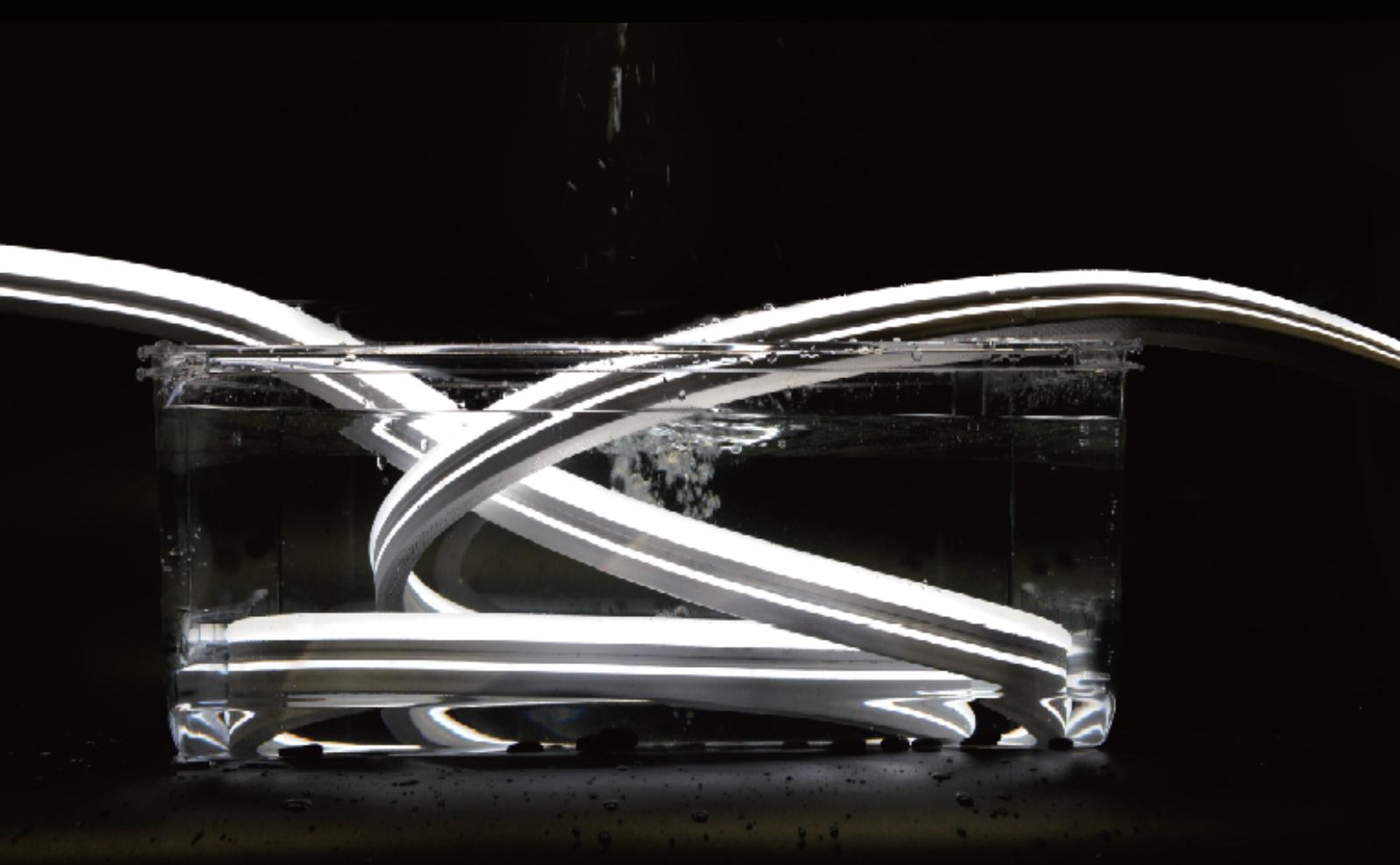


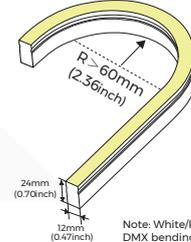
AF Series Specification

AFS1224



【Features】

- Light source:** Adopting dedicated and outdoor-specific LED, stronger reliability for outdoor application; Finished product ANSI SDCM≤5;
- Structure:** New anti-tension structure, Integrated anti-tension silicone extrusion process, against internal stress and external tension;
- Double-layer circuit conductive, double power supply guarantee, broken boards without power cut;
- DMX Chip model and pixel count:** white light/ RGB/RGBW: UCS512H4LB,12 Pixels/m;
- Product applications:** outdoor illumination, architectural facade lighting; IP67
- Working/storage temperature(White/monochromatic light):** Ta: -40~60°C / 0~60°C
- Symphony working/storage temperature(DMX/RGB/RGBW):** Ta: -40~50°C / 0°C~60°C
- White with 7 years warranty or working life =84000H,whichever comes first;RGB/RGBW/RGBM/RGBWM/White(DMX) with warranty 5 years or working life=60000H,whichever comes first.



