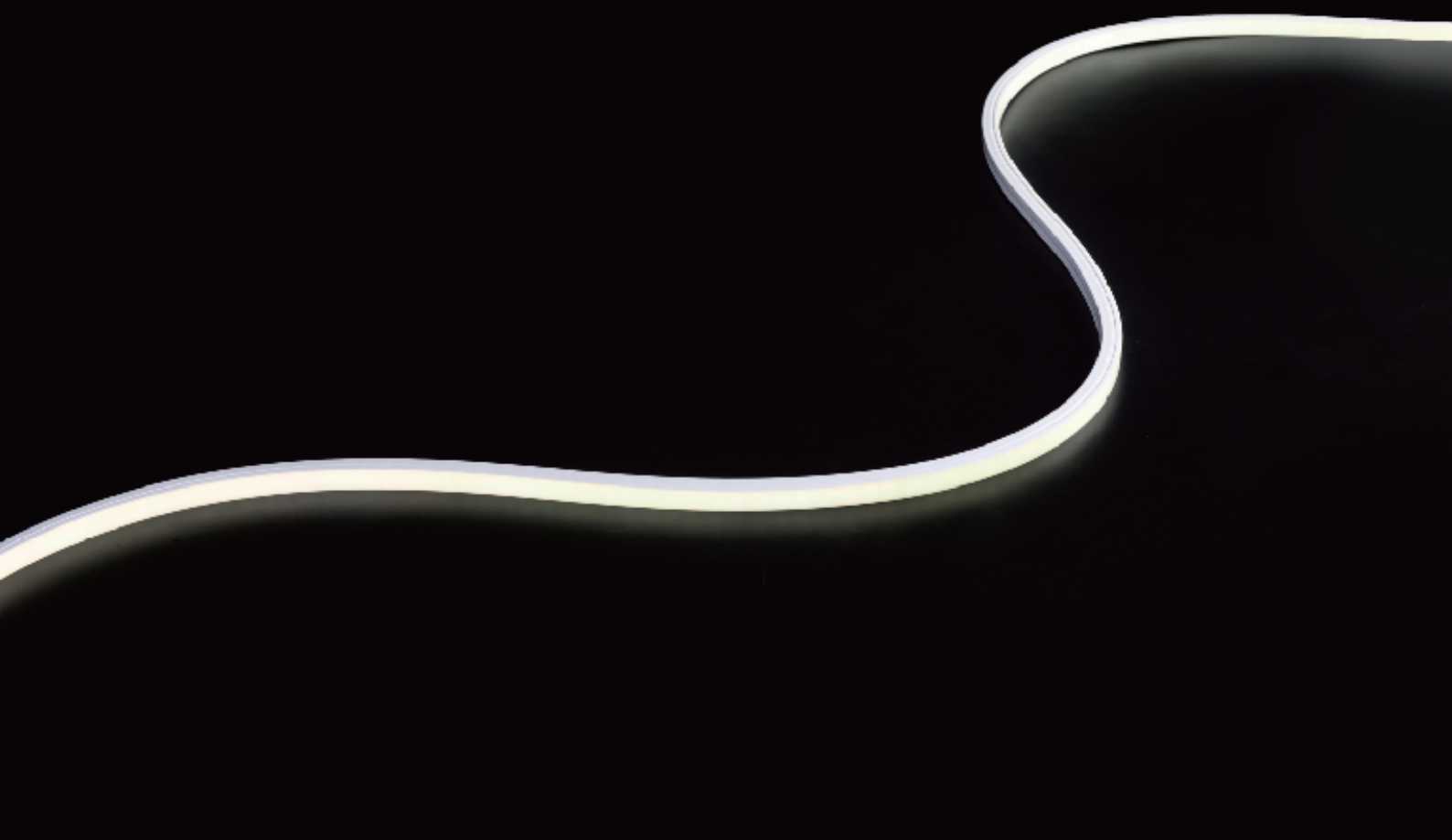
COLORS

AH Series Specification

AHT1312



E-mail:colors@colorsled.com

Version：A00

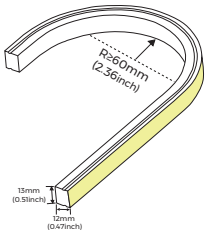
www.colorsled.com

【Features】

- Light source: high luminous efficiency LED lamp beads, LM80 test certification;
- Process material: three-color silicone extrusion technique is applied, Cut as your wish;
- 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;
- Environmental characteristics: salt solution resistance, acid and alkali corrosion resistance, flame retardant resistance, UV resistance;
- Working/storage temperature: Ta: -25~50°C / 0°C～60°C;
- Product application: signboard lighting, outdoor/internal decorative lighting, architectur al contour application;
- 7 years warranty or working life =84000H,whichever comes first.



2200 K | 2700 K | 3000 K | 4000 K



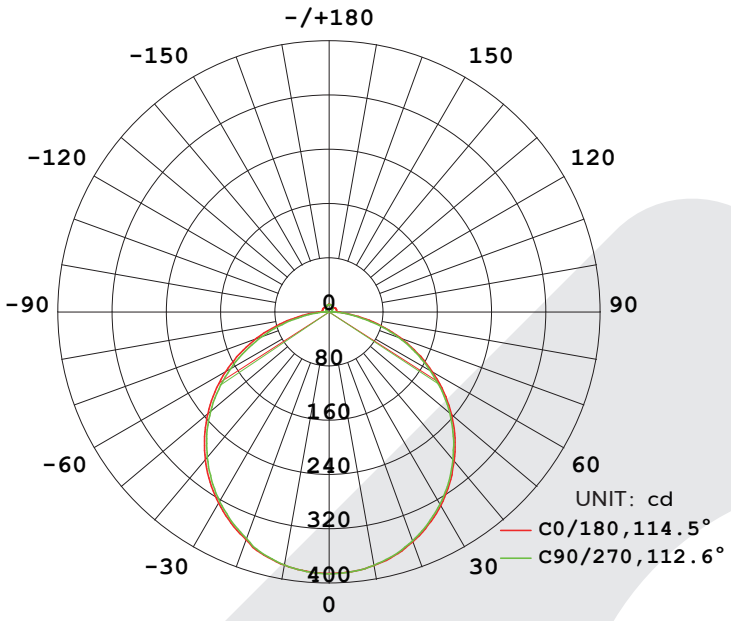
【Basic Parameters】

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
AHT1312- 9XX24 CSW025CCXXXX -GV10-ENP-ESD	2200K	2100-2300K	>90	24V	0.625 (0.19A/ft)	15 (4.57W/ft)	16.5 (5.03W/ft)	1213(370/ft)	5000mm (16.4ft)	1LED/6.25mm
	2700K	2600-2830K						1467(447/ft)		
	3000K	2920-3170K						1508(460/ft)		
	4000K	3770-4220K						1491(455/ft)		
AHT1312- 9XX24 CSW025CCXXXX -GV10-ENP-ESD	2200K	2166-2310K			0.4 (0.12A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	870(265/ft)	10000mm (32.81ft)	1LED/6.25mm
	2700K	2630-2830K						1030(314/ft)		
	3000K	2920-3170K						1090(332/ft)		
	4000K	3770-4220K						1145(349/ft)		
AHT1312- 9XX48 CSW025CCXXXX -GV10-ENP-ESD	2200K	2166-2310K	>90	48V	0.2 (0.06A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	910(277/ft)	20000mm (65.62ft)	2LED/12.5mm
	2700K	2630-2830K						1100(335/ft)		
	3000K	2920-3170K						1150(351/ft)		
	4000K	3770-4220K						1220(372/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;

