AF Series Specification

AFT1312

Indoor | outdoor | IP67 | IK08 | FLAME RESISTANT | SALTWATER RESISTANT | SOLVENT RESISTANT

UV RESISTANT | CB | CE | RoHS | UL E498657 | UKCA | Reach

【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,

·**SPI Chip model and pixel count**：RGB: UCS5603A,12 Pixels/m;

·**Product applications**：outdoor illumination, architectural facade lighting; IP67

·**Working/storage temperature(White/monochromatic light)**：Ta: -40~60℃ / 0～60℃

Symphony working/storage temperature(DMX/RGB/RGBW): Ta: -40~50℃ / 0℃～60℃

·**Warranty**： **White/R/G/B** with 7 years warranty or working life =84000H,whichever comes first;

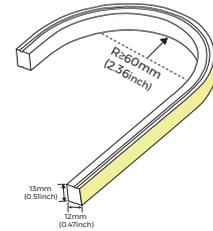**RGB(24V)/RGBW(24V)/RGBM/RGBWM/White(DMX)** with warranty 5 years or

working life=60000H,whichever comes first;

RGB(48V)/RGBW(48V)： **Indoor**:5 years warranty or working life =60000H,

whichever comes first.

Outdoor:3 years warranty or working life =36000H,

whichever comes first.

IP67 | 24V | 48V | 5M REEL | 10M REEL | 15M REEL | 20M REEL | 50M REEL

2200K | 2700K | 3000K | 4000K | 6500K | G | B | RGB | RGBW | DMX | DMX | DMX

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

【Basic Parameters】

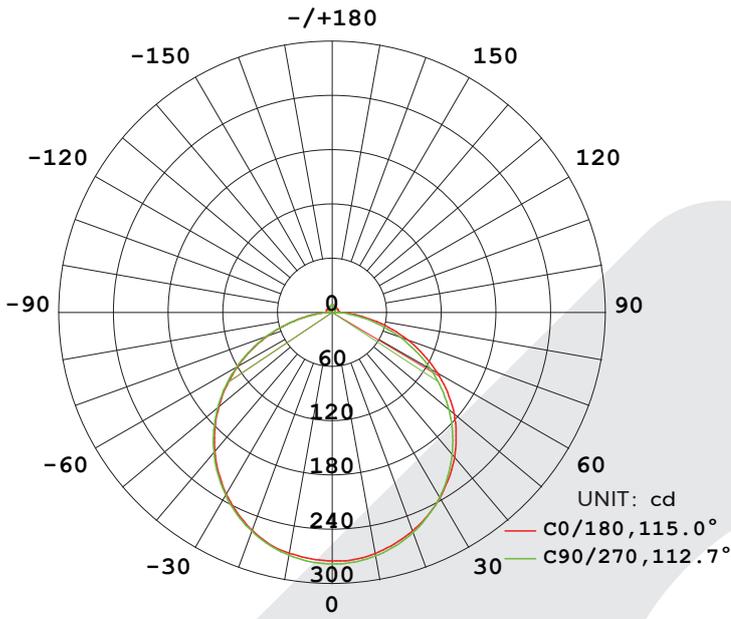| Model	CCT/colors	Color range	CRI	Input voltage (V)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark
AFT1312-9XX24CSW025CCXXXX-GV10-ENP-ESD	2200K	2100-2300K	>90	24	0.625 (0.19A/ft)	15 (4.57W/ft)	16.5 (5.03A/ft)	739 (225LM/ft)	5000mm (16.4ft)	16LED/50mm
	2700K	2600-2830K						819 (250LM/ft)		
	3000K	2920-3170K						909 (277LM/ft)		
	4000K	3770-4220K						978 (298LM/ft)		
	6500K	6000-7000K						1086 (331LM/ft)		
AFT1312-9XX24CSW025CCXXXX-GV10-ENP-ESD	2200K	2100-2300K	>90		0.4 (0.12A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	591 (180LM/ft)	10000mm (32.81ft)	16LED/50mm
	2700K	2600-2830K						680 (207LM/ft)		
	3000K	2920-3170K						750 (229LM/ft)		
	4000K	3770-4220K						840 (256LM/ft)		
	6500K	6000-7000K						858 (262LM/ft)		
AFT1312L-9XX24CSW025CCXXXX-GV10-ENP-ESD	2200K	2100-2300K			0.2 (0.06A/ft)	5 (1.53W/ft)	5.5 (1.68W/ft)	334 (102LM/ft)	15000mm (49.21ft)	16LED/50mm
	2700K	2600-2830K						370 (113LM/ft)		
	3000K	2920-3170K						390 (119LM/ft)		
	4000K	3770-4220K						410 (125LM/ft)		
	6500K	6150-6950K						460 (140LM/ft)		
AFT1312-0X24CSW025CCXXXX-GV10-ENP-ESD	R		/	/	0.3 (0.09A/ft)	7.2 (2.20A/ft)	7.92 (2.41A/ft)	/	10000mm (32.81ft)	16LED/50mm
	G/B				0.4 (0.12A/ft)	10 (3.05W/ft)	11 (3.35W/ft)			
AFT1312-0RGB24CSW025CCXXXX-GV10-ENP-ESD	RGB				0.5 (0.15A/ft)	12 (3.66W/ft)	13.2 (4.02W/ft)	/	5000mm (16.4ft)	6*3LED/50mm

