Neon Specification

NMT1312

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

UV RESISTANT | CE | RoHS | UL E498657 | Reach | UK CA | CB
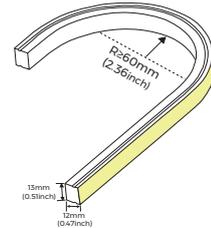
【Features】

· Light source: high luminous efficiency LED lamp beads, LM80 test certification;

· Process material: three-color silicone extrusion technique is applied，Cutting
  mark more clear;

· Optical design: unique optical light distribution structure design, uniform light emission
  on the surface without shadows;

· Appearance design: Standard ESD oil spray,anti-dust; good flexibility, simple shape,
  exquisite and unique;

· SPI chip model and pixel count: white light/RGB: UCS1903H,12Pixels/m.

· DMX chip model and pixel count: white light/RGB: UCS512B3L,12Pixels/m.

· Product certification: UL, CE, ROHS, UKCA,CB;

· Environmental characteristics: salt solution resistance, acid and alkali corrosion
  resistance, flame retardant resistance, UV resistance;

· Working/storage temperature: Ta: -25~55℃ / 0℃～60℃;
  Symphony working/storage temperature: Ta: -20~40℃ / 0℃～60℃;

· Product application: signboard lighting, outdoor/internal decorative lighting, architectural
  contour application;

· White 5 year warranty，48V/G/B/CCT/RGB/RGBW with 3 years warranty or working life
  =36000H,whichever comes first;SPI/DMX512 with warranty 2 years or working
  life=20000H,whichever comes first.

IP67 | 24V | 48V | SPI | 5M REEL

2200K | 2700K | 3000K | 4000K | G | B | CCT | RGB | RGBW | Pixel

R≥60mm (2.36inch)
13mm (0.51inch)
12mm (0.47inch)

Note: White/CCT/RGB/RGBW light bending radius R≥60mm(2.36inch),
SPI/DMX bending radius R≥80mm(2.6inch)

【Basic Parameters】

Model	CCT/colors		CRI	Input voltage (V)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark
NMT1312- 9XX24 CXN050XCXXXX-PRO	2200K		>90	24V	0.4 (0.12A/ft)	9.6 (2.93W/ft)	10.6 (3.23W/ft)	620(189/ft)	5000mm (16.4ft) 10000mm (32.8ft)	7LED/50mm
	2700K							710(216/ft)		
	3000K							740(225/ft)		
	3500K							760(231/ft)		
	4000K							690(210/ft)		
	5000K							710(216/ft)		
NMT1312- 0X24 CXN050XCXXXX-PRO	G 525-530nm		/					/		
	B 465-470nm									
NMT1312- 0RGB24 CXN050XC0500-PRO	RGB	R 620-630nm	/		0.5 (0.15A/ft)	12 (3.66W/ft)	13.2 (4.02W/ft)	/		7LED/83.3mm
		G 525-530nm								
		B 465-470nm							5000mm (16.4ft)	
NMT1312- 0RGBXX24 CXN050XC0500-PRO	RGB~2700K		/		0.6 (0.18A/ft)	14.4 (4.39W/ft)	16 (4.88W/ft)	/		12LED/62.5mm
	RGB~3000K									
	RGB~3500K									
	RGB~4000K									
	RGB~5400K									
NMT1312- 9SWDW24 CXN050XC0500-PRO	2700~5000K		>90		0.5 (0.15A/ft)	12 (3.66W/ft)	13.2 (4.02W/ft)	710(216/ft)		14LED/55.6mm