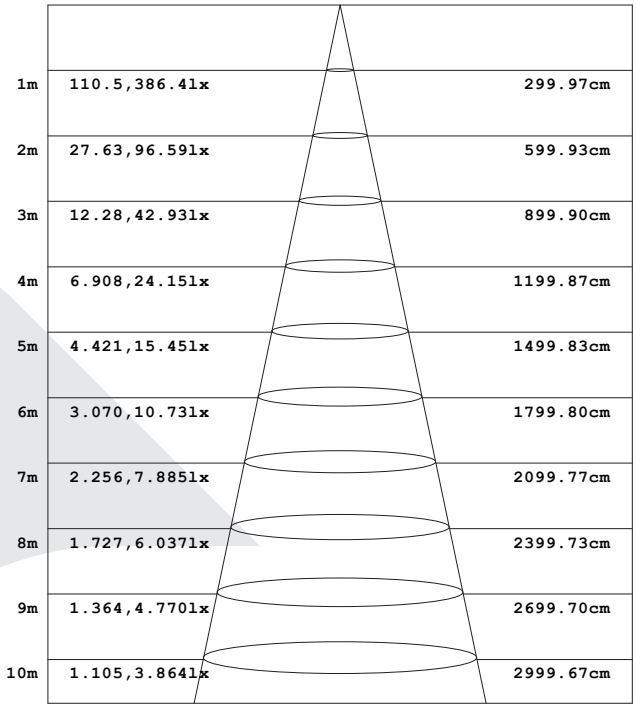
【Light Distribution】



AVERAGE BEAM ANGLE(50%):113.6°

Light distribution

Flux out:823.3 lm



Height Eavg,Emax Angle:112.61° Diameter

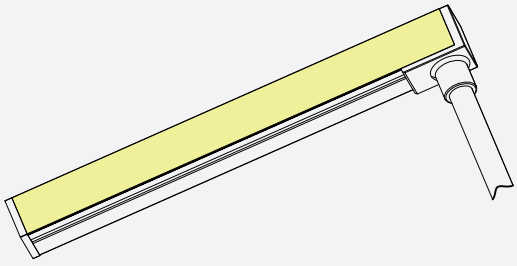
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

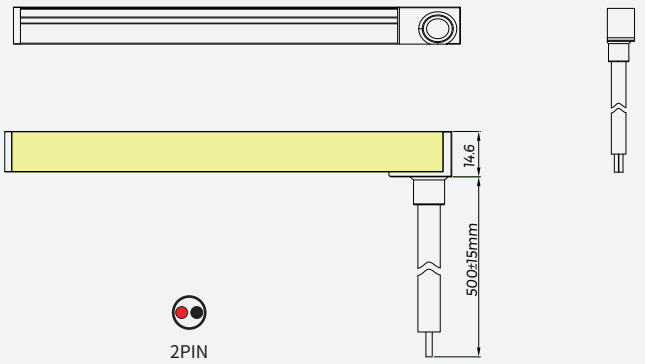
Effective average illuminance

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.

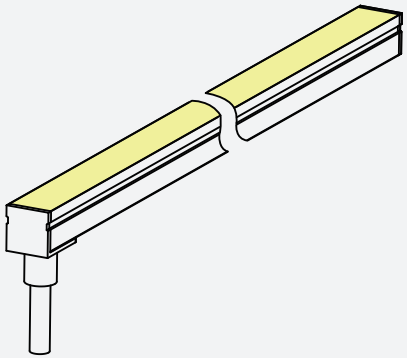
【Product mechanical parameters】

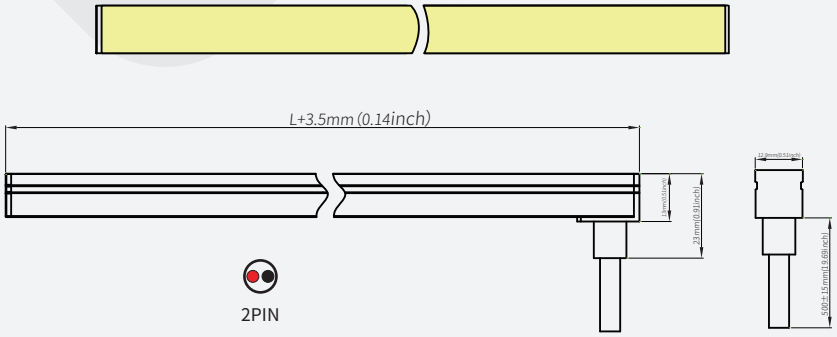
- IP67 No dark cap(ENP)-side outlet (white light)





