

AB-FC Flexible Light Series

12V/24V DC, addressable flexible light strip and rope light



Features:

- UL listed (#E353753)
- IP67 waterproof rating
- Top emitting, wide viewing angle 120°
- Storage temperature 0°C~60°C
- Operating temperature -20°C~80°C
- Environment humidity 40-70%RH

Application:

- Conference/meeting rooms
- Hospitals
- Commercial/ residential buildings
- ReEntertaining lighting
- Hotels



Part number naming system:

Part numbers for AB-FYVVVIZ Addressable Flexible Light Series follow the convention below:

AB – FYVVVIZ – LLLWL – XA 1

Y – Waterproof coating options (A- IP20 no coating, C-IP65 silicon coating, D-IP67 clear silicon tube, F-IP67 diffused silicon tube)

V V V – Voltage (volt) of the light strip (012=12V, 024=24V)

L L L – Light strip length (unit: inch);

For 12V, length selection starts from minimum 1 inches (25mm), with the increment of 1t inches (25mm), maximum available length is 197 inches.

For 24V, length selection starts from minimum 1.97 inches (50 mm), with the increment of 1.97 inches (50mm), maximum available length is 394 inches.

For 5V, length selection starts from minimum 0.43/0.32 inches (11.1/8.3mm), with the increment of 0.43/0.32 inches (11.1/8.3mm), maximum available length is 117 inches .

W L – Lead length (unit: inch); standard length is 12 inches.

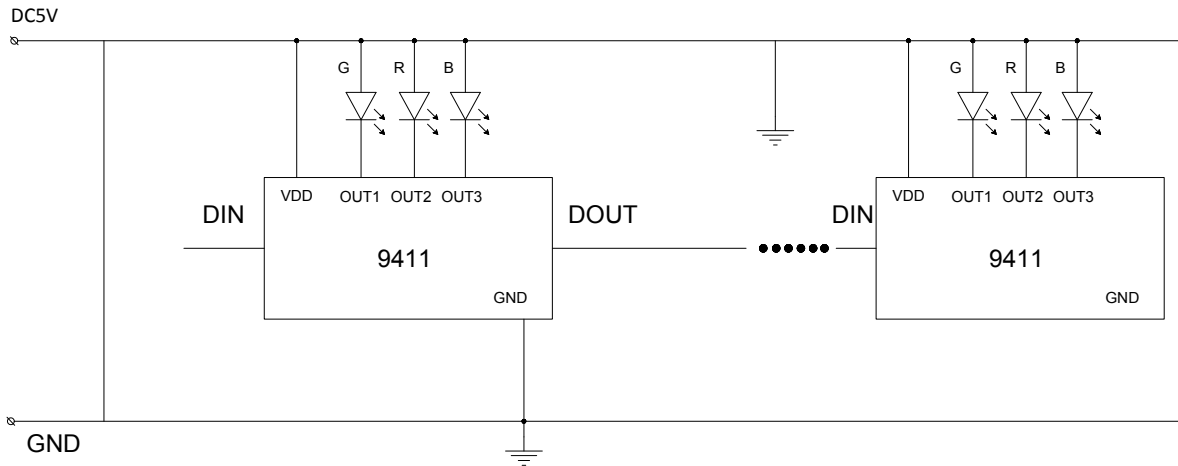
X - CRI (8 – 80, 9 – 90, X – not applicable)

Ax - Version (Internal Code)