【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
AFT1312-0RGBXW24CSW025CC XXXX-GV10-ENP-ESD	RGB+2700K	RGB+(2500-2700K)	/	24	0.5 (0.15A/ft)	12 (3.66W/ft)	13.2 (4.02W/ft)	135 (41LM/ft)	5000mm (16.4ft)	7*4LED/83.3mm
	RGB+3000K	RGB+(2800-3200K)						165 (50LM/ft)		
	RGB+4000K	RGB+(3900-4350K)						160 (49LM/ft)		
AFT1312-0RGBX24CSW025CC XXXX-GV10-ENP-ESD	SPI-RGB	/	/		0.74 (0.23A/ft)	17.8 (5.43W/ft)	19.6 (5.98W/ft)	/	5000mm (16.4ft)	7*3LED/83.3mm UCS5603A 12 Pixels/m
AFT1312-9XWM24CSW025CC XXXX-GV10-ENP-ESD	DMX-2700K	2550-2800K	>90		0.6 (0.18A/ft)	13.5 (4.12W/ft)	14.8 (4.51W/ft)	488 (149LM/ft)	5000mm (16.4ft)	7*3LED/83.3mm DMX-IC: UCS512H4LB 12 Pixels/m
	DMX-3000K	2800-3200K						626 (191LM/ft)		
	DMX-4000K	3900-4350K						637 (194LM/ft)		
AFT1312-0RGBM24CSW025CC XXXX-GV10-ENP-ESD	DMX-RGB	/	/		0.6 (0.18A/ft)	13.5 (4.12W/ft)	14.8 (4.51W/ft)	/	5000mm (16.4ft)	7*3LED/83.3mm UCS512H4LB 12 Pixels/m
AFT1312-0RGBXWM24CSW025CC XXXX-GV10-ENP-ESD	DMX-RGB+2700K	RGB+(2550-2800K)	/		0.7 (0.21A/ft)	16.5 (5.03W/ft)	18.1 (5.52W/ft)	160 (49LM/ft)	5000mm (16.4ft)	7*4LED/83.3mm DMX-IC: UCS512H4LB 12 Pixels/m
	DMX-RGB+3000K	RGB+(2800-3250K)						190 (58LM/ft)		
	DMX-RGB+4000K	RGB+(3900-4350K)						200 (61LM/ft)		
AFT1312-0RGBXWX24CDW025CC XXXX-GV10	SPI-RGB+2700K	W(2550-2800K)	>90	24	0.6 (0.18A/ft)	14.5 (4.42W/ft)	16 (4.87W/ft)	140 (42LM/ft)	5000mm (16.4ft)	7*4LED/83.3mm SPI-IC: UCS7604 12 Pixels/m
	SPI-RGB+3000K	W(2850-3250K)						160 (48LM/ft)		
	SPI-RGB+4000K	W(3900-4400K)						175 (53LM/ft)		
	SPI-RGB+6500K	W(6000-7200K)						165 (50LM/ft)		
AFT1312-9XX48CSW025CCXXXX-GV10-ENP-ESD	2700K	2600-2830K	>90	48	0.2 (0.06A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	(191LM/ft)	20000mm (65.62ft)	32LED/100mm
	3000K	2920-3170K						660 (201LM/ft)		
	4000K	3770-4220K						730 (223LM/ft)		
AFT1312-9XW48CSW025CCXXXX-GV10-ESD	2200K	2100-2300K	>90	48	0.09 (0.3A/ft)	4.4 (14.4W/ft)	5.0 (16.4W/ft)	320 (97LM/ft)	50000mm (164ft)	28LED/100mm
	2700K	2600-2830K						320 (97LM/ft)		
	3000K	2920-3170K						330 (100LM/ft)		
	4000K	3770-4220K						400 (122LM/ft)		
	6500K	6000-7000K						360 (109LM/ft)		
AFT1312-0RGB48CSW025CCXXXX-GV10-ESD	RGB	/	>90	48	0.13 (0.42A/ft)	6.3 (20.7W/ft)	7.2 (23.6W/ft)	142 (43LM/ft)	20000mm (65.62ft)	12*3LED/100mm
AFT1312-0RGBXW48CSW025CC XXXX-GV10-ESD	RGB+2700K	W(2550-2800K)	>90	48	0.13 (0.42A/ft)	6.3 (20.6W/ft)	7.2 (23.6W/ft)	70 (21LM/ft)	20000mm (65.62ft)	14*4LED/166mm
	RGB+3000K	W(2850-3250K)						80 (24LM/ft)		
	RGB+4000K	W(3900-4400K)						90 (27LM/ft)		
	RGB+6500K	W(6000-7200K)						80 (24LM/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 ±15%;

3. The above parameters are typical values;

【Light Distribution】

-/+180
-150   150
-120   120
-90   90
0
60
120
180
240
300
0
-60   60
-30   30

UNIT: cd
— C0/180,115.0°
— C90/270,112.7°

AVERAGE BEAM ANGLE(50%):113.8°

Light distribution

Flux out:591.6 lm

Height	Eavg,Emax		Diameter
1m	79.41,278.61x		300.19cm
2m	19.85,69.661x		600.39cm
3m	8.824,30.961x		900.58cm
4m	4.963,17.411x		1200.77cm
5m	3.177,11.151x		1500.97cm
6m	2.206,7.7401x		1801.16cm
7m	1.621,5.6861x		2101.36cm
8m	1.241,4.3541x		2401.55cm
9m	0.9804,3.4401x		2701.74cm
10m	0.7941,2.7861x		3001.94cm