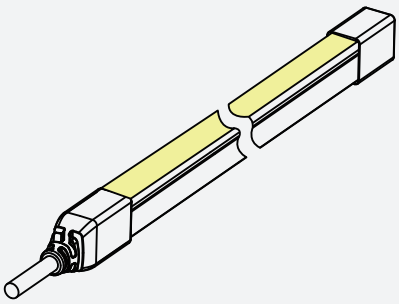
- IP67 No dark cap(ENP)-bottom outlet

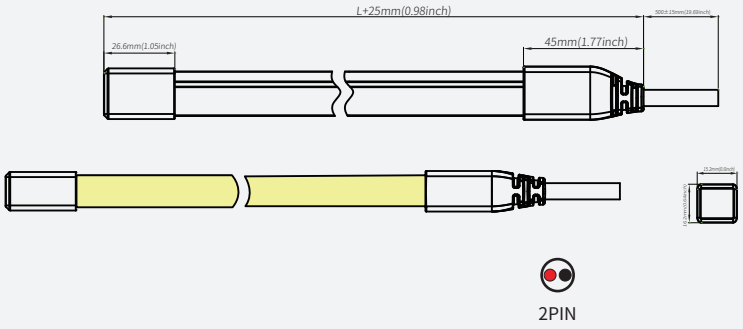




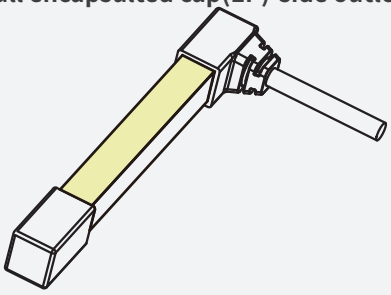
【Product mechanical parameters】

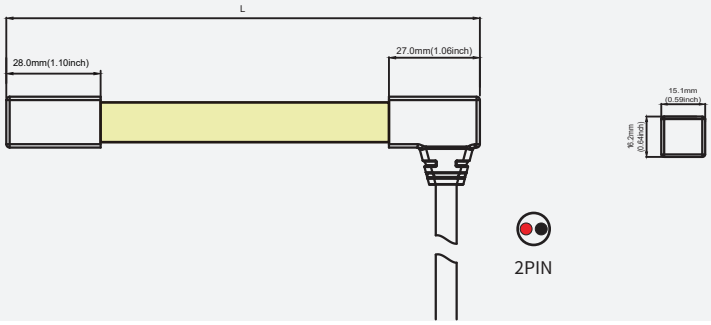
· IP67 Full encapsulted cap(EP)-top outlet