Note: White/RGB/RGBW light bending radius R:60mm(2.36inch). DMX bending radius R:80mm(3.15inch)

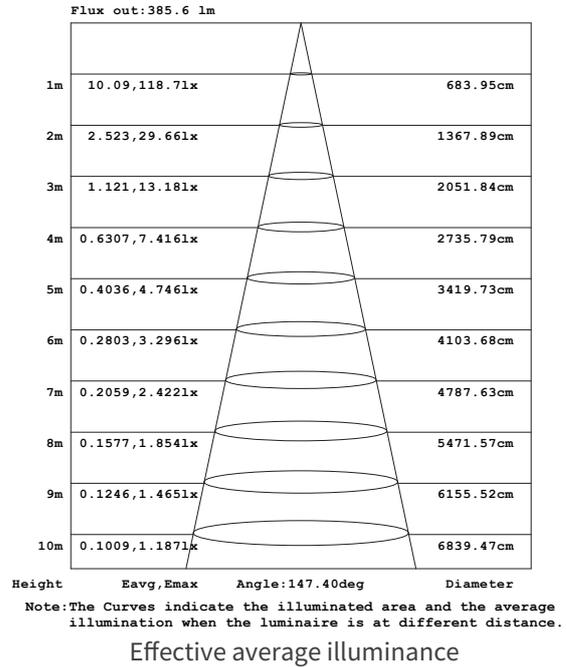
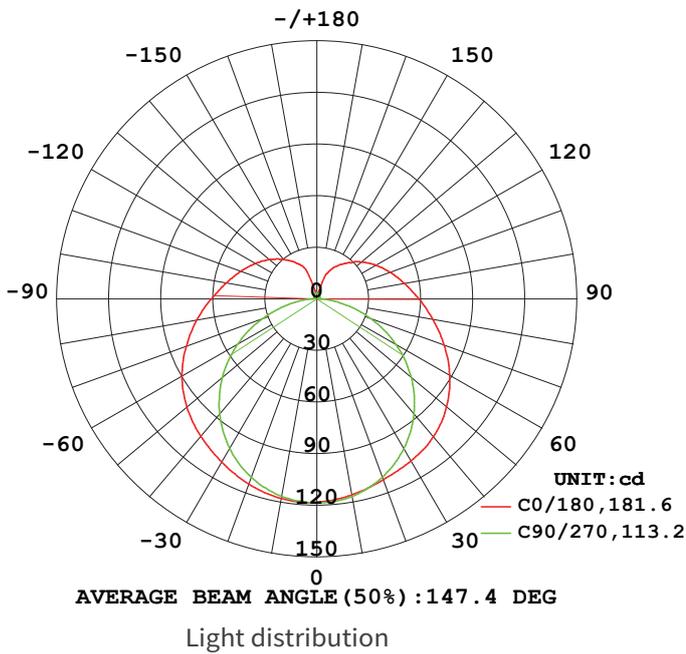
【Basic Parameters】

Model	CCT/colors	Color range	CRI	Input voltage (V)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark
AFS1224-9XX24CSW025CCXXXX-GV10-ENP-ESD	2700K	2600-2830K	>90	24	0.4 (0.12A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	570 (174LM/ft)	10000mm (32.81ft)	16LED/50mm
	3000K	2920-3170K						622 (190LM/ft)		
	4000K	3770-4220K						690 (210LM/ft)		
AFS1224L-9XX24CSW025CCXXXX-GV10-ENP-ESD	2700K	2600-2830K	/	24	0.2 (0.06A/ft)	5 (1.53W/ft)	5.5 (1.68W/ft)	305 (93LM/ft)	15000mm (49.21ft)	16LED/50mm
	3000K	2920-3170K						300 (91LM/ft)		
	4000K	3770-4220K						340 (104LM/ft)		
AFS1224-0X24CSW025CCXXXX-GV10-ENP-ESD	G/B	/	/	24	0.4 (0.12A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	/	10000mm (32.81ft)	16LED/50mm
AFS1224-0RGB24CSW025CCXXXX-GV10-ENP-ESD	RGB	/	/	24	0.5 (0.15A/ft)	12 (3.66W/ft)	13.2 (4.02W/ft)	/	5000mm (16.4ft)	6*3LED/50mm
AFS1224-0RGBXW24CSW025CCXXXX-GV10-ENP-ESD	RGB+2700K	RGB+(2550-2800K)	/	24	0.5 (0.15A/ft)	12 (3.66W/ft)	13.2 (4.02W/ft)	118 (36LM/ft)	5000mm (16.4ft)	7*4LED/83.3mm
	RGB+3000K	RGB+(2800-3200K)						146 (45LM/ft)		
	RGB+4000K	RGB+(3900-4350K)						143 (44LM/ft)		
AFS1224-9XW24CSW025CCXXXX-GV10-ENP-ESD	2700K	2550-2800K	>90	24	0.6 (0.18A/ft)	13.5 (4.12W/ft)	14.8 (4.51W/ft)	425 (130LM/ft)	5000mm (16.4ft)	7*3LED/83.3mm DMX-IC: UCS512H4LB 12 Pixels/m
	3000K	2800-3200K						542 (165LM/ft)		
	4000K	3900-4350K						541 (165LM/ft)		
AFS1224-0RGBM24CSW025CCXXXX-GV10-ENP-ESD	RGB	/	/	24	0.6 (0.18A/ft)	13.5 (4.12W/ft)	14.8 (4.51W/ft)	/	5000mm (16.4ft)	7*3LED/83.3mm DMX-IC: UCS512H4LB 12 Pixels/m
AFS1224-0RGBXWM24CSW025CCXXXX-GV10-ENP-ESD	RGB+2700K	RGB+(2550-2800K)	/	24	0.7 (0.21A/ft)	16.5 (5.03W/ft)	18.1 (5.52W/ft)	127 (39LM/ft)	5000mm (16.4ft)	7*4LED/83.3mm DMX-IC: UCS512H4LB 12 Pixels/m
	RGB+3000K	RGB+(2900-3250K)						178 (54LM/ft)		
	RGB+4000K	RGB+(3900-4350K)						175 (53LM/ft)		
AFS1224-9XX48CSW025CCXXXX-GV10-ENP-ESD	2700K	2600-2830K	>90	48	0.2 (0.06A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	545 (166LM/ft)	20000mm (65.62ft)	32LED/100mm
	3000K	2920-3170K						579 (177LM/ft)		
	4000K	3770-4220K						634 (193LM/ft)		