【Basic Parameters】

Model	CCT/colors	CRI	Input voltage (V)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark
NMT1312- 9XXX48 CSN050CC5000-PRO(LP)	2200K	>90	48V	0.11 (0.03A/ft)	5.3 (1.62W/ft)	5.8 (1.77W/ft)	390(118/ft)	50000mm (164ft)	
	2700K						370(112/ft)		
	3000K						360(109/ft)		
	4000K						380(115/ft)		
NMT1312- 9XXX48 CSN050CC2000-PRO	2200K	>90					700(213/ft)		12LED/100mm
	2700K						650(198/ft)		
	3000K						650(198/ft)		
	4000K						680(207/ft)		
NMT1312- 0RGB48 CSN050CC2000-PRO	RGB R 620-630nm G 525-530nm B 465-470nm	/		0.2 (0.06A/ft)	9.6 (2.93W/ft)	10.6 (3.23W/ft)	/	20000mm (65.6ft)	
NMT1312- 0RGBXX48 CSN050CC2000-PRO	RGB~2100K	/					/		24LED/125mm
	RGB~2700K								
	RGB~3000K								
	RGB~3500K								
	RGB~4000K								
	RGB~5400K								
NMT1312- 0RGBX24 CDS025CC0500-PRO-EP(SPI)	RGB R 620-630nm G 525-530nm B 465-470nm	/	24V	0.75 (0.23A/ft)	18 (5.49W/ft)	20.7 (6.31W/ft)	/	5000mm (16.4ft)	7LED/83.3mm SPI-IC:(UCS1903H) DMX-IC:(UCS512B3L) 12Pixels/m
NMT1312- 8XWX24 CDS025CC0500-PRO-EP(SPI)	2200K	>80					900(274/ft)		
	2700K						1040(317/ft)		
	3000K						1080(329/ft)		
	4000K						990(301/ft)		
NMT1312- 0RGBM24 CDS025CC 0500-PRO-EP(DMX512)	RGB R 620-630nm G 525-530nm B 465-470nm	/					/		
NMT1312- 8XWM24 CDS025CC 0500-PRO-EP(DMX512)	2200K	>80					900(274/ft)		
	2700K						1040(317/ft)		
	3000K						1080(329/ft)		
	4000K						990(301/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

AVERAGE BEAM ANGLE(50%):114.4°

UNIT：cd
C0/180,114.6°
C90/270,114.2°
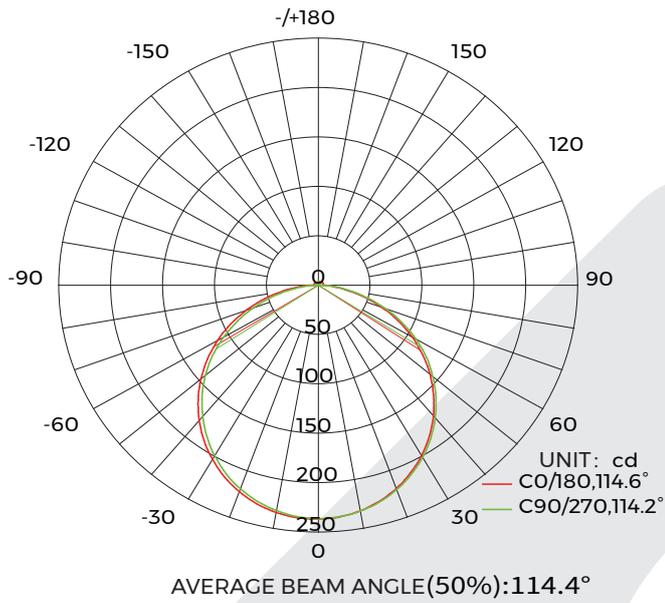
Light distribution

Flux out:517.6 lm

Height	Eavg,Emax	Angle:114.01°	Diameter
1m	64.33,236.8lx		308.06cm
2m	16.08,59.19lx		616.11cm
3m	7.148,26.31lx		924.17cm
4m	4.021,14.80lx		1232.23cm
5m	2.573,9.471lx		1540.28cm
6m	1.787,6.577lx		1848.34cm
7m	1.313,4.832lx		2156.40cm
8m	1.005,3.699lx		2464.46cm
9m	0.7943,2.923lx		2772.51cm
10m	0.6433,2.368lx		3080.57cm