Height   Eavg,Emax   Angle:112.65°   Diameter

Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

Effective average illuminance

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)-side outlet(white light)**

14.6
500±15mm
2PIN

· **IP67 No dark cap(ENP)-bottom outlet**

L+3.5mm (0.14inch)

2PIN   4PIN   5PIN

500±15mm(19.68inch)
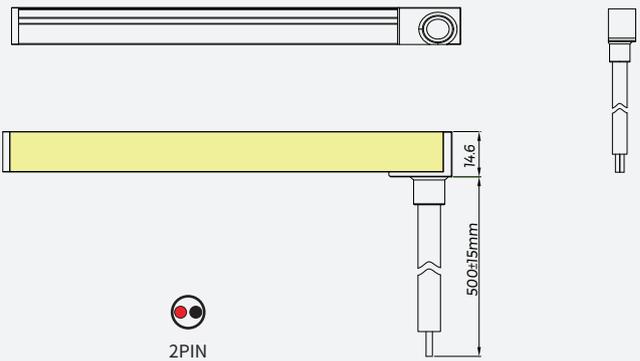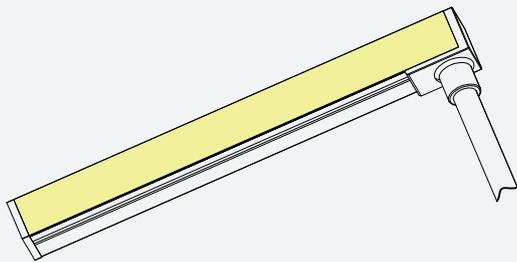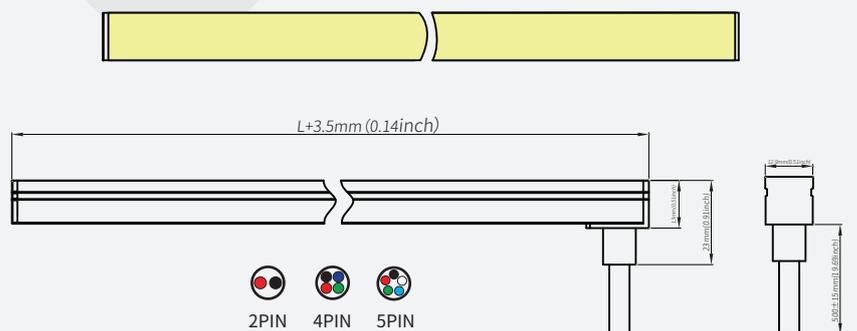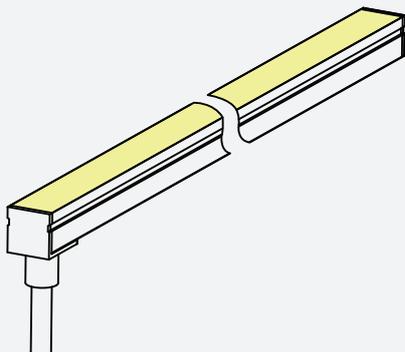
【Product mechanical parameters】

· IP67 Full encapsulted cap(EP)-top outlet

2PIN 4PIN 5PIN
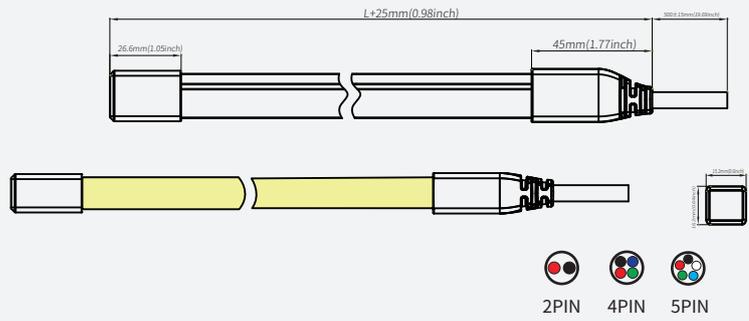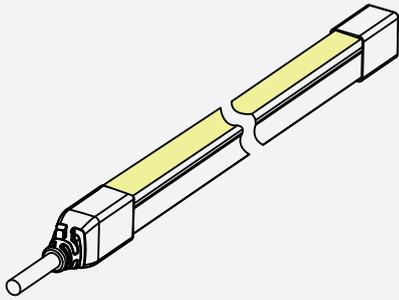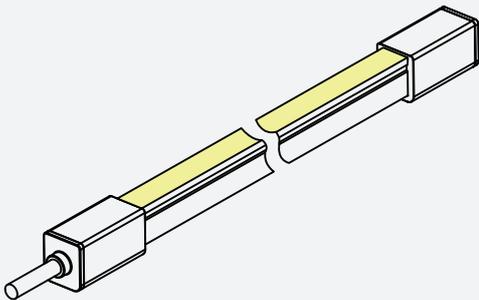
· IP67 Full encapsulted cap(EP)-side outlet