Note:

1. The above parameters are tested based on 1m/3.28ft standard products;
2. The luminous flux is allowed to have an error range of $\pm 15\%$;
3. The above parameters are typical values;

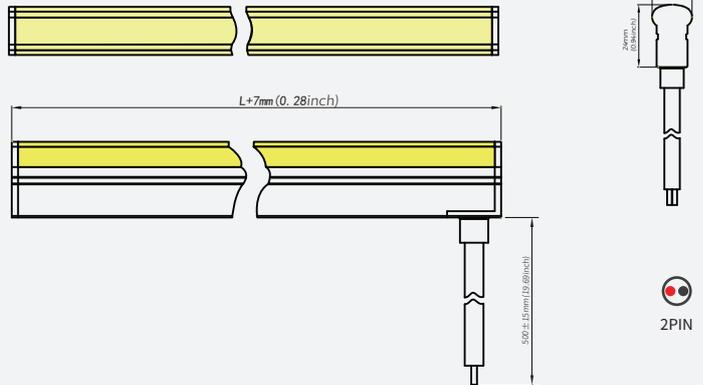
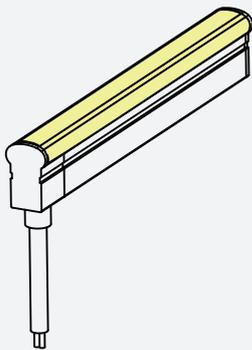
[Light Distribution]



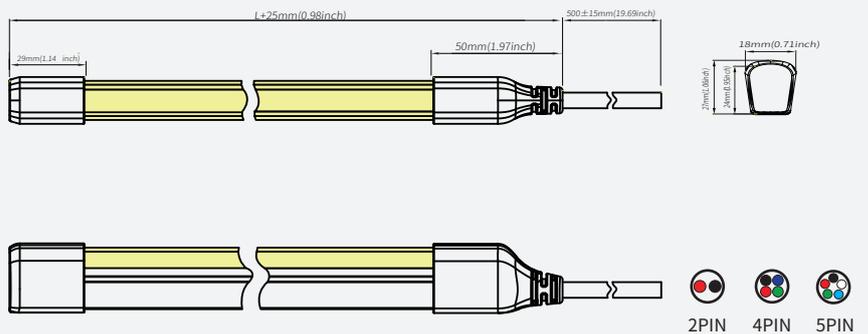
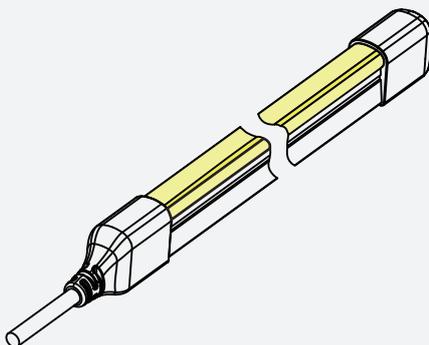
Note: The above data is based on 24V monochrome 4000K color temperature. If you need other models of IES files, please download the corresponding models from the IES database.

[Product Mechanical Parameters]

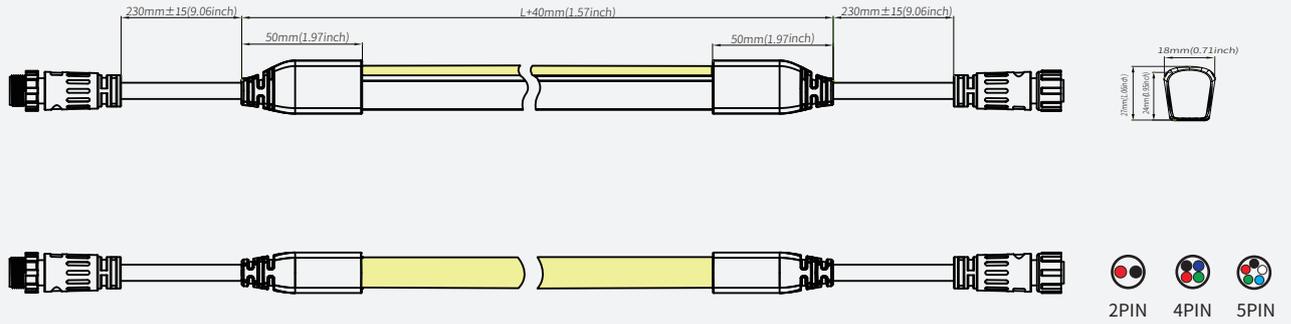
• IP67 No dark cap(ENP)-bottom outlet(white light)