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】

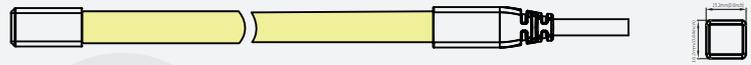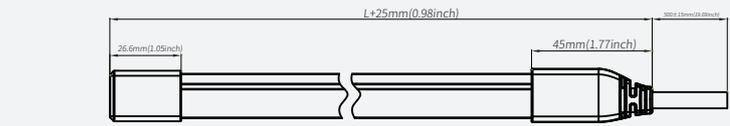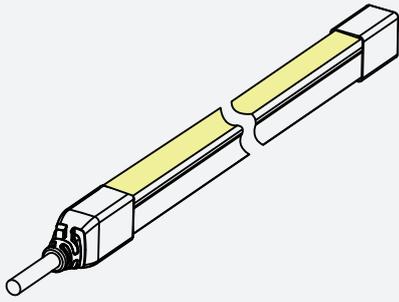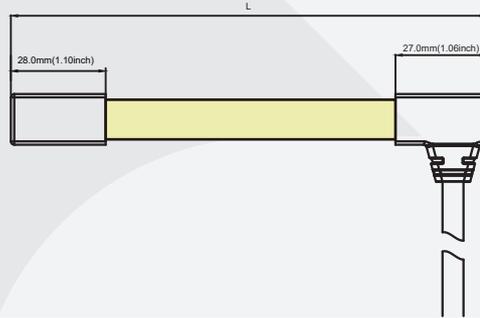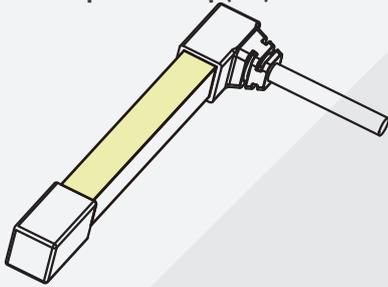· **IP67 No dark cap(ENP)-side outlet（white light）**

14.6

500±15mm

2PIN

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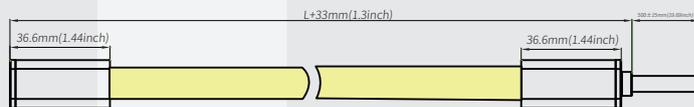

L+3.5mm (0.14inch)

2PIN 3PIN 4PIN 5PIN
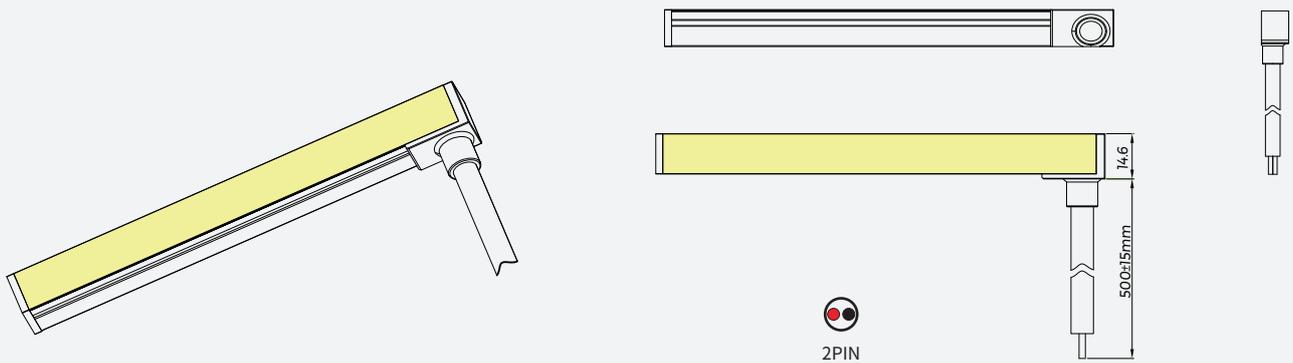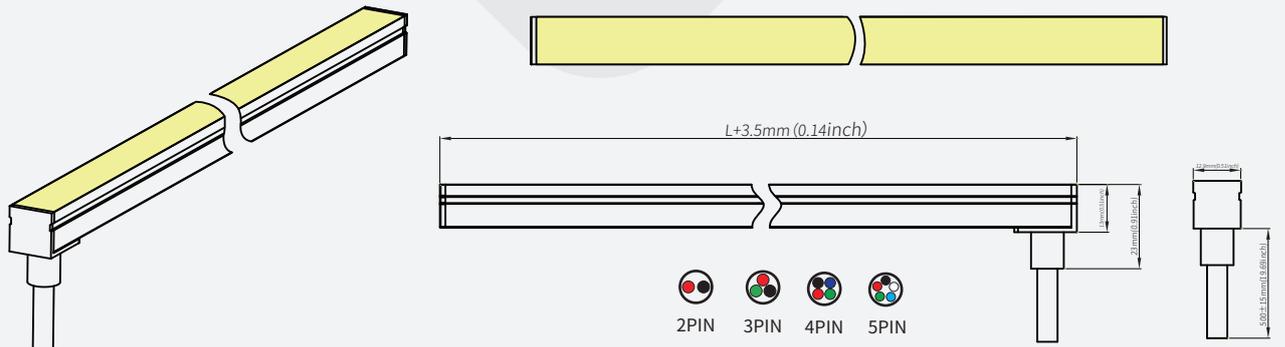
【Product mechanical parameters】

