



Simply brighter.



**Flexglo™ F10 SERIES**




# Flexglo™ F10 Series

By adopting SMD LED, FPCB and automated production technologies in 2013, we upgraded the first generation of SMD LED flex neon with flat lighting surface launched in 2006, and it was officially renamed FlexgloF10 in 2019.



The technical innovations have brought Insulfit™ to ClearTech™, which is pioneering mechanical design enabling field-assembled connector up to IP67 protection and replace conventional point contact connector. Also the dual injection-moulded connector was developed with IP68 protection for FlexgloF10.



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- P 007 Monochrome (PVC & Silicone)





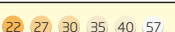
# Flexglo™ F10 Portfolio

## Flexglo™ F10 PVC High Voltage


Product Series	Voltage	Category	Bending Direction		Page
F10B	AC230V	F10B Monochrome-Colorful Light	HB		F10 025
		F10B Monochrome-White Light	HB		F10 027
		Wire Diagram	HB		F10 029

## Flexglo™ F10 PVC

## Optional Connector

Product Series	Voltage	Category	Bending Direction		Page	Swivel	Sleeve	Snap	Injection -Moulded	Dual Injection -Moulded	Page
F10B	DC24V	F10B Monochrome-Colorful Light & Jacket	HB		F10 007	IP20	N/A	IP67	IP67	IP68	F10 031
		F10B Monochrome-Colorful Light	HB		F10 009						
		F10B Monochrome-White Light (CRI80, 90, 95)	HB		F10 011						
	DC12V	F10B Monochrome-Colorful Light	HB		F10 009						
		F10B Monochrome-White Light (CRI80, 90, 95)	HB		F10 011						

## Wiring Diagram

Lighting Effect	Monochrome
Wires	<b>F10B</b> 
Page	F10 021

## Optional Mounting profile

					
Name	Aluminum Profile	Flange Aluminum Profile	Serrated Aluminum Profile	Flange Serrated Aluminum Profile	Bendable Serrated Aluminum Profile
Item Code	A/PL	FA/PL	SA/PL	FSA/PL	BSA/PL
Length (mm)	35,500, 1000, 2000	35,500, 1000, 2000	20, 500, 1000, 2000	20, 500, 1000, 2000	500, 1000
Page	F10 053	F10 054	F10 055	F10 056	F10 057


# Flexglo™ F10 Portfolio

Flexglo™ F10 Silicone						Optional Connector				
Product Series	Voltage	Category	Bending Direction		Page	Swivel	Sleeve	Snap	Silicone Injection -Moulded	Page
F10B	DC24V	F10B Monochrome-Colorful Light	HB	<div><div></div><div></div><div></div><div></div></div>	F10 015	IP20	N/A	IP67	IP68	F10 031
		F10B Monochrome-White Light (CRI80, 90, 95)	HB	<div><div>22</div><div>27</div><div>30</div><div>35</div><div>40</div><div>57</div></div>	F10 017					
	DC12V	F10B Monochrome-Colorful Light	HB	<div><div></div><div></div><div></div><div></div></div>	F10 015					
		F10B Monochrome-White Light (CRI80, 90, 95)	HB	<div><div>22</div><div>27</div><div>30</div><div>35</div><div>40</div><div>57</div></div>	F10 017					

# Flexglo™ F10 Technology Checklist

Category		Technology														
		V-Optic™	Color-matching Algorithm	Brand LED	CRI95	High Lumen Output	Built-in Constant Current IC	Bielectrode Packaging	1+3oz PCB	Interstitial Via Hole	Decentifier™	PinBoost™	TwinFlex™	DryWire™	Insulfit™	C-Mask™
F10-PVC	AC230V Colorful Light	V						V	V	V	V	V				V
	AC230V White Light	V	V					V	V	V	V	V				V
	Colorful Light & Jacket	V						V	V	V		V		V	V	V
	Colorful Light	V						V	V	V		V		V	V	V
	White Light	V	V		V			V	V	V		V		V	V	V
F10-Silicone	Colorful Light	V						V	V	V		V	V	V	V	V
	White Light	V	V		V			V	V	V		V	V	V	V	V

Flexglo™ F10 Parameter Summary (PVC)

Product Series	Lighting Effect	Category	Item Code	Voltage (V)	Power (W/m)	Circuit Type	Bending Direction	Min. Bending Diameter (mm)	Unit/m	Min. Cutting Length (mm)	Min. Cutting Length (in)	Color/CCT	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft
<div>F10</div> <div><div>1/2" Diameter</div><div></div><div>9mm(0.354")</div></div>	B	AC230V Colorful Light	C-FR-F10B-HB-AC230-R-WM-72-5W-1000	230	5	AC	HB	90	1	1000	39.37	Red	N/A	N/A	N/A	40	12
			C-FR-F10B-HB-AC230-G-WM-72-5W-1000	230	5	AC		90	1	1000	39.37	Green	N/A	N/A	N/A	80	24
			C-FR-F10B-HB-AC230-B-WM-72-5W-1000	230	5	AC		90	1	1000	39.37	Blue	N/A	N/A	N/A	12	4
			C-FR-F10B-HB-AC230-A-WM-72-5W-1000	230	5	AC		90	1	1000	39.37	Amber	N/A	N/A	N/A	60	18
			C-FR-F10B-HB-AC230-22K-WM-72-80-5W-1000	230	5	AC		90	1	1000	39.37	2200K	<6SDCM	80	N/A	110	34
		AC230V White Light	C-FR-F10B-HB-AC230-27K-WM-72-80-5W-1000	230	5	AC		90	1	1000	39.37	2700K	<6SDCM	80	N/A	110	34
			C-FR-F10B-HB-AC230-30K-WM-72-80-5W-1000	230	5	AC		90	1	1000	39.37	3000K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-AC230-35K-WM-72-80-5W-1000	230	5	AC		90	1	1000	39.37	3500K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-AC230-40K-WM-72-80-5W-1000	230	5	AC		90	1	1000	39.37	4000K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-AC230-57K-WM-72-80-5W-1000	230	5	AC		90	1	1000	39.37	5700K	<6SDCM	80	N/A	110	34
		Colorful Light & Jacket	C-FR-F10B-HB-24CV-R-RR-72-3.5W-125	24	3.5	CV		90	8	125	4.92	Red	N/A	N/A	N/A	25	8
			C-FR-F10B-HB-24CV-G-GG-72-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	Green	N/A	N/A	N/A	50	15
			C-FR-F10B-HB-24CV-B-BB-72-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	Blue	N/A	N/A	N/A	10	3
		Colorful Light	C-FR-F10B-HB-24CV-R-WM-72-3.5W-125	24	3.5	CV		90	8	125	4.92	Red	N/A	N/A	N/A	45	14
			C-FR-F10B-HB-24CV-G-WM-72-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	Green	N/A	N/A	N/A	80	24
			C-FR-F10B-HB-24CV-B-WM-72-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	Blue	N/A	N/A	N/A	15	5
			C-FR-F10B-HB-24CV-A-WM-72-3.5W-125	24	3.5	CV		90	8	125	4.92	Amber	N/A	N/A	N/A	50	15
			C-FR-F10B-HB-12CV-R-WM-72-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Red	N/A	N/A	N/A	45	14
			C-FR-F10B-HB-12CV-G-WM-72-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Green	N/A	N/A	N/A	80	24
			C-FR-F10B-HB-12CV-B-WM-72-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Blue	N/A	N/A	N/A	15	5
			C-FR-F10B-HB-12CV-A-WM-72-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Amber	N/A	N/A	N/A	50	15
			C-FR-F10B-HB-24CV-22K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	2200K	<6SDCM	80	N/A	110	34
			C-FR-F10B-HB-24CV-27K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	2700K	<6SDCM	80	N/A	110	34
		White Light	C-FR-F10B-HB-24CV-30K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3000K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-24CV-35K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3500K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-24CV-40K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	4000K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-24CV-57K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	5700K	<6SDCM	80	N/A	110	34
			C-FR-F10B-HB-24CV-27K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	2700K	<6SDCM	90	35-80	90	27
			C-FR-F10B-HB-24CV-30K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3000K	<6SDCM	90	35-80	90	27
			C-FR-F10B-HB-24CV-35K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3500K	<6SDCM	90	35-80	100	30
			C-FR-F10B-HB-24CV-40K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	4000K	<6SDCM	90	35-80	100	30
			C-FR-F10B-HB-24CV-30K-WM-72-95-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3000K	<6SDCM	95	80-99	75	23
			C-FR-F10B-HB-12CV-22K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	2200K	<6SDCM	80	N/A	110	34
			C-FR-F10B-HB-12CV-27K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	2700K	<6SDCM	80	N/A	110	34
			C-FR-F10B-HB-12CV-30K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3000K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-12CV-35K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3500K	<6SDCM	80	N/A	120	37
			C-FR-F10B-HB-12CV-40K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	4000K	<6SDCM	80	N/A	110	34
			C-FR-F10B-HB-12CV-27K-WM-72-90-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	2700K	<6SDCM	90	35-80	90	27
			C-FR-F10B-HB-12CV-30K-WM-72-90-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3000K	<6SDCM	90	35-80	90	27
			C-FR-F10B-HB-12CV-35K-WM-72-90-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3500K	<6SDCM	90	35-80	100	30
			C-FR-F10B-HB-12CV-40K-WM-72-90-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	4000K	<6SDCM	90	35-80	100	30
			C-FR-F10B-HB-12CV-30K-WM-72-95-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3000K	<6SDCM	95	80-99	75	23

Flexglo™ F10 Parameter Summary (Silicone)

Product Series	Lighting Effect	Category	Item Code	Voltage (V)	Power (W/m)	Circuit Type	Bending Direction	Min. Bending Diameter (mm)	Unit/m	Min. Cutting Length (mm)	Min. Cutting Length (in)	Color/CCT	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft
F10	B	Colorful Light	C-SFR-F10B-HB-24CV-R-WM-72-3.5W-125	24	3.5	CV	HB	90	8	125	4.92	Red	N/A	N/A	N/A	50	15
			C-SFR-F10B-HB-24CV-G-WM-72-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	Green	N/A	N/A	N/A	130	40
			C-SFR-F10B-HB-24CV-B-WM-72-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	Blue	N/A	N/A	N/A	25	8
			C-SFR-F10B-HB-24CV-A-WM-72-3.5W-125	24	3.5	CV		90	8	125	4.92	Amber	N/A	N/A	N/A	50	15
			C-SFR-F10B-HB-12CV-R-WM-72-3.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Red	N/A	N/A	N/A	65	20
			C-SFR-F10B-HB-12CV-G-WM-72-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Green	N/A	N/A	N/A	130	40
			C-SFR-F10B-HB-12CV-B-WM-72-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Blue	N/A	N/A	N/A	25	8
			C-SFR-F10B-HB-12CV-A-WM-72-3.5W-41.7	12	4.5	CV		90	24	41.7	1.64	Amber	N/A	N/A	N/A	65	20
		White Light	C-SFR-F10B-HB-24CV-22K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	2200K	<5SDCM	80	N/A	110	34
			C-SFR-F10B-HB-24CV-27K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	2700K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-24CV-30K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3000K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-24CV-35K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3500K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-24CV-40K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	4000K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-24CV-57K-WM-72-80-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	5700K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-24CV-27K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	2700K	<5SDCM	90	35-80	105	32
			C-SFR-F10B-HB-24CV-30K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3000K	<5SDCM	90	35-80	105	32
			C-SFR-F10B-HB-24CV-35K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3500K	<5SDCM	90	35-80	105	32
			C-SFR-F10B-HB-24CV-40K-WM-72-90-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	4000K	<5SDCM	90	35-80	105	32
			C-SFR-F10B-HB-24CV-30K-WM-72-95-4.5W-83.3	24	4.5	CV		90	12	83.3	3.28	3000K	<5SDCM	95	80-99	90	27
			C-SFR-F10B-HB-12CV-22K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	2200K	<5SDCM	80	N/A	110	34
			C-SFR-F10B-HB-12CV-27K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	2700K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-12CV-30K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3000K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-12CV-35K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	3500K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-12CV-40K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	4000K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-12CV-57K-WM-72-80-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	5700K	<5SDCM	80	N/A	130	40
			C-SFR-F10B-HB-12CV-27K-WM-72-90-4.5W-41.7	12	4.5	CV		90	24	41.7	1.64	2700K	<5SDCM	90	35-80	105	32
			C-SFR-F10B-HB-12CV-30K-WM-72-90-4.5W-41.7	12	4.5	CV	90	24	41.7	1.64	3000K	<5SDCM	90	35-80	105	32	
C-SFR-F10B-HB-12CV-35K-WM-72-90-4.5W-41.7	12	4.5	CV	90	24	41.7	1.64	3500K	<5SDCM	90	35-80	105	32				
C-SFR-F10B-HB-12CV-40K-WM-72-90-4.5W-41.7	12	4.5	CV	90	24	41.7	1.64	4000K	<5SDCM	90	35-80	105	32				
C-SFR-F10B-HB-12CV-30K-WM-72-95-4.5W-41.7	12	4.5	CV	90	24	41.7	1.64	3000K	<5SDCM	95	80-99	90	27				

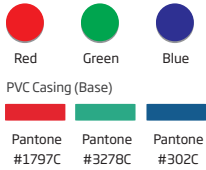


# Flexglo™ F10B Monochrome - Colorful Light & Jacket (PVC)



Certification Mark	UL	CE	8
Test Standard/Directive	UL2108 Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E360029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	SZEM171201237201	NO.20190425001

Light Color



This actual color of the product might be slightly different with the Pantone color listed here due to process variability.

Ambient Working Temperature  
≤4.5W/m -20 ~ 55°C /-4 ~131°F

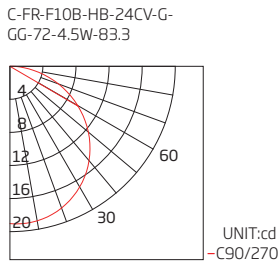
Ambient Installation Temperature  
≥ 0°C / 32°F<sup>[1]</sup>  
[1] PVC products, when operating at below 0°C, are vulnerable to breaking off from twisting and fail to work.

Storage Temperature  
-20 ~ 60°C /-4 ~140°F

Max. Mounting Surface Temperature  
60°C /140°F  
specified in the non-working state of light, and up to 85°C for silicone type.

Constant Voltage  
DC24V

## C-FR-F10B-HB



Min. Bending Diameter  
90mm/3.54in

Min. Cutting Length  
125mm/4.92in, 9LEDs  
83.3mm/3.28in, 6LEDs

9mm/0.35in  
18mm/0.71in

LIGHT SURFACE  
Horizontal Bending

Bending-extreme  
1480 times

Tensile-instantaneous  
38.042kg.f

Twist-extreme  
3474 times

Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.

**Note:**  
1. The illuminated light length shall be an integral multiple of min. cutting length.  
2. The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

## Item Code

C	FR	F10B	HB	24CV	G	GG	72	4.5W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	Power/m	Min. Cutting Length (mm)
Clear	FR= (PVC) Flex Ribbon	F10 B= Monochrome	HB= Horizontal Bending	DC24V & Constant Voltage	R=Red G=Green B=Blue	RR= Red & Red GG= Green & Green BB= Blue & Blue	72	3.5W 4.5W	125 83.3

## Feature

Flexglo™ F10B Monochrome - Colorful Light & Jacket (PVC), with colorful PVC casing, it is a perfect solution for scenes that require outstanding visual effect not only in nighttime but also in daytime, and for projects where the light fixture color and mounting surface color need to be matched. Besides, standard colors of red, green, blue and yellow, bespoke Pantone colors are optional.

Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,

\*The IP67 Injection-moulded Connector is engineered for outdoor use.

\*The P68 Dual Injection-moulded Connector is specially designed for long-term submersible applications.

\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).

This product features a ultra long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™ technology enhancing physical reliability of light engine, the C-Mask™ technology retarding PVC discoloration and enabling lasting colorful jacket and consistent illumination.






## Electrical Parameter

Category	C-FR-F10B-HB	
Voltage (V)	24	24
Current (mA/m)	145.8	187.5
Power (W/m)	3.5	4.5
Circuit Type	CV	CV
LED Type	2835	2835
LEDs Qty/m	72	72
LEDs Qty/unit	9	6
Unit/m	8	12
Min. Cutting Length (mm)	125	83.3
Min. Cutting Length (in)	4.92	3.28

## Optical Parameter

Item Code	Finished Product				LED
	Color	Wavelength	Lumen/m	Lumen/ft	Color Tolerance
C-FR-F10B-HB-24CV-R-RR-72-3.5W-125	Red	618-624nm	25lm	8lm	<3nm
C-FR-F10B-HB-24CV-G-GG-72-4.5W-83.3	Green	522-528nm	50lm	15lm	<3nm
C-FR-F10B-HB-24CV-B-BB-72-4.5W-83.3	Blue	468-474nm	10lm	3lm	<3nm

## Max. Running Length

											
Type	Swivel Connector		Snap Connector		Socket Connector		Injection-moulded Connector		Dual Injection-moulded Connector		
IP Rating	IP20		IP67		IP67		IP67		IP68		
Item Code	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	
DC24V	C-FR-F10B-3.5W	10m/32.8ft	20m/65.6ft	20m/65.6ft	40m/131.2ft	20m/65.6ft	40m/131.2ft	20m/65.6ft	40m/131.2ft	20m/65.6ft	40m/131.2ft
	C-FR-F10B-4.5W	10m/32.8ft	20m/65.6ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft
Dimension of Connector	PageF10 032		PageF10 035		PageF10 038		PageF10 043		Page10 051		
Max.Packing Lenght	PageF10 080										

Note:

- Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
- The maximum running length is based on the light in static full loading status.
- Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector
- The delivery length might be subject to the maximum packing length.

# Flexglo™ F10B Monochrome - Colorful Light (PVC)

  
3 year  
Warranty

  
Solvents  
Resistant

  
UV  
Resistant

  
Flame  
Resistant

  
Salt Water  
Resistant

  
IK10  
Protection

Certification Mark	UL	CE	IS
Test Standard/Directive	UL2108 Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E360029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	SZEM171201237201	NO.20190425001


Light Color


Red


Green


Blue


Amber

**Ambient Working Temperature**  
≤4.5W/m    -20 ~ 55°C / -4 ~ 131°F

**Ambient Installation Temperature**  
≥ 0°C / 32°F<sup>[1]</sup>  
[1] PVC products, when operating at below 0°C, are vulnerable to breaking off from twisting and fail to work.

**Storage Temperature**  
-20 ~ 60°C / -4 ~ 140°F

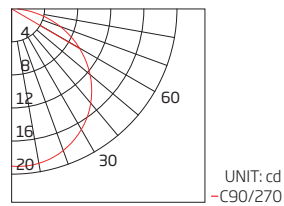
**Max. Mounting Surface Temperature**  
60°C / 140°F  
specified in the non-working state of light, and up to 85°C for silicone type.

**Constant Voltage**  
DC24V, DC12V

## C-FR-F10B-HB

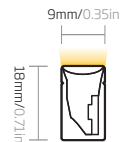


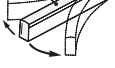
C-FR-F10B-HB-24CV-G-  
WM-72-4.5W-83.3



Min. Bending Diameter  
90mm/3.54in

Min. Cutting Length  
125mm/4.92in, 9LEDs  
83.3mm/3.28in, 6LEDs  
41.7mm/1.64in, 3LEDs



**LIGHT SURFACE**  
  
Horizontal Bending

  
Bending-extreme  
1480 times

  
Tensile-instantaneous  
38.042kg.f

  
Twist-extreme  
3474 times

AVERAGE BEAM ANGLE (50%) : 114.2°

Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.

### Note:

- The illuminated light length shall be an integral multiple of min. cutting length.
- The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

## Item Code

C	FR	F10B	HB	24CV	G	WM	72	4.5W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	Power/m	Min. Cutting Length (mm)
Clear	FR= (PVC) Flex Ribbon	F10 B= Monochrome	HB= Horizontal Bending	DC24V & Constant Voltage	R=Red A=Amber	WM= White & Milky	72	3.5W	125
				DC12V & Constant Voltage	G=Green B=Blue			4.5W	83.3
					R=Red G=Green B=Blue A=Amber			4.5W	41.7



## Feature

Flexglo™ F10B Monochrome - Colorful Light (PVC), rich color options make it suitable for commercial decoration and auxiliary lighting.

Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,









\*The IP67 Injection-moulded Connector is engineered for outdoor use.

\*The IP68 Dual Injection-moulded Connector is specially designed for long-term submersible applications.






\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).

This product features a ultra long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™






## Electrical Parameter

Category	C-FR-F10B-HB		C-FR-F10B-HB		C-FR-F10B-HB			
								
Voltage (V)	24		24		12			
Current (mA/m)	145.8		187.5		375.0			
Power (W/m)	3.5		4.5		4.5			
Circuit Type	CV		CV		CV			
LED Type	2835		2835		2835			
LEDs Qty/m	72		72		72			
LEDs Qty/unit	9		6		3			
Unit/m	8		12		24			
Min. Cutting Length (mm)	125		83.3		41.7			
Min. Cutting Length (in)	4.92		3.28		1.64			

## Optical Parameter

Item Code	Finished Product				LED
	Color	Wavelength	Lumen/m	Lumen/ft	Color Tolerance
C-FR-F10B-HB-24CV-R-WM-72-3.5W-125	 Red	618-624nm	45lm	14lm	<3nm
C-FR-F10B-HB-24CV-G-WM-72-4.5W-83.3	 Green	522-528nm	80lm	24lm	<3nm
C-FR-F10B-HB-24CV-B-WM-72-4.5W-83.3	 Blue	468-474nm	15lm	5lm	<3nm
C-FR-F10B-HB-24CV-A-WM-72-3.5W-125	 Amber	588-594nm	50lm	15lm	<3nm
C-FR-F10B-HB-12CV-R-WM-72-4.5W-41.7	 Red	618-624nm	45lm	14lm	<3nm
C-FR-F10B-HB-12CV-G-WM-72-4.5W-41.7	 Green	522-528nm	80lm	24lm	<3nm
C-FR-F10B-HB-12CV-B-WM-72-4.5W-41.7	 Blue	468-474nm	15lm	5lm	<3nm
C-FR-F10B-HB-12CV-A-WM-72-4.5W-41.7	 Amber	588-594nm	50lm	15lm	<3nm

## Max. Running Length

										
Type	Swivel Connector		Snap Connector		Socket Connector		Injection-moulded Connector		Dual Injection-moulded Connector	
IP Rating	IP20		IP67		IP67		IP67		IP68	
Item Code	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed
DC24V	C-FR-F10B-3.5W	10m/32.8ft	20m/65.6ft	20m/65.6ft	40m/131.2ft	20m/65.6ft	40m/131.2ft	20m/65.6ft	40m/131.2ft	20m/65.6ft
	C-FR-F10B-4.5W	10m/32.8ft	20m/65.6ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	30m/98.4ft
DC12V	C-FR-F10B-4.5W	5m/16.4ft	10m/32.8ft	7.5m/24.6ft	15m/49.2ft	7.5m/24.6ft	15m/49.2ft	7.5m/24.6ft	15m/49.2ft	15m/49.2ft
Dimension of Connector	PageF10 032		PageF10 035		PageF10 038		PageF10 043		Page10 051	
Max.Packing Lenght	PageF10 080									

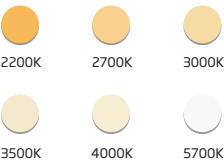
Note:

1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
2. The maximum running length is based on the light in static full loading status.
3. Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector
4. The delivery length might be subject to the maximum packing length.

# Flexglo™ F10B Monochrome - White Light (PVC)



Certification Mark	UL	CE	IS
Test Standard/Directive	UL2108 Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E960029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	SZEM171201237201	NO.20190425001



Ambient Working Temperature  
≤4.5W/m -20 ~ 55°C /-4~131°F

Ambient Installation Temperature  
≥ 0°C / 32°F<sup>[1]</sup>  
[1] PVC products, when operating at below 0°C, are vulnerable to breaking off from twisting and fail to work.

Storage Temperature  
-20 ~ 60°C /-4~140°F

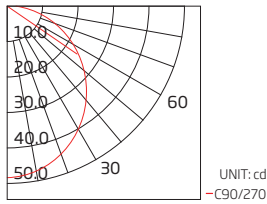
Max. Mounting Surface Temperature  
60°C /140°F  
specified in the non-working state of light, and up to 85°C for silicone type.

Constant Voltage  
DC24V, DC12V

## C-FR-F10B-HB



C-FR-F10B-HB-24CV-30K-  
WM-72-80-4.5W-83.3



Min. Bending Diameter  
90mm/3.54in

Min. Cutting Length  
83.3mm/3.28in, 6LEDs  
41.7mm/1.64in, 3LEDs

Bending-extreme  
1480 times

Tensile-instantaneous  
38.042kg.f

Twist-extreme  
3474 times

LIGHT SURFACE  
Horizontal Bending

AVERAGE BEAM ANGLE (50%) : 115.3°

**Note:**

1. The illuminated light length shall be an integral multiple of min. cutting length.

2. The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.

## Item Code

C	FR	F10B	HB	24CV	30K	WM	72	80	4.5W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	CRI	Power/m	Min. Cutting Length (mm)
Clear	FR= (PVC) Flex Ribbon	F10 B= Monochrome	HB= Horizontal Bending	DC24V & Constant Voltage DC12V & Constant Voltage	22K=2200K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 57K=5700K  27K=2700K 30K=3000K 35K=3500K 40K=4000K  30K=3000K	WM= White & Milky	72	80  90  95	4.5W	83.3 (DC24V) 41.7 (DC12V)

# Feature

Flexglo™ F10B Monochrome - White Light (PVC) is an item designed for architectural market with rated power of 4.5W/m. Its CRI value can reach 95Ra and maximum luminous flux is up to 120lm/m, DC24V and DC12V are optional.

Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,

\*The IP67 Injection-moulded Connector is engineered for outdoor use.

\*The IP68 Dual Injection-moulded Connector is specially designed for long-term submersible applications.

\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).













This product features a ultra long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™ technology enhancing physical reliability of light engine, the C-Mask™ technology retarding PVC discoloration and enabling consistent illumination.

# Electrical Parameter



Category	C-FR-F10B-HB	
Voltage (V)	24	12
Current (mA/m)	187.5	375.0
Power (W/m)	4.5	4.5
Circuit Type	CV	CV
LED Type	2835	2835
LEDs Qty/m	72	72
LEDs Qty/unit	6	3
Unit/m	12	24
Min. Cutting Length (mm)	83.3	41.7
Min. Cutting Length (in)	3.28	1.64

# Optical Parameter

CRI 80

Item Code	Finished Product						LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-FR-F10B-HB-24CV-22K-WM-72-80-4.5W-83.3	 2200K	2238±102K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-24CV-27K-WM-72-80-4.5W-83.3	 2700K	2725±145K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-24CV-30K-WM-72-80-4.5W-83.3	 3000K	3045±175K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-24CV-35K-WM-72-80-4.5W-83.3	 3500K	3465±245K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-24CV-40K-WM-72-80-4.5W-83.3	 4000K	3985±275K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-24CV-57K-WM-72-80-4.5W-83.3	 5700K	5669±355K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-12CV-22K-WM-72-80-4.5W-41.7	 2200K	2238±102K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-12CV-27K-WM-72-80-4.5W-41.7	 2700K	2725±145K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-12CV-30K-WM-72-80-4.5W-41.7	 3000K	3045±175K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-12CV-35K-WM-72-80-4.5W-41.7	 3500K	3465±245K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-12CV-40K-WM-72-80-4.5W-41.7	 4000K	3985±275K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-12CV-57K-WM-72-80-4.5W-41.7	 5700K	5669±355K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87

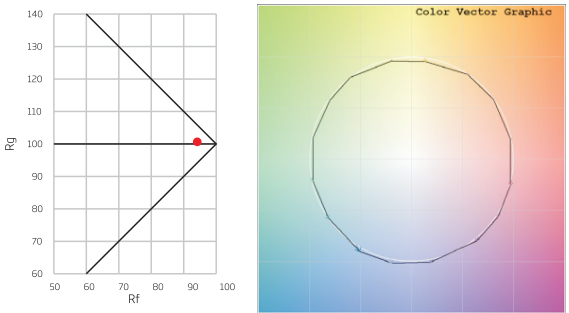
CRI 95

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-FR-F10B-HB-24CV-30K-WM-72-95-4.5W-83.3	 3000K	3045±175K	<6SDCM	80	80~99	75lm	23lm	<2.3SDCM	96~99
C-FR-F10B-HB-12CV-30K-WM-72-95-4.5W-41.7	 3000K	3045±175K	<6SDCM	80	80~99	75lm	23lm	<2.3SDCM	96~99

Item Code	Finished Product								LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft		Color Tolerance	CRI
C-FR-F10B-HB-24CV-27K-WM-72-90-4.5W-83.3	2700K	2725±145K	<6SDCM	90	35~80	90lm	27lm		<2.3SDCM	91~97
C-FR-F10B-HB-24CV-30K-WM-72-90-4.5W-83.3	3000K	3045±175K	<6SDCM	90	35~80	90lm	27lm		<2.3SDCM	91~97
C-FR-F10B-HB-24CV-35K-WM-72-90-4.5W-83.3	3500K	3465±245K	<6SDCM	90	35~80	100lm	30lm		<2.3SDCM	91~97
C-FR-F10B-HB-24CV-40K-WM-72-90-4.5W-83.3	4000K	3985±275K	<6SDCM	90	35~80	100lm	30lm		<2.3SDCM	91~97
C-FR-F10B-HB-12CV-27K-WM-72-90-4.5W-41.7	2700K	2725±145K	<6SDCM	90	35~80	90lm	27lm		<2.3SDCM	91~97
C-FR-F10B-HB-12CV-30K-WM-72-90-4.5W-41.7	3000K	3045±175K	<6SDCM	90	35~80	90lm	27lm		<2.3SDCM	91~97
C-FR-F10B-HB-12CV-35K-WM-72-90-4.5W-41.7	3500K	3465±245K	<6SDCM	90	35~80	100lm	30lm		<2.3SDCM	91~97
C-FR-F10B-HB-12CV-40K-WM-72-90-4.5W-41.7	4000K	3985±275K	<6SDCM	90	35~80	100lm	30lm		<2.3SDCM	91~97

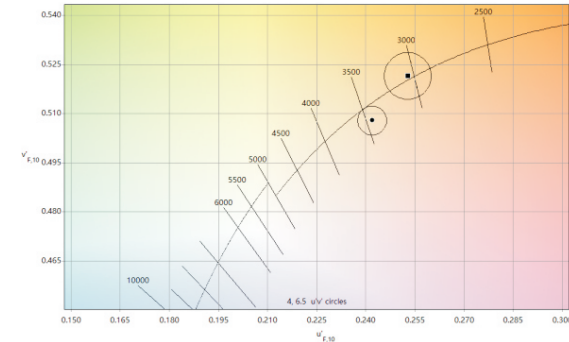
**Note:**  
CCT tolerance and color tolerance both refer to ANSI C78.377 standard.  
The color tolerance of finished products is kept <6SDCM from batch to batch and narrowed to <3SDCM at the same batch.

TM-30



IES TM-30-15 is a new system of several related measures and graphics that can be used together to effectively evaluate and communicate a light source's color rendering properties. The development of the method involved synthesizing multiple related research efforts and combining ideas into a single, cohesive system of objective information that can be used to aid decision-making processes, such as finding the preferred light source for a given application or evaluating the tradeoffs between efficacy and color rendering.






Measure	Abbreviation	Description
Fidelity Index	Rf	Analogous to CIE Ra (CRI). Characterizes the average color shift of the 99 CES to characterize the overall level of similarity between the test source and reference illuminant. Values range from 0 to 100.
Gamut Index	Rg	Compares the area enclosed by the average chromaticity coordinates in each of 16 hue bins to characterize the average saturation level of the test source compared to the reference illuminant. A neutral score is 100, with values greater than 100 indicating an increase in saturation and values less than 100 indicating a decrease in saturation. The range in values grows as fidelity decreases.



Color Matching















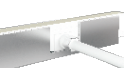








Color temperature value stated on all CLEAR's documents refers to finished products. LED's color temperature would be shifted by the light diffuser made of PVC or silicone material. CLEAR calibrates color temperature and color coordinate of tailor-made LEDs with proprietary color-matching algorithms to produce a precise color temperature and color coordinate close to black body locus for finished products. All LEDs would be strictly tested and tightly controlled to ensure finished products can meet ANSI standard.

Max. Running Length

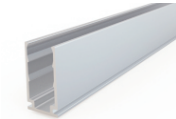


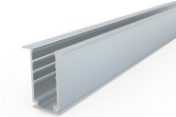

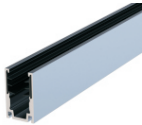

















											
Type		Swivel Connector		Snap Connector		Socket Connector		Injection-moulded Connector		Dual Injection-moulded Connector	
IP Rating		IP20		IP67		IP67		IP67		IP68	
Item Code		Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed
DC24V	C-FR-F10B-4.5W	10m/32.8ft	20m/65.6ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft
DC12V	C-FR-F10B-4.5W	5m/16.4ft	10m/32.8ft	7.5m/24.6ft	15m/49.2ft	7.5m/24.6ft	15m/49.2ft	7.5m/24.6ft	15m/49.2ft	7.5m/24.6ft	15m/49.2ft
Dimension of Connector		PageF10 032		PageF10 035		PageF10 038		PageF10 043		Page10 051	
Max.Packing Lenght		PageF10 080									

**Note:**  
1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.  
2. The maximum running length is based on the light in static full loading status.  
3. Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector  
4. The delivery length might be subject to the maximum packing length.

# F10B Connector (PVC)

Type/IP Rating	Bending Direction	Front Connector End	Front Connector Side from Left	Front Connector Side from Right	Front Connector Bottom	Seamless Middle Connector & Power Feed	Middle Connector & Power T-feed	Jumper	End Cap
Swivel Connector  IP20	HB	  F10B-HB-SW/FC-01/02-E-0.3m/1m 22AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	  F10-SW/EC
Snap Connector  IP67	HB	  F10B-HB-SN/FC-01/02-E-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-SN/FC-01/02-SL-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-SN/FC-01/02-SR-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-SN/FC-01/02-B-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	  F10B-HB-SN/MC-PTF-01/02-0.3m/1m/3m 18AWG*2	  F10B-HB-SN/JU-01/02-0.3m/1m 18AWG*2	F10-SN/EC-01/02
Socket Connector  IP67	HB	  F10B-HB-SO/FC-01/02-E-0.3m/1m/3m/5m 18AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	  F10-SO/EC
Injection-moulded Connector  IP67	HB	  F10B-HB-IM/FC-01/02-E-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-IM/FC-02-SL-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-IM/FC-01-SR-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-IM/FC-01/02-B-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-IM/SEMC-PF-S-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-IM/MC-PTF-0.3m/1m/3m 18AWG*2	  F10B-HB-IM/JU-0.3m/1m 18AWG*2	F10-IM/EC
Dual Injection - moulded Connector  IP68	HB	  F10B-HB-DIM/FC-01/02-E-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-DIM/FC-02-SL-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-DIM/FC-01-SR-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	  F10B-HB-DIM/FC-01/02-B-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	  F10B-HB-DIM/MC-PTF-0.3m/1m/3m 18AWG*2	  F10B-HB-DIM/JU-0.3m/1m 18AWG*2	F10-DIM/EC

# F10 Mounting Profile

Picture	Name/Item Code	Installation Way
	Aluminum Profile F10-A/PL-35/500/1000/2000mm	 
	Flange Aluminum Profile F10-FA/PL-35/500/1000/2000mm	
	Serrated Aluminum Profile F10-SA/PL-20/500/1000/2000mm	     
	Flange Serrated Aluminum Profile F10-FSA/PL-20/500/1000/2000mm	  
	Bendable Serrated Aluminum Profile F10-BSA/PL-500/1000mm	     

# Flexglo™ F10B Monochrome - Colorful Light (Silicone)



Certification Mark	UL	CE	IS 10322
Test Standard/Directive	UL2108 Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E360029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	SZEM171201237201	NO.20190425001

Light Color

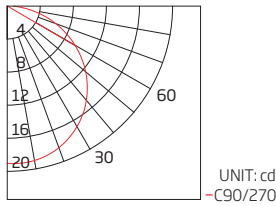


Ambient Working Temperature $\leq 12^{\circ}\text{W}$ $\leq 4.5\text{W/m}$ $-40 \sim 65^{\circ}\text{C}$ / $-40 \sim 149^{\circ}\text{F}$	Ambient Installation Temperature $\geq -40^{\circ}\text{C}$ / $-40^{\circ}\text{F}$	Storage Temperature $-40 \sim 60^{\circ}\text{C}$ / $-40 \sim 140^{\circ}\text{F}$
Max. Mounting Surface Temperature $85^{\circ}\text{C}$ / $185^{\circ}\text{F}$ <i>specified in the non-working state of light.</i>	Constant Voltage DC24V, DC12V	

## C-SFR-F10B-HB

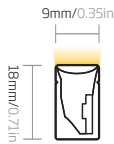


C-SFR-F10B-HB-24CV-G-  
WM-72-4.5W-83.3



Min. Bending Diameter  
90mm/3.54in

Min. Cutting Length  
125mm/4.92in, 9LEDs  
83.3mm/3.28in, 6LEDs



LIGHT SURFACE  
Horizontal Bending

Bending-extreme  
1870 times

Tensile-instantaneous  
> 40 kg.f

Twist-extreme  
4025times

AVERAGE BEAM ANGLE (50%) :  $114.2^{\circ}$

*Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.*

Note:

- The illuminated light length shall be an integral multiple of min. cutting length.
- The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

## Item Code

C	SFR	F10B	HB	24CV	G	WM	72	4.5W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	Power/m	Min. Cutting Length (mm)
Clear	SFR= Silicone Flex Ribbon	F10 B= Monochrome	HB= Horizontal Bending	DC24V & Constant Voltage DC12V & Constant Voltage	R=Red A=Amber G=Green B=Blue R=Red A=Amber G=Green B=Blue	WM= White & Milky	72	3.5W 4.5W	125 83.3 (DC24V) 41.7 (DC12V)

# Feature

Flexglo™ F10B Monochrome - Colorful Light (Silicone), thanks to the excellent weatherproof and UV-resistant performance of silicone material, it features a wide ambient working temperature range of -40-65 °C, especially suitable for harsh environment application.




Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,

\*The IP68 Injection-moulded Connector is engineered for outdoor use, owing to its elegant appearance and strong adhesiveness acquired by the liquid silicone injection workmanship.









\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).

This product features a ultra long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™ technology enhancing physical reliability of light engine, the TwinFlex™ technology improving the conductivity and optimizing heat dissipation performance, the C-Mask™ technology making the light body self-cleaning and anti-UV and enabling consistent illumination.

# Electrical Parameter





Category	C-SFR-F10B-HB 		C-SFR-F10B-HB 	C-SFR-F10B-HB 
Voltage (V)	24		24	12
Current (mA/m)	145.8		187.5	375
Power (W/m)	3.5		4.5	4.5
Circuit Type	CV		CV	CV
LED Type	2835		2835	2835
LEDs Qty/m	72		72	72
LEDs Qty/unit	9		6	3
Unit/m	8		12	24
Min. Cutting Length (mm)	125		83.3	41.7
Min. Cutting Length (in)	4.92		3.28	1.64

# Optical Parameter

Item Code	Finished Product				LED
	Color	Wavelength	Lumen/m	Lumen/ft	Color Tolerance
C-SFR-F10B-HB-24CV-R-WM-72-3.5W-125	 Red	618-624nm	50lm	15lm	<3nm
C-SFR-F10B-HB-24CV-G-WM-72-4.5W-83.3	 Green	522-528nm	130lm	40lm	<3nm
C-SFR-F10B-HB-24CV-B-WM-72-4.5W-83.3	 Blue	468-474nm	25lm	8lm	<3nm
C-SFR-F10B-HB-24CV-A-WM-72-3.5W-125	 Amber	588-594nm	50lm	15lm	<3nm
C-SFR-F10B-HB-12CV-R-WM-72-4.5W-41.7	 Red	618-624nm	65lm	20lm	<3nm
C-SFR-F10B-HB-12CV-G-WM-72-4.5W-41.7	 Green	522-530nm	130lm	40lm	<3nm
C-SFR-F10B-HB-12CV-B-WM-72-4.5W-41.7	 Blue	468-474nm	25lm	8lm	<3nm
C-SFR-F10B-HB-12CV-A-WM-72-4.5W-41.7	 Amber	588-594nm	65lm	20lm	<3nm

Note: Color Tolerance refers to CLEAR standard for LED.