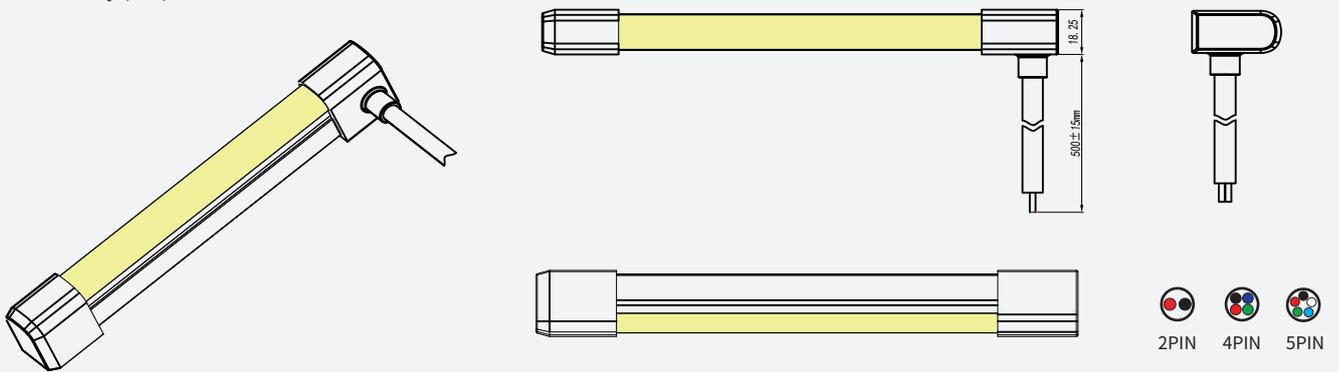
• IP67 Full encapsulated cap(EP)-top outlet



· IP67 Full cap(EP)- top outlet



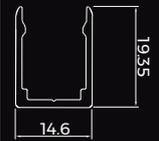
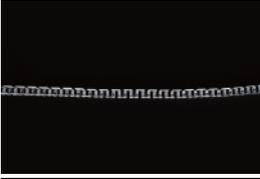
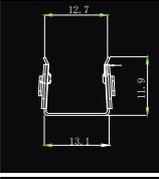
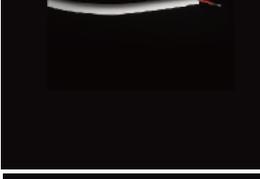
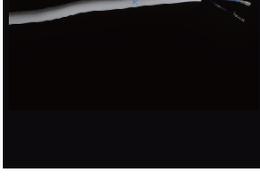
· IP67 Full cap(EP)- side outlet



[Accessory information]

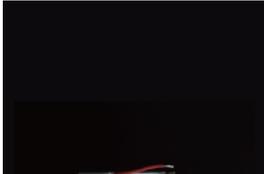
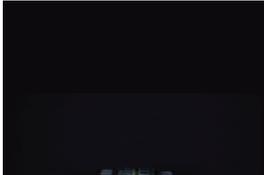
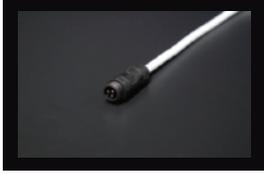
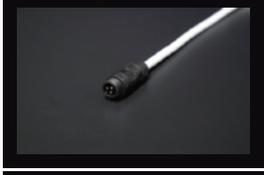
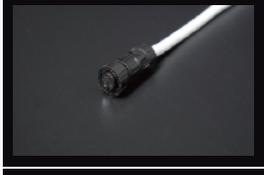
name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
Alumina carrier	Flat mounting aluminum groove			AS-NMS1217A-1000	60	0.1755	10.53	11.53	1180*125*115	size: L1000*W14.4*H18.85mm With screws
Aluminum clip	Flat mounting of clip			AS-NMS1217A-25	300	0.0044	2.01	2.16	250*250*150	size: L25*W14.4*H18.85mm With screws
Alumina carrier	Aluminum groove reserved outlet position			AS-NMS1217A1-1000	48	0.1755	8.424	9.5	1180*125*115	size:L1000*W14.4*H24.85mm With screws
Aluminum clip	Clip of reserved outlet position			AS-NMS1217A1-25	300	0.0044	2.01	2.16	250*250*150	size:L25*W14.4*H24.85mm With screws

[Accessory information]

name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
PC carrier	Flat mounting PC groove			AS-NMS1217P-1000	60	0.08	4.8	5.8	1180*125*115	size: L1000*W14.6*H19.35mm With screws
PC carrier	Flat mounting of PC clip			AS-NMS1217P-25	350	0.004	1.505	1.655	250*250*150	size:L25*W14.6*H19.35mm With screws
Moldable carrier	Moldable groovez			AS-NMS1217M1-500	100	0.0377	3.77	6.49	500*290*290	size: L500*W13.1*H11.9mm With screws Cannot be used upside down
Glue	588G acidic glue		/	AS-PG-0002	150	0.014	2.1	2.4	250*250*150	10ml/pcs
Wire	2P PVC wire (0.5M)		/	AS-WS-0001	150	0.01541	2.31	2.61	250*250*150	Suitable for single color strip
Wire	2P PVC wire (2M)		/	AS-WS-0002	125	0.0616	7.7	8	250*250*150	Suitable for single color strip
wire	4P PVC wire (0.5M)		/	AS-WS-0003	150	0.0194	2.91	3.21	250*250*150	Suitable for RGB strip
wire	4P PVC wire (2M)		/	AS-WS-0004	125	0.0776	9.7	10	250*250*150	