2PIN 4PIN 5PIN
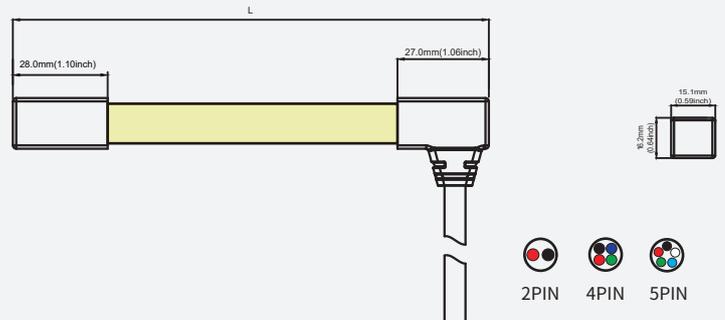
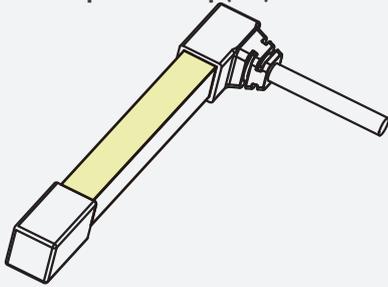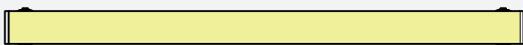**IP65 Solder-free plug-top outlet**
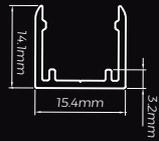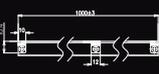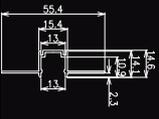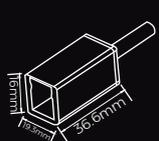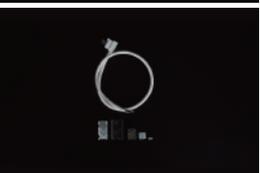
2PIN

· IP67 Full encapsulted cap(EP)-top outlet

2PIN 4PIN 5PIN

· IP67 No dark cap(ENP)-bottom outlet

2PIN 4PIN 5PIN
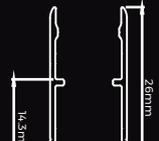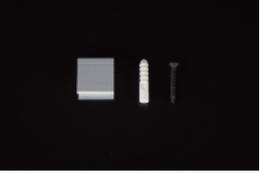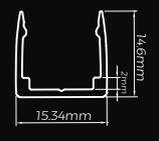
【Accessory information】

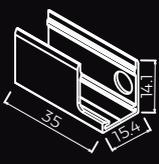| name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
Aluminium carrier	Flat mounting aluminum groove			AS-NMT1312A-1000	60	0.1453	8.8	9.9	1180*125*115	Size：L1000*W15.4* H14.1mm, with screw
Aluminium clip	Flat mounting clip			AS-NMT1312A-25	450	0.0058	2.61	2.91	250*250*150	Size：L25*W15.4* H14.1mm, with screw
Aluminium carrier	Aluminum groove of reserved outlet position			AS-NMT1312B1-1000	64	0.1513	9.1	10.2	1180*125*115	Size：L1000*W14.8* H26mm, with screw
Aluminiu m clip	clip with reserved outlet position			AS-NMT1312B1-25	300	0.0061	2.745	3.045	250*250*150	Size：L25*W14.8* H26mm, with screw
PC carrier	Flat mount PC slot			AS-NMT1312P-1000	60	0.066	3.96	5	1180*125*115	Size: L1000*W15.4*H14.6mm With screws
PC card	Flat mount PC clip			AS-NMT1312P-25	350	0.004	1.4	1.655	250*250*150	Size: L25*W15.4*H14.6mm With screws
Alumina carrier	Side opening card slot			AS-AFT1312A4-1000	40	0.149	5.96	6.96	1180*125*115	size：L1000*W15.4*H14.1mm With screws
Aluminum clip	Side opening clip			AS-AFT1312A4-35	400	0.005	2	2.3	250*250*150	size：L35*W15.4*H14.1mm With screws
Alumina carrier	Recessed Shaped Slot			AS-AFT1312A5-1000	15	0.258	3.87	4.87	1180*125*115	size：L1000*W55.4*H14.6mm With screws
Weld-free waterproof End-Cap	Quick connector (out let from the top direction)			AS-NMT1312HT0-FL	48	0.04	1.92	3.735	365x365x190	outlet 500mm\IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light
Weld-free waterproof End-Cap	Quick connector (out let from the bottom direction)			AS-NMT1312HB0-FL	48	0.04	1.92	3.735	365x365x190	outlet 500mm\IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light

Note: AS-NMS1312M-500 cannot be mounted with the illuminated side facing down, if downward mounting is required, AS-NMS1312A-1000 is recommended.

【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
Weld-free waterproof End-Cap	Quick connector (out let from the left direction)		16mm 19.5mm 43.4mm	AS-NMT1312HL0-FL	48	0.04	1.92	3.735	365x365x190	outlet 500mm\IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light
Weld-free waterproof End-Cap	Quick connector (out let from the right direction)		43.4mm 16mm 19.5mm	AS-NMT1312HR0-FL	48	0.04	1.92	3.735	365x365x190	outlet 500mm\IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light
Weld-free waterproof End-Cap	Quick connector(plug)		16mm 19.5mm 36.6mm	AS-NMT1312TX0-FL	48	0.03	1.44	3.255	365x365x190	IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light
Weld-free waterproof connector	Quick connector (wit hout wire)		16mm 19.5mm 48.6mm	AS-NMT1312MX0-FL	96	0.026	2.496	2.75	365x365x190	IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light
Moldable carrier	Moldable groovez		13.54mm 13.7mm	AS-NMT1312M-500	66	0.046	4.55	6	500*290*290	Size：L500*W13.7*H13.5m m, with screw Cannot be used upside down
Weld-free waterproof connector	Quick connector (wit h wire))		16mm 19.5mm 36.6mm	AS-NMT1312MH0-FL	48	0.053	2.544	2.8	365x365x190	The middle wire is 300mm long, IP65 suit to:AFT1312/AFT1312U/ AHT1312/AHT1312U/NMT1312/ NMT1312U white light and color light
Glue	Acid 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	