# Max. Running Length

									
Type		Swivel Connector		Snap Connector		Socket Connector		Silicone Injection-moulded Connector	
IP Rating		IP20		IP67		IP67		IP68	
Item Code		Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed
DC24V	C-SFR-F10B-3.5W	15m/49.2ft	30m/98.4ft	30m/98.4ft	60m/196.8ft	30m/98.4ft	60m/196.8ft	30m/98.4ft	60m/196.8ft
	C-SFR-F10B-4.5W	15m/49.2ft	30m/98.4ft	30m/98.4ft	60m/196.8ft	30m/98.4ft	60m/196.8ft	30m/98.4ft	60m/196.8ft
DC12V	C-SFR-F10B-4.5W	7.5m/24.6ft	15m/49.2ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/196.8ft
Dimension of Connector		PageF10 032		PageF10 035		PageF10 038		Page10 047	
Max.Packing Lenght				PageF10 080					

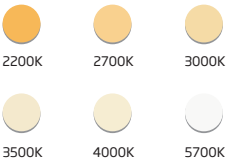
Note:

- Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
- The maximum running length is based on the light in static full loading status.
- Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector
- The delivery length might be subject to the maximum packing length.

# Flexglo™ F10B Monochrome - White Light (Silicone)



Certification Mark	UL	CE	RoHS
Test Standard/Directive	UL2108 Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E360029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	SZEM171201237201	NO.20190425001

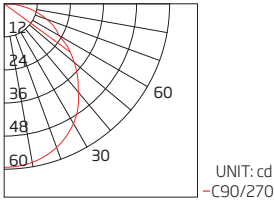


Ambient Working Temperature ≤4.5W/m -40 ~ 65°C /-40 ~131°F	Ambient Installation Temperature ≥ -40°C /-40°F	Storage Temperature -40 ~ 60°C /-40 ~140°F
Max. Mounting Surface Temperature 85°C /185°F <small>specified in the non-working state of light.</small>	Constant Voltage DC24V, DC12V	

## C-SFR-F10B-HB



C-SFR-F10B-HB-24CV-30K-  
WM-72-80-4.5W-83.3



Min. Bending Diameter 90mm/3.54in	Min. Cutting Length 83.3mm/3.28in, 6LEDs	LIGHT SURFACE
Bending-extreme 1870 times	Tensile-instantaneous >40kg.f	Twist-extreme 4025times

AVERAGE BEAM ANGLE (50%) : 108.8° Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.

**Note:**  
1. The illuminated light length shall be an integral multiple of min. cutting length.  
2. The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

## Item Code

C	SFR	F10B	HB	24CV	30K	WM	72	80	4.5W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	CRI	Power/m	Min. Cutting Length (mm)
Clear	SFR= Silicone Flex Ribbon	F10 B= Monochrome	HB= Horizontal Bending	DC24V & Constant Voltage DC12V & Constant Voltage	22K=2200K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 57K=5700K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 30K=3000K	WM= White & Milky	72	80 90 95	4.5W	83.3 (DC24V) 41.7 (DC12V)



# Feature

Flexglo™ F10B Monochrome - White Light (Silicone) is an item designed for architectural market with rated power 4.5W/m. Its CRI value can reach 95Ra and maximum luminous flux is up to 130lm/m. Thanks to the excellent weatherproof and UV-resistant performance of silicone material, it features a wide ambient working temperature range of -40-65 °C, especially suitable for harsh environment application.

Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,  
\*The IP68 Injection-moulded Connector is engineered for outdoor use, owing to its elegant appearance and strong adhesiveness acquired by the liquid silicone injection workmanship.  
\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).













This product features a ultra long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™ technology enhancing physical reliability of light engine, the TwinFlex™ technology improving the conductivity and optimizing heat dissipation performance, the C-Mask™ technology making the light body self-cleaning and anti-UV and enabling consistent illumination.

# Electrical Parameter



Category	C-SFR-F10B-HB	C-SFR-F10B-HB
Voltage (V)	24	12
Current (mA/m)	187.5	375
Power (W/m)	4.5	4.5
Circuit Type	CV	CV
LED Type	2835	2835
LEDs Qty/m	72	72
LEDs Qty/unit	6	3
Unit/m	12	24
Min. Cutting Length (mm)	83.3	41.7
Min. Cutting Length (in)	3.28	1.64

# Optical Parameter

CRI 80

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	Lumen/m	Lumen/ft		Color Tolerance	CRI
C-SFR-F10B-HB-24CV-22K-WM-72-80-4.5W-83.3	 2200K	2238±102K	<5SDCM	80	110lm	34lm		<2.3SDCM	82~87
C-SFR-F10B-HB-24CV-27K-WM-72-80-4.5W-83.3	 2700K	2725±145K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-24CV-30K-WM-72-80-4.5W-83.3	 3000K	3045±175K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-24CV-35K-WM-72-80-4.5W-83.3	 3500K	3465±245K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-24CV-40K-WM-72-80-4.5W-83.3	 4000K	3985±275K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-24CV-57K-WM-72-80-4.5W-83.3	 5700K	5669±355K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-12CV-22K-WM-72-80-4.5W-41.7	 2200K	2238±66K	<5SDCM	80	110lm	34lm		<2.3SDCM	82~87
C-SFR-F10B-HB-12CV-27K-WM-72-80-4.5W-41.7	 2700K	2725±85K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-12CV-30K-WM-72-80-4.5W-41.7	 3000K	3045±105K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-12CV-35K-WM-72-80-4.5W-41.7	 3500K	3465±245K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-12CV-40K-WM-72-80-4.5W-41.7	 4000K	3985±150K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87
C-SFR-F10B-HB-12CV-57K-WM-72-80-4.5W-41.7	 5700K	5669±305K	<5SDCM	80	130lm	40lm		<2.3SDCM	82~87

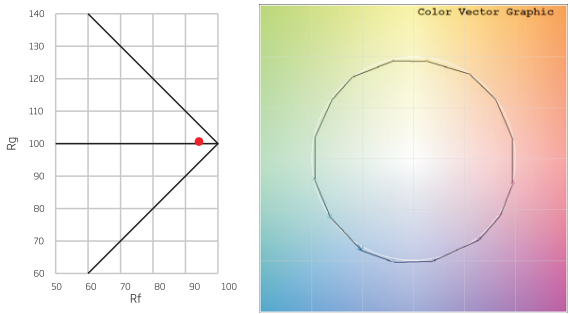
CRI 95

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F10B-HB-24CV-30K-WM-72-95-4.5W-83.3	 3000K	3045±175K	<5SDCM	95	80~99	90lm	27lm	<2.3SDCM	96~99
C-SFR-F10B-HB-12CV-30K-WM-72-95-4.5W-41.7	 3000K	3045±105K	<5SDCM	95	80~99	90lm	27lm	<2.3SDCM	96~99

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F10B-HB-24CV-27K-WM-72-90-4.5W-83.3	2700K	2725±145K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-24CV-30K-WM-72-90-4.5W-83.3	3000K	3045±175K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-24CV-35K-WM-72-90-4.5W-83.3	3500K	3465±245K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-24CV-40K-WM-72-90-4.5W-83.3	4000K	3985±275K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-12CV-27K-WM-72-90-4.5W-41.7	2700K	2725±85K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-12CV-30K-WM-72-90-4.5W-41.7	3000K	3045±105K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-12CV-35K-WM-72-90-4.5W-41.7	3500K	3465±245K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97
C-SFR-F10B-HB-12CV-40K-WM-72-90-4.5W-41.7	4000K	3985±150K	<5SDCM	90	35~80	105lm	32lm	<2.3SDCM	91~97

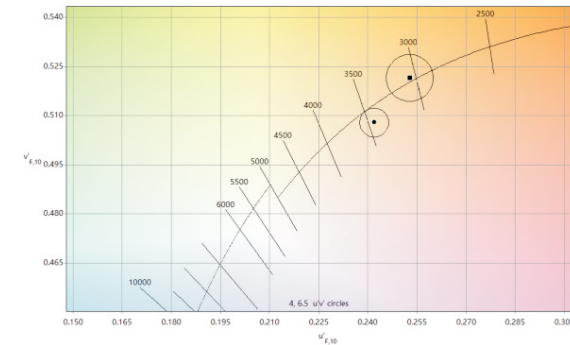
**Note:**  
CCT tolerance and color tolerance both refer to ANSI C78.377 standard.  
The color tolerance of finished products is kept <5SDCM from batch to batch and narrowed to <3SDCM at the same batch.

TM-30



IES TM-30-15 is a new system of several related measures and graphics that can be used together to effectively evaluate and communicate a light source's color rendering properties. The development of the method involved synthesizing multiple related research efforts and combining ideas into a single, cohesive system of objective information that can be used to aid decision-making processes, such as finding the preferred light source for a given application or evaluating the tradeoffs between efficacy and color rendering.





Measure	Abbreviation	Description
Fidelity Index	Rf	Analogous to CIE Ra (CRI). Characterizes the average color shift of the 99 CES to characterize the overall level of similarity between the test source and reference illuminant. Values range from 0 to 100.
Gamut Index	Rg	Compares the area enclosed by the average chromaticity coordinates in each of 16 hue bins to characterize the average saturation level of the test source compared to the reference illuminant. A neutral score is 100, with values greater than 100 indicating an increase in saturation and values less than 100 indicating a decrease in saturation. The range in values grows as fidelity decreases.



Color Matching



















Color temperature value stated on all CLEAR's documents refers to finished products. LED's color temperature would be shifted by the light diffuser made of PVC or silicone material. CLEAR calibrates color temperature and color coordinate of tailor-made LEDs with proprietary color-matching algorithms to produce a precise color temperature and color coordinate close to black body locus for finished products. All LEDs would be strictly tested and tightly controlled to ensure finished products can meet ANSI standard.

Max. Running Length

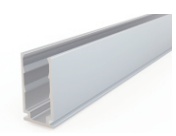


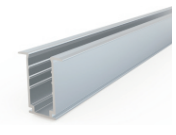



















									
Type		Swivel Connector		Snap Connector		Socket Connector		Silicone Injection-moulded Connector	
IP Rating		IP20		IP67		IP67		IP68	
Item Code		Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed	Single-end Feed	Double-end Feed
DC24V	C-SFR-F10B-4.5W	15m/49.2ft	30m/98.4ft	30m/98.4ft	60m/196.8ft	30m/98.4ft	60m/196.8ft	30m/98.4ft	60m/196.8ft
DC12V	C-SFR-F10B-4.5W	7.5m/24.6ft	15m/49.2ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft	15m/49.2ft	30m/98.4ft
Dimension of Connector		PageF10 032		PageF10 035		PageF10 038		Page10 047	
Max.Packing Length						PageF10 080			

**Note:**  
1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.  
2. The maximum running length is based on the light in static full loading status.  
3. Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector  
4. The delivery length might be subject to the maximum packing length.

# F10B Connector (Silicone)

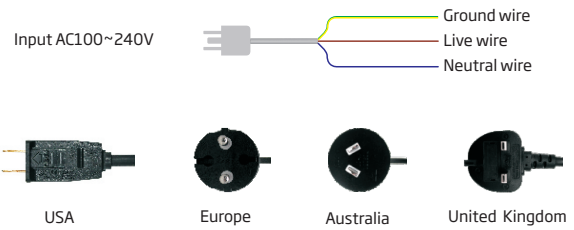
Type/IP Rating	Bending Direction	Front Connector End	Front Connector Side from Left	Front Connector Side from Right	Front Connector Bottom	Seamless Middle Connector & Power Feed	Middle Connector & Power T-feed	Jumper	End Cap
Swivel Connector  IP20	HB		N/A	N/A	N/A	N/A	N/A	N/A	
		F10B-HB-SW/FC-01/02-E-0.3m/1m 22AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	F10-SW/EC
Snap Connector  IP67	HB					N/A			
		F10B-HB-SN/FC-01/02-E-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	F10B-HB-SN/FC-01/02-SL-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	F10B-HB-SN/FC-01/02-SR-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	F10B-HB-SN/FC-01/02-B-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	F10B-HB-SN/MC-PTF-01/02-0.3m/1m/3m 18AWG*2	F10B-HB-SN/JU-01/02-0.3m/1m 18AWG*2	F10-SN/EC-01/02
Socket Connector  IP67	HB		N/A	N/A	N/A	N/A	N/A	N/A	
		F10B-HB-SO/FC-01/02-E-0.3m/1m/3m/5m 18AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	F10-SO/EC
Silicone Injection-moulded Connector  IP68	HB					N/A			
		F10B-HB-SIM/FC-01/02-E-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	F10B-HB-SIM/FC-02-SL-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	F10B-HB-SIM/FC-01-SR-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	F10B-HB-SIM/FC-01/02-B-0.3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	F10B-HB-SIM/MC-PTF-0.3m/1m/3m 18AWG*2	F10B-HB-SIM/JU-0.3m/1m 18AWG*2	F10-SIM/EC

# F10 Mounting Profile

Picture	Name/Item Code	Installation Way
	Aluminum Profile F10-A/PL-35/500/1000/2000mm	 
	Flange Aluminum Profile F10-FA/PL-35/500/1000/2000mm	
	Serrated Aluminum Profile F10-SA/PL-20/500/1000/2000mm	     
	Flange Serrated Aluminum Profile F10-FSA/PL-20/500/1000/2000mm	  
	Bendable Serrated Aluminum Profile F10-BSA/PL-500/1000mm	     

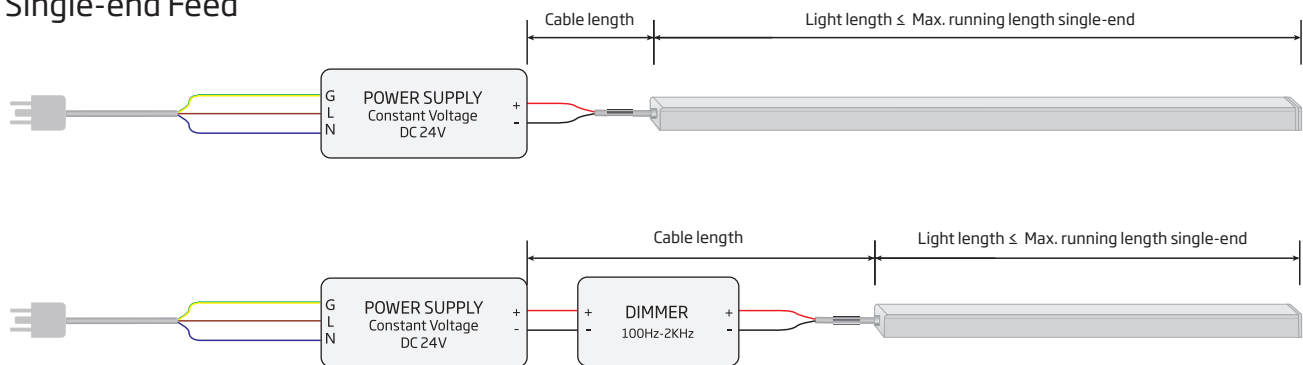
# Flexglo™ F10B Wiring Diagram

1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;
2. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity;
3. Dimming frequency ranges from 100Hz to 2000Hz, and 500Hz is recommended.



4. Types of standard plugs are optional if power cord is purchased from CLEAR.

## Single-end Feed



### Light Length:

The length of the longest single light in parallel connection or sum of lights in series connection.

### Cable Length:

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

### How to Minimize Voltage Drop

1. Please ensure the cable length is not more than the table "Max. Cable Length" according to light length and its wire gauge.
2. Please ensure the light length is less than the cable "Max. Running Length Single-end Feed".

## Max. Running Length Single-end Feed

Input: DC24V

Connector Type	Swivel Connector	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	22AWG*2	18AWG*2	18AWG*2	18AWG*2	18AWG*2
C-FR-F10B-24CV-3.5W	10m/32.8ft	20m/65.6ft	20m/65.6ft	20m/65.6ft	20m/65.6ft
C-FR-F10B-24CV-4.5W	10m/32.8ft	15m/49.2ft	15m/49.2ft	15m/49.2ft	15m/49.2ft
C-SFR-F10B-24CV-3.5W	15m/49.2ft	30m/98.4ft	30m/98.4ft	30m/98.4ft	30m/98.4ft
C-SFR-F10B-24CV-4.5W	15m/49.2ft	30m/98.4ft	30m/98.4ft	30m/98.4ft	30m/98.4ft

Input: DC12V

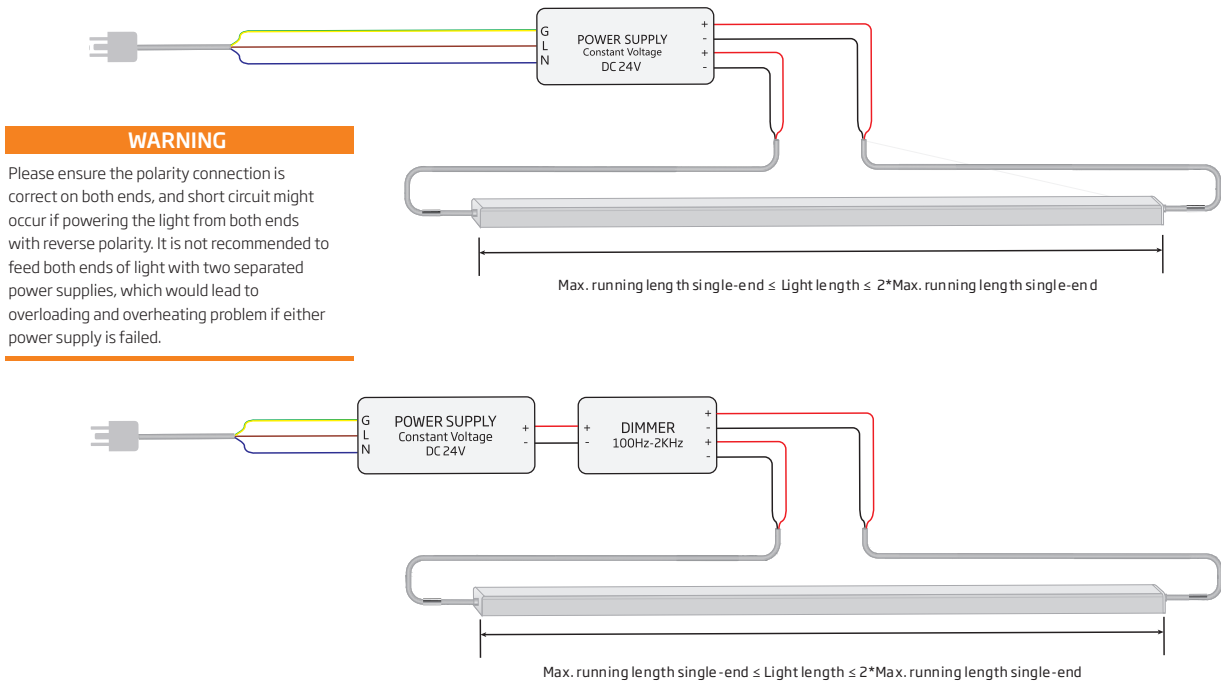
Connector Type	Swivel Connector	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	22AWG*2	18AWG*2	18AWG*2	18AWG*2	18AWG*2
C-FR-F10B-12CV-4.5W	5m/16.4ft	7.5m/24.6ft	7.5m/24.6ft	7.5m/24.6ft	7.5m/24.6ft

Note:

1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
2. The maximum running length is based on the designated light in static full loading status.
3. Above running length is only the light length excluding lengths of connectors.
4. The delivered length might be subject to the maximum packing length.