Note: AS-NMS1217M1-500 cannot be installed with the lighted side down, if you need to install it downward, we recommend using AS-NMS1217A-1000

[Accessory information]

name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
wire	5P PVC wire (0.5M)		/	AS-WS-0013	150	0.0195	2.925	3.364	250*250*150	Suitable for RGBW strip
wire	5P PVC wire (2M)			AS-WS-0014	125	0.0755	9.4375	10.86	250*250*150	
connector	2PIN IP68 Waterproof connector		/	AS-FC-0001	512	0.016	8.192	9.5	365*365*190	Suitable for single color strip
connector	4PIN IP68 Waterproof connector			AS-FC-0003	288	0.03	8.64	9.6	365*365*190	Suitable for RGB strip
wire	2P T-Connection Wire		/	AS-FC-0027	20	0.065	1.31	1.6	250*250*150	Suitable for monochromatic led strip Wire length 150mm, IP67
wire	2P male connector wire		/	AS-FC-0009(0.25M)	200	0.0193	3.86	4.16	250*250*150	suitable for monochromatic led strip Wire lengths are optional: 0.25M/0.5M/2M
				AS-FC-0010(0.5M)	200	0.031	6.2	6.5		
				AS-FC-0011(2M)	50	0.1012	5.06	5.36		
wire	2P female connector wire		/	AS-FC-0012 (0.25M)	200	0.0212	4.24	4.54	250*250*150	suitable for monochromatic led strip Wire lengths are optional: 0.25M/0.5M/2M
				AS-FC-0013(0.5M)	200	0.0329	6.58	6.88		
				AS-FC-0014(2M)	50	0.1031	5.16	5.48		
wire	4P T-Connection Wire		/	AS-FC-0028	20	0.068	1.35	1.65	250*250*150	suitable for RGB led strip Wire length 150mm
wire	4P male connector wire		/	AS-FC-0015 (0.25M)	200	0.0196	3.92	4.22	250*250*150	suitable for RGB led strip Wire lengths are optional: 0.25M/0.5M/2M
				AS-FC-0016(0.5M)	200	0.0316	6.32	6.62		
				AS-FC-0017(2M)	50	0.1036	5.18	5.48		
wire	4P female connector wire		/	AS-FC-0018 (0.25M)	200	0.0215	4.3	4.6	250*250*150	suitable for RGB led strip Wire lengths are optional: 0.25M/0.5M/2M
				AS-FC-0019(0.5M)	200	0.0354	7.08	7.38		
				AS-FC-0020(2M)	50	0.1188	5.94	6.24		
wire	5P T-Connection Wire		/	AS-FC-0029	20	0.069	1.39	1.69	250*250*150	suitable for RGBW led strip Wire length 150mm