【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) AS-FC-0010(0.5M) AS-FC-0011(2M)	200 200 50	0.0193 0.031 0.1012	3.86 6.2 5.06	4.16 6.5 5.36	250*250*150	suitable for monochromatic led strip Wire lengths are optional: 0.25M/0.5M/2M
wire	2P female connector wire		/	AS-FC-0012 (0.25M) AS-FC-0013(0.5M) AS-FC-0014(2M)	200 200 50	0.0212 0.0329 0.1031	4.24 6.58 5.16	4.54 6.88 5.48	250*250*150	suitable for monochromatic led strip Wire lengths are optional: 0.25M/0.5M/2M
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) AS-FC-0016(0.5M) AS-FC-0017(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 RGB led strip Wire lengths are optional: 0.25M/0.5M/2M
wire	4P female connector wire		/	AS-FC-0018 (0.25M) AS-FC-0019(0.5M) AS-FC-0020(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 RGB led strip Wire lengths are optional: 0.25M/0.5M/2M
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】

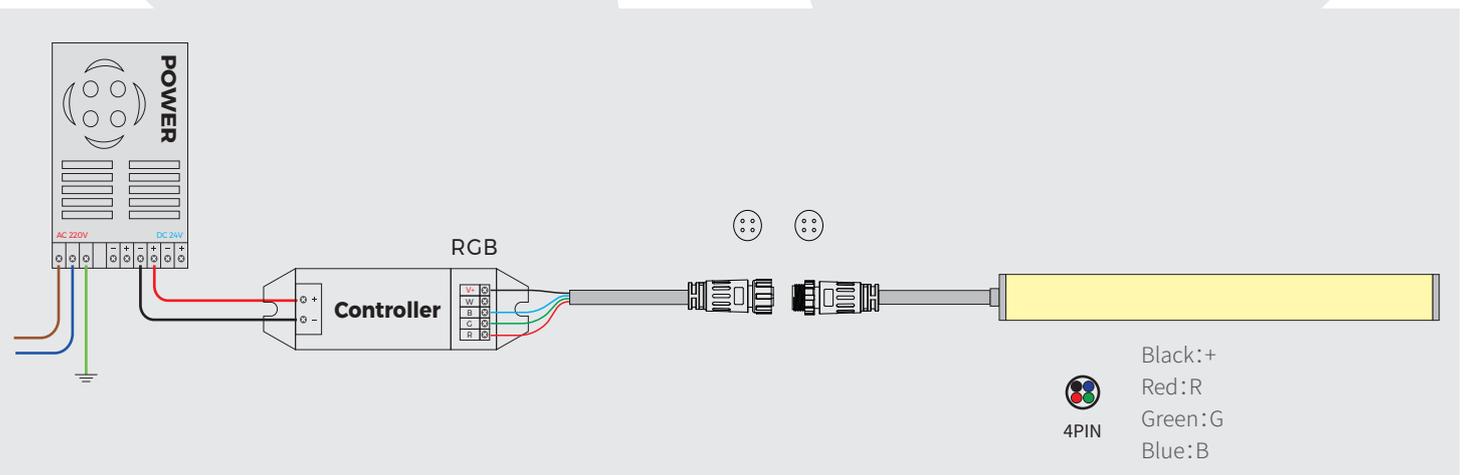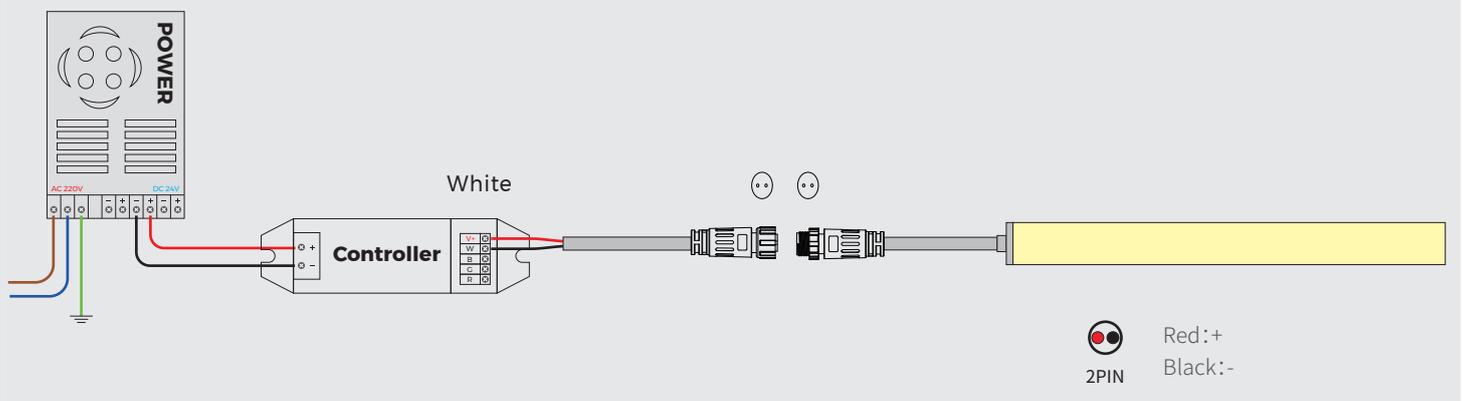| name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
wire	5P male connector wire		/	AS-FC-0021 (0.25M) AS-FC-0022(0.5M) AS-FC-0023(2M)	200 200 50	0.0196 0.0316 0.1036	3.92 6.32 5.18	4.22 6.62 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
End cap set	End cap set, including end cap and plug (outlet from the top direction)		23mm 14mm 15mm	AS-NMT1312GH0-EC	400	0.0035	1.4	1.7	250*250*150	/
End cap set	End cap set, including end cap and plug (outlet from the side direction)		25mm 18mm 14mm	AS-NMT1312GS0-EC	400	0.0035	1.4	1.7	250*250*150	/
End cap set	End cap set, including end cap and plug (outlet from the bottom direction)		22mm 15mm 14mm	AS-NMT1312GD0-EC	400	0.0035	1.4	1.7	250*250*150	/
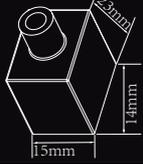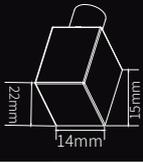
【Product control system solutions】