# Double-end Feed

The following wiring diagram with double-end feed to run length that is longer than max. running length for single-end feed but less than twice the value.



## Light Length:

The length of the longest single light in parallel connection or sum of lights in series connection.

## Cable Length:

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

## How to Minimize Voltage Drop

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for double-end feed.
2. Please ensure the cable length is not more than the table "Max. Cable Length" according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table "Max. Running Length Double-end Feed".

# Max. Running Length Double-end Feed

Input: DC24V					
Connector Type	Swivel Connector	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	22AWG*2	18AWG*2	18AWG*2	18AWG*2	18AWG*2
C-FR-F10B-24CV-3.5W	20m/65.6ft	40m/131.2ft	40m/131.2ft	40m/131.2ft	40m/131.2ft
C-FR-F10B-24CV-4.5W	20m/65.6ft	30m/98.4ft	30m/98.4ft	30m/98.4ft	30m/98.4ft
C-SFR-F10B-24CV-3.5W	30m/98.4ft	60m/196.8ft	60m/196.8ft	60m/196.8ft	60m/196.8ft
C-SFR-F10B-24CV-4.5W	30m/98.4ft	60m/196.8ft	60m/196.8ft	60m/196.8ft	60m/196.8ft

Input: DC12V					
Connector Type	Swivel Connector	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	22AWG*2	18AWG*2	18AWG*2	18AWG*2	18AWG*2
C-FR-F10B-12CV-4.5W	10m/32.8ft	15m/49.2ft	15m/49.2ft	15m/49.2ft	15m/49.2ft

- Note:
1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
  2. The maximum running length is based on the designated light in static full loading status.
  3. Above running length is only the light length excluding lengths of connectors.
  4. The delivered length might be subject to the maximum packing length.

# F10B Max. Cable Length (PVC)

Input: DC24V/DC12V

Item Code	Light Length (m)	Cable Length									
		0.32 mm <sup>2</sup>		0.52 mm <sup>2</sup>		0.81 mm <sup>2</sup>		1.32 mm <sup>2</sup>		2.07 mm <sup>2</sup>	
		22AWG		20AWG		18AWG		16AWG		14AWG	
		m	ft	m	ft	m	ft	m	ft	m	ft
C-FR-F10B-3.5W (DC 24V)	1	136.7	448.4	222.1	728.7	346.0	1135.1	563.8	1849.9	884.2	2900.9
	2	68.6	225.0	111.4	365.6	173.6	569.5	282.9	928.1	443.6	1455.4
	3	46.0	150.9	74.7	245.1	116.4	381.8	189.7	622.3	297.4	975.8
	4	33.2	108.9	53.9	177.0	84.0	275.7	136.9	449.3	214.8	704.6
	5	25.8	84.5	41.9	137.3	65.2	213.9	106.3	348.6	166.6	546.7
	6	21.6	70.8	35.0	115.0	54.6	179.1	89.0	291.9	139.5	457.7
	7	17.8	58.5	29.0	95.1	45.1	148.1	73.6	241.3	115.3	378.4
	8	15.1	49.4	24.5	80.4	38.1	125.2	62.2	204.0	97.5	319.9
	9	12.9	42.3	20.9	68.7	32.6	107.0	53.1	174.3	83.3	273.4
	10	11.1	36.6	18.1	59.4	28.2	92.6	46.0	150.8	72.1	236.6
	11	9.1	30.0	14.8	48.7	23.1	75.9	37.7	123.7	59.1	193.9
	12	8.0	26.2	13.0	42.6	20.2	66.3	33.0	108.1	51.7	169.5
	13	7.0	23.0	11.4	37.3	17.7	58.1	28.9	94.7	45.3	148.5
	14	5.7	18.6	9.2	30.2	14.4	47.1	23.4	76.7	36.7	120.3
	15	4.9	16.2	8.0	26.3	12.5	41.0	20.3	66.8	31.9	104.7
	16	3.9	12.7	6.3	20.6	9.8	32.1	16.0	52.3	25.0	82.1
	17	2.9	9.5	4.7	15.5	7.3	24.1	12.0	39.2	18.7	61.5
	18	2.4	7.8	3.9	12.7	6.0	19.8	9.9	32.3	15.5	50.7
	19	1.9	6.3	3.1	10.3	4.9	16.0	8.0	26.1	12.5	41.0
	20	1.1	3.7	1.8	6.0	2.8	9.3	4.6	15.2	7.3	23.8
C-FR-F10B-4.5W (DC 24V)	1	95.7	313.9	155.5	510.1	242.2	794.6	394.7	1294.9	618.9	2030.6
	2	46.7	153.3	75.9	249.1	118.3	388.1	192.8	632.4	302.3	991.7
	3	30.1	98.7	48.9	160.4	76.2	249.9	124.1	407.2	194.6	638.5
	4	21.7	71.1	35.2	115.5	54.8	180.0	89.4	293.3	140.2	459.9
	5	16.7	54.9	27.2	89.3	42.4	139.1	69.1	226.6	108.3	355.4
	6	13.4	43.9	21.8	71.4	33.9	111.2	55.3	181.3	86.7	284.3
	7	10.8	35.3	17.5	57.3	27.2	89.3	44.4	145.6	69.6	228.3
	8	8.8	28.8	14.3	46.8	22.2	73.0	36.2	118.9	56.8	186.5
	9	7.2	23.5	11.7	38.2	18.1	59.5	29.6	97.0	46.4	152.2
	10	5.7	18.6	9.2	30.3	14.4	47.2	23.4	76.9	36.7	120.5
	11	4.5	14.7	7.3	23.9	11.3	37.2	18.5	60.6	29.0	95.0
	12	3.4	11.3	5.6	18.4	8.7	28.6	14.2	46.6	22.3	73.1
	13	2.6	8.4	4.2	13.7	6.5	21.4	10.6	34.8	16.6	54.6
	14	1.8	5.9	2.9	9.6	4.5	14.9	7.4	24.2	11.6	38.0
	15	1.1	3.6	1.8	5.8	2.8	9.1	4.5	14.8	7.1	23.2
C-FR-F10B-3.5W (DC 12V)	1	37.7	123.7	61.3	201.1	95.5	313.2	155.6	510.4	244.0	800.4
	2	17.3	56.7	28.1	92.2	43.8	143.5	71.3	233.9	111.8	366.8
	3	10.5	34.4	17.0	55.9	26.5	87.0	43.2	141.8	67.8	222.3
	4	7.1	23.2	11.5	37.7	17.9	58.7	29.2	95.7	45.7	150.1
	5	4.5	14.8	7.3	24.0	11.4	37.4	18.6	60.9	29.1	95.5
	6	2.7	8.9	4.4	14.5	6.9	22.6	11.2	36.8	17.6	57.7
	7	1.5	4.8	2.4	7.8	3.7	12.1	6.0	19.7	9.4	30.9
	8	0.4	1.4	0.7	2.3	1.1	3.6	1.8	5.9	2.8	9.3
C-FR-F10B-4.5W (DC 12V)	1	29.3	96.2	47.7	156.4	74.2	243.6	121.0	397.0	189.7	622.5
	2	13.4	44.1	21.8	71.7	34.0	111.6	55.5	181.9	87.0	285.3
	3	8.1	26.7	13.2	43.4	20.6	67.7	33.6	110.3	52.7	172.9
	4	5.5	18.0	8.9	29.3	13.9	45.7	22.7	74.4	35.6	116.7
	5	3.5	11.5	5.7	18.7	8.9	29.1	14.4	47.4	22.6	74.3
	6	2.1	6.9	3.4	11.3	5.4	17.6	8.7	28.6	13.7	44.9
	7	1.1	3.7	1.8	6.0	2.9	9.4	4.7	15.3	7.3	24.0
	8	0.3	1.1	0.6	1.8	0.9	2.8	1.4	4.6	2.2	7.2

Note:

1. Please check the wire gauge of your connector in the table "Max. Running Length".

E.g.,

Single-end feed, C-FR-F10B-4.5W, 5m light length when with 18AWG wire, max. cable length should refer to the corresponding value 42.4m for 5m light length;

Double-end feed, C-FR-F10B-4.5W, 10m light length when with 18AWG wire, max. cable length of each end should refer to the corresponding value 42.4m for half of light length

5m;

2. The above cable lengths are calculated based on 10% allowable voltage drop maximum.

# F10B Max. Cable Length (Silicone)

Input: DC24V/DC12V

Item Code	Light Length (m)	Cable Length									
		0.32 mm <sup>2</sup>		0.52 mm <sup>2</sup>		0.81 mm <sup>2</sup>		1.32 mm <sup>2</sup>		2.07 mm <sup>2</sup>	
		22AWG		20AWG		18AWG		16AWG		14AWG	
		m	ft	m	ft	m	ft	m	ft	m	ft
C-SFR-F10B-3.5/4.5W (DC24V)	1	105.8	347.0	171.8	563.8	267.7	879.2	436.2	1431.2	684.1	2244.4
	2	52.9	173.5	85.9	281.9	133.8	439.1	218.1	715.6	342.0	1122.2
	3	35.3	115.7	57.3	187.9	89.2	292.7	145.4	477.1	228.0	748.1
	4	25.7	84.2	41.7	136.9	65.0	213.2	105.9	347.5	166.1	544.9
	5	20.5	67.2	33.3	109.2	51.9	170.1	84.5	277.2	132.5	434.7
	6	16.4	54.0	26.7	87.7	41.6	136.6	67.8	222.6	106.4	349.0
	7	14.2	46.5	23.0	75.5	35.9	117.7	58.4	191.7	91.7	300.7
	8	11.9	39.0	19.3	63.3	30.1	98.7	49.0	160.8	76.8	252.1
	9	10.6	34.7	17.2	56.5	26.8	88.0	43.7	143.3	68.5	224.8
	10	9.1	30.0	14.9	48.8	23.2	76.0	37.7	123.8	59.2	194.2
	11	8.0	26.1	12.9	42.4	20.1	66.1	32.8	107.6	51.4	168.8
	12	6.9	22.8	11.3	37.0	17.6	57.7	28.6	94.0	44.9	147.4
	13	6.1	20.0	9.9	32.6	15.5	50.7	25.2	82.7	39.5	129.6
	14	5.7	18.8	9.3	30.5	14.5	47.5	23.6	77.4	37.0	121.3
	15	5.1	16.6	8.2	26.9	12.8	42.0	20.9	68.4	32.7	107.3
	16	4.5	14.7	7.3	23.9	11.4	37.2	18.5	60.7	29.0	95.2
	17	4.0	13.1	6.5	21.3	10.1	33.1	16.4	54.0	25.8	84.6
	18	3.3	10.7	5.3	17.4	8.3	27.1	13.5	44.1	21.1	69.2
	19			4.6	15.2	7.2	23.8	11.8	38.7	18.5	60.7
	20			4.1	13.3	6.3	20.8	10.3	33.8	16.2	53.0
	21			3.5	11.5	5.5	18.0	8.9	29.3	14.0	46.0
	22			3.0	9.9	4.7	15.5	7.7	25.2	12.0	39.5
	23			2.6	8.4	4.0	13.1	6.5	21.3	10.2	33.4
	24			2.1	7.0	3.3	10.9	5.4	17.7	8.5	27.8
	25			1.7	5.7	2.7	8.8	4.4	14.4	6.9	22.5
	26			1.3	4.4	2.1	6.9	3.4	11.2	5.3	17.5
	27			0.7	2.2	1.0	3.4	1.7	5.5	2.6	8.6
	28			0.3	1.1	0.5	1.6	0.8	2.7	1.3	4.2
C-SFR-F10B-3.5/4.5W (DC12V)	1	52.9	173.5	85.9	281.9	133.8	439.1	218.1	715.6	342.0	1122.2
	2	26.4	86.7	43.0	141.0	66.9	219.6	109.1	357.8	171.0	561.1
	3	17.6	57.8	28.6	94.0	44.6	146.4	72.7	238.5	114.0	374.1
	4	12.8	42.1	20.9	68.4	32.5	106.6	53.0	173.7	83.0	272.4
	5	10.2	33.6	16.6	54.6	25.9	85.1	42.3	138.6	66.3	217.4
	6	8.2	27.0	13.4	43.8	20.8	68.3	33.9	111.3	53.2	174.5
	7	7.1	23.2	11.5	37.8	17.9	58.8	29.2	95.9	45.8	150.3
	8	5.9	19.5	9.7	31.7	15.0	49.3	24.5	80.4	38.4	126.1
	9	5.3	17.4	8.6	28.2	13.4	44.0	21.8	71.7	34.3	112.4
	10			7.4	24.4	11.6	38.0	18.9	61.9	29.6	97.1
	11			6.5	21.2	10.1	33.0	16.4	53.8	25.7	84.4
	12			5.6	18.5	8.8	28.8	14.3	47.0	22.5	73.7
	13			5.0	16.3	7.7	25.4	12.6	41.3	19.8	64.8
	14			4.6	15.2	7.2	23.7	11.8	38.7	18.5	60.7
	15			4.1	13.5	6.4	21.0	10.4	34.2	16.3	53.6

Note:

1. Please check the wire gauge of your connector in the table "Max. Running Length".

E.g.,

Single-end feed, C-SFR-F10B-4.5W, 5m light length when with 18AWG wire, max. cable length should refer to the corresponding value 51.9m for 5m light length;

Double-end feed, C-SFR-F10B-4.5W, 10m light length when with 18AWG wire, max. cable length of each end should refer to the corresponding value 51.9m for half of light length 5m;

2. The above cable lengths are calculated based on 10% allowable voltage drop maximum.

# Flexglo™ F10B Monochrome - AC230V Colorful Light (PVC)



Certification Mark	CE	CE	CB	SAA
Test Standard/Directive	CE-LVD	CE-EMC	IEC 60598-1 IEC 60598-2-20	AS/NZS 60598.1 AS/NZS 60598.2.20
Certificate Serial Number	AN 50275368 0001	AE 50274407 0001	DE 2-018301	TUV017540EA
Report Reference	17036967 001	17037105 001	14713952 001	

Light Color



Ambient Working Temperature  
≤5W/m -20 ~ 35°C / -4 ~ 95°F



Ambient Installation Temperature  
≥ 0°C / 32°F<sup>[1]</sup>



Storage Temperature  
-20 ~ 60°C / -4 ~ 140°F

[1] PVC products, when operating at below 0°C, are vulnerable to breaking off from twisting and fail to work.



Max. Mounting Surface Temperature  
60°C / 140°F



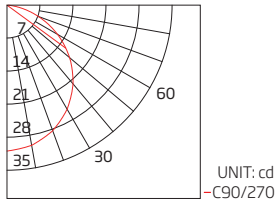
High Voltage  
AC230V

specified in the non-working state of light, and up to 85°C for silicone type.

## C-FR-F10B-HB



C-FR-F10B-HB-AC230-G-  
WM-72-5W-1000



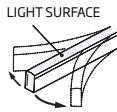
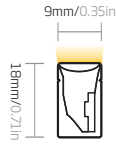
AVERAGE BEAM ANGLE (50%) : 111.4°



Min. Bending Diameter  
90mm/3.54in



Min. Cutting Length  
1000mm/39.4in  
72LEDs



Horizontal Bending

Note:

1. The illuminated light length shall be an integral multiple of min. cutting length.
2. The products will be made and preassembled in compliance with the required certificate and lengths, and any cutting or disassembly on site is forbidden. The overall IP rating is secured up to IP65.

## Item Code

C	FR	F10B	HB	AC230	G	WM	72	5W	1000
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	Color	Base & Lighting Surface	LEDs Qty/m	Power/m	Min. Cutting Length (mm)
Clear	FR= (PVC) Flex Ribbon	F10 B= Monochrome	HB= Horizontal Bending	AC230V & High Voltage	R=Red G=Green B=Blue A=Amber	WM= White & Milky	72	5W	1000



## Feature

Flexglo™ F10B Monochrome - AC230V Colorful Light (PVC) is CE certificated, and maximum length for each individual piece is up to 20m.

The IP65 High Voltage Injection-moulded Connector with SJTW cable is designed for outdoor use. Customized lengths with the Waterproof Male and Female Connectors improve the convenience of installation and maintenance.

This product features a ultra long lifespan in outdoor application by leveraging ClearTech™ such as the Decentifier™ technology eliminating the failure risks of the whole electric circuit brought by the traditional external rectifier, the C-Mask™ technology retarding PVC discoloration and enabling consistent illumination.

## Electrical Parameter

Category	C-FR-F10B-HB
Voltage (V)	230
Current (mA/m)	21.7
Power (W/m)	5
Circuit Type	AC
LED Type	2835
LEDs Qty/m	72
LEDs Qty/unit	72
Unit/m	1
Min. Cutting Length (mm)	1000
Min. Cutting Length (in)	39.37

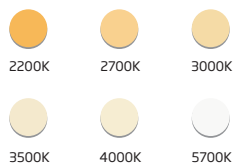
## Optical Parameter

Item Code	Finished Product				LED
	Color	Wavelength	Lumen/m	Lumen/ft	Color Tolerance
C-FR-F10B-HB-AC230-R-WM-72-5W-1000	Red	618-624nm	40lm	12lm	<3nm
C-FR-F10B-HB-AC230-G-WM-72-5W-1000	Green	522-528nm	80lm	24lm	<3nm
C-FR-F10B-HB-AC230-B-WM-72-5W-1000	Blue	468-474nm	12lm	4lm	<3nm
C-FR-F10B-HB-AC230-A-WM-72-5W-1000	Amber	588-594nm	60lm	18lm	<3nm

# Flexglo™ F10B Monochrome - AC230V White Light (PVC)



Certification Mark	CE	CE	CB	SAA
Test Standard/Directive	CE-LVD	CE-EMC	IEC 60598-1 IEC 60598-2-20	AS/NZS 60598.1 AS/NZS 60598.2.20
Certificate Serial Number	AN 50275368 0001	AE 50274407 0001	DE 2-018301	TUV017540EA
Report Reference	17036967 001	17037105 001	14713952 001	



Ambient Working Temperature  
≤5W/m -20 ~ 35°C / -4 ~ 95°F

Ambient Installation Temperature  
≥ 0°C / 32°F<sup>[1]</sup>  
**[1] PVC products, when operating at below 0°C, are vulnerable to breaking off from twisting and fail to work.**

Storage Temperature  
-20 ~ 60°C / -4 ~ 140°F

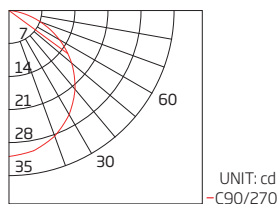
Max. Mounting Surface Temperature  
60°C / 140°F  
**specified in the non-working state of light, and up to 85°C for silicone type.**

High Voltage  
AC230V

## C-FR-F10B-HB



C-FR-F10B-HB-AC230-30K-WM-72-80-5W-1000



AVERAGE BEAM ANGLE (50%) : 111.4°

Min. Bending Diameter  
90mm/3.54in

Min. Cutting Length  
1000mm/39.4in  
72LEDs

9mm/0.35in  
18mm/0.71in

LIGHT SURFACE  
Horizontal Bending

Note:  
1. The illuminated light length shall be an integral multiple of min. cutting length.  
2. The products will be made and preassembled in compliance with the required certificate and lengths, and any cutting or disassembly on site is forbidden. The overall IP rating is secured up to IP65.

## Item Code

C	FR	F10B	HB	AC230	30K	WM	72	80	5W	1000
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	CCT	Base & Lighting Surface	LEDs Qty/m	CRI	Power/m	Min. Cutting Length (mm)
Clear	FR = (PVC) Flex Ribbon	F10 B = Monochrome	HB = Horizontal Bending	AC230V & High Voltage	22K=2200K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 57K=5700K	WM = White & Milky	72	80	5W	1000

## Feature

Flexglo™ F10B Monochrome - AC230V White Light (PVC) is CE certificated, and maximum length for each individual piece is up to 20m.