· IP67 Full encapsulted cap(EP)-top outlet

L+25mm(0.98inch)
26.6mm(1.05inch)
45mm(1.77inch)
500±15mm(19.69inch)

2PIN 3PIN 4PIN 5PIN

· IP67 Full encapsulted cap(EP)-side outlet

L
28.0mm(1.10inch)
27.0mm(1.06inch)
15.1mm(0.59inch)
16.2mm(0.64inch)

2PIN 3PIN 4PIN 5PIN

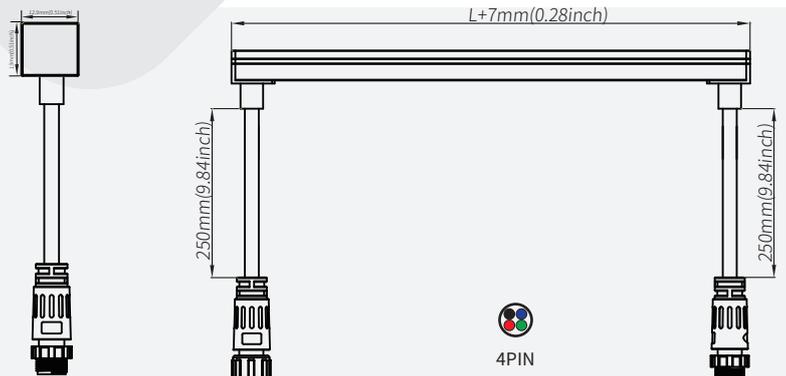## IP65 Solder-free plug-top outlet

2PIN

L+33mm(1.3inch)
36.6mm(1.44inch)
36.6mm(1.44inch)
500±15mm(19.69inch)
19.3mm(0.76inch)

· IP67 Full encapsulted cap(EP)-top outlet

250mm(9.84inch)
45mm(1.77inch)
L+40mm(1.57inch)
45mm(1.77inch)
250mm(9.84inch)

4PIN

· IP67 No dark cap(ENP)-bottom outlet

L+7mm(0.28inch)
250mm(9.84inch)
250mm(9.84inch)

