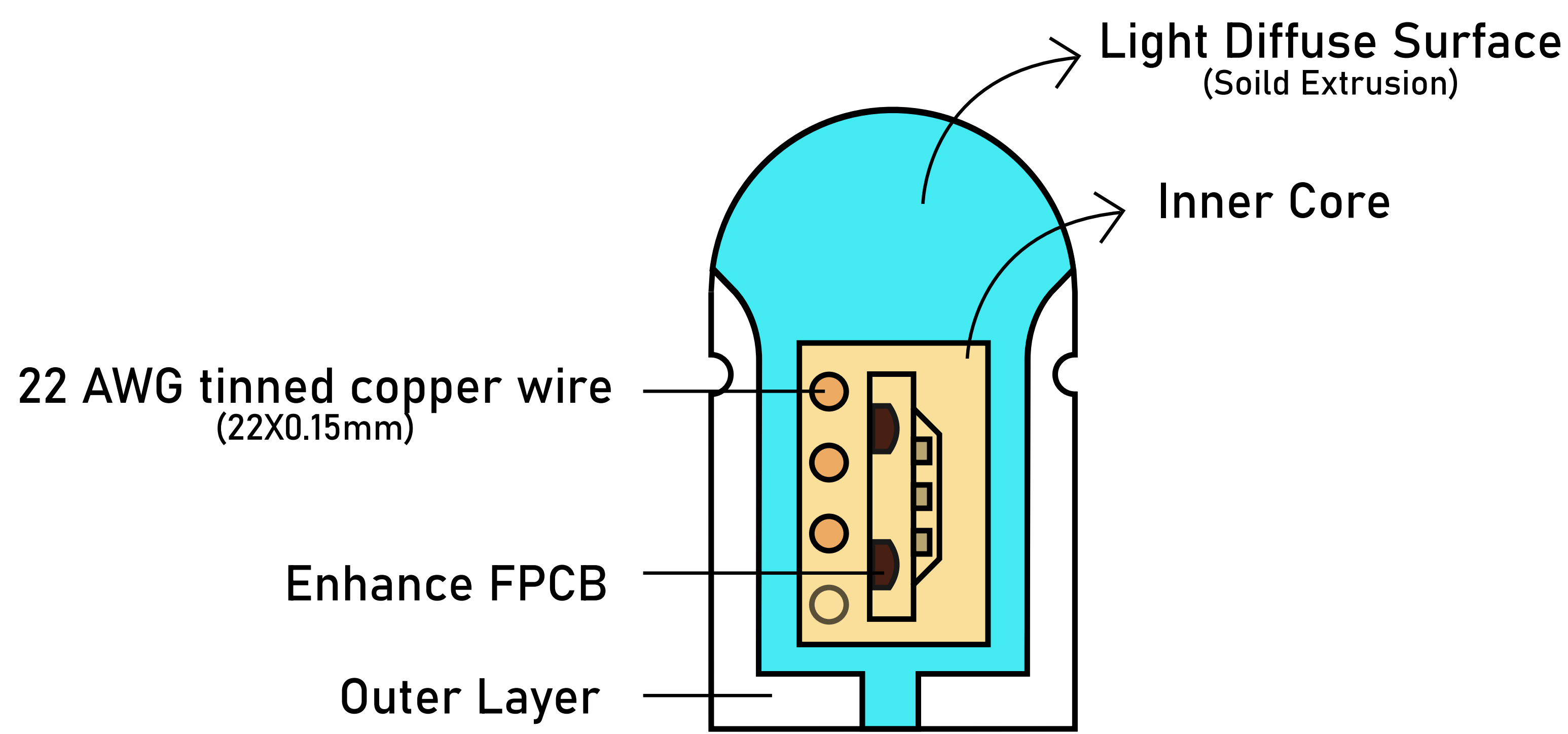
Reliability test

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)
Temperature Test	Lumen Maintenance & Lifetime	IES LM84 & IES TM 28
	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)

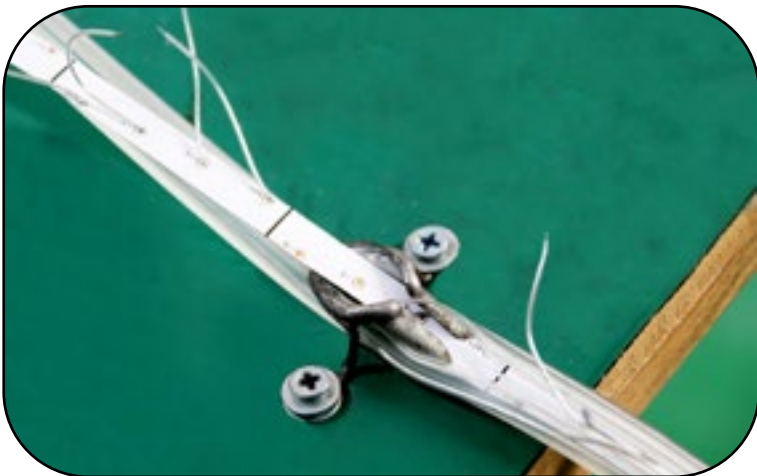
Wilgex specializes in engineering LED flexible neon lights and offers both standard and customized services. If you have specific requirements, please contact our sales department.



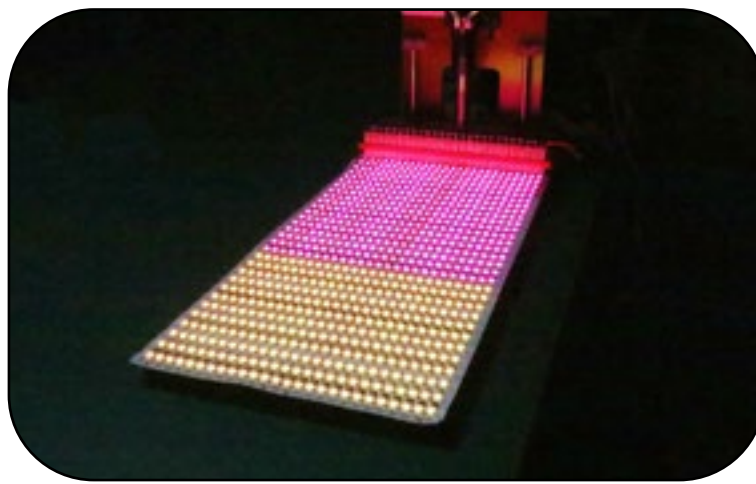
**Five-star quality assurance**



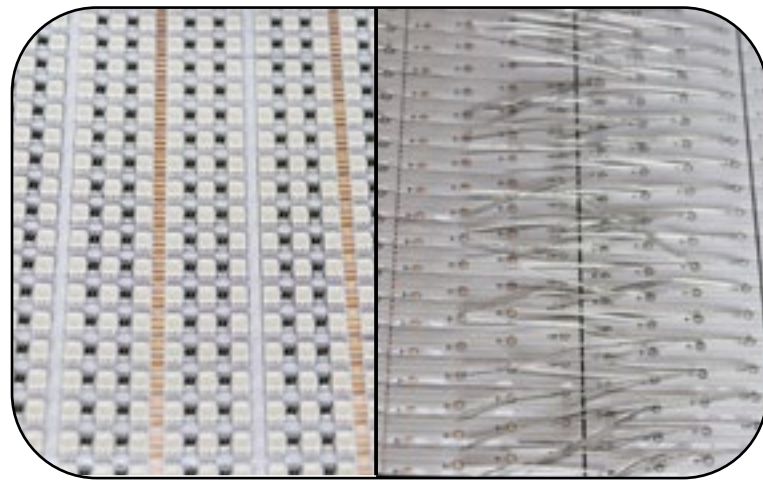
**Unique Design**



★ Dual Power Supply Design



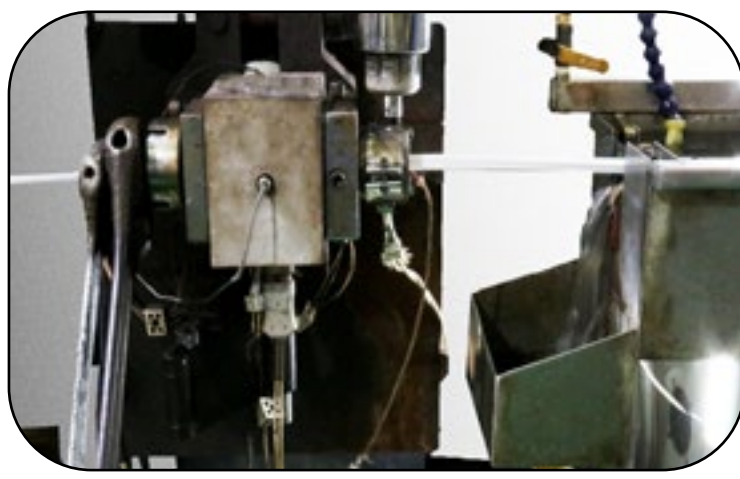
★ Enhance thickness  
★ FPC design principle