The IP65 High Voltage Injection-moulded Connector with SJTW cable is designed for outdoor use. Customized lengths with the Waterproof Male and Female Connectors improve the convenience of installation and maintenance.

This product features a ultra long lifespan in outdoor application by leveraging ClearTech™ such as the Decentifier™ technology eliminating the failure risks of the whole electric circuit brought by the traditional external rectifier, the C-Mask™ technology retarding PVC discoloration and enabling consistent illumination.

## Electrical Parameter

Category	C-FR-F10B-HB
Voltage (V)	230
Current (mA/m)	21.7
Power (W/m)	5
Circuit Type	AC
LED Type	2835
LEDs Qty/m	72
LEDs Qty/unit	72
Unit/m	1
Min. Cutting Length (mm)	1000
Min. Cutting Length (in)	39.37

## Optical Parameter

Item Code	Finished Product							LED	
		CCT	CCT Tolerance	Color Tolerance	CRI	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-FR-F10B-HB-AC230-22K-WM-72-80-5W-1000		2200K	2238±102K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-AC230-27K-WM-72-80-5W-1000		2700K	2725±145K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87
C-FR-F10B-HB-AC230-30K-WM-72-80-5W-1000		3000K	3045±175K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-AC230-35K-WM-72-80-5W-1000		3500K	3465±245K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-AC230-40K-WM-72-80-5W-1000		4000K	3985±275K	<6SDCM	80	120lm	37lm	<2.3SDCM	82~87
C-FR-F10B-HB-AC230-57K-WM-72-80-5W-1000		5700K	5669±355K	<6SDCM	80	110lm	34lm	<2.3SDCM	82~87

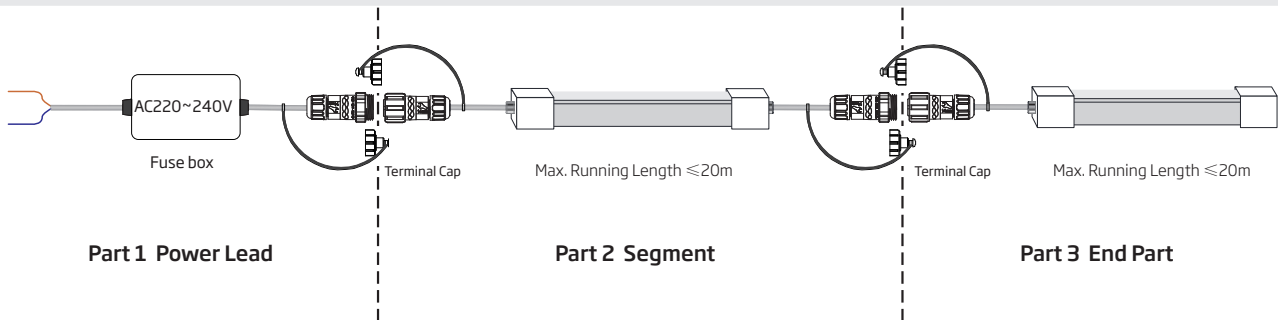
**Note:**

CCT tolerance and color tolerance both refer to ANSI C78.377 standard.  
The color tolerance of finished products is kept <6SDCM from batch to batch and narrowed to <3SDCM at the same batch.

# Flexglo™ F10B-AC230V Wiring Diagram



Without plug



## Part 1 Power Lead



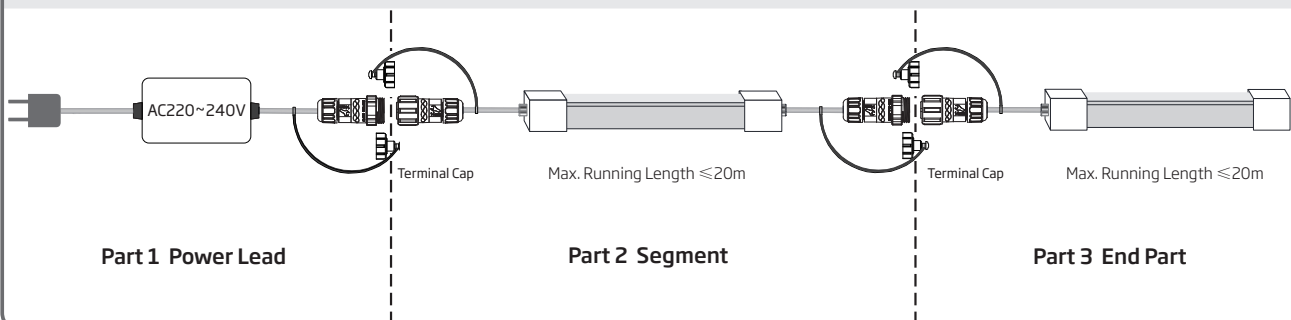
Item Code

PL-AC230-FBox-1800MM

1. It's H05RN-F 2x1.0mm<sup>2</sup> cable. 1.4m and 0.3m standard cable lengths before and after the fuse box correspondingly, and custom cable length is optional, while total length of cable and light shall be within 82m considering the voltage drop.
2. Fuse box is connected with junction box and light at both ends.
3. It's forbidden to open the fuse box in the process of installation and use.

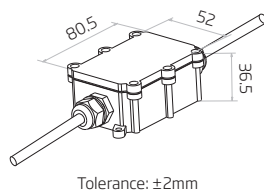


With plug



## Part 1 Power Lead

1. It's H05RN-F 2x1.0mm<sup>2</sup> cable. 1.4m and 0.3m standard cable lengths before and after the fuse box correspondingly, and custom cable length is optional, while total length of cable and light shall be within 82m considering the voltage drop.
2. Fuse box is connected with junction box and light at both ends.
3. It's forbidden to open the fuse box in the process of installation and use.
4. 3 types of power plugs including Europe, Australia and United Kingdom are available.



Item Code (Europe)

PL-AC230-GER-Plug-FBox-1800MM



Item Code (Australia)

PL-AC240-AU-Plug-FBox-1800MM



Item Code (United Kingdom)

PL-AC240-UK-Plug-FBox-1800MM

### ● Part 1

Two types of certifications are optional. Please connect this part with Part 2 or Part 3 according to the specific certification of the product.

### ● Part 2

The both ends are attached with high voltage injection-moulded front connectors and respectively equipped with male and female connectors, which can be used as an extension for Part 1.

### ● Part 3

The both ends are attached with high voltage injection-moulded front connector (same cable entry as Part 2) equipped with female connector and end cap respectively. The overall IP rating is secured up to IP65 after the assembly is finished.

### Note:

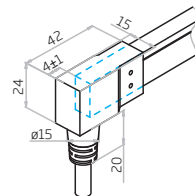
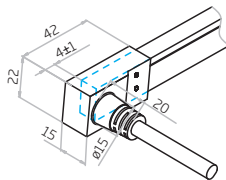
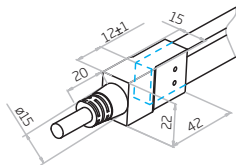
1. The products will be made and preassembled in compliance with the required certificate and lengths, and any cutting or disassembly on site is forbidden.
2. Attention should be paid that all unconnected connectors shall be sealed with terminal caps.

Part 2 Segment



- 1. Maximum running length for each light is 20m, and up to 80m in series connection.
- 2. It's H05RN-F 2x1.0mm<sup>2</sup> cable. 0.3m standard or custom cable length is optional, while total length of cable and light shall be within 82m considering the voltage drop.
- 3. Please seal the last connector by the terminal cap to make it waterproof.
- 4. 3 types of cable entry including End, Side, and Bottom are available.

End Cable Entry	Side Cable Entry	Bottom Cable Entry
Item code	Item code	Item code
F10B-IM/MC-HV-CE&ETL-E-300MM	F10B-IM/MC-HV-CE&ETL-S-300MM	F10B-IM/MC-HV-CE&ETL-B-300MM



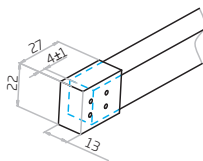
Note: unless otherwise stated,the tolerance is ±0.5mm;To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

Part 3 End Part



- 1. Maximum running length is 20m each light.
- 2. It's H05RN-F 2x1.0mm<sup>2</sup> cable. 0.3m standard or custom cable length is optional, while total length of cable and light shall be within 82m considering the voltage drop.
- 3. 3 types of cable entry including End, Side, and Bottom are available.

End Cable Entry	Side Cable Entry	Bottom Cable Entry
Item code	Item code	Item code
F10B-IM/EC-HV-CE&ETL-E-300MM	F10B-IM/EC-HV-CE&ETL-S-300MM	F10B-IM/EC-HV-CE&ETL-B-300MM

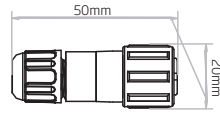


Tolerance ±0.5mm

Female Connector



Male Connector



Tolerance ±2mm

For plug and play cable junction, IP65

# F10 Swivel Connector IP20



## Recommended for

1. Indoor and dry environments.
2. Uncertain breakdown lengths or on-site length adjustment.

**F10B**   
22AWG\*2

## Feature

Under the simple and convenient design concept, we developed our swivel connector, which is superb for indoor concealed installation in narrow space thanks to its mini size and omni-directional cable. Navigated by user manual, tool-free and quick assembly can be realized, and Press & Seal design enables the functions of energization and dustproof rapidly.

## In-house Test

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11

# Connector Type

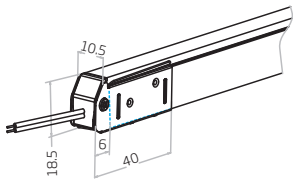


## Dimension: mm

### Swivel Front Connector



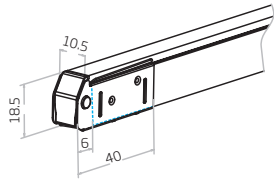
F10B-HB-SW/FC-01/02-E



### Swivel End Cap



F10-SW/EC



Note:  
1.Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ;  
2.To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.



F10B	SW/FC	01	E	300mm
F10B-HB	SW=Swivel FC=Front Connector EC=End Cap	01=01 End 02=02 End	E=End Feed	300mm Cable 1000mm Cable

Item Code(B)
F10B-HB-SW/FC-01-E-300mm
F10B-HB-SW/FC-02-E-300mm
F10-SW/EC
Max. Cable Length Page F10 023~024

Note:  
1.Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.  
2.All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.  
3.The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# F10 Snap Connector IP67



## Recommended for

1. Wet environments.
2. Uncertain breakdown lengths or on-site length adjustment.

**F10B**   
18AWG\*2

## Feature

To seal the end of light and ensure the waterproof in case of any cutting or extension on site, Insulfit™ technology prevents the water or vapor ingress from the end of the light. DryWire™ technology applied on the cable eliminates the capillary phenomenon through wires, which secured the long-term reliability in any wading environments.

Note: the third party IPX8 rated at the depth of 2m underwater. CLEAR self-declared IP67 considering the unexpected factors in the process of installation or the potential improper assembly on site.

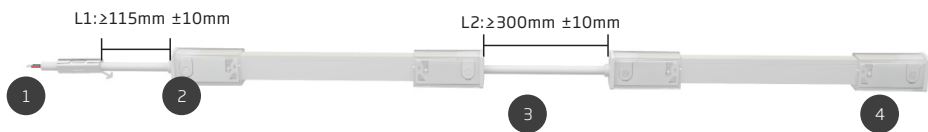
## In-house Test

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Waterproof	1	Waterproof-IPX5 / IPX7 / IPX8	CLEAR-defined <sup>®</sup>
Connector	2	Swing-extreme	CLEAR-defined <sup>®</sup>

<sup>®</sup>Before waterproof test, high-low temperature cycling shock test has been implemented to simulate the outdoor harsh weather, and it's a more stringent standard we're compliant with than third party's.

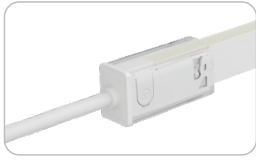


# Connector Type



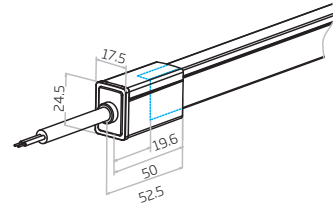
1	Male & Female Connector (Optional)	2	Snap Front Connector	3	Snap Middle Connector	4	Snap End Cap
 <p>Male Connector</p>  <p>Female Connector</p>		 <p>End</p>  <p>Side-L</p>  <p>Side-R</p>  <p>Bottom</p>		 <p>Snap Jumper</p> <p>Maximum 8 Jumpers in 20m light Maximum 4 Jumpers in 10m light</p>  <p>Snap T-feed</p> <p>Maximum 8 T-feeds in 20m light Maximum 4 T-feeds in 10m light</p>		 <p>End cap</p>	

## Dimension: mm



### Snap Front Connector-End

F10B-HB-SN/FC-01/02-E

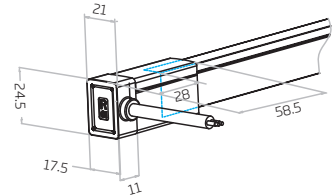


### Snap Front Connector-Side

F10B-HB-SN/FC-01/02-SL

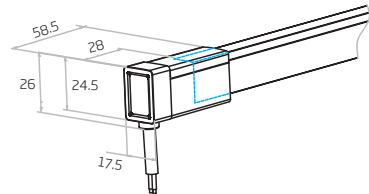


F10B-HB-SN/FC-01/02-SR



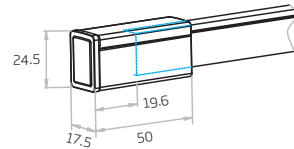
### Snap Front Connector-Bottom

F10B-HB-SN/FC-01/02-B



### Snap End Cap

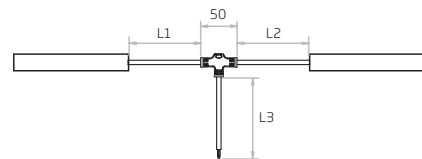
F10-HB-SN/EC-01/02



### Snap Middle Connector & Power T-feed

F10B-HB-SN/MC-PTF-01/02

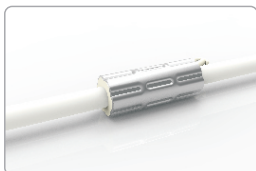
L1 and L2 available in 300mm.  
L3 available in 300mm/1000mm/3000mm.



#### Note:

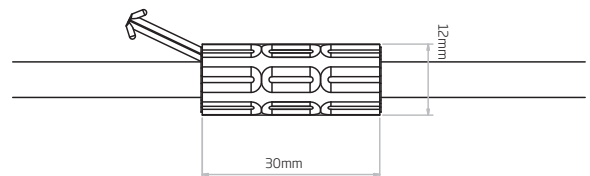
1. Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ;
2. To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

## Anti-wicking Ferrule



The anti-wicking ferrule is located at 115mm ( $\pm 10\text{mm}$  tolerance) from the connector on the cable.

For protection against water ingress from inside of cable wire and hence damage the light.



#### Note:

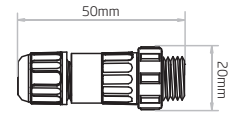
1. Unless otherwise stated, the tolerance is  $\pm 0.5\text{mm}$ .
2. The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

**F10B**   
18AWG\*2

# Male & Female Connector

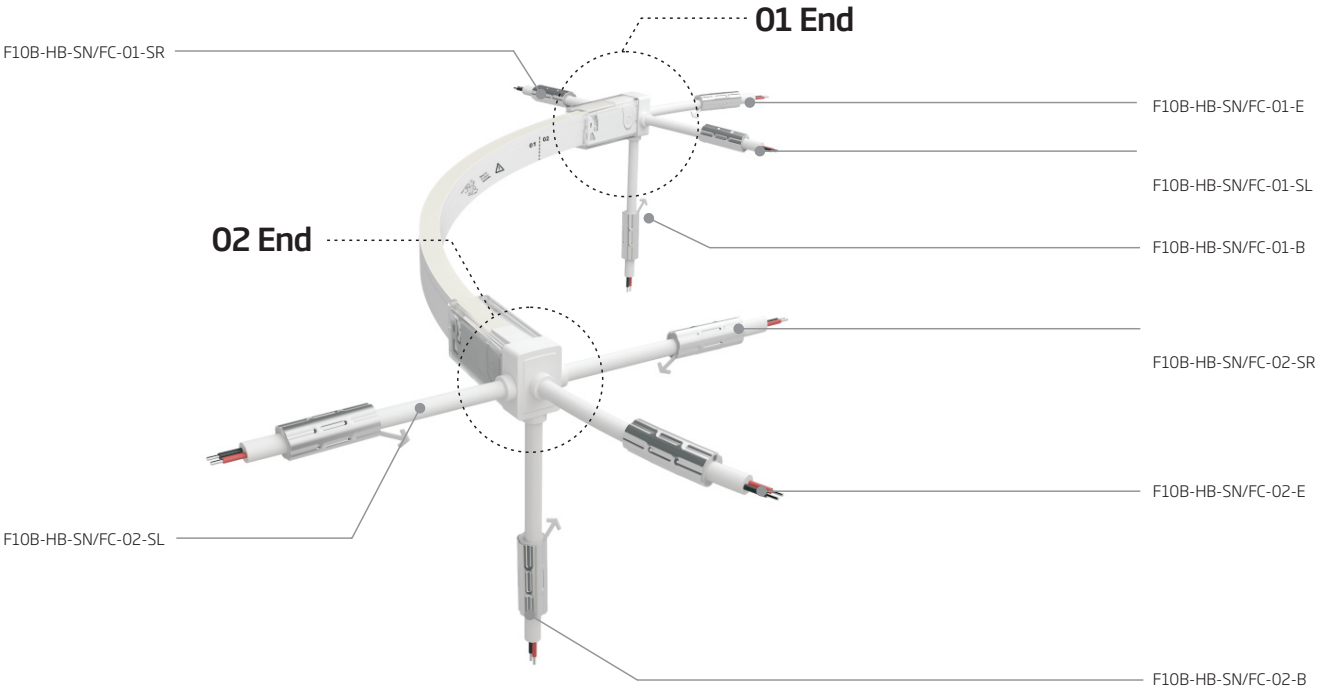


For plug and play cable junction, IP67



Note:  
Unless otherwise stated, the tolerance is  $\pm 2\text{mm}$ .

F10B	SN/FC	01	B	300mm
F10B-HB	SN=Snap FC=Front Connector MC-PTF=Middle Connector & Power T- feed JU=Jumper EC=End Cap	01=01 End 02=02 End 01/02=01/02 End	E=End Feed B=Bottom Feed S=Side Feed SL=Side Feed from Left SR=Side Feed from Right	300mm Cable 1000mm Cable 3000mm Cable 5000mm Cable 10000mm Cable 15000mm Cable 20000mm Cable

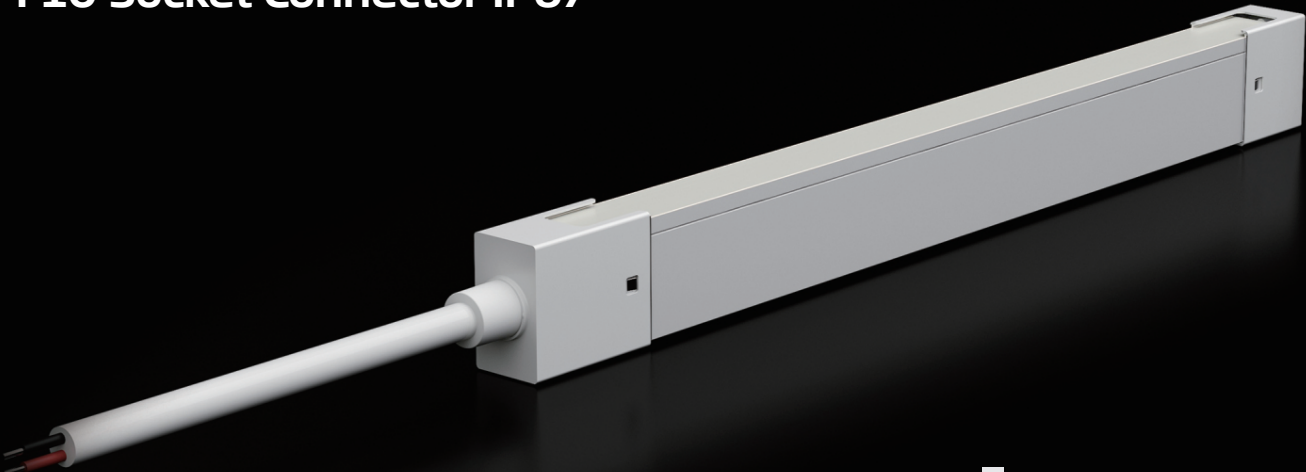


## F10B-HB

Item Code(B)
F10B-HB-SN/FC-01-E-300mm
F10B-HB-SN/FC-02-E-300mm
F10B-HB-SN/FC-01-B-300mm
F10B-HB-SN/FC-02-B-300mm
F10B-HB-SN/FC-01-SR-300mm
F10B-HB-SN/FC-01-SL-300mm
F10B-HB-SN/FC-02-SR-300mm
F10B-HB-SN/FC-02-SL-300mm
F10B-HB-SN/MC-PTF-01/02-300mm
F10B-HB-SN/JU-01/02-300mm
F10-SN/EC-01
F10-SN/EC-02
Max. Cable Length Page F10 023~024

NOTE:  
1. Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.  
2. All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.  
3. The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# F10 Socket Connector IP67



**Recommended for**

- 1. Outdoor environments.
- 2. Uncertain breakdown lengths or on-site length adjustment.