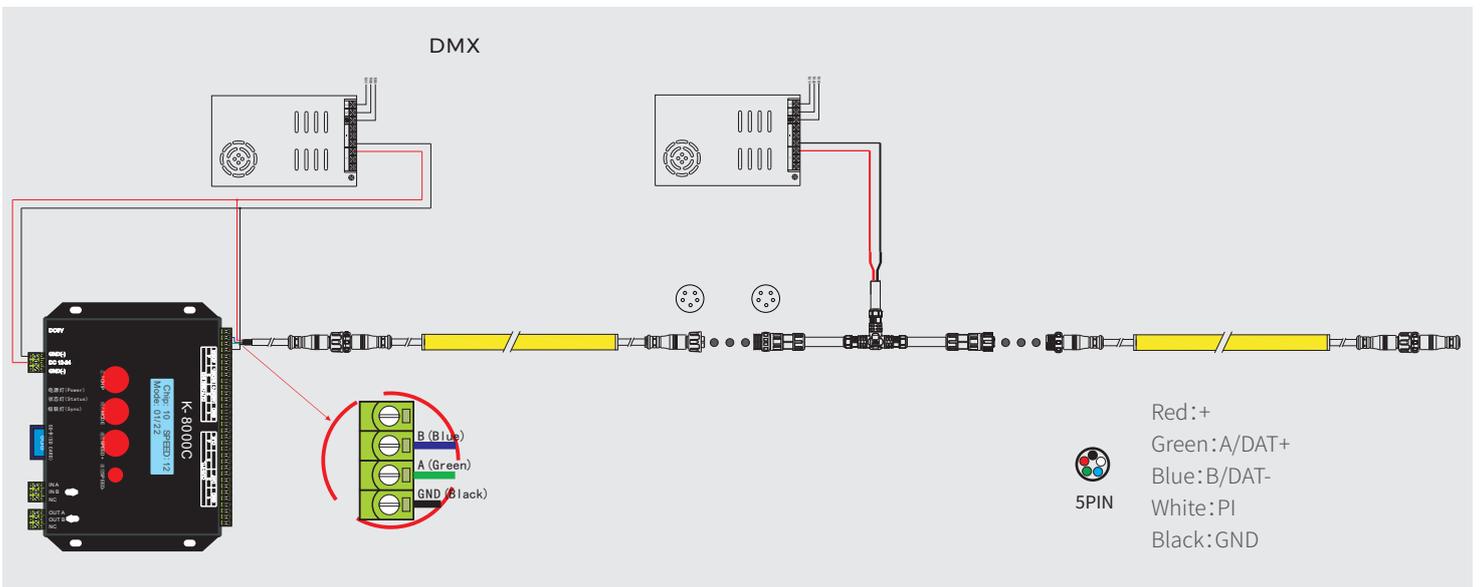
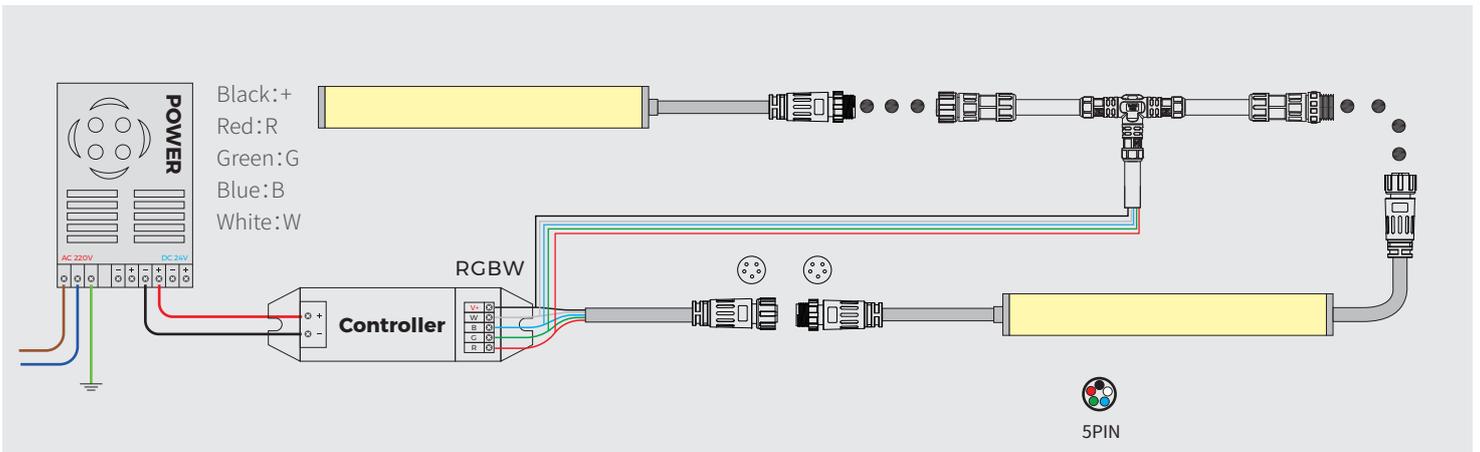
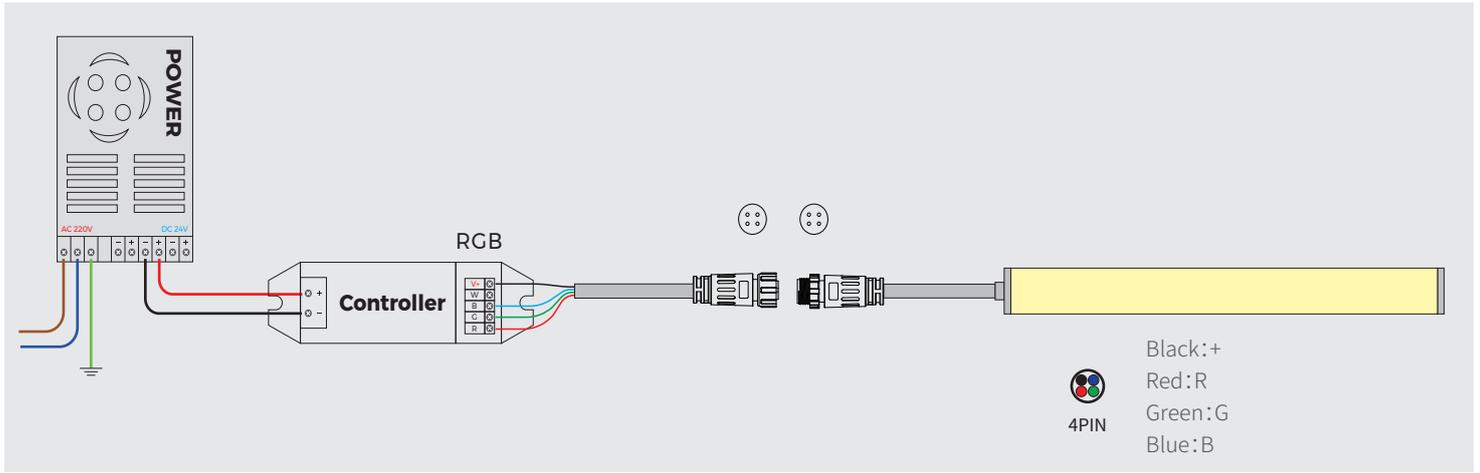
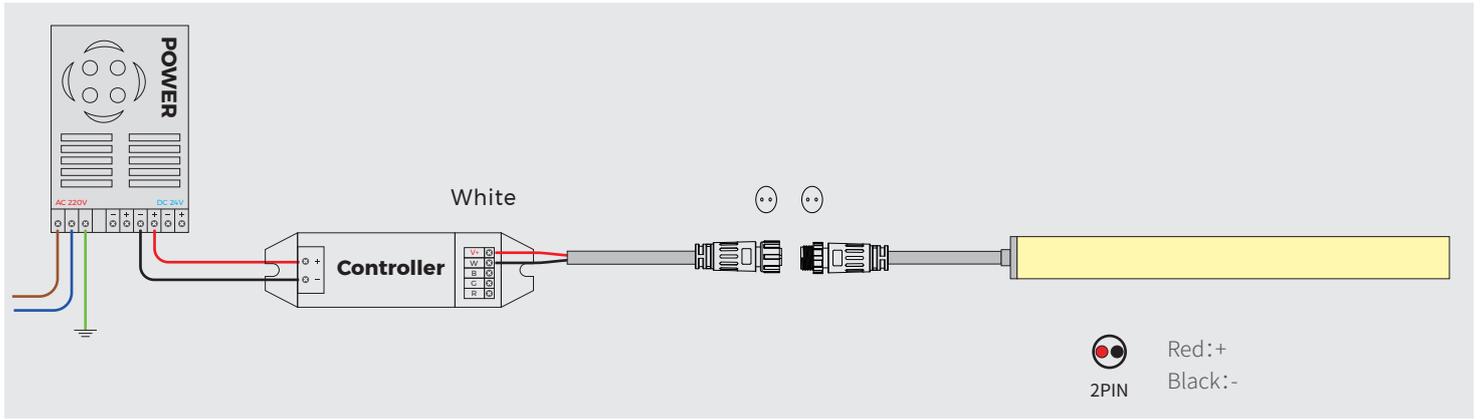
[Accessory information]