★ LED anti-death design



★ Stronger inner core protection design



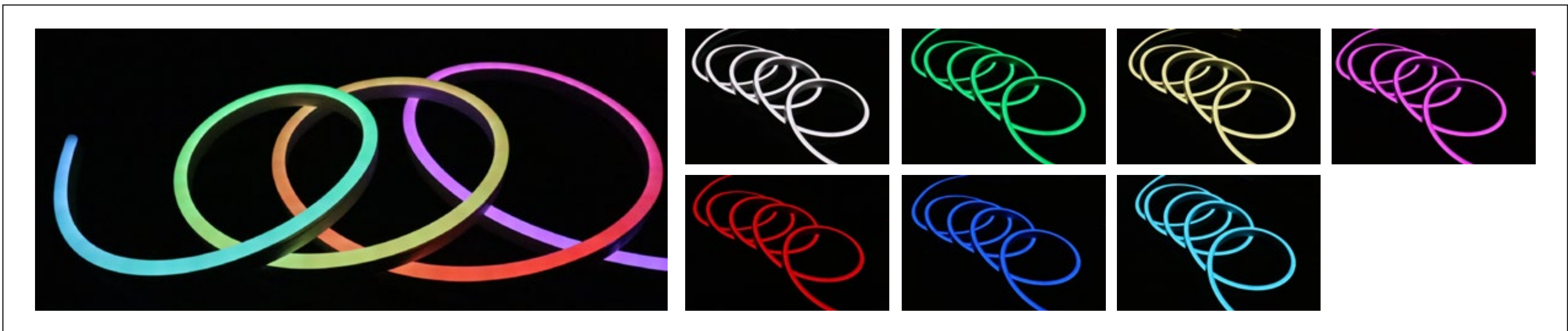
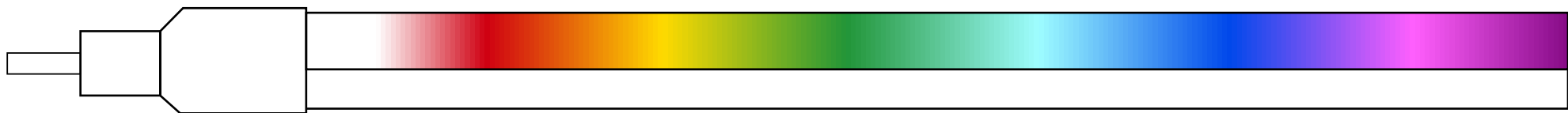
★ Solid extrusion design for exterior



**Features:**

1. Ultra-thin: The thickness of the strip is only 10mm
2. Small size: The LED chips have a small size of 10mm x 20mm
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.