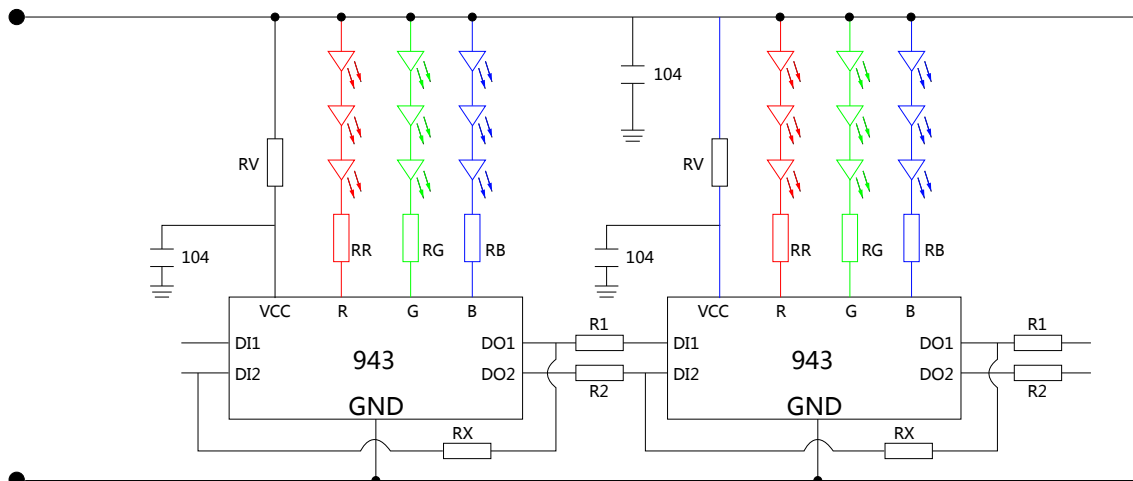
For example, the below part number of AB-FYVVVIZ Addressable Flexible Light Series stand for 24V, IP20, tape light 197 inches length, and lead 12 inches length, and addressable IC LED PLCC-8:

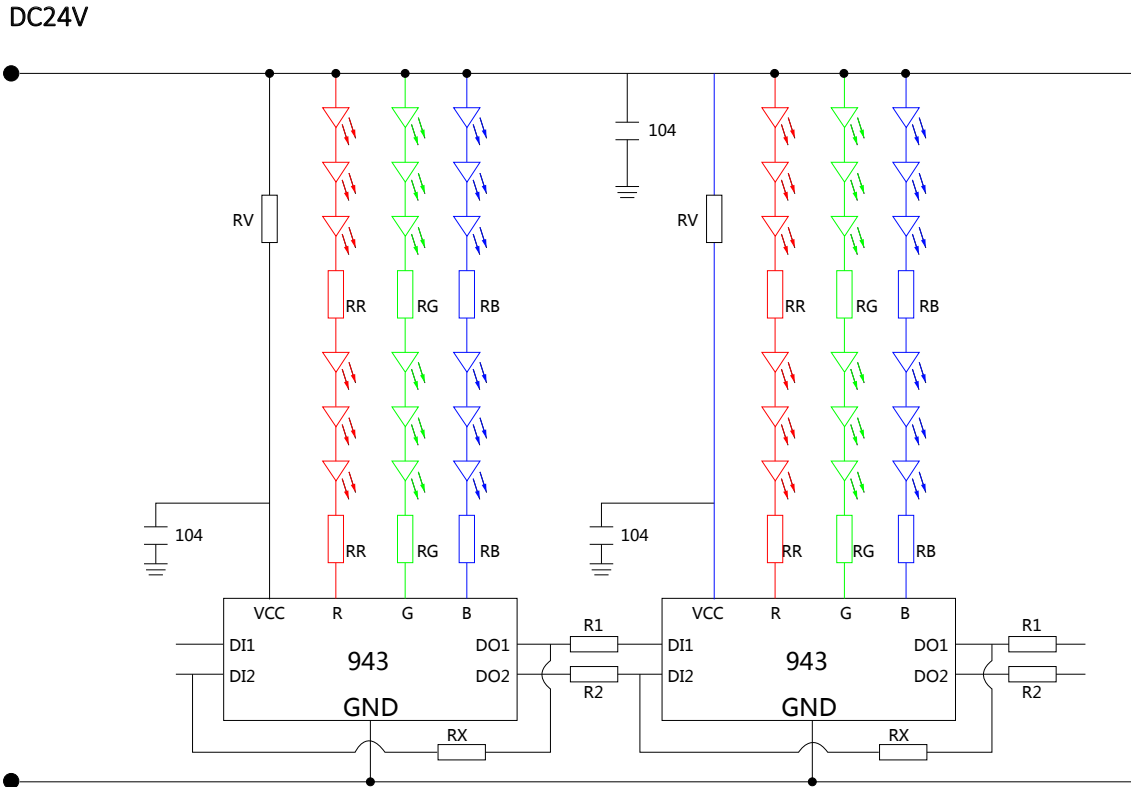
AB – FA 0 1 2 I 8 – 1 9 7 1 2 – X A 1

Schematic Diagram :