SFR-F10B   
18AWG\*2

FR-F10B   
22AWG\*2

## Feature

Socket connector, a new type of field-assembly connector for outdoor use, IP67 rated, brass casing, features unexceptional adaptability and excellent weather resistance. It achieves the unique balance between waterproof performance and physical dimension, highly functional yet incredibly minimal, giving you an extraordinary visual experience due to the less dark area at the jointing area. The whole assembling process is tool-less and quick, benefiting from its simple but smart structure design. The remarkable innovation lies in the invisible waterproof pretreatment on the cable, which facilitates the wiring and slotting on the site greatly as the extra anti-wicking ferrule on the cable is no longer needed.

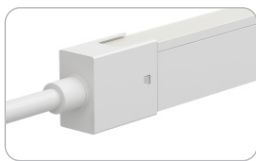
## In-house Test

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Waterproof	1	Waterproof-IPX5 / IPX7 / IPX8	CLEAR-defined <sup>®</sup>
Connector	2	Swing-extreme	CLEAR-defined <sup>®</sup>

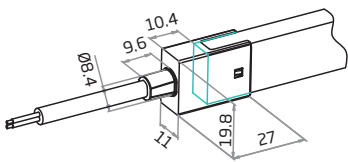
<sup>®</sup>Before waterproof test, high-low temperature cycling shock test has been implemented to simulate the outdoor harsh weather, and it's a more stringent standard we're compliant with than third party's.

# Dimension: mm

## Socket Front Connector



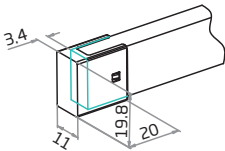
F10B-HB-SO/FC-01/02-E



## Socket End Cap



F10-SO/EC



**Note:**

- 1.Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ,
- 2.To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

F10B	SO/FC	01	E	300mm
F10B-HB	SO=Socket FC=Front Connector EC=End Cap	01=01 End 02=02 End	E=End Feed	300mm Cable 1000mm Cable 3000mm Cable 5000mm Cable

Item Code(HB)
F10B-HB-SO/FC-01-E-300mm
F10B-HB-SO/FC-02-E-300mm
F10B-SO/EC
Max. Cable Length Page F10 023~024

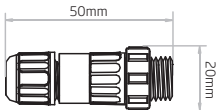
**Note:**

- 1.Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.
- 2.All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.
- 3.The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# Male & Female Connector



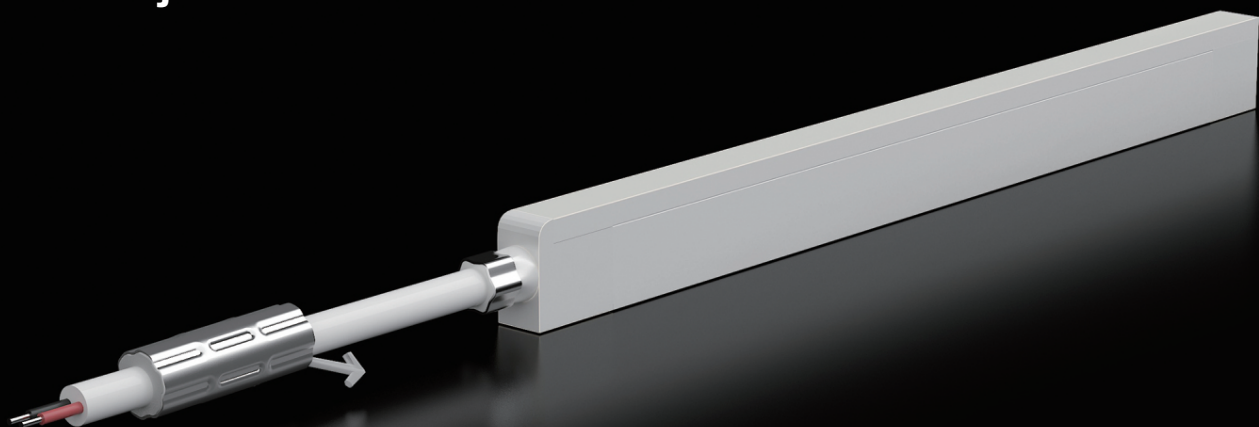
For plug and play cable junction, IP65



**Note:**

Unless otherwise stated,the tolerance is  $\pm 2\text{mm}$ .

# F10 Injection-moulded Connector IP67



### Recommended for

- 1. Wet environments.
- 2. Customized lengths.



### Feature

Adopting precision milling and special glue PVC injection moulding workmanship, the transparent terminal of the connector allows the seamless effects spliced end by end.

The copper ring protects the cable joint from the damage of excessively external force in the process of installation.

DryWire™ technology applied on the cable eliminates the capillary phenomenon through wires, which secured the long-term reliability in outdoor or any wet environments.

Light lengths can be customized on the basis of projects and pre-installation before the delivery eases the assembly trouble on site.

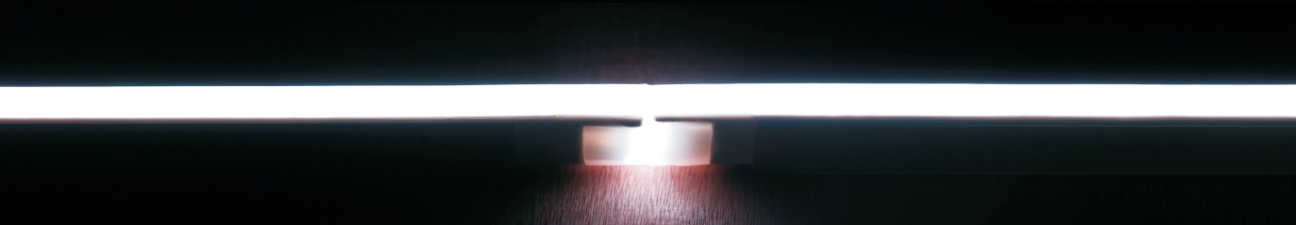
**Note:**

This connector has been rated as IPX8 at the depth of 2m underwater by the third party. CLEAR degraded it to IP67 considering the unexpected factors in the process of installation or the potential improper assembly on site.

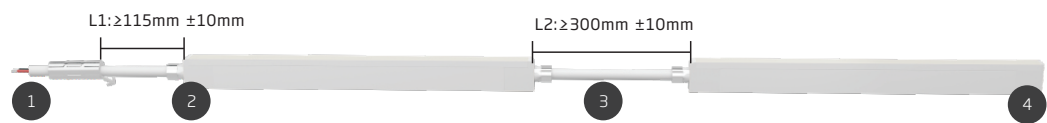
### In-house Test


Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Waterproof	1	Waterproof-IPX5 / IPX7 / IPX8	CLEAR-defined <sup>®</sup>
Connector	2	Swing-extreme	CLEAR-defined <sup>®</sup>

<sup>®</sup>Before waterproof test, high-low temperature cycling shock test has been implemented to simulate the outdoor harsh weather, and it's a more stringent standard we're compliant with than third party's.

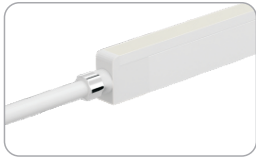


# Connector Type



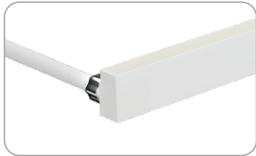
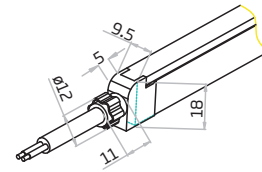
1	Male & Female Connector (Optional)	2	Injection-moulded Front Connector	3	Injection-moulded Middle Connector	4	Injection-moulded End Cap
 <p>Male Connector</p>  <p>Female Connector</p>		 <p>End</p>  <p>Side-L</p>  <p>Side-R</p>  <p>Bottom</p>		 <p>Middle-Side</p>  <p>Jumper</p> <p>Maximum 8 Jumpers in 20m light Maximum 4 Jumpers in 10m light</p>  <p>T-feed</p> <p>Maximum 8 T-feeds in 20m light Maximum 4 T-feeds in 20m light</p>		 <p>End cap</p>	

## Dimension: mm



### Injection-moulded Front Connector-End

F10B-HB-IM/FC-01/02-E

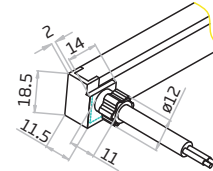


### Injection-moulded Front Connector-Side

F10B-HB-IM/FC-02-SL

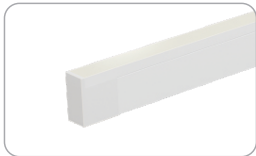
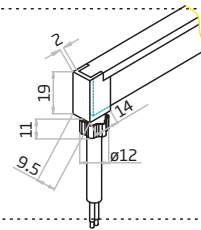


F10B-HB-IM/FC-01-SR



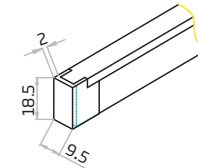
### Injection-moulded Front Connector-Bottom

F10B-HB-IM/FC-01/02-B



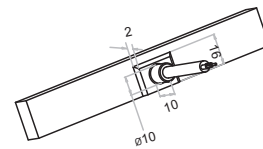
### Injection-moulded End Cap

F10-IM/EC



### Injection-moulded Seamless Middle Connector & Power Feed from Side

F10B-HB-IM/SEMC-PF-S

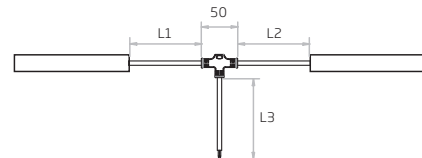


### Injection-moulded Middle Connector & Power T-feed

F10B-HB-IM/MC-PTF

L1 and L2 available in 300mm.

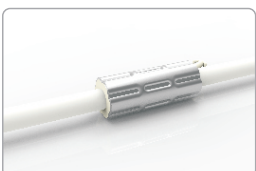
L3 available in 300mm/1000mm/3000mm.



#### Note:

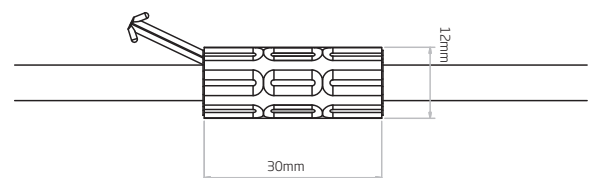
1. Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ;
2. To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

## Anti-wicking Ferrule



The anti-wicking ferrule is located at 115mm ( $\pm 10\text{mm}$  tolerance) from the connector on the cable.

For protection against water ingress from inside of cable wire and hence damage the light.



**F10B** 18AWG

#### Note:

1. Unless otherwise stated, the tolerance is  $\pm 0.5\text{mm}$ .
2. The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

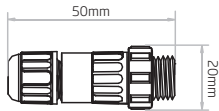


# Male & Female Connector

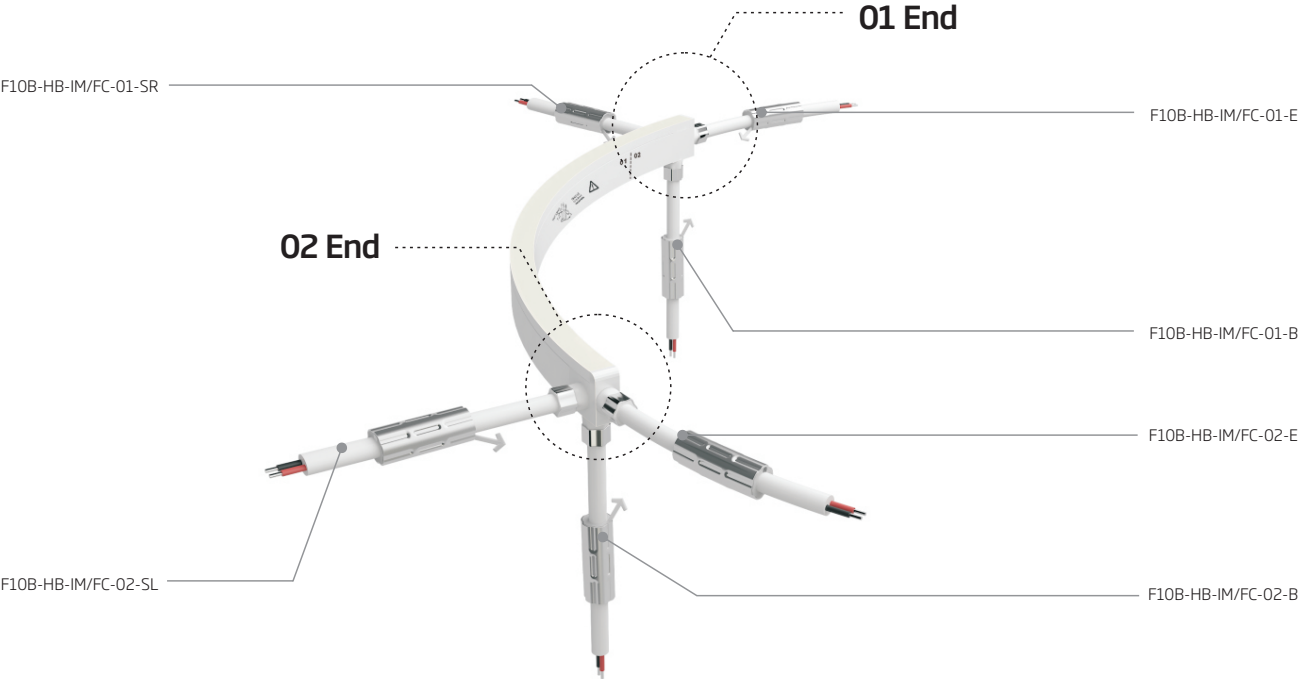


For plug and play cable junction, IP67

Note:  
Unless otherwise stated,the tolerance is  $\pm 2\text{mm}$ .



F10B	IM/FC	01	B	300mm
F10B-HB	IM=Injection-moulded FC=Front Connector SEMC-PF-S=Seamless Middle Connector & Power Feed from Side MC-PTF=Middle Connector & Power T- feed JU=Jumper EC=End Cap	01=01 End 02=02 End	E=End Feed B=Bottom Feed S=Side Feed SL=Side Feed from Left SR=Side Feed from Right	300mm Cable 1000mm Cable 3000mm Cable 5000mm Cable 10000mm Cable 15000mm Cable 20000mm Cable



## F10B-HB

Item Code(B)
F10B-HB-IM/FC-01-E-300mm
F10B-HB-IM/FC-02-E-300mm
F10B-HB-IM/FC-01-B-300mm
F10B-HB-IM/FC-02-B-300mm
F10B-HB-IM/FC-01-SR-300mm
F10B-HB-IM/FC-02-SL-300mm
F10B-HB-IM/SEMC-PF-S-300mm
F10B-HB-IM/MC-PTF-300mm
F10B-HB-IM/JU-300mm
F10-IM/EC
Max. Cable Length Page F10 023~024

NOTE:  
1.Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.  
2.All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.  
3.The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# F10 Silicone Injection-moulded Connector IP68



### Recommended for

- 1. Wet environments.
- 2. High-low temperature or intense humidity and UV.
- 3. Customized lengths.
- 4. Harsh working conditions or unexpected excessively external force during construction.



### Feature

Precision milling and special glue Silicone liquid injection-moulded workmanship enable an almost consistent in size between connectors and light body, and the transparent terminal of the connector allows the seamless effects spliced end by end.

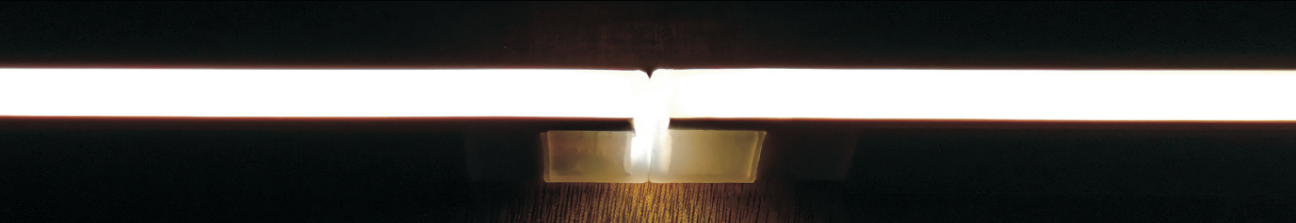
DryWire™ technology applied on the cable eliminates the capillary phenomenon through wires, which secured the long-term reliability in outdoor or any wet environments.

Light lengths can be customized on the basis of projects and pre-installation before the delivery eases the assembly trouble on site.

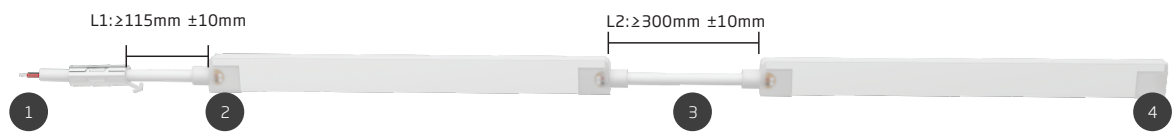
### In-house Test







Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance- Salt Spray	IEC 68-2-11
Waterproof	1	Waterproof- IPX5 / IPX7 / IPX8	CLEAR-defined®
Connector	2	Swing-extreme	CLEAR-defined®

®Before waterproof test, high-low temperature cycling shock test has been implemented to simulate the outdoor harsh weather, and it's a more stringent standard we're compliant with than third party's.