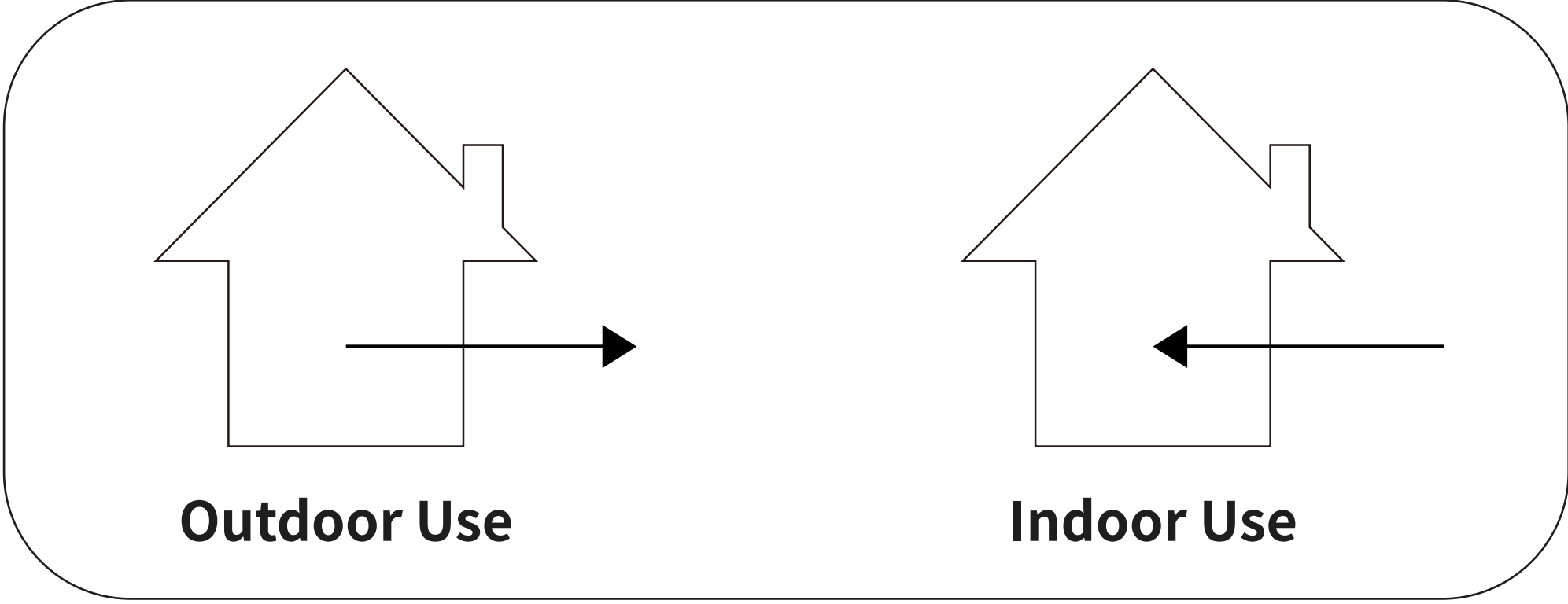
**Wide Color Options**



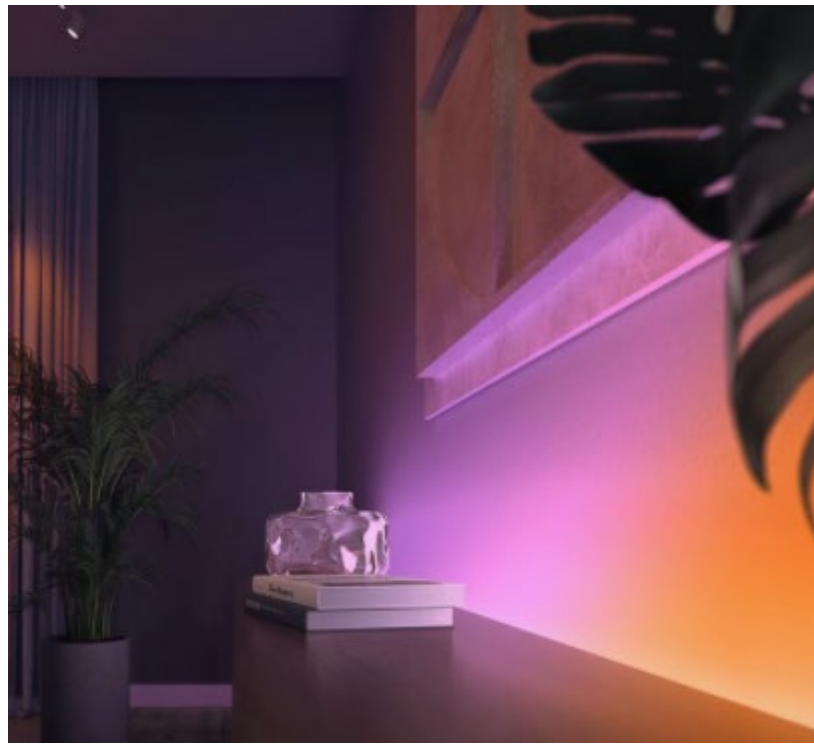
Dynamic Pixel RGB

**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

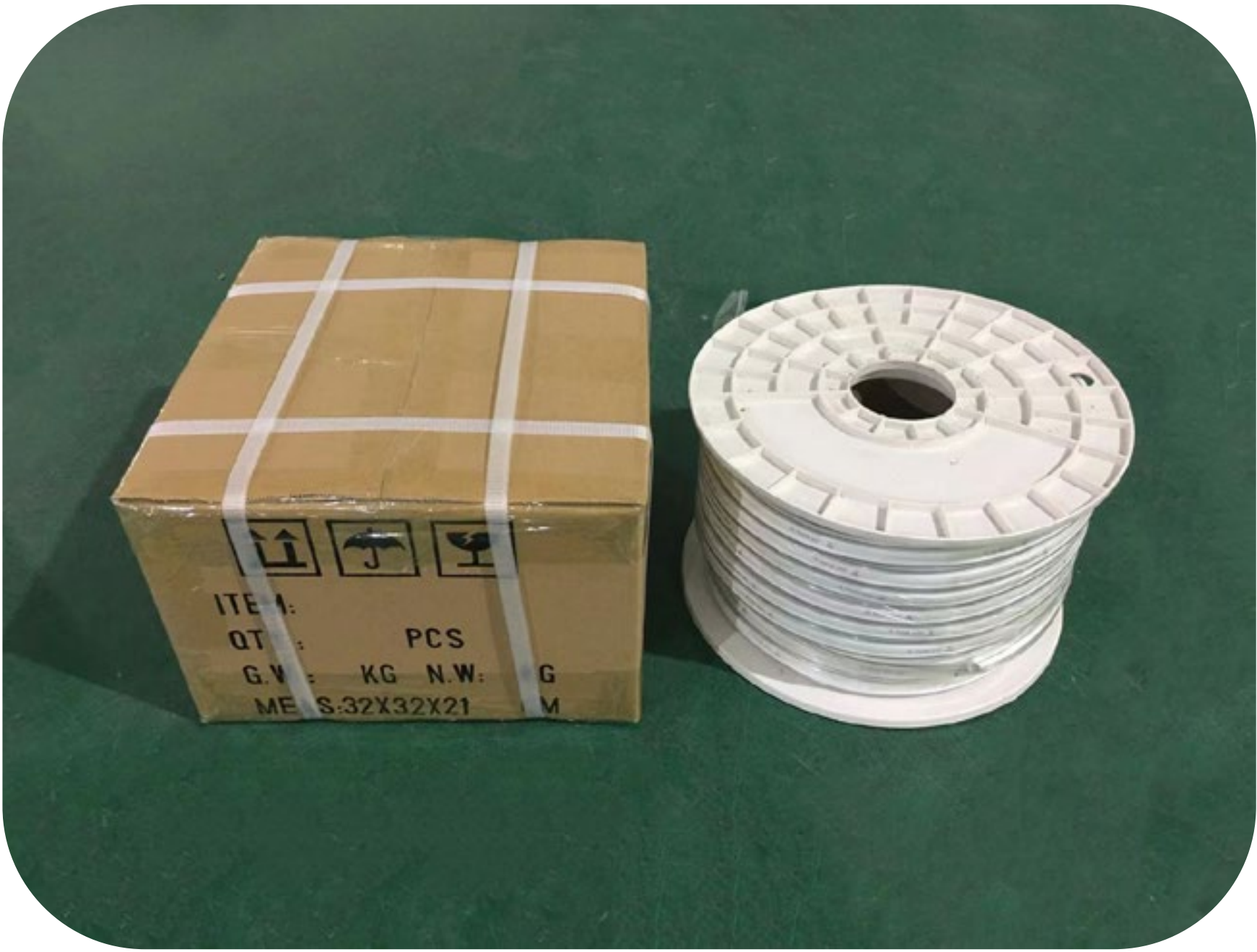


Please note that these are only recommended usage scenarios and it is important to consult the product specifications and guidelines before using flexible LED neon light strips in any application.





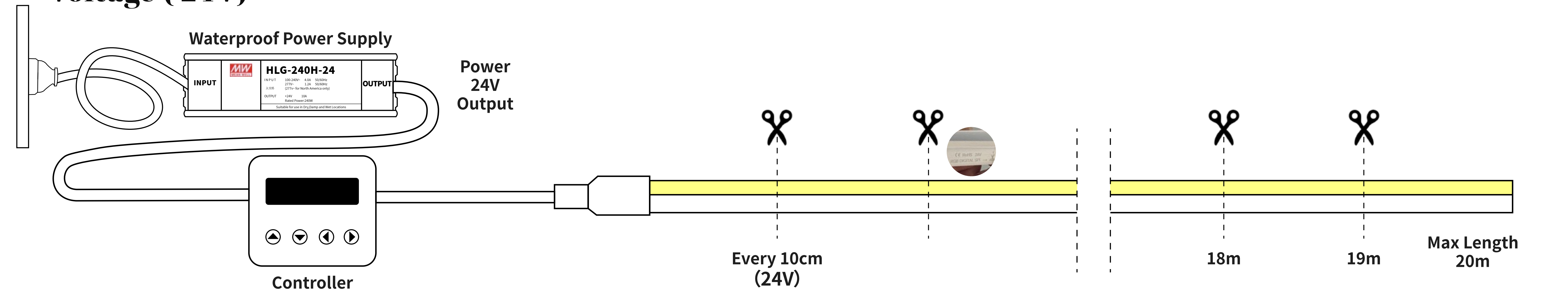
**Package**



Packing Method : Reel + boardcards  
Quantity / Box : 50 meters / reel  
Gross Weight : 10.5 Kg ( 23.10LB)  
Size of outer box : 32 x 32 x 21cm  
CBM : 0.022 m3 / box