4PIN

【Accessory information】

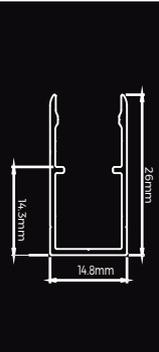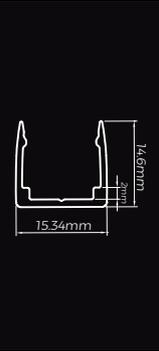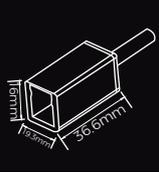| name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
Aluminium carrier	Flat mounting aluminum groove			AS-NMT1312A-1000	60	0.1453	8.8	9.9	1180*125*115	Size：L1000*W15.4* H14.1mm, with screw
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
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
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
Weld-free waterproof End-Cap	Quick connector (out let from the left direction)			AS-NMT1312HL0-FL	48	0.04	1.92	3.735	365x365x190	outlet 500mm\IP65
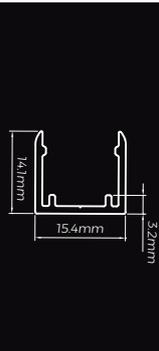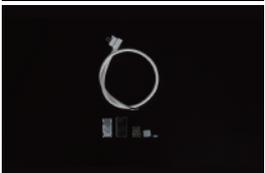
Note: AS-NMT1312M-500 cannot be mounted with the illuminated side facing down, if downward mounting is required,
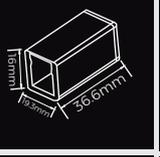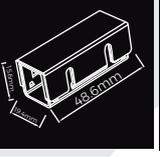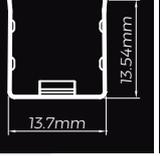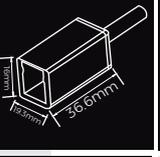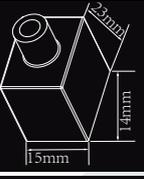AS-NMT1312A-1000 is recommended.

【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 right direction)		43.4mm / 16mm / 19.3mm	AS-NMT1312HR0-FL	48	0.04	1.92	3.735	365x365x190	outlet 500mm\IP65
Weld-free waterproof End-Cap	Quick connector(plug)		16mm / 19.3mm / 36.6mm	AS-NMT1312TX0-FL	48	0.03	1.44	3.255	365x365x190	IP65
Weld-free waterproof connector	Quick connector (wit hout wire)		48.6mm	AS-NMT1312MX0-FL	96	0.026	2.496	2.75	365x365x190	IP65
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 / 19.3mm / 36.6mm	AS-NMT1312MH0-FL	48	0.053	2.544	2.8	365x365x190	The middle wire is 300mm long, IP65
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	3P PVC wire（0.5M）		/	AS-WS-0015	150	0.0154	2.31	2.61	250*250*150	Suitable for SWW strip
wire	3P PVC wire（2M）			AS-WS-0016	125	0.0616	7.7	8	250*250*150	
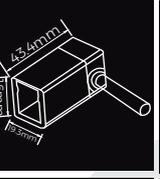
【Accessory information】

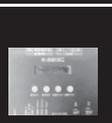| name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
wire	4P PVC wire（0.5M）		/	AS-WS-0003	150	0.0194	2.91	3.21	250*250*150	Suitable for RGB strip
wire	4P PVC wire（2M）			AS-WS-0004	125	0.0776	9.7	10	250*250*150	
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	3PIN IP68 Waterproof connector			AS-FC-0002	512	0.018	9.216	10.2	365*365*190	Suitable for SWW strip
connector	4PIN IP68 Waterproof connector			AS-FC-0003	288	0.03	8.64	9.6	365*365*190	Suitable for RGB strip
wire	4P T-type PVC wire（0.15M*2）		/	AS-FC-0004	20	0.075	1.5	1.95	250*250*150	Suitable for SPI&DMX512 lamp with cascade connection,IP67
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 SPI&DMX512 lamp with cascade connection,IP67
wire	4P female connector wire（0.25M）		/	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 SPI&DMX512 lamp with cascade connection,IP67
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	/

【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
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	/