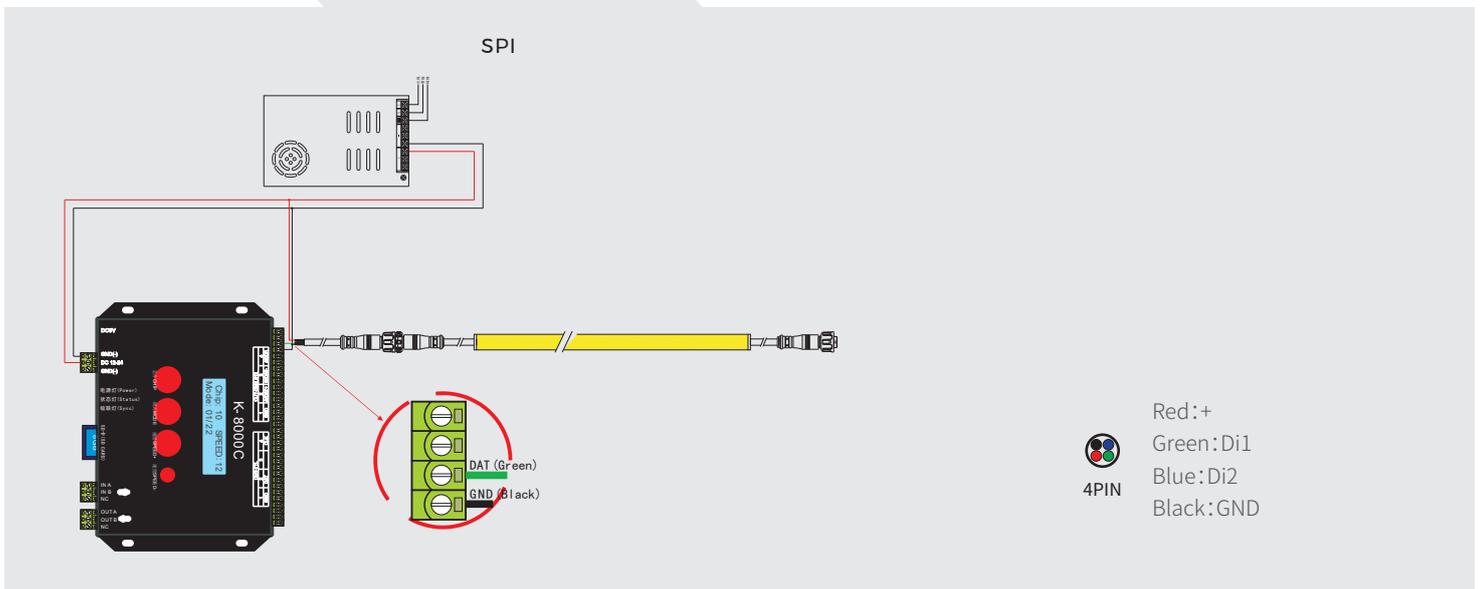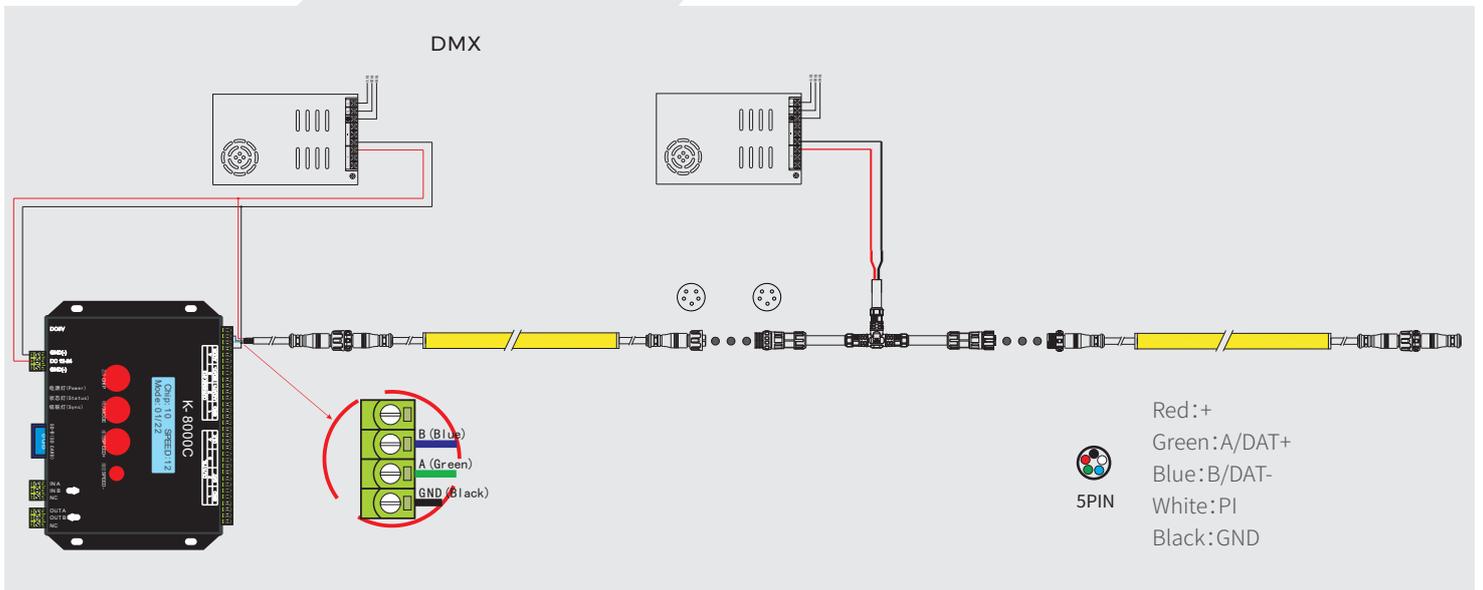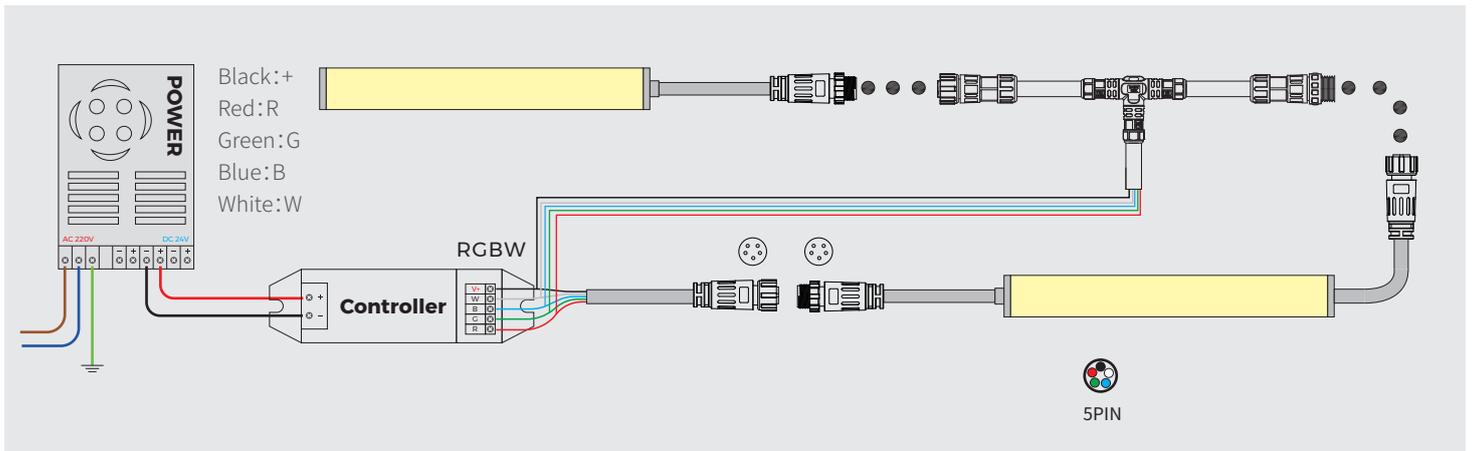| Product Image	product name	Product number	Product specifications	Applicable Products
	Monochrome remote	R6-1	output signal：RF Working voltage：3VDC(CR2032) Remote control distance：30m Working temperature:Ta:0-30 ℃~0+55 ℃	Monochrome light strip (Use with CR1-GBA)
	Monotone light controller	CR1-GBA	Input 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℃— +55℃	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 ℃~0+55 ℃	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℃— +55℃	RGB light strip (Use with R8-1)