**Mini Cutting Length & Connection Length**

**• Voltage ( 24V)**



**Controller Selection**



**HC100**  
Updated version  
SPI magic color controller

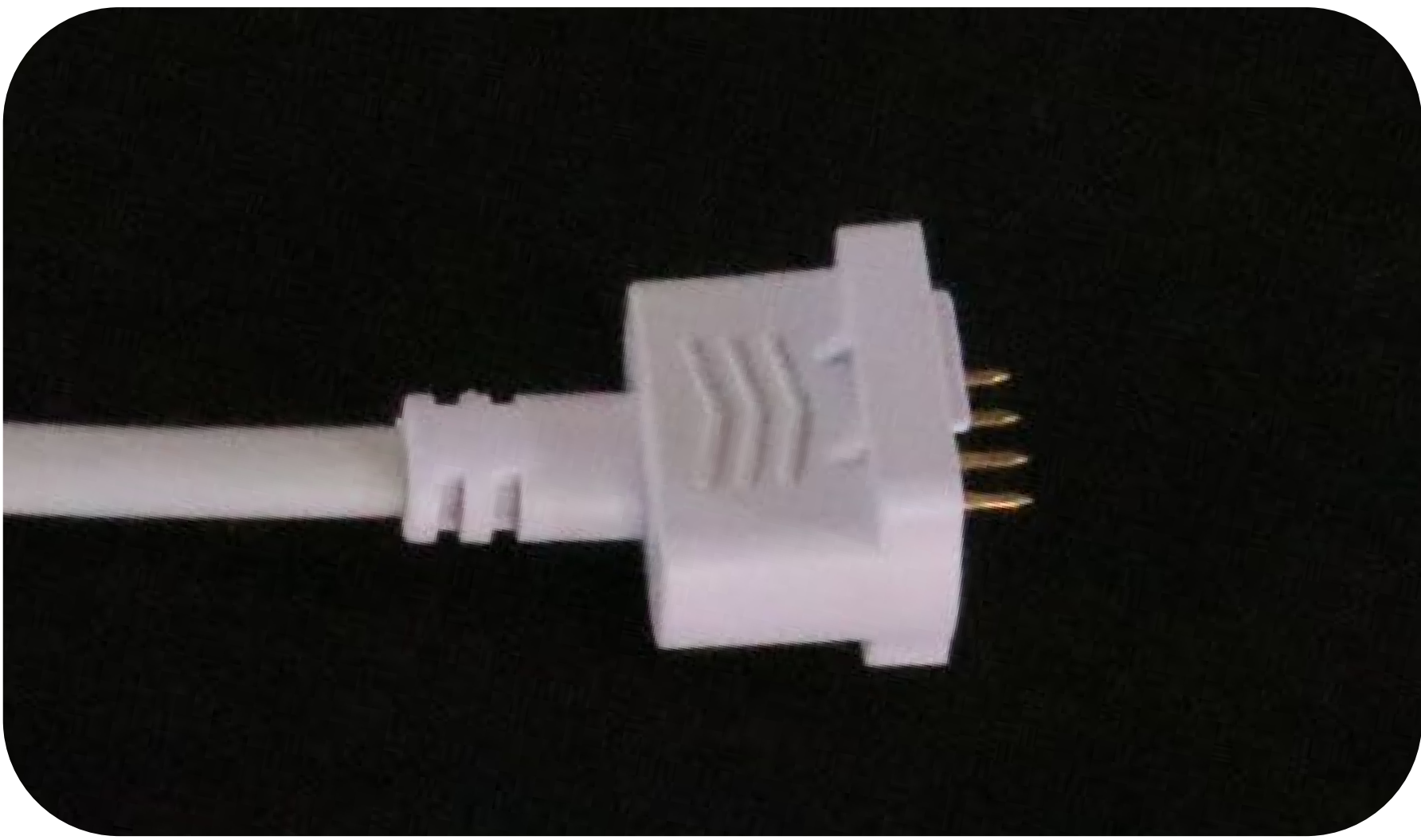


**LT-200**  
LED Digital Controller