name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
wire	5P male connector wire		/	AS-FC-0021 (0.25M) AS-FC-0022(0.5M) AS-FC-0023(2M)	200 200 50	0.0196 0.0316 0.1036	3.92 6.32 5.18	4.22 6.62 5.48	250*250*150	suitable for RGBW/DMX led strip Wire lengths are optional: 0.25M/0.5M/2M
wire	5P female connector wire		/	AS-FC-0024 (0.25M) AS-FC-0025(0.5M) AS-FC-0026(2M)	200 200 50	0.0215 0.0354 0.1188	4.3 7.08 5.94	4.6 7.38 6.24	250*250*150	suitable for RGBW/DMX led strip Wire lengths are optional: 0.25M/0.5M/2M
wire	5P T-Connection Wire		/	AS-FC-0030	20	0.0698	1.396	1.696	250*250*150	suitable for DMX led strip Wire length 150mm

[Product control system solutions]

Product Image	product name	Product number	Product specifications	Applicable Products
	Monochrome remote	R6-1	output signal : RF Working voltage : 3VDC(CR2032) Remote control distance : 30m Working temperature : Ta: 0-30 °C-0+55 °C	Monochrome light strip (Use with CR1-GBA)
	Monotone light controller	CR1-GBA	Input voltage : DC12-48V Output current : 15A@12V/24V, 10A@36V/48V Output Power : Max 180W@12V/Max 360W @24V/Max 360W@36V/Max 480W@48V Working temperature : -30°C - +55°C	Monochrome light strip (Use with R6-1)
	RGB/RGBW remote control	R8-1	output signal : RF Working voltage : 3VDC(CR2032) Remote control distance : 30m Working temperature : Ta: 0-30 °C-0+55 °C	RGB/RGBW light strip (Use with CR3-GBA/ CR4-GBA)
	RGB controller	CR3-GBA	Input voltage : DC12-48V Output current : 18A Output Power : Max 216W@12V/Max 432W @24V/Max 648W@36V/Max 864W@48V Working temperature : -30°C - +55°C	RGB light strip (Use with R8-1)
	RGBW controller	CR4-GBA	Input voltage : DC12-48V Output current : 20A Output Power : Max 240W@12V/Max 480W @24V/Max 720W@36V/Max 960W@48V Working temperature : -30°C - +55°C	RGBW light strip (Use with R8-1)
	Symphony Controller	K-8000C	Power supply : DC 5V-24V input Power consumption : 5W Working temperature : Ta: 0-20 °C-0+85 °C	DMX/SPI magic lights with universal

[Product Wiring Schematic]



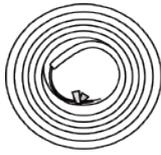
[Packaging Solutions]

• Standard Packaging

1. Line marking, the line marking is affixed at a distance of 80mm from the end of the line;



Voltage & bending warning signs



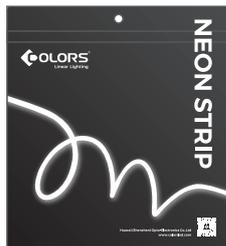
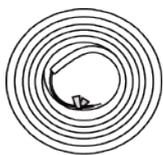
2. Put the product information label on the back back of the static bag inside the marking line;



Product Information Label



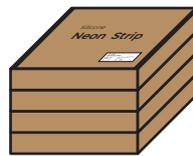
3. Put the light strip into an electrostatic bag, one roll per bag, and seal the bag;



4. Label the carton and pack it into the carton



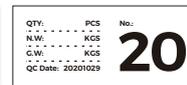
5. Pack 4 boxes of products in the carton