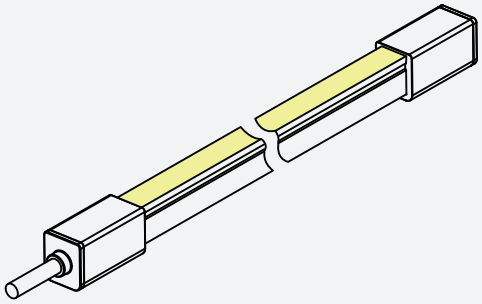


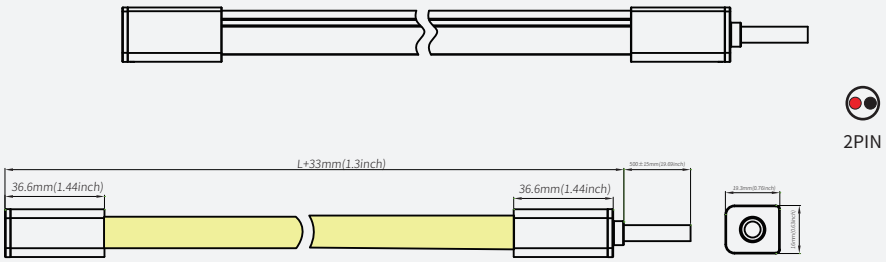
· IP67 Full encapsulted cap(EP)-side outlet



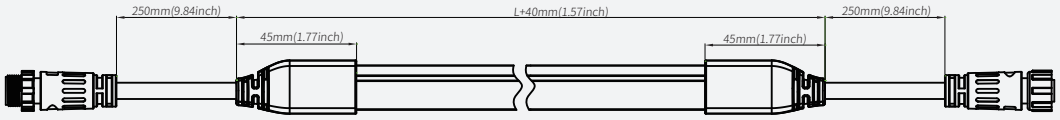


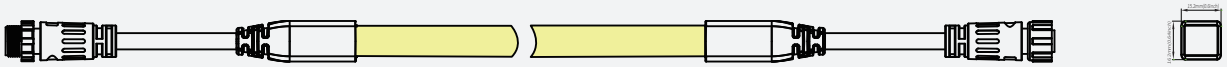
IP65 Solder-free plug-top outlet



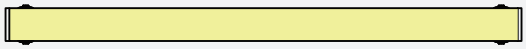


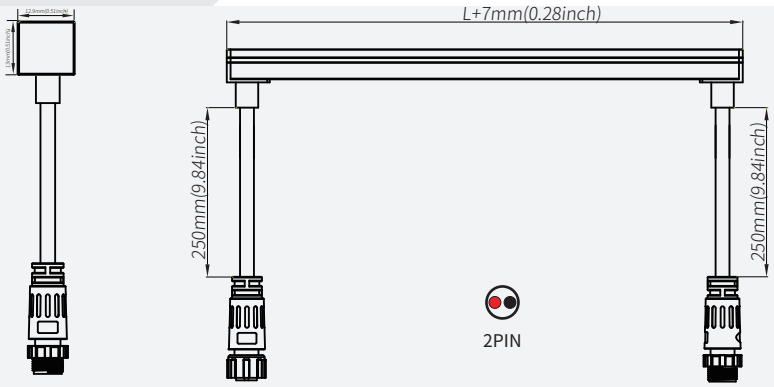
· IP67 Full encapsulted cap(EP)-top outlet



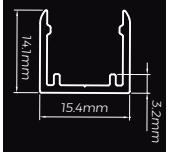
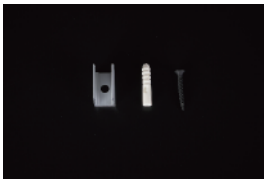
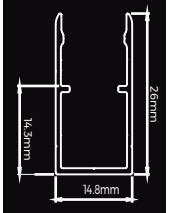
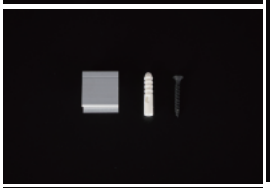
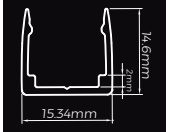
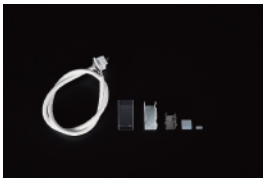
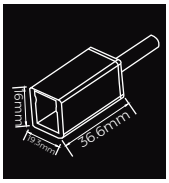
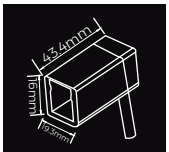
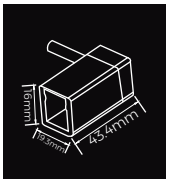