**SP108E LED WIFI Controller**

**IP68 (DIY Screw & Snap Connector)**



**STRAIGHT EXIT**

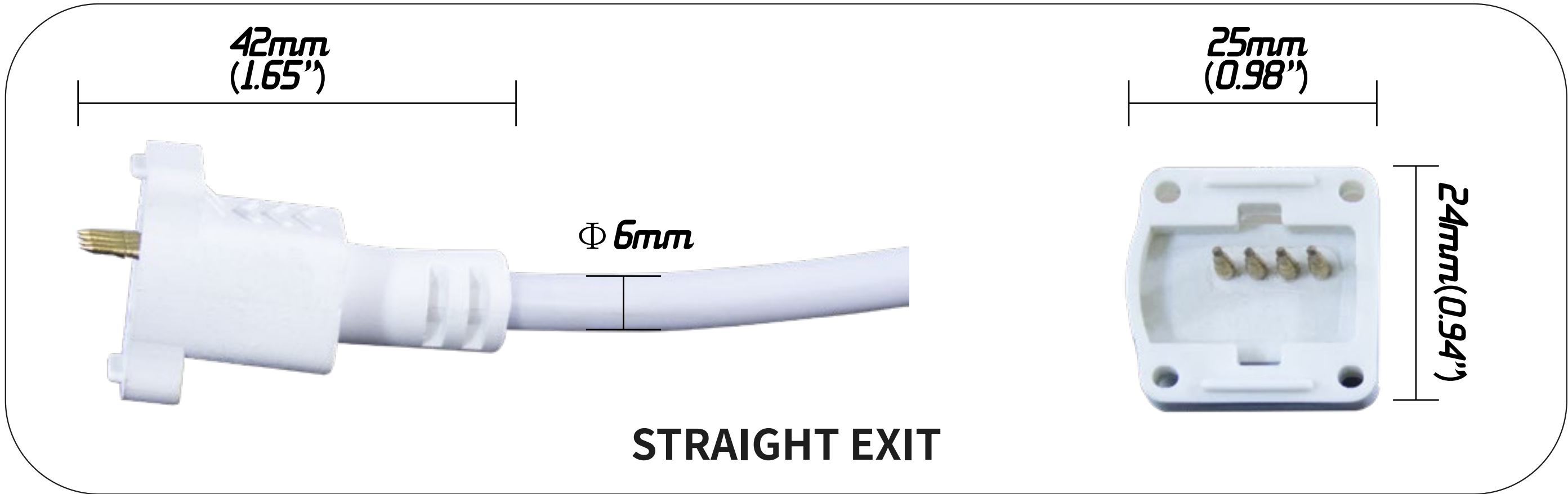


**SIDE EXIT**

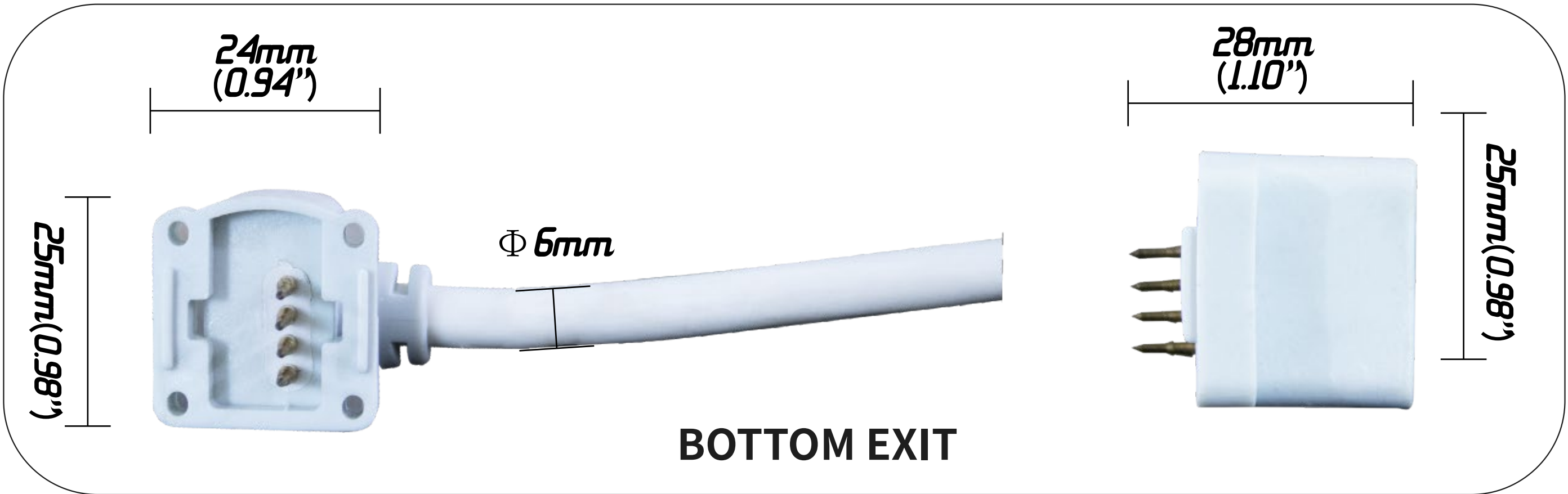


**BOTTOM EXIT**

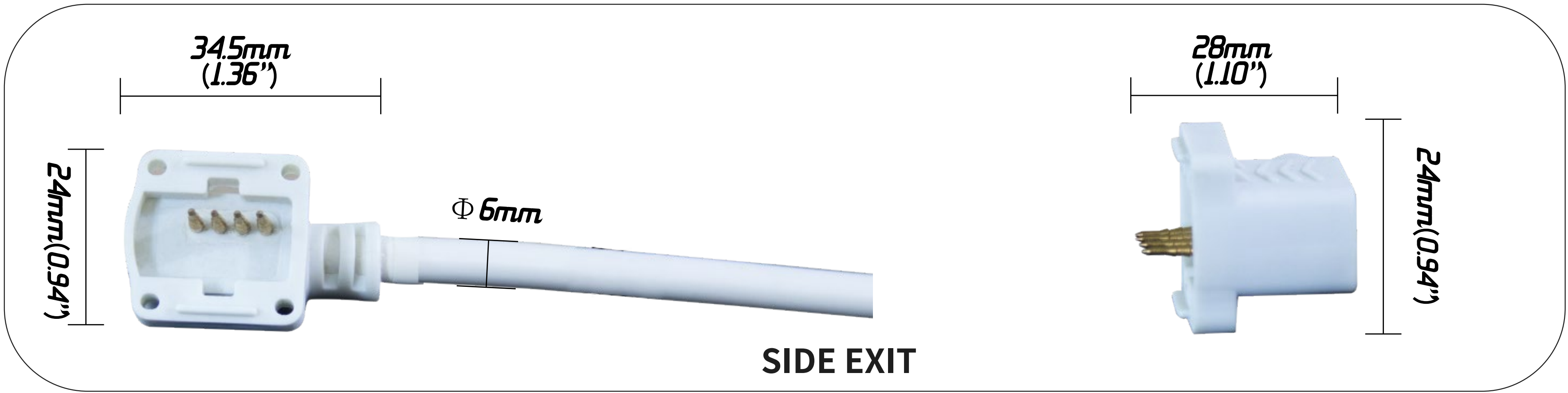
**• Part Details (Cable Length: 50cm)**



**STRAIGHT