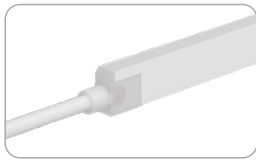


# Connector Type



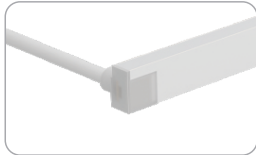
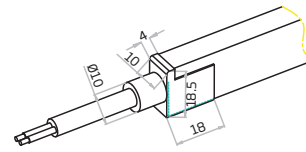
1	Male & Female Connector (Optional)	2	Silicone Injection-moulded Front Connector	3	Silicone Injection-moulded Middle Connector	4	Silicone Injection-moulded End Cap
 <p>Male Connector</p>  <p>Female Connector</p>		 <p>End</p>  <p>Side-L</p>  <p>Side-R</p>  <p>Bottom</p>		 <p>Silicone Injection-moulded Jumper Maximum 8 Jumpers in 20m Maximum 4 Jumpers in 10m</p>  <p>Silicone Injection-moulded T-feed Maximum 8 Jumpers in 20m Maximum 4 Jumpers in 10m</p>		 <p>End cap</p>	

## Dimension: mm



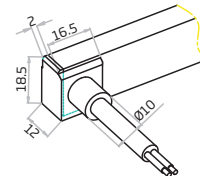
### Silicone Injection-moulded Front Connector-End

F10B-HB-SIM/FC-01/02-E



### Silicone Injection-moulded Front Connector-Side

F10B-HB-SIM/FC-01-SR

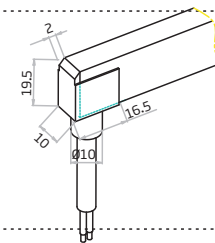


F10B-HB-SIM/FC-02-SL



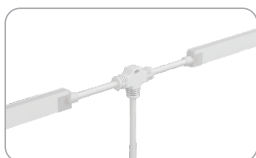
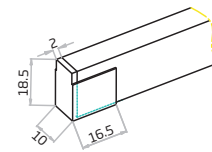
### Silicone Injection-moulded Front Connector-Bottom

F10B-HB-SIM/FC-01/02-B



### Silicone Injection-moulded End Cap

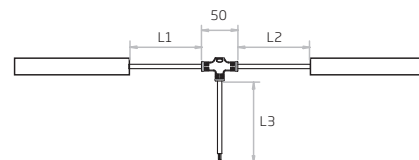
F10-SIM/EC



### Silicone Injection-moulded Middle Connector & Power T-feed

F10B-HB-SIM/MC-PTF

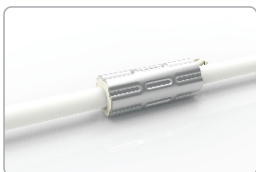
L1 and L2 available in 300mm.  
L3 available in 300mm/1000mm/3000mm.



#### Note:

1. Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ;
2. To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

## Anti-wicking Ferrule



### IP68-Above Water

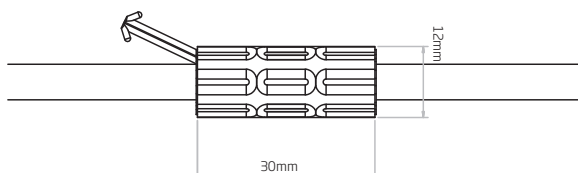


### IP68-Under Water



The anti-wicking ferrule is designed to lower the risk of water ingress from the cable in case of inadequate waterproof treatment on site.

For underwater application, do not immerse anti-wicking ferrule in the water.



**F10B**   
18AWG\*2

#### Note:

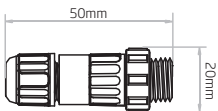
1. Unless otherwise stated, the tolerance is  $\pm 0.5\text{mm}$ .
2. The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

# Male & Female Connector

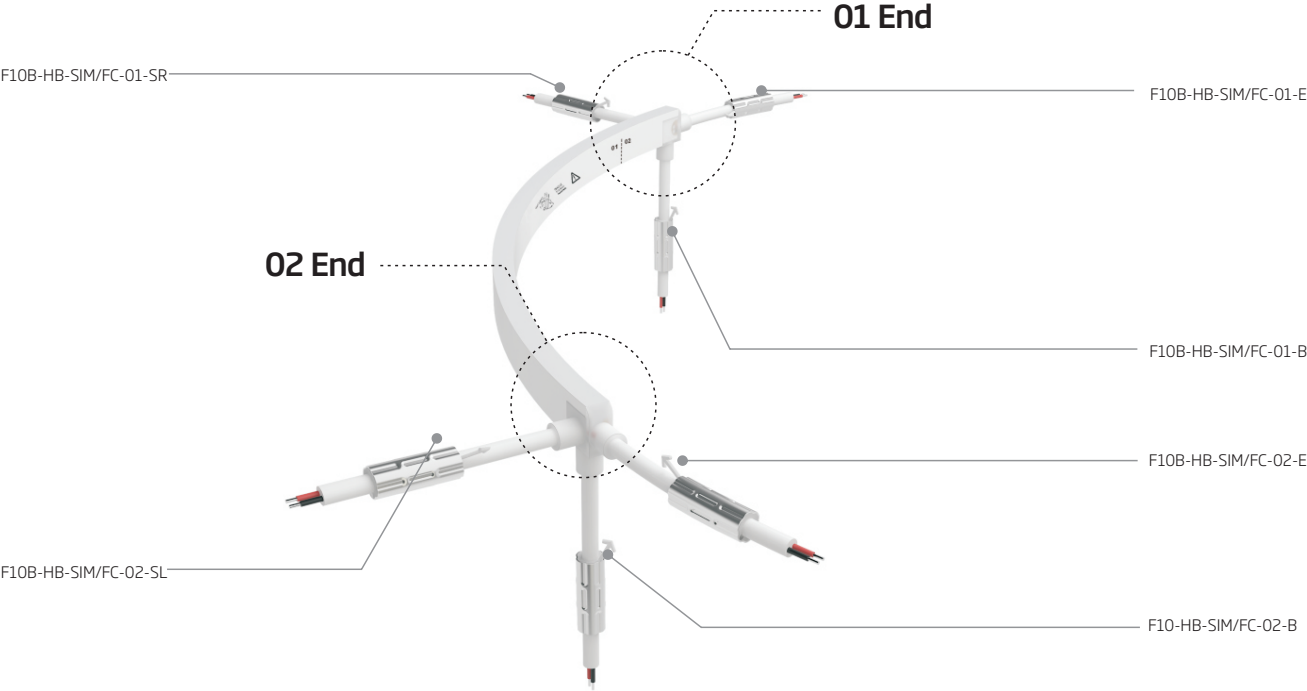


For plug and play cable junction, IP67

Note:  
Unless otherwise stated, the tolerance is  $\pm 2\text{mm}$ .



F10B	SIM/FC	01	B	300mm
F10B-HB	SIM=Silicone Injection-moulded FC=Front Connector MC-PTF=Middle Connector & Power T-feed JU=Jumper EC=End Cap	01=01 End 02=02 End	E=End Feed B=Bottom Feed S=Side Feed SL=Side Feed from Left SR=Side Feed from Right	300mm Cable 1000mm Cable 3000mm Cable 5000mm Cable 10000mm Cable 15000mm Cable 20000mm Cable



## C-SFR-F10B-HB

Item Code(B)
F10B-HB-SIM/FC-01-E-300mm
F10B-HB-SIM/FC-02-E-300mm
F10B-HB-SIM/FC-01-B-300mm
F10B-HB-SIM/FC-02-B-300mm
F10B-HB-SIM/FC-01-SR-300mm
F10B-HB-SIM/FC-02-SL-300mm
F10B-HB-SIM/MC-PTF-300mm
F10B-HB-SIM/JU-300mm
F10-SIM/EC
Max. Cable Length Page F10 023~024

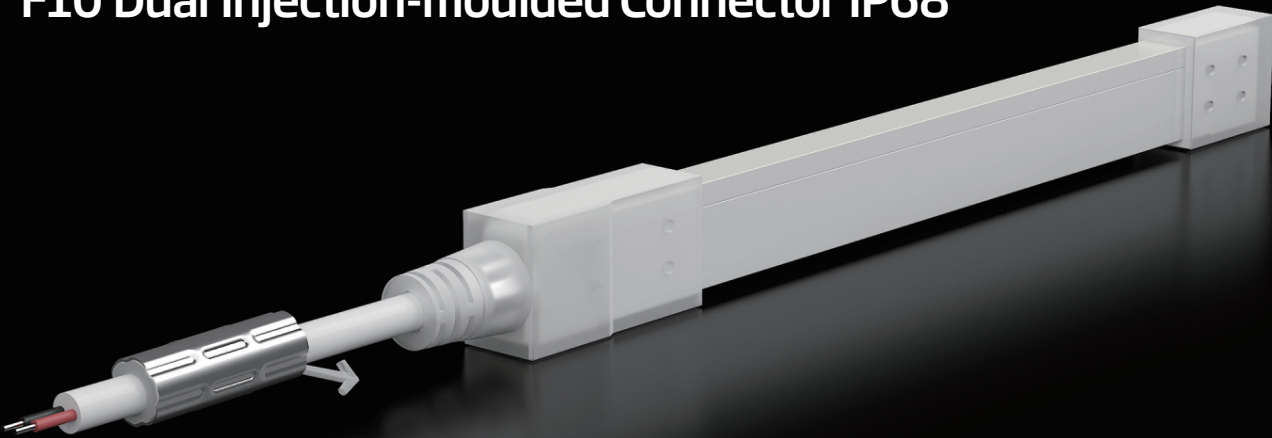
NOTE:

1. Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.

2. All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.

3. The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# F10 Dual Injection-moulded Connector IP68



### Recommended for

1. Long-term “liquid” environments up to the depth of 2m (the liquid are safe to touch the human skin for a long time)
2. High temperature and humidity environments (mounting surface temperature <60℃).
3. Customized lengths and bulky connector.
4. Harsh working conditions .



### Feature

Precision milling, copper ring, and PVC dual injection-moulded workmanship enhance the protection level and reliability of the cable joint and protect it from the damage in the process of installation, which secured the long-term reliability in wet, underwater or harsh working environments comprehensively.

Equipped with the product series F10, it is IP68 rated by SGS.

Light lengths can be customized on the basis of projects and pre-installation before the delivery eases the assembly trouble on site, and it will be a slim dark area spliced connector end by end from a long distance view.

### Note:

The connector size is larger than the light body's, please refer to the following “Dimension” of connector and reserve enough installation room.

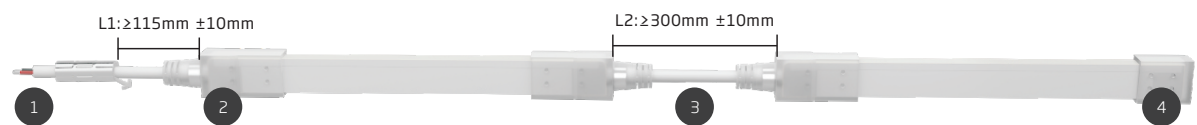
### In-house Test








Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Waterproof	1	Waterproof-IPX5 / IPX7 / IPX8	CLEAR-defined <sup>®</sup>
Connector	2	Swing-extreme	CLEAR-defined <sup>®</sup>

<sup>®</sup>Before waterproof test, high-low temperature cycling shock test has been implemented to simulate the outdoor harsh weather, and it's a more stringent standard we're compliant with than third party's.



# Connector Type



1	Male & Female Connector (Optional)	2	Dual Injection-moulded Front Connector	3	Dual Injection-moulded Middle Connector	4	Dual Injection-moulded End Cap
 <p>Male Connector</p>  <p>Female Connector</p>		 <p>End</p>  <p>Side-L</p>  <p>Side-R</p>  <p>Bottom</p>		 <p>Dual Injection-moulded Jumper Maximum 8 Jumpers in 20m Maximum 4 Jumpers in 10m</p>  <p>Dual Injection-moulded Jumper Maximum 8 Jumpers in 20m Maximum 4 Jumpers in 10m</p>		 <p>End cap</p>	

### Dual Injection-moulded Front Connector-End

F10B-HB-DIM/FC-01/02-E

### Dual Injection-moulded Front Connector-Side

F10B-HB-DIM/FC-02-SL

### Dual Injection-moulded Front Connector-Side

F10B-HB-DIM/FC-01-SR

### Dual Injection-moulded Front Connector-Bottom

F10B-HB-DIM/FC-01/02-B

### Dual Injection-moulded End Cap

F10-DIM/EC

### Dual Injection-moulded Middle Connector & Power T-feed

F10B-HB-DIM/MC-PTF

L1 and L2 available in 300mm.  
L3 available in 300mm/1000mm/3000mm.

Note:

- Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ;
- To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

## Anti-wicking Ferrule

#### IP68-Above Water

115mm $\pm$ 10mm

#### IP68-Under Water

150mm $\pm$ 10mm

The anti-wicking ferrule is designed to lower the risk of water ingress from the cable in case of inadequate waterproof treatment on site.

For underwater application, do not immerse anti-wicking ferrule in the water.

### F10B

18AWG\*2

Note:

- Unless otherwise stated, the tolerance is  $\pm 0.5\text{mm}$ .
- The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

IP68-Above Water

IP68-Under Water

The anti-wicking ferrule is designed to lower the risk of water ingress from the cable in case of inadequate waterproof treatment on site.

For underwater application, do not immerse anti-wicking ferrule in the water.

12mm

30mm

**F10B**

18AWG\*2

Note:

1. Unless otherwise stated, the tolerance is  $\pm 0.5\text{mm}$ .
2. The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

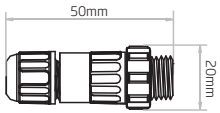


# Male & Female Connector

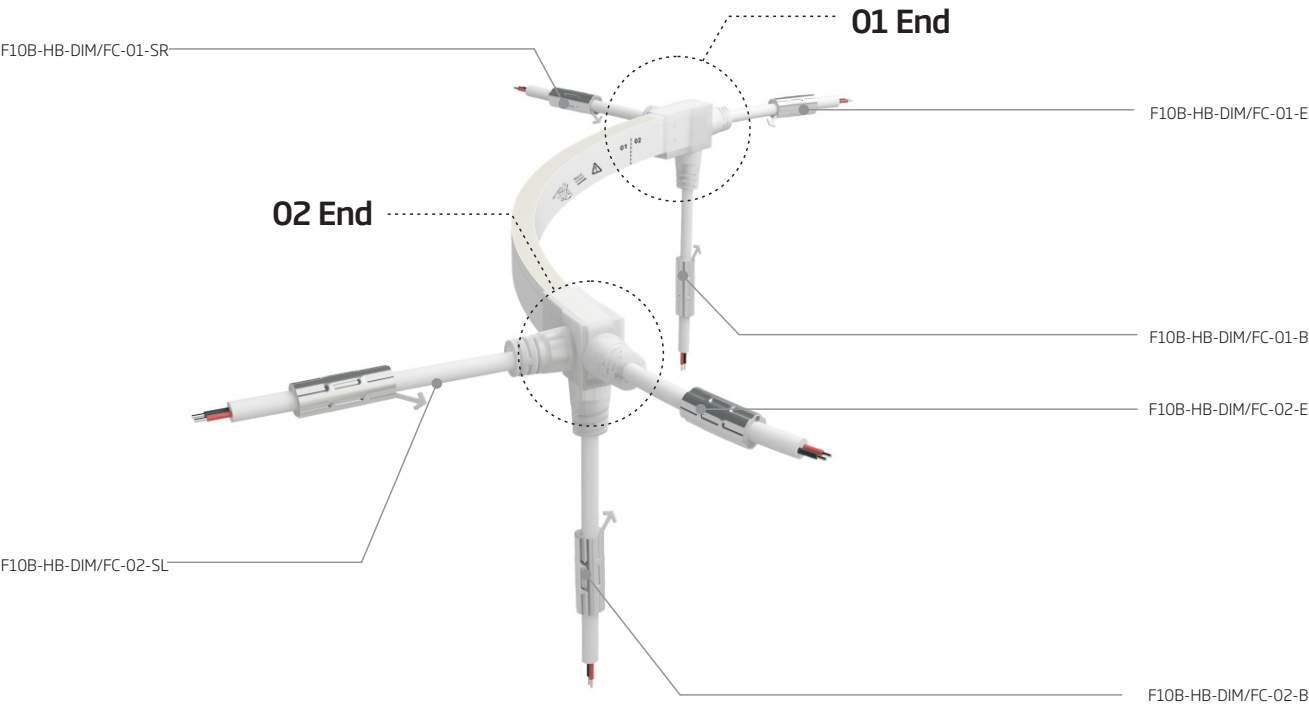


For plug and play cable junction, IP67

Note:  
Unless otherwise stated, the tolerance is  $\pm 2\text{mm}$ .



F10B	DIM/FC	01	B	300mm
F10B-HB	DIM=Dual Injection-moulded FC=Front Connector MC-PTF=Middle Connector & Power T-feed JU=Jumper EC=End Cap	01=01 End 02=02 End	E=End Feed B=Bottom Feed S=Side Feed SL=Side Feed from Left SR=Side Feed from Right	300mm Cable 1000mm Cable 3000mm Cable 5000mm Cable 10000mm Cable 15000mm Cable 20000mm Cable

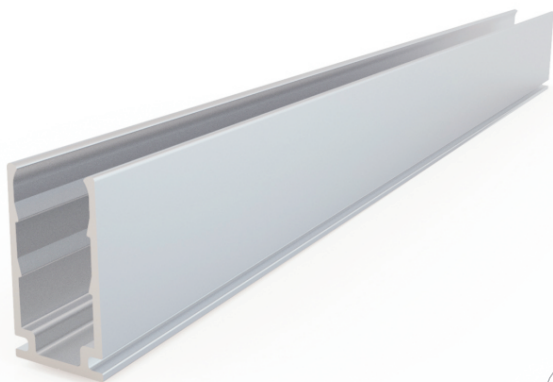


## C-FR-F10B-HB

Item Code(B)
F10B-HB-DIM/FC-01-E-300mm
F10B-HB-DIM/FC-02-E-300mm
F10B-HB-DIM/FC-01-B-300mm
F10B-HB-DIM/FC-02-B-300mm
F10B-HB-DIM/FC-01-SR-300mm
F10B-HB-DIM/FC-02-SL-300mm
F10B-HB-DIM/MC-PTF-300mm
F10B-HB-DIM/JU-300mm
F10-DIM/EC
Max. Cable Length Page F10 023~024

NOTE:  
1. Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.  
2. All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.  
3. The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# Aluminum Profile

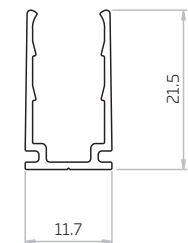


It uses high-quality 6063 aluminum with thin-wall, light-weight design to fit tightly the light body. It is deformation and rust resistant, and cost-effective.

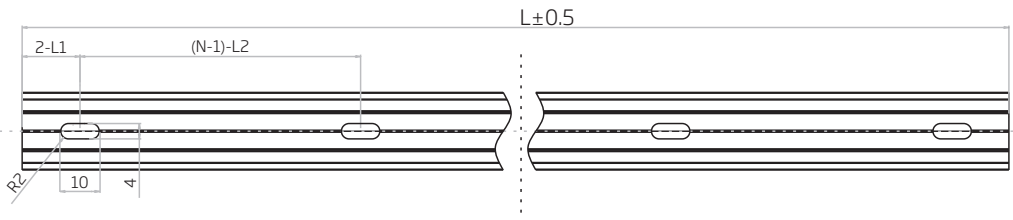
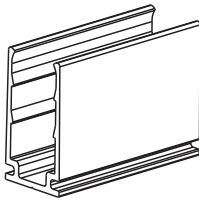
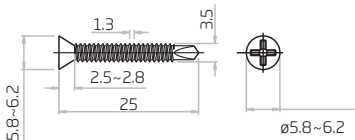
Please refer to the applicable installation ways.

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Mounting profile	2	Clamping force	CLEAR-defined

## Dimension: mm



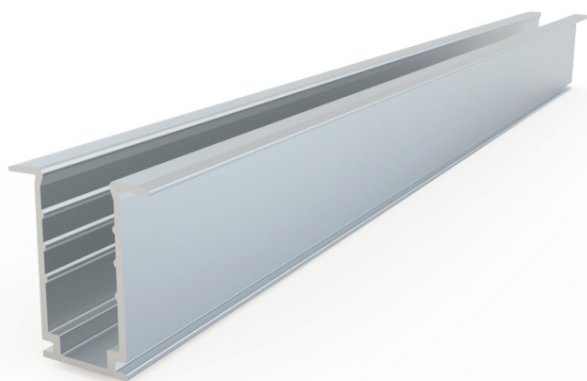
Tolerance:  $\pm 0.3\text{mm}$



Note:  
1. 2-L1 refers to two of symmetric L1 in each piece of profile.  
2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.  
"N" hereby stands for its corresponding "Hole Number" in the below table

Item Code	Standard Length	L1	L2	Slotted Hole	Hole Number
F10-A/PL-35MM-AL	35mm/1.38in	17.5mm/0.69in	/	4*10mm/0.16*0.39in	1
F10-A/PL-500MM-AL	500mm/19.68in	50mm/1.97in	200mm/7.87in	4*10mm/0.16*0.39in	3
F10-A/PL-1000MM-AL	1000mm/39.37in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	5
F10-A/PL-2000MM-AL	2000mm/78.74in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	10

# Flange Aluminum Profile

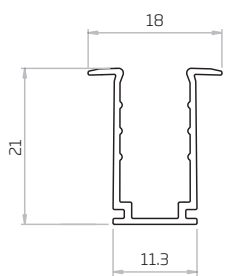


It uses high-quality 6063 aluminum with thin-wall, light-weight design to fit tightly the light body. It is deformation and rust resistant, and cost-effective. The "Flange" design is more suitable for recessed installation, better fits with the mounting groove and minimizes the operation tolerance during construction to some extent, like shielding the rough edges and the gaps of oversized groove.