6. Put the product information label and the box number label on the side of the carton, and the QC inspection stamp



Product information Label



Box number label



Model	Product size	Product Quantity/ box	Product Quantity/ case	Product net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size (m)
AFS1224-9XX48CSW050CCXXX -GV10-ENP-ESD	L20000*12*24mm	20M*1	20M	7.3	7.3	10.3	0.35*0.35*0.335
AFS1224-9XX24CSW050CCXXX -GV10-ENP-ESD	L10000*12*24mm	10M*1	40M	3.65	14.6	16.8	0.41*0.41*0.26
AFS1224L-9XX24CSW050CCXXX -GV10-ENP-ESD	L15000*12*24mm	15M*1	15M	5.48	5.48	8.48	0.35*0.35*0.335
AFS1224-0X24CSW050CCXXX -GV10-ENP-ESD	L10000*12*24mm	10M*1	40M	3.65	14.6	16.8	0.41*0.41*0.26
AFS1224-0RGB24CSW025CCXXX -GV10-ENP-ESD	L5000*12*24mm	5M*2	40M	1.95	15.6	17.8	
AFS1224-0RGBW24CSW025CCXXX -GV10-ENP-ESD	L5000*12*24mm	5M*2	40M	1.95	15.6	17.8	
AFS1224-9XWM24CDW025CCXXX -GV10-ENP-ESD	L5000*12*24mm	5M*2	40M	1.95	15.6	17.8	
AFS1224-0RGBM24CDW025CCXXX -GV10-ENP-ESD	L5000*12*24mm	5M*2	40M	1.95	15.6	17.8	
AFS1224-0RGBXWM24CDW025CCXXX -GV10-ENP-ESD	L5000*12*24mm	5M*2	40M	1.95	15.6	17.8	

[Reliability test]

test item	Classification	Reference	Test method or condition
Safety test	Mechanical strength	IEC 60598-1; IEC 60598-2-21	The hammer spring Impact energy 0.7J
	IP	IEC 60598-1; IEC 60598-2-21	IP67
	Winding Test	IEC 60598-1; IEC 60598-2-21	φ150mm cylinder, 60N pull, winding 10 times at (-25°C ±2°C) , and 10 times after(-15°C±2°C, 16h).
	Cold Bend Test	IEC 60598-1; IEC 60598-2-21	wound on mandrel, low-temperature (-15°C±2°C, 16h), around the mandrel for two turns
	Cold Impact test	IEC 60598-1; IEC 60598-2-21	Low-temperature (-15°C±5°C, 16h), hammer falls from a height of 100mm.
	Insulation Resistance	IEC 60598-1; IEC 60598-2-21	≧ 2MΩ
	Electrical strength	IEC 60598-1; IEC 60598-2-21	500V
Mechanical reliability testing	Bending test	Colors	Each 200mm, bending up and down 100 times
	Bending test	Colors	Each 200mm, bending left and right 100 times
	Torsion test	Colors	Twist clockwise 5 times and then release, repeat 200 times
	Disassembly and assembly test	Colors	Repeat disassembly and assembly, 10 times
Environment Reliability testing	High temperature storing test	IEC 60068-2-2	80°C, 168h
	Low temperature storing test	IEC 60068-2-1	-40°C, 168h
	High temperature and Humidity impact	IEC 60068-2-78	60°C, 85%RH
	Salt Spray test	IEC 60068-2-11	5% salt solution concentration, 24h
	IK	IEC 62262	5 times of impact on each exposed surface
	Lifetime aging test	Colors	35°C, 6000h
	switch test	Colors	10s On, 10s Off, 10000 times

【Precautions】

- Use a 24V DC or 48V DC isolated power supply to drive the neon lamp strip and the ripple wave of constant voltage source shall be less than 5%. It is not allowed to use RC voltage reduction or non-isolated power supply to drive the neon lamp strip.
- In actual applications, 20% of the power supply shall be kept (only 80% of the power is used) to guarantee that sufficient voltage is available to drive the product.
- Attention shall be paid to safe operation. After powering on, it is not allowed to touch the AC power supply to avoid an electric shock.
- Attention shall be paid to the positive and negative poles of the wires during installation and whether the power supply conforms to required voltages to avoid damages.
- Avoid scratching, distortion and irregular bending of the product during installation; otherwise it may cause irreparable damage to the product.
- Please do not bend the strip into an arc with a diameter less than 60mm to ensure the longevity and reliability, the bending diameter too small will damage the product itself.
- If the actual length of application exceeds the specified using length, it will lead to overload heating and uneven brightness.
- To keep the eyes from being harmed, try to avoid staring at the glowing side of the LED strip for a long time.
- Non-professionals are prohibited from installing, disassembling and repairing the product.
- Do not use any acid or alkaline adhesive to fix products (including not limited to glass cement, etc.)
- Please confirmed before usage as products of varied sizes show slight differences in their color under same color temperature due to their structural differences.
- When IP68 protective products are installed and applied, the waterproofing grade should be degraded after self-processing and cutting.
- Please use professional cutting tools when cutting.
- Attention, there are 2 soldering parts per reel (5m/reel) at most when mass production.
- Not suitable for immersion in an environment containing HClO.
- Due to the characteristics of the silicone material, it is normal for the color of the colloid to change slightly after the neon product is used for a long time
- It is strictly forbidden to use 502/705 and other adhesives that are prone to chemical reactions with silica gel during construction and installation. It is recommended to use silicone sealant for bonding
- Long-term storage and the remaining products after cutting and use must be sealed to avoid exposure to organic environments such as aldehydes/benzenes
- When the product is installed and used, it is recommended that the product as a whole be in the same environmental conditions to avoid inconsistent color changes of the product colloid due to differences in product exposure and environmental conditions
- When using dimmer and dimming power supplies like Triac, etc, conduct compatibility tests on the product, dimmers and power supplies to ensure full compatibility. If any issues arise, contact COLORS for technical support.