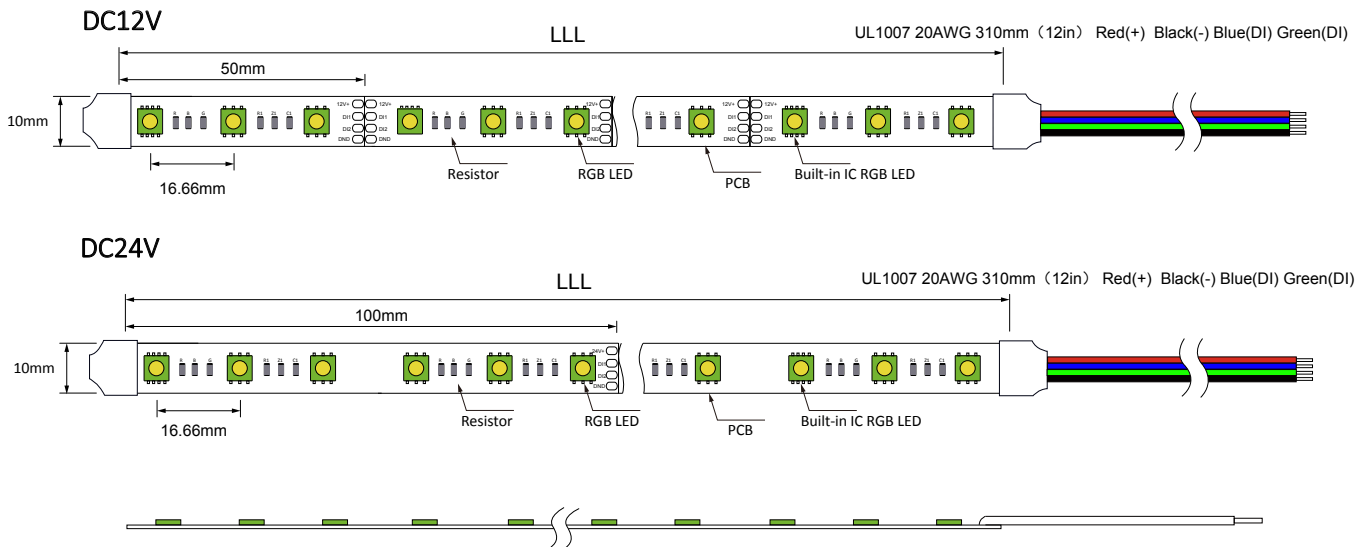
DC12V





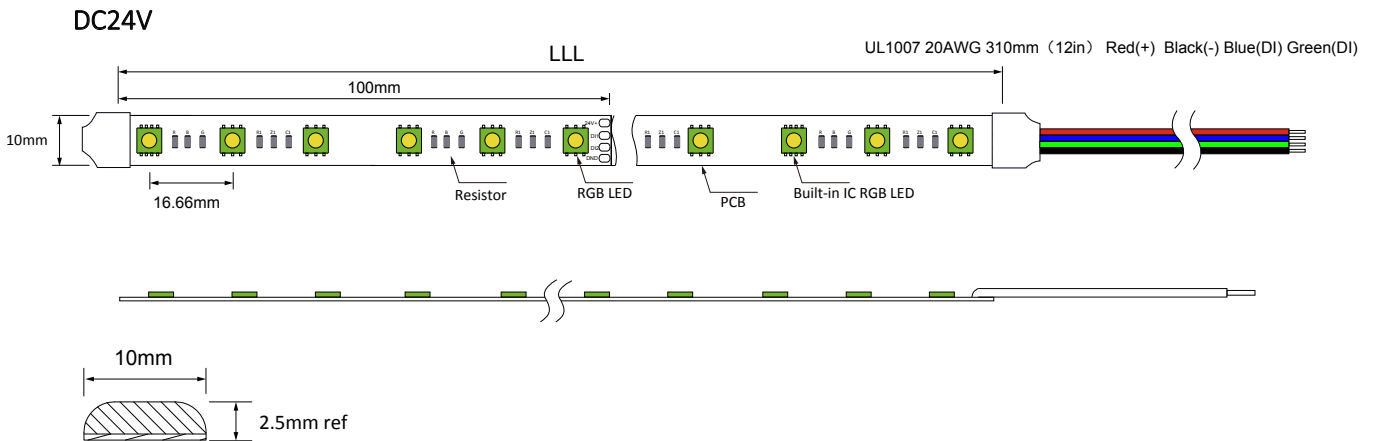
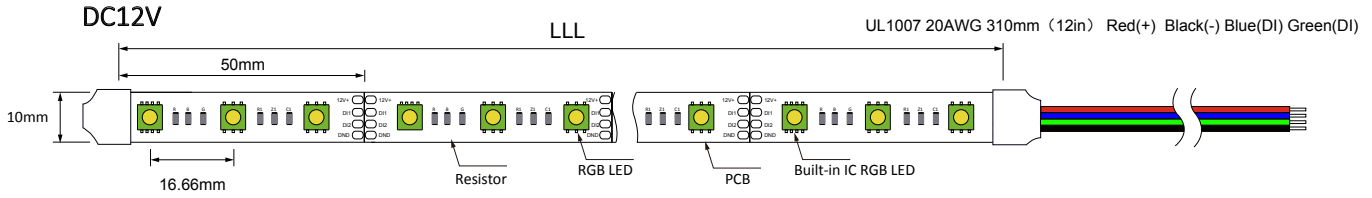
Outline Dimension:

AB-FA:

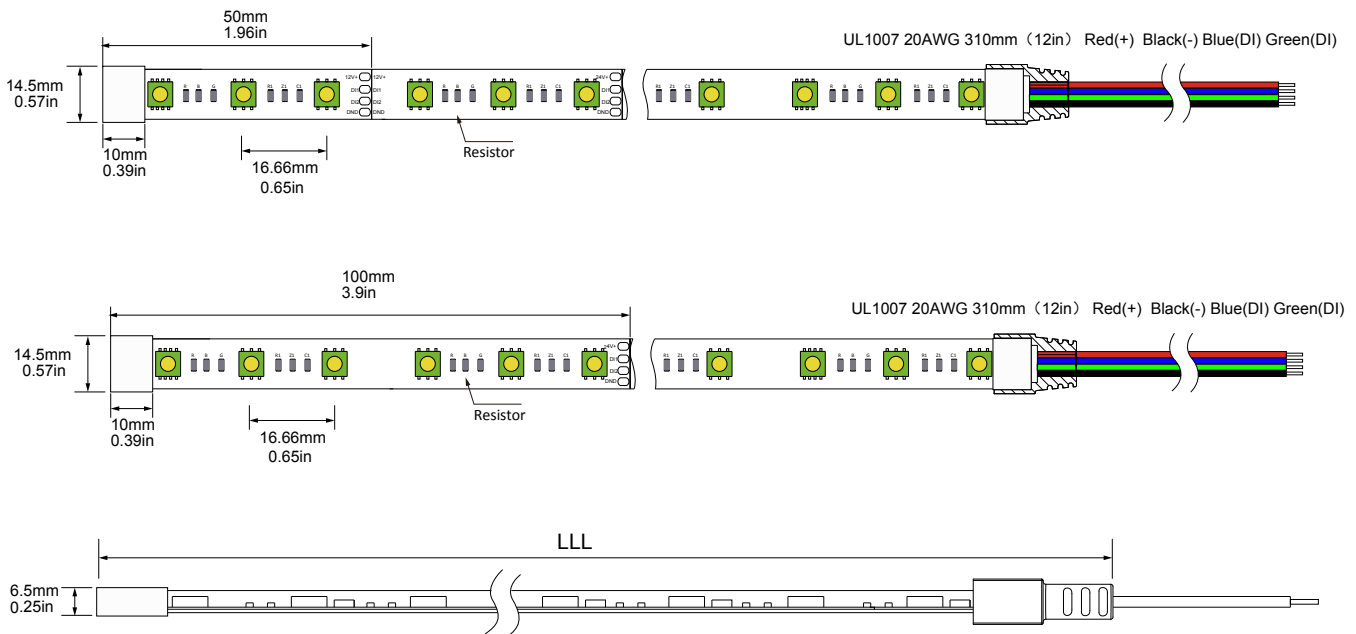


AB-FYVVVI8 Addressable Flexible Light Series

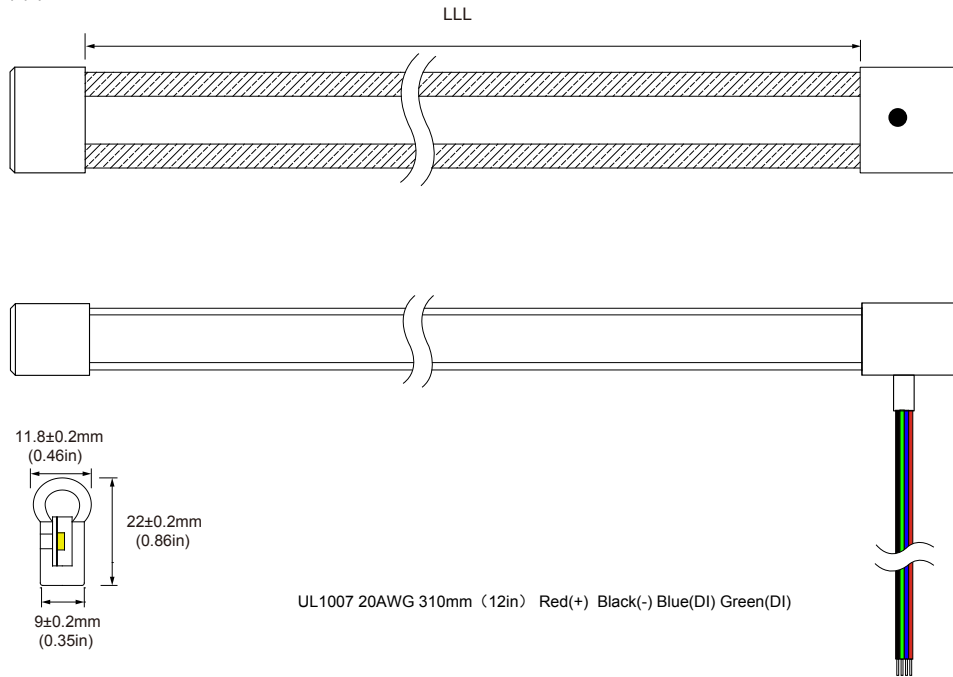
AB-FC:



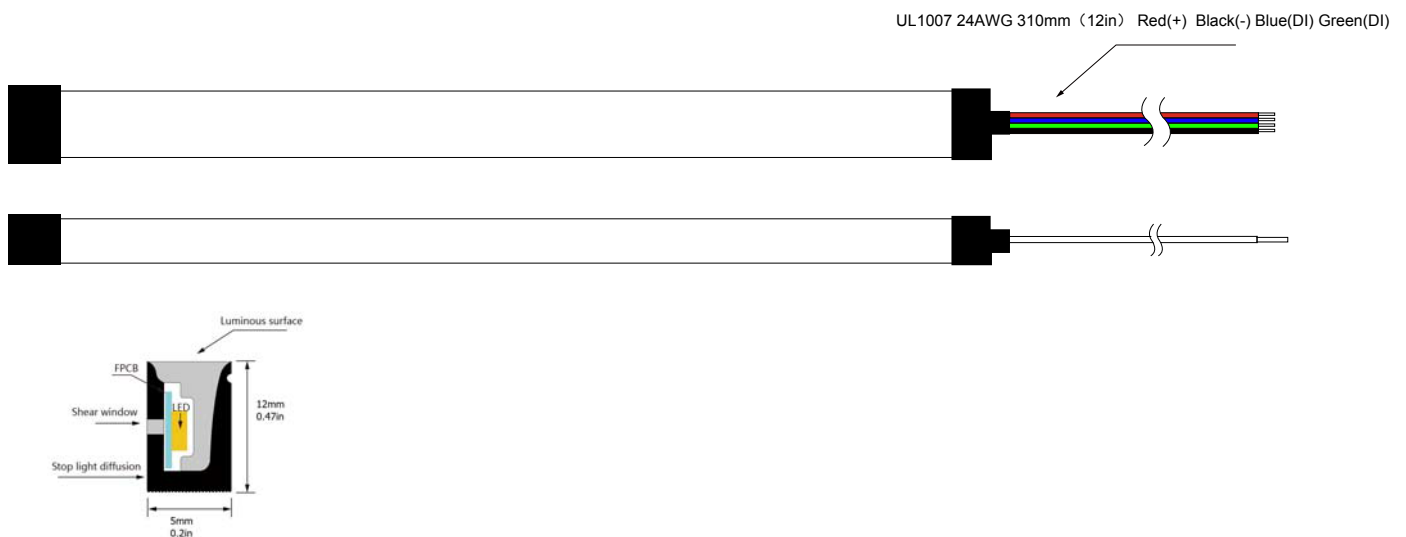
AB-FD:



AB-FF:



AB-FH



1. Picture refers to AB-FA type , for other types of coating, please refer to AB-FC, AB-FD, AB-FF and AB-FH.
2. Cuttable length: For 5V, every 11.3/8.3mm is cuttable for 12V, every 50mm is cuttable; for 24V, every 100mm in cuttable

AB-FYVVVI8 Addressable Flexible Light Series

Characteristics:

Table 1. Configurations for AB-FYVVVIZ Addressable Flexible Light Series.

OPERATING VOLTAGE _(V)	CURRENT _(A/m)	POWER _(W/m)	LENGTH ³ _{m(inch)}	LED COUNT/m
12	AB-FA012I8: 1.4	17.1	5(197)	60
	AB-FC012I8: 1.4	17.1		
	AB-FD012I8: 1.4	17.1		
	AB-FF012I8: 1.4	17.1		
24	AB-FH005I8: 1.4	17.1	3(117)	90/120
	AB-FA024I8: 0.7	17.1	5(197)	60
	AB-FC024I8: 0.7	17.1		
	AB-FD024I8: 0.7	17.1		
	AB-FF024I8: 0.7	17.1		
	AB-FH005I4: 3	15	3(117)	90/120

Table 2. Product performance of AB-FYVVVIZ Addressable Flexible Light Series at T=25 degree C.

PART NUMBER	CCT/ WAVELENGTH	LUMINOUS FLUX ⁴ (m/m)	LUMINOUS EFFICACY (lm/W)
AB-FA012I8-19712-XA1 AB-FA024IZ-19712-XA1	RD: Red 620-625nm	NA	5.7
	GR: Green 520-525nm	NA	5.7
	BL: Blue 465-470nm	NA	5.7
AB-FC012I8-19712-XA1 AB-FC024IZ-19712-XA1	RD: Red 620-625nm	NA	5.7
	GR: Green 520-525nm	NA	5.7
	BL: Blue 465-470nm	NA	5.7
AB-FD012I8-19712-XA1 AB-FD024IZ-19712-XA1	RD: Red 620-625nm	NA	5.7
	GR: Green 520-525nm	NA	5.7
	BL: Blue 465-470nm	NA	5.7
AB-FF012I8-19712-XA1 AB-FF024IZ-19712-XA1	RD: Red 620-625nm	NA	5.7
	GR: Green 520-525nm	NA	5.7
	BL: Blue 465-470nm	NA	5.7
AB-FH005I8-11712-XA1	RD: Red 620-625nm	NA	5
	GR: Green 520-525nm	NA	5
	BL: Blue 465-470nm	NA	5