EXIT**

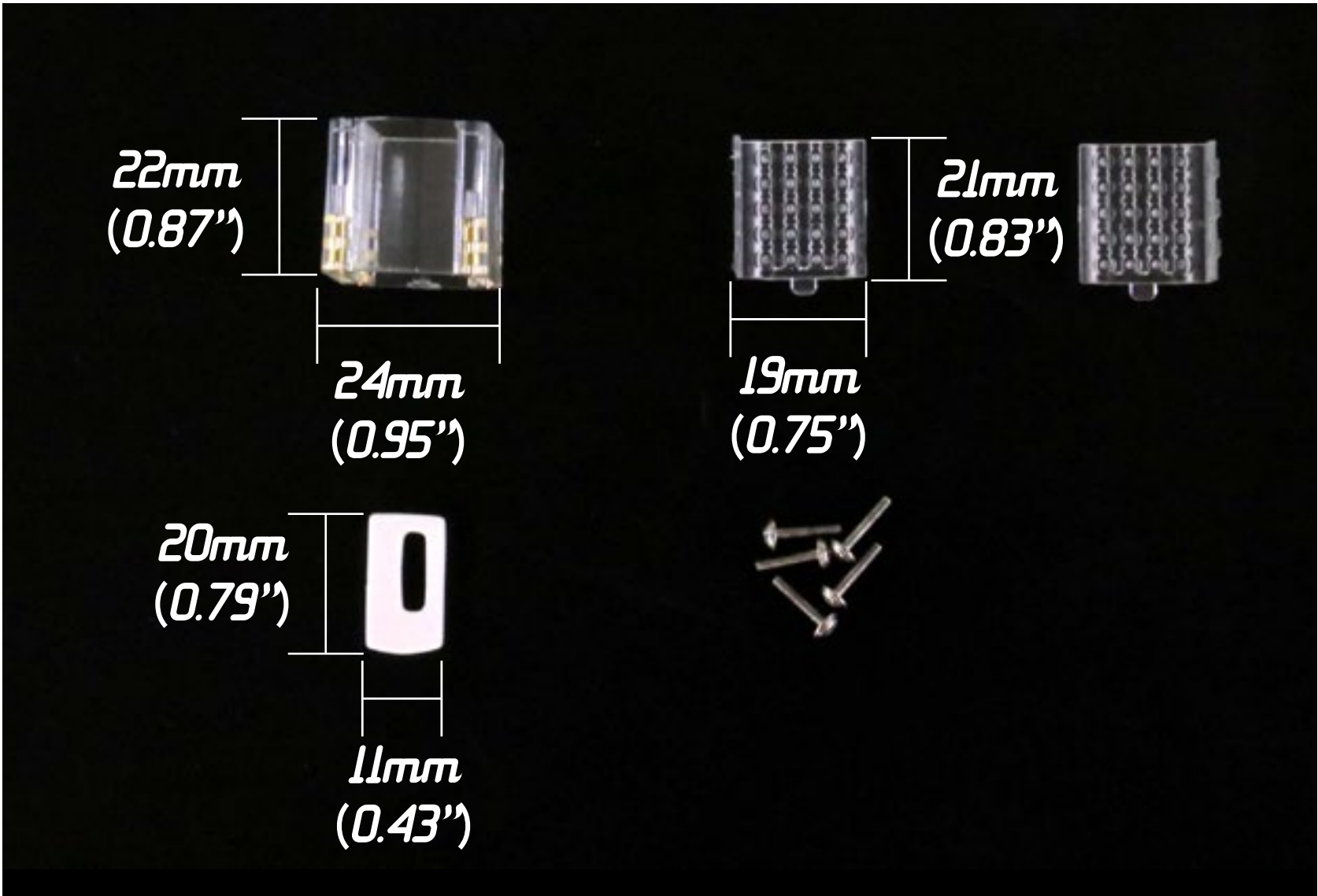


**BOTTOM EXIT**

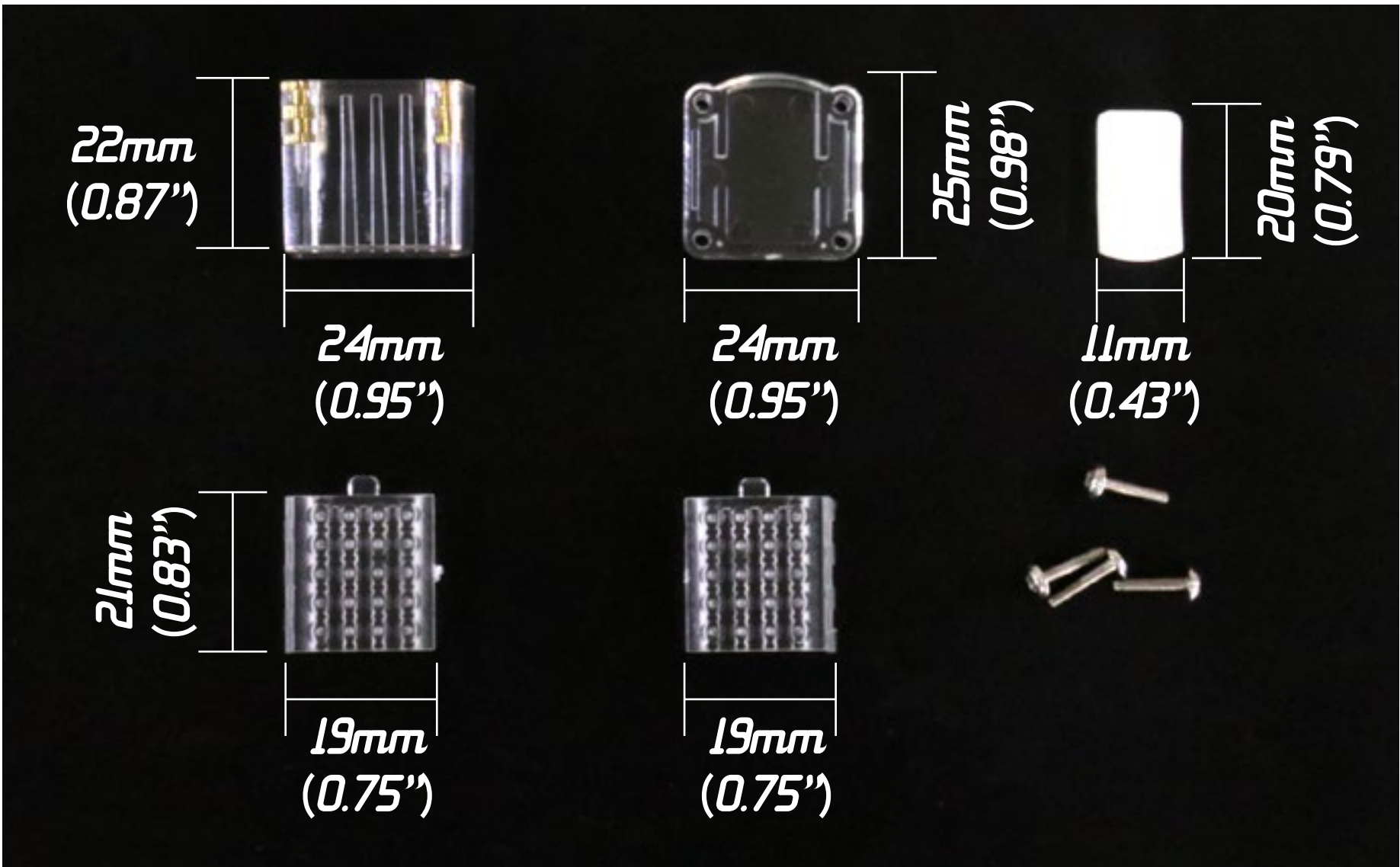


**SIDE EXIT**



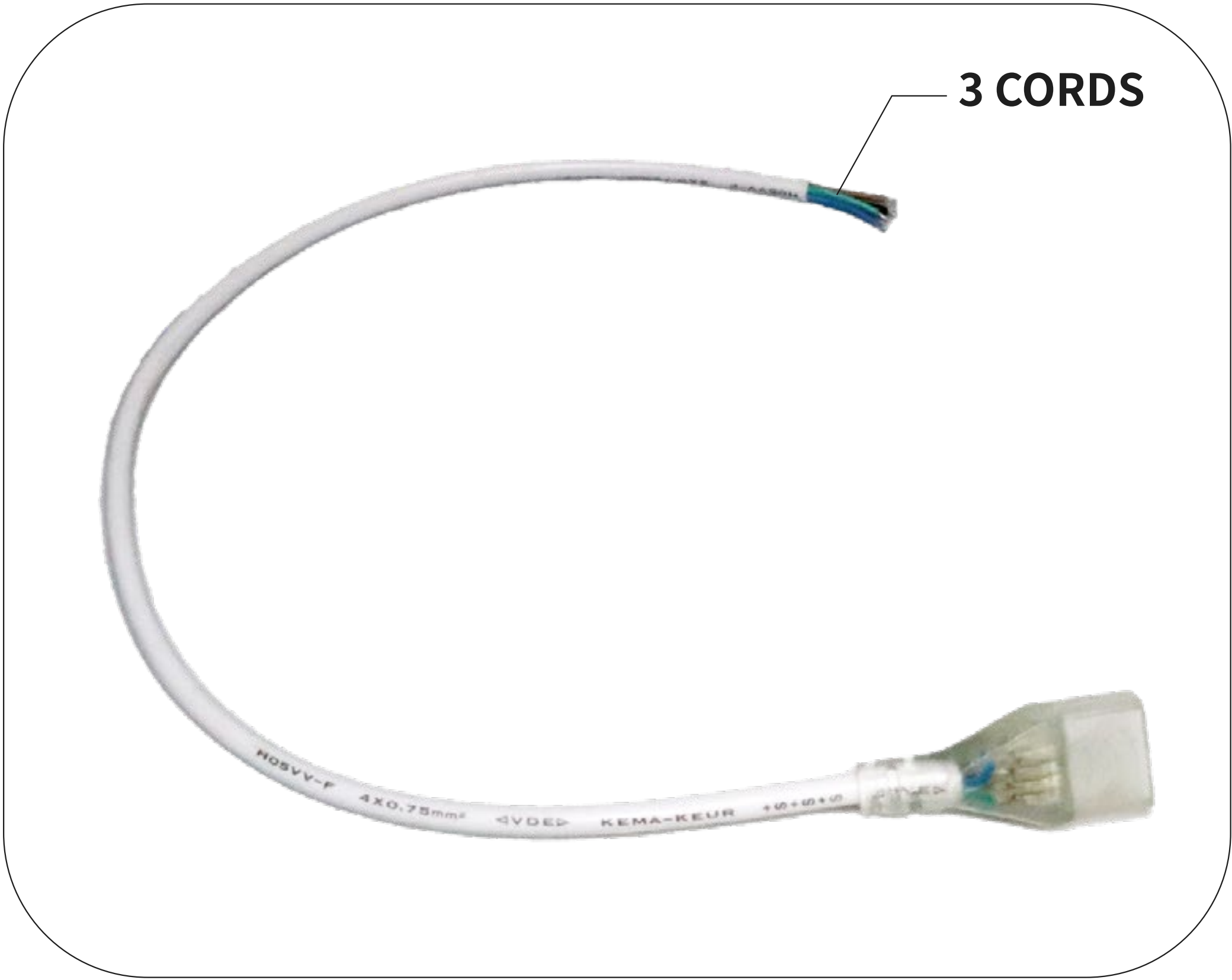


FRONT POWER CONNECTOR



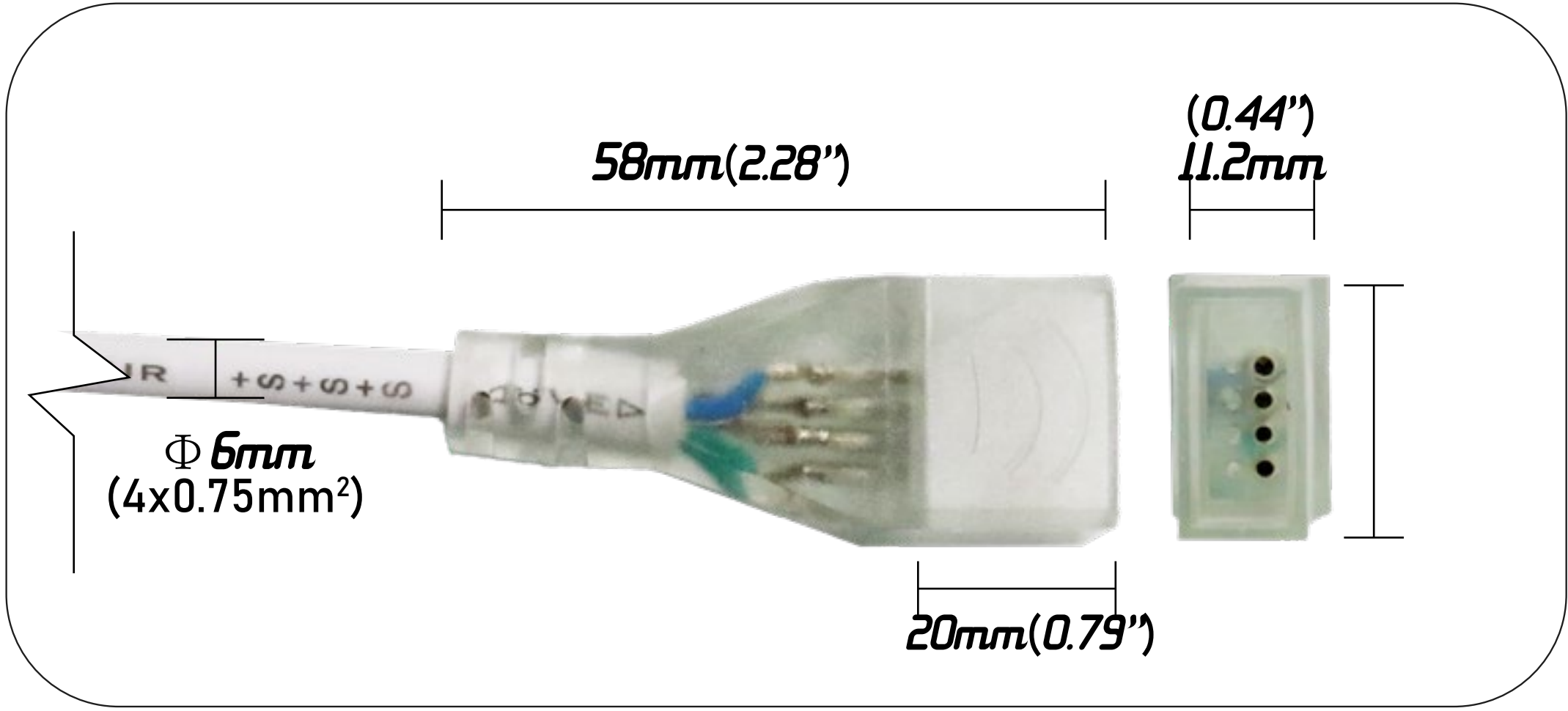
END CAP

IP65 (DIY Connector)