· IP67 No dark cap(ENP)-bottom outlet



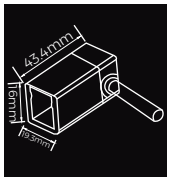
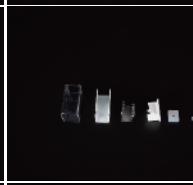
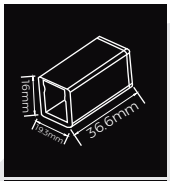
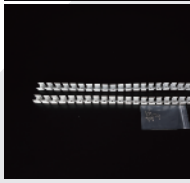
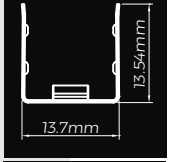
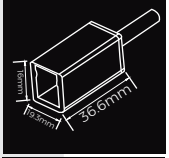


【Accessory information】

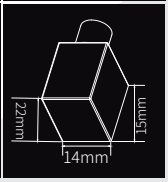
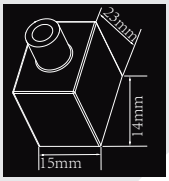
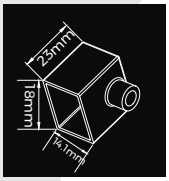
name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
Aluminium carrier	Flat mounting aluminum groove			AS-NMT1312A-1000	60	0.1453	8.8	9.9	1180*125*115	Size：L1000*W15.4* H14.1mm, with screw
Aluminium 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 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
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 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 right direction)			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)			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)			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			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))			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
connector	2PIN IP68 Waterproof connector			AS-FC-0001	512	0.016	8.192	9.5	365*365*190	Suitable for single color strip
Wire	2P T-Connection Wire		/	AS-FC-0027	20	0.07	1.4	1.7	250*250*150	suitable for monochromatic 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	2P DC wire (Female)		/	AS-FC-0012 (0.25M) AS-FC-0013 (0.5M) AS-FC-0014 (2M)	200 200 50	0.0215 0.0329 0.1031	4.3 6.6 5.2	4.6 6.9 5.5	250*250*150	suitable for monochromatic led strip Wire lengths are optional: 0.25M/0.5M/2M
End cap set	End cap set, including end cap and plug (outlet from the bottom direction)			AS-NMT1312GD0-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 top direction)			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)			AS-NMT1312GS0-EC	400	0.0035	1.4	1.7	250*250*150	/

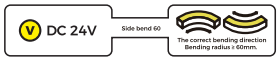
【Product control system solutions】

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 °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)

【Packaging Solutions】

· standard packaging

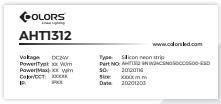
1. Line marking, the line marking is affixed at a distance of 80mm from the end of the line;



Voltage & bending warning signs



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



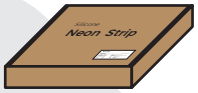
Product Information Label



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;

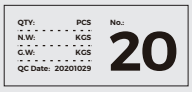




6. Put the product information label and the box number label on the side of the carton, and the QC inspection stamp;



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)
AHT1312-9XX48CSW050CCXXXX -GV10-ENP-ESD	L20000*13*12mm	20M*1	80M	3.44	13.76	15.31	0.41*0.41*0.26
AHT1312-9XX24CSW050CCXXXX -GV10-ENP-ESD	L10000*13*12mm	10M*2	80M	1.72	13.76	15.31	
AHT1312-9XX24CSW050CCXXXX -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°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】

· 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

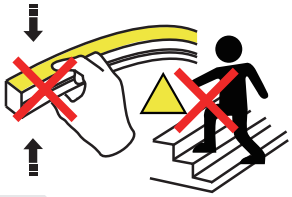
.When using dimmer and dimming power supplies like Triac, etc, conduct compatibility tests on the product, dimmers and power supplies to ensure full compatibility. If any issues arise, contact COLORS for technical support.



No stretching



No distortion



No trampling