【Product control system solutions】

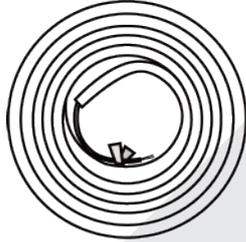| Product Image	product name	Product number	Order code	Product specifications	Applicable Products
	Monochrome remote	R6-1	402-02-000000-00013	output signal:RF Working voltage:3VDC(CR2032) Remote control distance:30m Working temperature:Ta:0-30 ℃~0+55 ℃	Monochrome light strip (Use with CR1-GBA)
	Monotone light controller	CR1-GBA	402-01-000000-00001	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)
	CCT remote control	R7-1	402-02-000000-00014	output signal:RF Working voltage:3VDC(CR2032) Remote control distance:30m Working temperature:Ta:0-30 ℃~0+55 ℃	CCT light strip (Use with CR2-GBA)
	Color temperature controller	CR2-GBA	402-01-000000-00002	Input voltage:DC12-48V Output current:8A Output Power:Max 192W@12V/Max 284W @24V/Max 576W@36V/Max 768W@48V Working temperature:-30℃— +55℃	CCT light strip (Use with R7-1)
	RGB/RGBW remote control	R8-1	402-02-000000-00015	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	402-01-000000-00003	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)
	RGBW controller	CR4-GBA	402-01-000000-00004	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	23-01-00-0050	Power supply:DC 5V-24V input Power consumption:5W Working temperature:Ta:0-20 ℃~0+85 ℃	DMX/SPI magic lights with universal

【Packaging Solutions】

· standard packaging

1. Line marking, the line marking is affixed at a distance of 80mm from the end of the line；
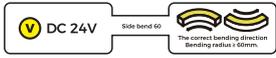
Voltage & bending warning signs
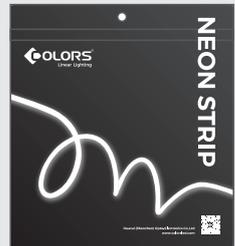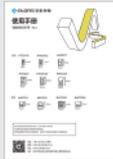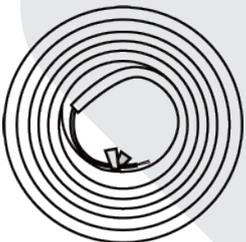
4. Label the carton and pack it into the carton；

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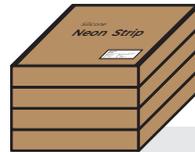
Product Information Label

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)
NMT1312-9XX24CSN050CCXXXX	L5000*13*12mm	5M*3	60M	0.86	10.32	11.87	
	L10000*13*12mm	10M*2	80M	1.72	13.76	15.31	
NMS1312-0X24CSN050CCXXXX	L5000*13*12mm	5M*3	60M	0.86	10.32	11.87	
	L10000*13*12mm	10M*2	80M	1.72	13.76	15.31	0.41*0.41*0.26
NMT1312-0RGB24CSN050CC0500	L5000*13*12mm	5M*3	60M	0.86	10.32	11.87	
NMT1312-0RGBXX24CSN050CC0500	L5000*13*12mm	5M*3	60M	0.86	10.32	11.87	
NMT1312-9SWDW24CSN050CC0500	L5000*13*12mm	5M*3	60M	0.86	10.32	11.87	

【Packaging Solutions】

Model	Product size	Product Quantity/box	Product Quantity/case	Product net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size (m)
NMT1312-9XX48CSN050CC2000	L20000*13*12mm	20M*3	60M	3.44	10.32	12.19	0.345*0.345*0.33
NMT1312-9XX48CSN050CC5000(LP)	L50000*13*12mm	50M*1	50M	8.6	8.6	10.47	
NMT1312-0RGBW48CSN050CC2000	L20000*13*12mm	20M*3	60M	3.44	10.32	12.19	
NMT1312-0RGB48CSN050CC2000	L20000*13*12mm	20M*3	60M	3.44	10.32	12.19	
NMT1312-XXXXX24CDS025CC0500-EP	L5000*13*12mm	5M*3	60M	0.86	10.32	12	0.41*0.41*0.26
NMT1312-XXXXX24CDS025CC0500-EP							

【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
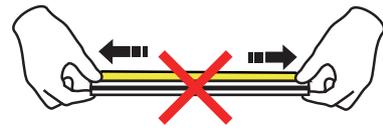
No stretching

No distortion

No trampling