【Product control system solutions】

Product Image	product name	Product number	Product specifications	Applicable Products
	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℃— +55℃	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 ℃~0+85 ℃	DMX/SPI magic lights with universal

【Product Wiring Schematic】

White

Red：+
Black：-

2PIN

RGB

Black：+
Red：R
Green：G
Blue：B

4PIN

【Product Wiring Schematic】

Black：+
Red：R
Green：G
Blue：B
White：W

RGBW

Controller

POWER

AC 220V   DC 24V

5PIN

DMX

K-8000C

B (Blue)
A (Green)
GND (Black)

Red：+
Green：A/DAT+
Blue：B/DAT-
White：PI
Black：GND

5PIN

SPI

K-8000C

DAT (Green)
GND (Black)

Red：+
Green：Di1
Blue：Di2
Black：GND

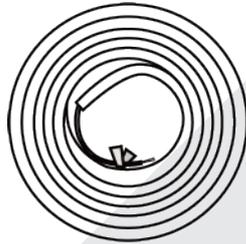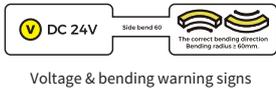4PIN

【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

4. Label the carton and pack it into the carton；
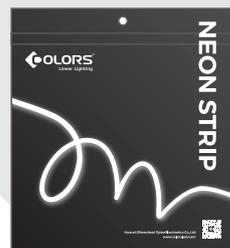
2. Put the product information label on the back of the static bag inside the marking line；
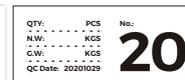
Product Information Label
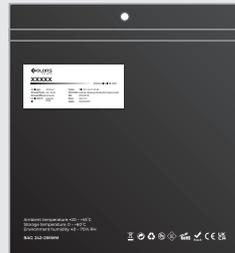
5. Pack 4 boxes of products in the carton；

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

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)
AFT1312-9XX48CSW050CCXXXX -GV10-ENP-ESD	L20000*13*12mm	20M*1	80M	3.44	13.76	15.31	
AFT1312-9XX24CSW050CCXXXX -GV10-ENP-ESD	L10000*13*12mm	10M*2	80M	1.72	13.76	15.31	
AFT1312L-9XX24CSW050CCXXXX -GV10-ENP-ESD	L15000*13*12mm	15M*1	60M	2.58	10.32	11.87	
AFT1312-0X24CSW050CCXXXX -GV10-ENP-ESD	L10000*13*12mm	10M*2	80M	1.72	13.76	15.31	
AFT1312- 0RGB24CSW025CCXXXX -GV10-ENP-ESD	L5000*13*12mm	5M*3	60M	0.86	10.32	12.52	0.41*0.41*0.26
AFT1312- 0RGBXW24CSW025CCXXXX -GV10-ENP-ESD	L5000*13*12mm	5M*3	60M	0.86	10.32	12.52	
AFT1312- 9XWM24CDW025CCXXXX -GV10-ENP-ESD	L5000*13*12mm	5M*3	60M	0.86	10.32	12.52	
AFT1312- 0RGBM24CDW025CCXXXX -GV10-ENP-ESD	L5000*13*12mm	5M*3	60M	0.86	10.32	12.52	
AFT1312- 0RGBXWM24CDW025CCXXXX -GV10-ENP-ESD	L5000*13*12mm	5M*3	60M	0.86	10.32	12.52	
AFT1312- 0RGBX24CDW025CCXXXX -GV10-ENP-ESD	L5000*13*12mm	5M*3	60M	0.86	10.32	12.52	

【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℃ ±2℃) , and 10 times after(-15℃±2℃, 16h).
	Cold Bend Test	IEC 60598-1; IEC 60598-2-21	wound on mandrel, low-temperature (-15℃±2℃, 16h), around the mandrel for two turns
	Cold Impact test	IEC 60598-1; IEC 60598-2-21	Low-temperature (-15℃±5℃, 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℃, 168h
	Low temperature storing test	IEC 60068-2-1	'-40℃, 168h
	High temperature and Humidity impact	IEC 60068-2-78	60℃, 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℃, 6000h
	switch test	Colors	10s On, 10s Off, 10000 times

【Precautions】

· Please use an isolated power supply to drive the LED light bar, and the ripple of the constant voltage source is less than 5%. Do not use resistance-capacitance step-down, non-isolated power supplies to drive the LED light bar.

· In actual applications, the power supply should reserve 20% of the margin (it is recommended to use only 80% of the power) to ensure sufficient voltage to drive the product.

· Please operate carefully, do not touch the AC power terminal when the power is on to prevent electric shock.

· Pay attention to the positive and negative poles of the power cord, and do not connect it wrongly. Whether the voltage of the power supply and the product are the same, so as to avoid damage to the product.

· During the installation process, please avoid scratching, twisting and irregular bending of the product, otherwise it may cause irreparable damage to the product.

· In order to ensure the life and reliability of the light strip, please do not bend it in an arc with a radius of less than 60mm. A too small bending radius will damage the product itself.

· If the actual application length exceeds the specified use length, it will cause the lamp belt to overload and heat, and the brightness is uneven.

· In order to prevent your eyes from being hurt, try to avoid staring at the light-emitting surface of the light bar for a long time.

· Non-professionals are prohibited from installing, disassembling and repairing the product.

· It is strictly forbidden to use any acidic or alkaline adhesives to fix products (including but not limited to glass glue, etc.).

· IP67 protection products are not suitable for swimming pool underwater.

· Products of different sizes and specifications under the same color temperature value due to structural differences, the final color of the product is slightly deviated, and it must be confirmed before use.

· When the IP67 protection product is installed and applied, the waterproof level needs to be downgraded after self-processing and cutting.

· Please use professional cutting tools when cutting.

· Engineering packaging neon light belt (20~50m), please use pay-off rack during construction to avoid damage to the product caused by pulling force.

· Attention,there are 2 soldering parts per reel (5m/reel) at most when mass production.

. 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.
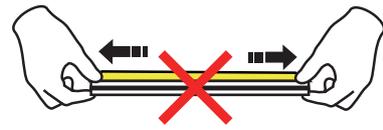
No stretching

No distortion

No trampling