Note:

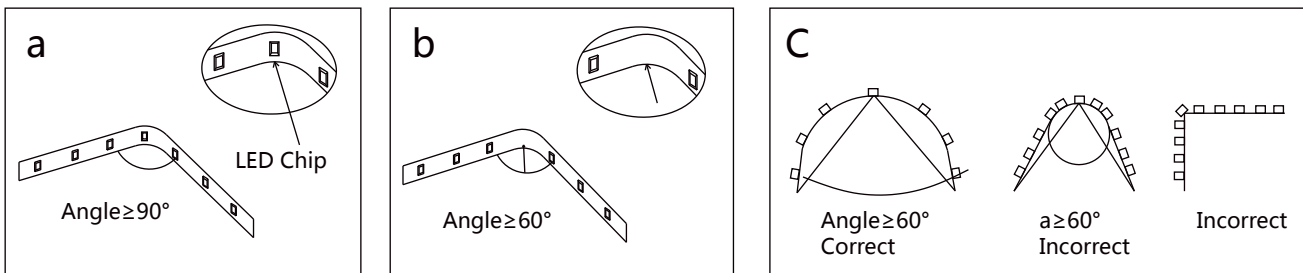
Standard unit length: 5m or 10m/roll, for custom length, please contact aboc@americanbrightled.com.
Luminous flux ±10% is allowed.

AB-FYVVVIZ Addressable Flexible Light Series

Table 3. Accessory list

Item	Size (mm)	Description	Compatible to	Image
AB-M-SS-10-12-L20	20x10x13	Silicon mounting bracket	AB-FF series	
AB-M-SI-RBLL-06	18.3x6x6	Silicon mounting bracket	AB-FA series AB-FC series AB-FD series	
AB-M-AL-20-09-1000	5000x15x10	Aluminum groove	AB-FB series	
AB-M-SS-18-08-L20	20x18x10	Stainless mounting bracket	AB-FB series	
AB-M-S-7-9-L7	7x6x12	Stainless mounting bracket	AB-FH series	

Installation Instructions:



a: use an angle greater or equal to 90 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle≥90degree)

b: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle≥60degree)

c: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle≥60degree) In the convex position the angle should not reach 90 degrees .See above diagram.

Maximum Flexibility Precaution

NOTE: DO NOT BEND TO A RADIUS OF LESS THAN 0.59 INCH

NOTE: SHARP BENDING ISN'T ALLOWABLE

NOTE: DO NOT AXIAL BEND TO THE HEIGHT OF MORE THAN 19.8mm WITHIN 0.78 INCH SEGMENT

NOTE: DO NOT HORIZONTAL BEND TO A RADIUS OF LESS THAN 18 INCH

NOTE: DO NOT TWIST MORE THAN 90° OVER THE LENGTH OF ONE 24v SEGMENT/ TWO 12v SEGMENTS (4" TOTAL LENGTH)

Product Packaging

Table 4. Packaging information

Model	QTY	Image
AB-FA series AB-FC series AB-FD series	1 roll/per ESD bag 10bags/carton	
AB-FB series AB-FF series AB-FH series	1 roll/per tray 10 tray/carton	

Note:

- 1.10 bags or tray/carton; QTY/bag varies per different unit lengths.
- 2.Standard unit length: 5m or 10m/roll, 1 roll/bag.

AB-FYVVV18 Addressable Flexible Light Series