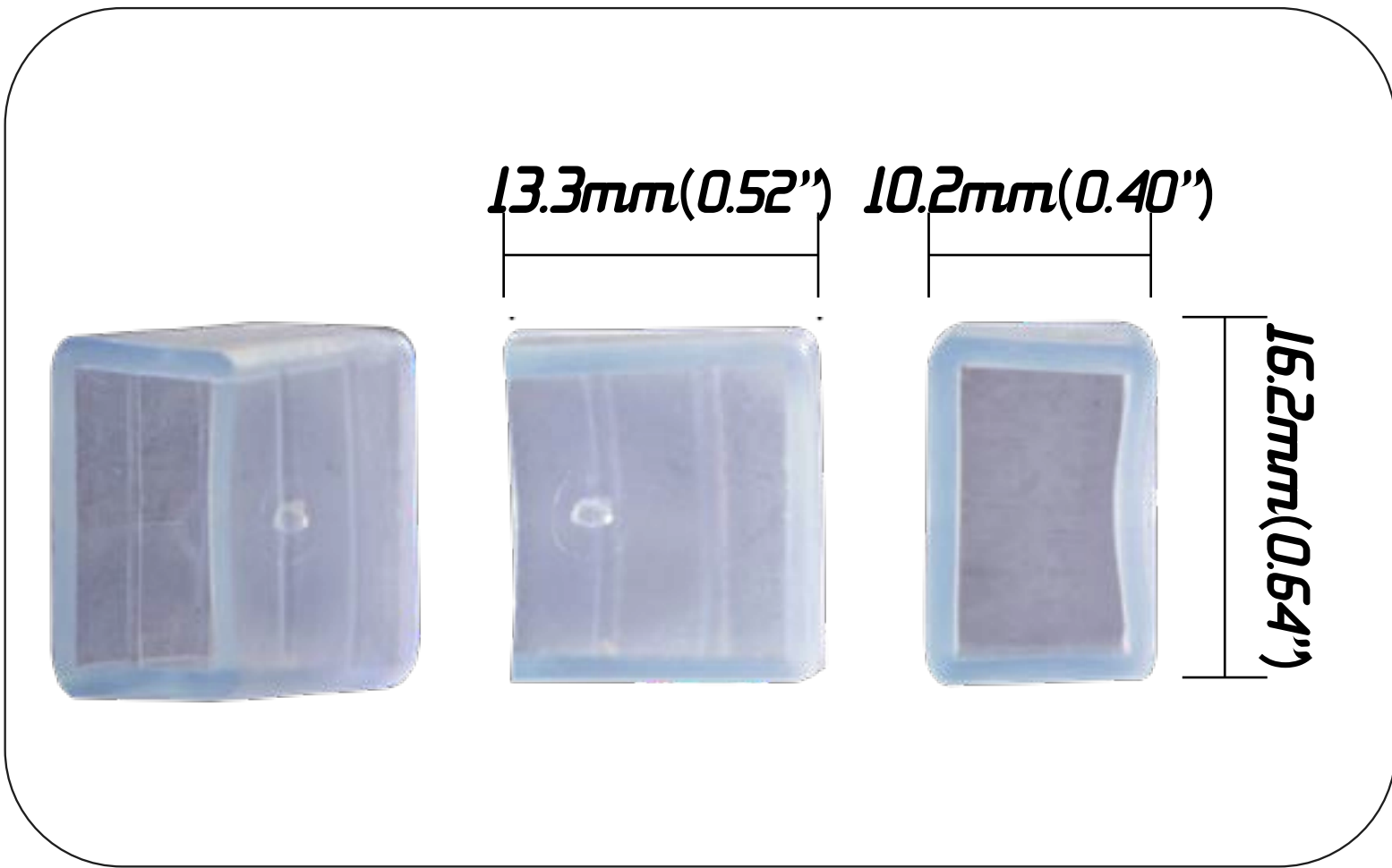


Cable Length: 50cm

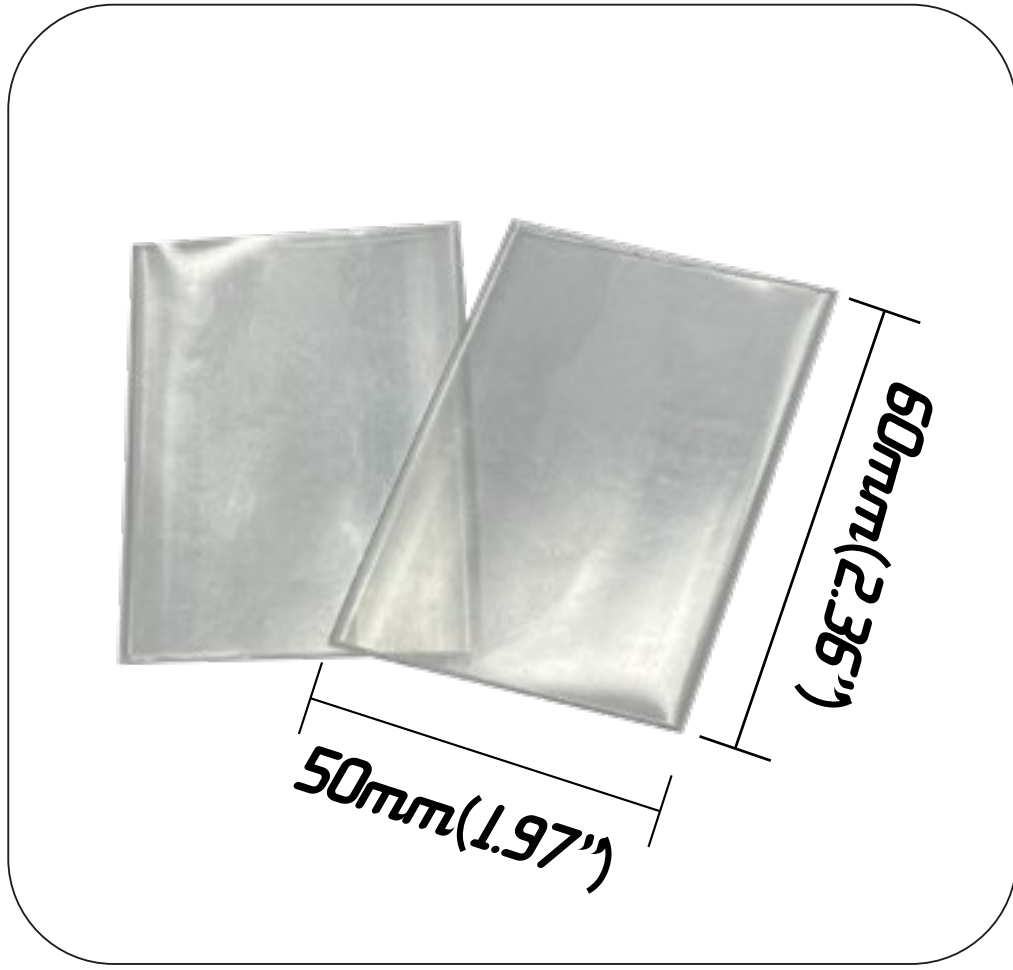
• Part Details



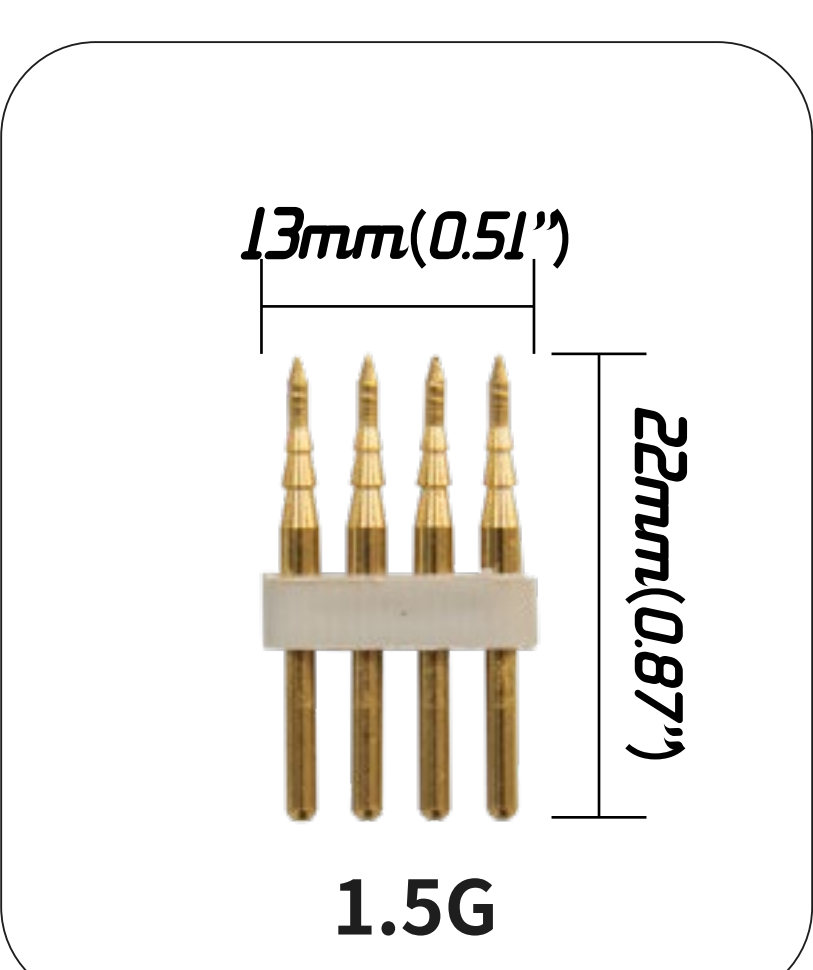
FRONT CONNECTOR



END CAP

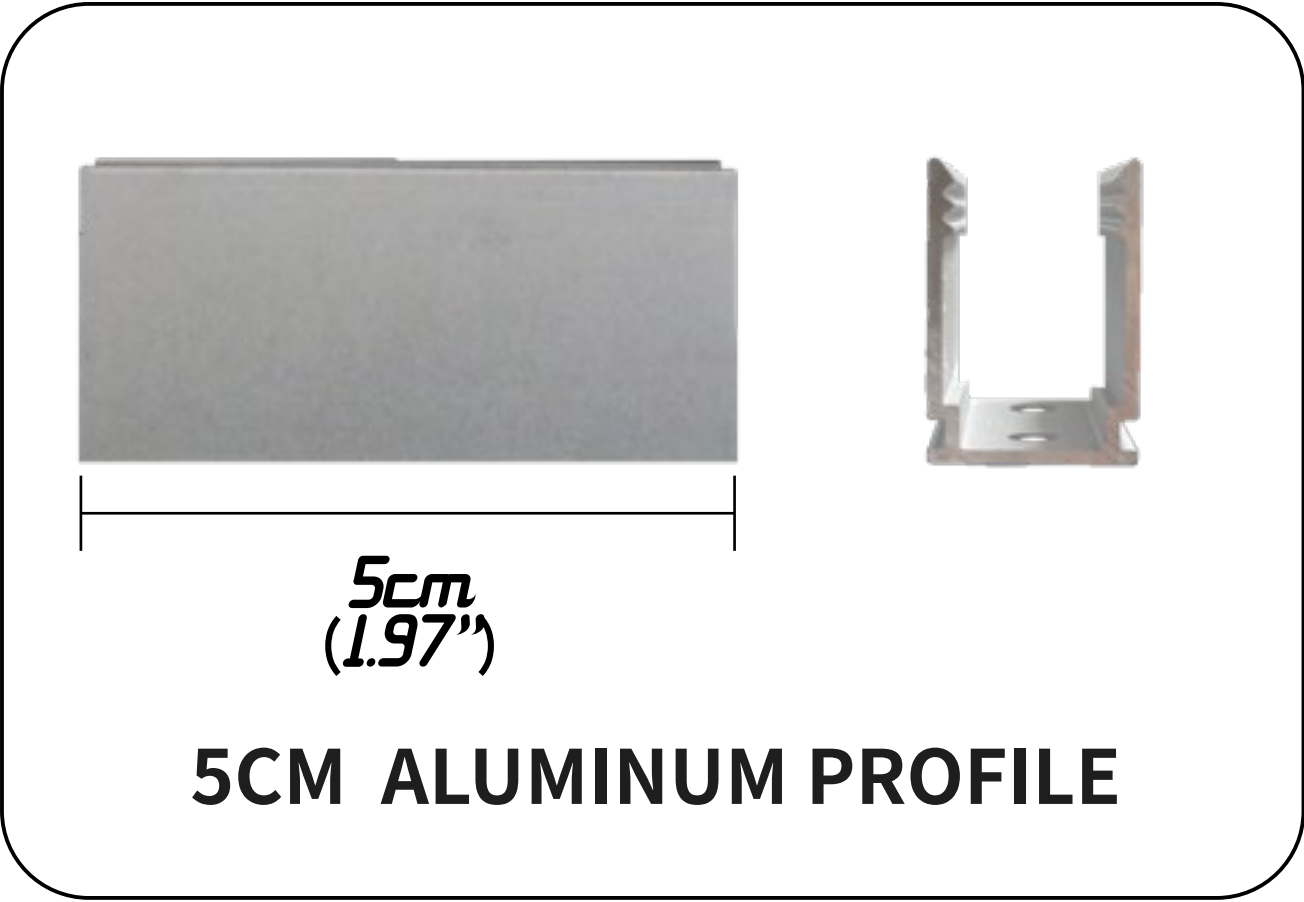


HEAT-SHRINK TUBE

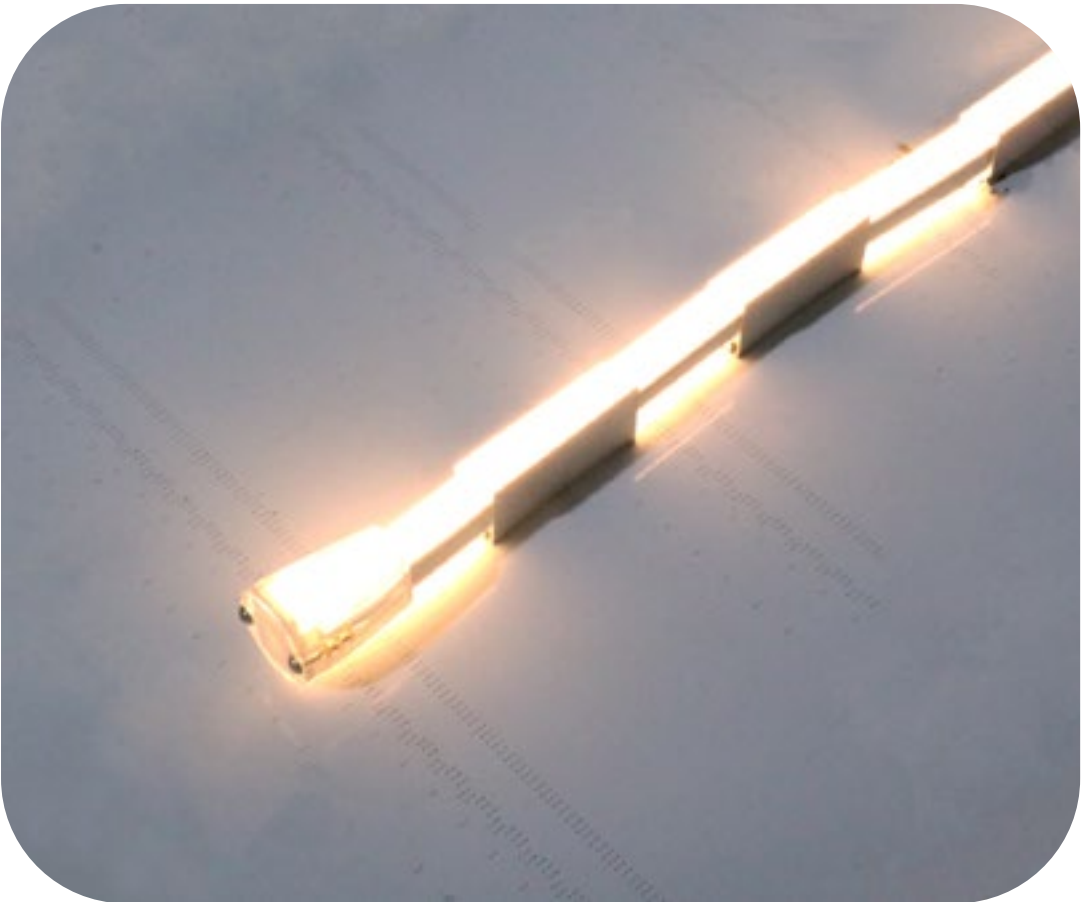
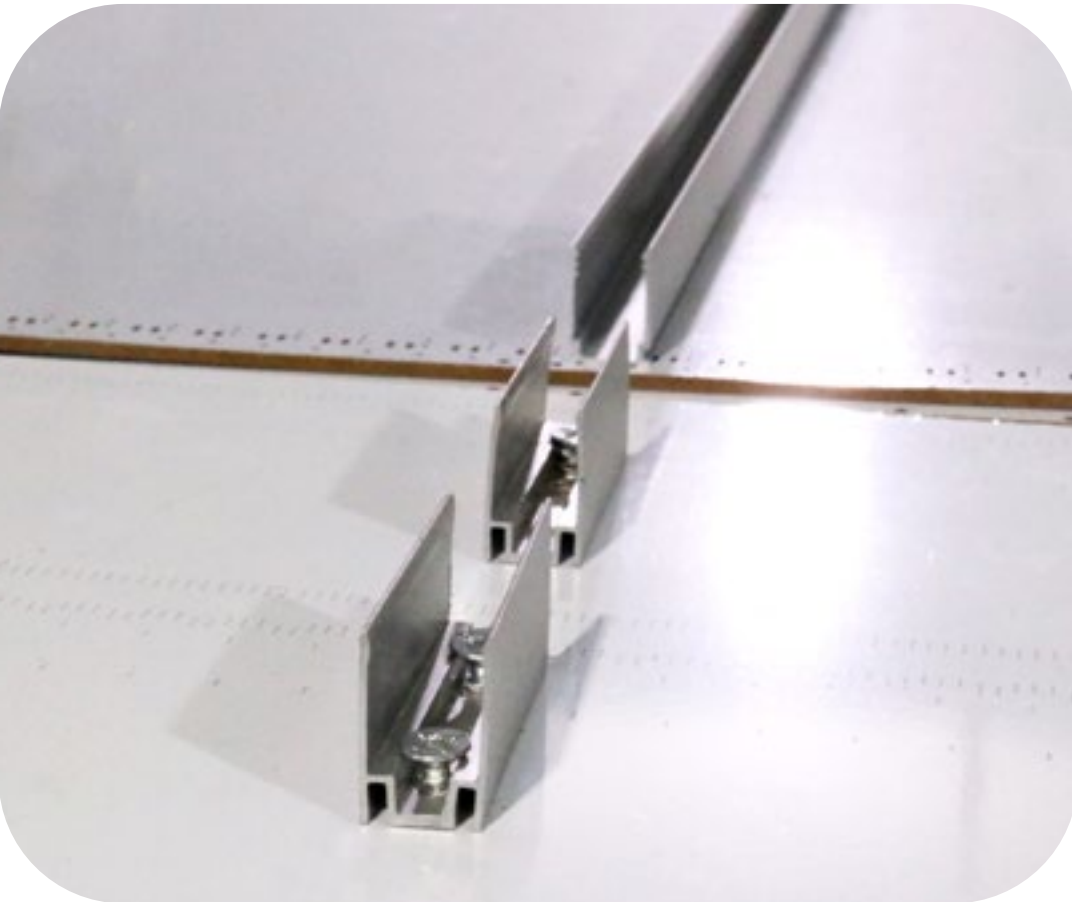
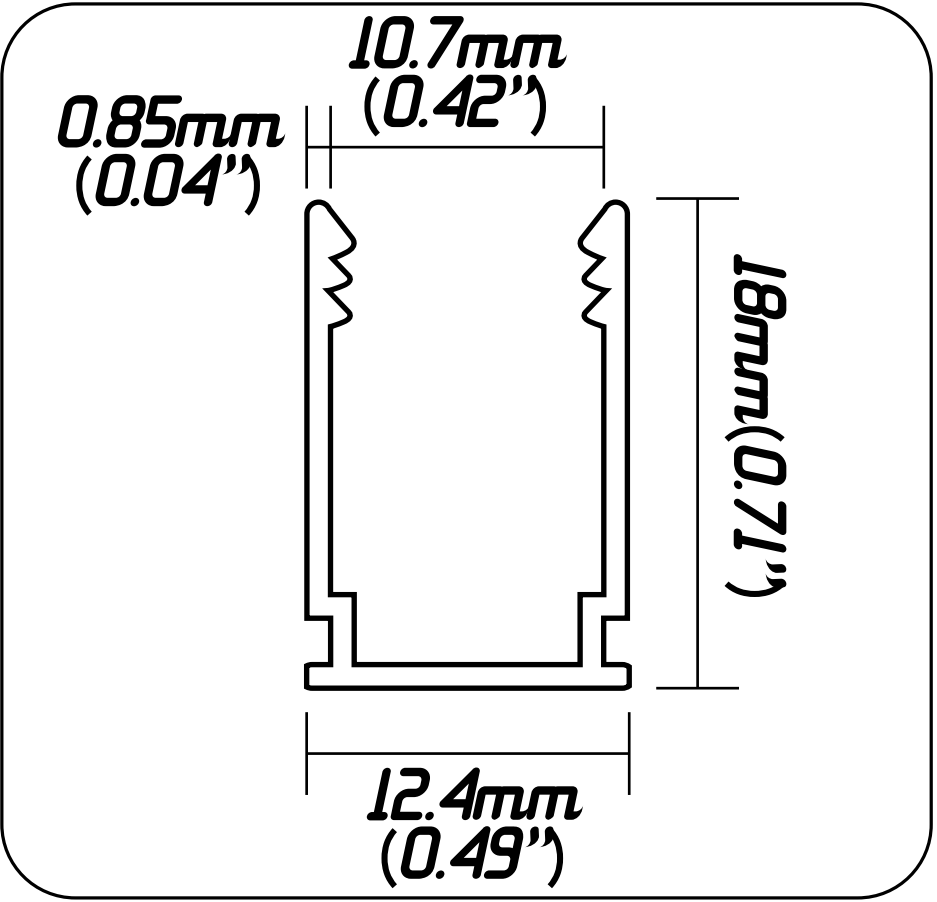


PIN2-PINS  
FOR MONO COLOR

Mounting Aluminum Channel



ALUMINUM CHANNEL  
(1M, 2M, 3M)



Mounting Flexible Stainless Channel