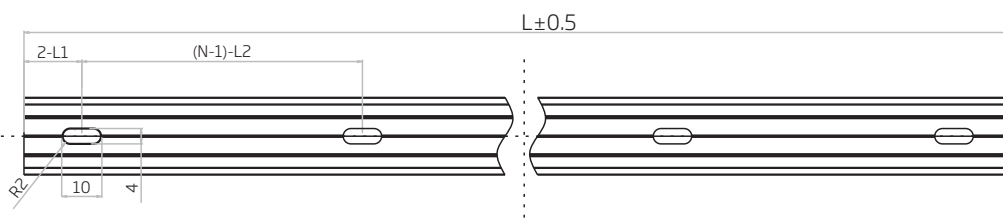
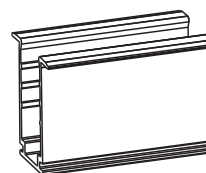
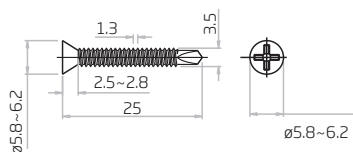
Please refer to the applicable installation ways.

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Mounting profile	2	Clamping force	CLEAR-defined

## Dimension: mm



Tolerance:  $\pm 0.3\text{mm}$

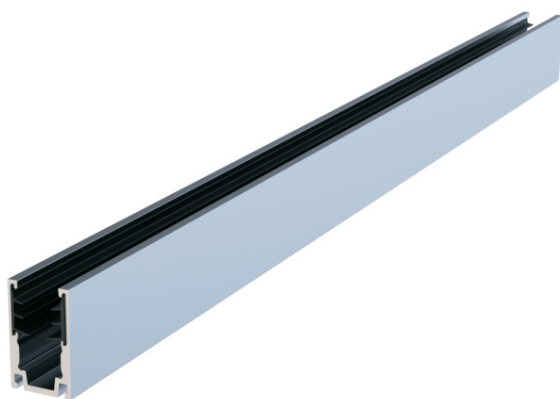


Note:

1. 2-L1 refers to two of symmetric L1 in each piece of profile.
  2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.
- "N" hereby stands for its corresponding "Hole Number" in the below table

Item Code	Standard Length	L1	L2	Slotted Hole	Hole Number
F10-FA/PL-35MM-AL	35mm/1.38in	17.5mm/0.69in	/	4*10mm/0.16*0.39in	1
F10-FA/PL-500MM-AL	500mm/19.68in	50mm/1.97in	200mm/7.87in	4*10mm/0.16*0.39in	3
F10-FA/PL-1000MM-AL	1000mm/39.37in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	5
F10-FA/PL-2000MM-AL	2000mm/78.74in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	10

# Serrated Aluminum Profile



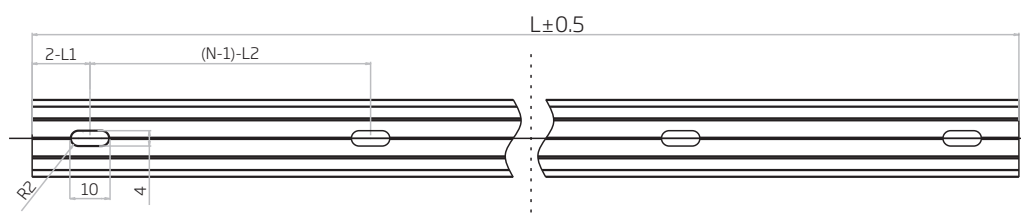
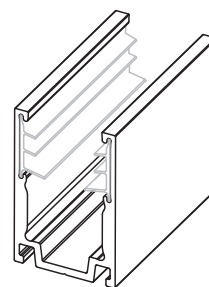
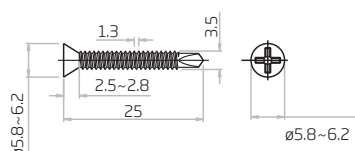
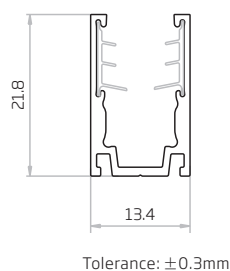
Specialized for the LED Flex Linear light, it was developed by combining the advantages of 6063 aluminum and elastic serrated tape. The inside elastic serrated tape as the grabbing force to keep continuous strong clamping force on the light body and protect the light from the damage caused by the large friction in the process of installation and dismantlement.



Please refer to the applicable installation ways.

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Mounting profile	2	Clamping force	CLEAR-defined

## Dimension: mm

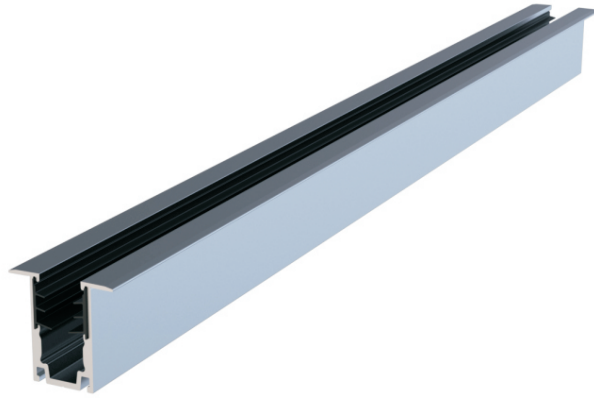


Note:

- 2-L1 refers to two of symmetric L1 in each piece of profile.
  - (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.
- "N" hereby stands for its corresponding "Hole Number" in the below table

Item Code	Standard Length	L1	L2	Slotted Hole	Hole Number
F10-SA/PL-20MM-AL	20mm/0.787in	10mm/0.39in	/	4*10mm/0.16*0.39in	1
F10-SA/PL-500MM-AL	500mm/19.68in	50mm/1.97in	200mm/7.87in	4*10mm/0.16*0.39in	3
F10-SA/PL-1000MM-AL	1000mm/39.37in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	5
F10-SA/PL-2000MM-AL	2000mm/78.74in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	10

# Flange Serrated Aluminum Profile



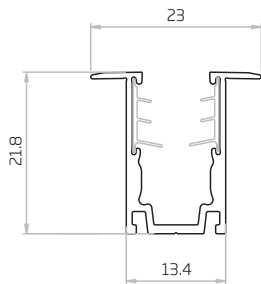
Specialized for the LED Flex Linear light, it was developed by combining the advantages of 6063 aluminum and elastic serrated tape. The inside elastic serrated tape as the grabbing force to keep continuous strong clamping force on the light body and protect the light from the damage caused by the large friction in the process of installation and dismantlement.

The "Flange" design is more suitable for recessed installation, better fits with the mounting groove and minimizes the operation tolerance during construction to some extent, like shielding the rough edges and the gaps of oversized groove.

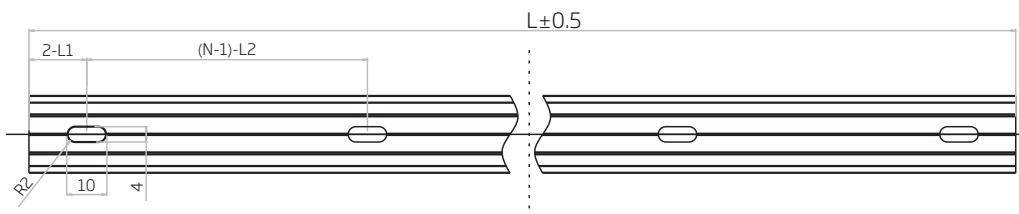
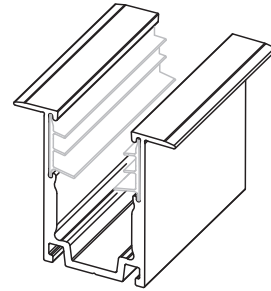
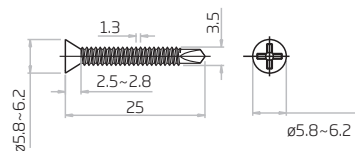
Please refer to the applicable installation ways.

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Mounting profile	2	Clamping force	CLEAR-defined

## Dimension: mm



Tolerance:  $\pm 0.3\text{mm}$

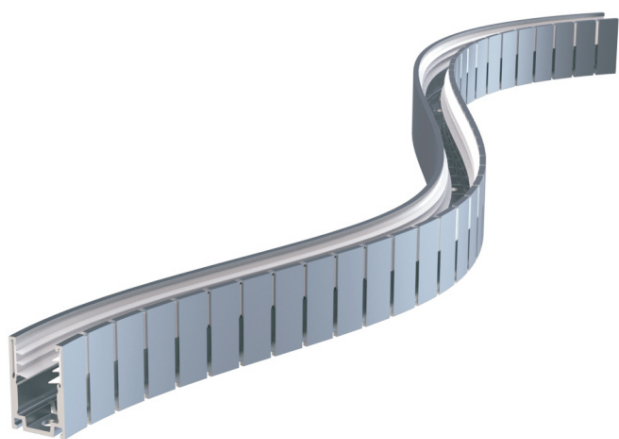


Note:

- 2-L1 refers to two of symmetric L1 in each piece of profile.
  - (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.
- "N" hereby stands for its corresponding "Hole Number" in the below table

Item Code	Standard Length	L1	L2	Slotted Hole	Hole Number
F10-FSA/PL-20MM-AL	20mm/0.787in	10mm/0.39in	/	4*10mm/0.16*0.39in	1
F10-FSA/PL-500MM-AL	500mm/19.68in	50mm/1.97in	200mm/7.87in	4*10mm/0.16*0.39in	3
F10-FSA/PL-1000MM-AL	1000mm/39.37in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	5
F10-FSA/PL-2000MM-AL	2000mm/78.74in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	10

# Bendable Serrated Aluminum Profile

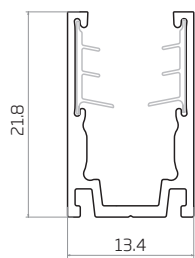


It is an expanded design of the serrated aluminum profile, and caters for the continuously streamlined aesthetics of curve shape. The secondary precision cutting process, not only maintains the advantage of clamping force, but also enables the two-way horizontal bending directions with super shape memory.

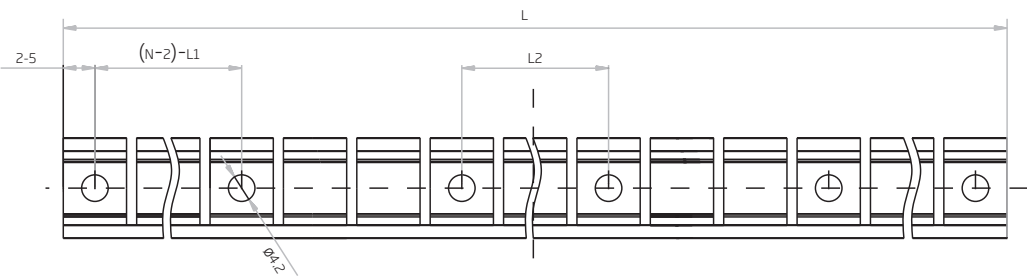
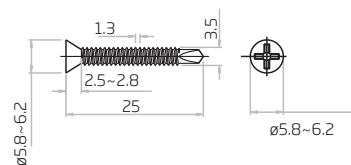
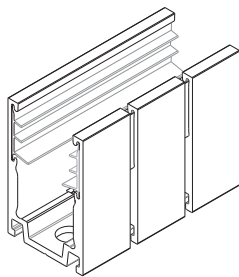
Please refer to the applicable installation ways.

Test Object	No.	Experiment Item	Standard
Metal Parts	1	Weather Resistance-Salt Spray	IEC 68-2-11
Mounting profile	2	Clamping force	CLEAR-defined

## Dimension: mm



Tolerance:  $\pm 0.3\text{mm}$



Note:  
1. 2-5 refers to two of symmetric 5mm in each piece of profile.  
2. (N-2)-L1 refers to (N minus two) of symmetric L1 in each piece of profile.  
"N" hereby stands for its corresponding "Hole Number" in the below table

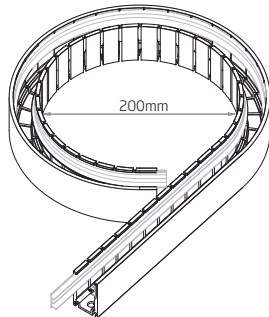
Item Code	Standard Length	L1	L2	Screw Hole	Hole Number
F10-BSA/PL-500MM-AL	500mm/19.68in	116.5mm/4.59in	23.3mm/0.92in	$\phi 4.2\text{mm}/0.17\text{in}$	6
F10-BSA/PL-1000MM-AL	1000mm/39.37in	116.5mm/4.59in	58.2mm/2.29in	$\phi 4.2\text{mm}/0.17\text{in}$	10

# Installation Instructions

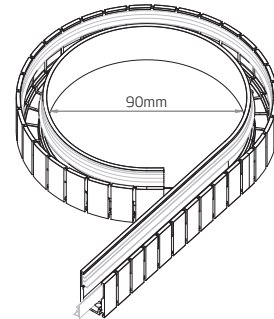
Friendly Reminder: please read instructions carefully before operation.

## Bending Diameter

Min. Bending Diameter (Toothed Side inwards)

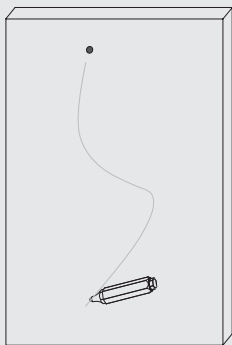


Min. Bending Diameter (Toothed Side outwards)



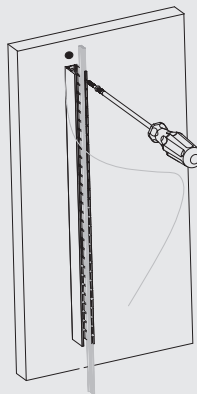
## Installation

### ➤ Step 1



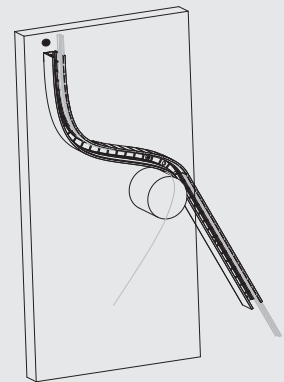
Mark the required shape on the mounting surface or print the sketch in the scale of 1:1 if complicated.

### ➤ Step 2



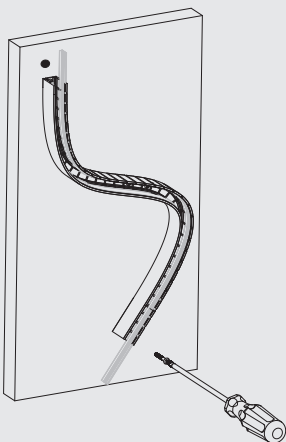
Get the front connector outside of profile and keep at least 10mm more apart. Fix the screw starting from the power input end.

### ➤ Step 3



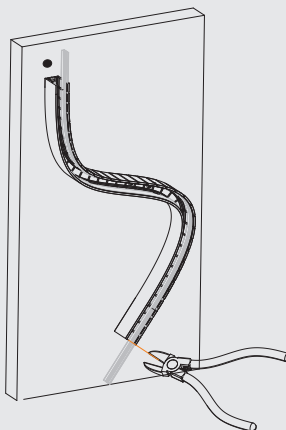
Use cylinder or disc-like object you have to assist with shaping.

### ➤ Step 4



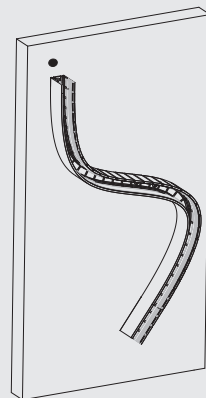
Fix the rest in sequence along with the marks.

### ➤ Step 5



Adjust the serrate silicone tape and remove the redundant lengths at both ends.

### ➤ Step 6



Finish and fix the light in.





# Operating Instruction for Profiles

## Profile Processing

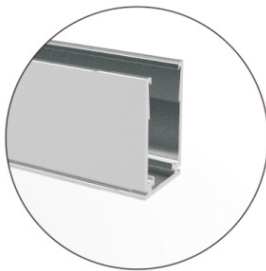


1. It's not recommended to process the profile without any protection by finishing or coating, etc.
2. If any similar demands, please keep the profile clean after processing.
3. For the profile involved the serrated tape, please take its serrated tape out to avoid being deformed and useless affected by the high temperature generated, or discuss with the manufacturer to separate the package in advance.

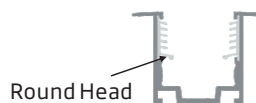
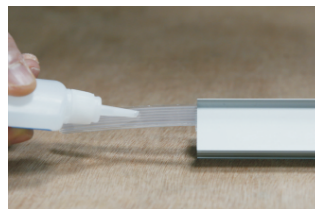
Serrate Tape



## Profile Cutting

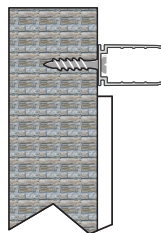
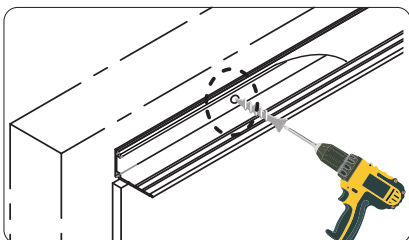


Make sure the cross-section of profile is smooth without any burrs when cutting, otherwise the light housing will be impaled and cause water ingress.

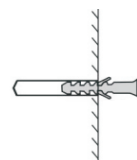


For the profiles involved serrated tape, in case of any drop of serrated tape after cutting, please insert and fix it to the profile by a few adhesive glues on its backside, 5~8mm diameter of touching area is enough. Make sure its round head on the edge is downward when putting back.

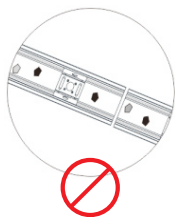
## Profile Installation



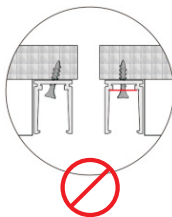
Install the screw into position and ensure the screw head is in line with or lower than the base of aluminum profile.



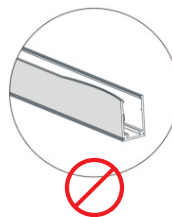
Place the rubber expansion bolt to assist with the screw fixation if the mounting surface is rigid.



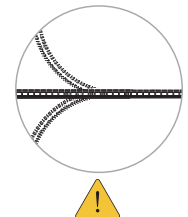
Make sure no debris in the profile before installation to avoid the light housing being impaled and cause water ingress.



Make sure no bulges on the slot to avoid the damage on the light and cause water ingress.



Do not use the profile deformed seriously.

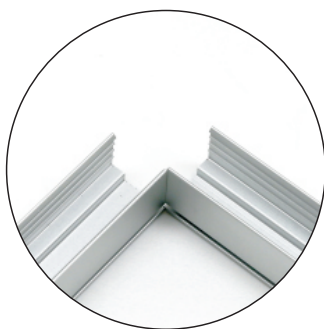


It's recommended to mount in place at a time when using the bendable aluminum profile in case of any break due to the frequent repeated shaping.

# Profile Jointing



1. Please reserve at least 5mm for profile jointing to enable enough space for contraction and expansion.



2. The profiles can be jointed to a right angle only if there are two pieces of lights connected to be a right angle.



3. For the curve shaping of light, make sure to leave enough space to separate profiles in between or use the bendable profile instead.

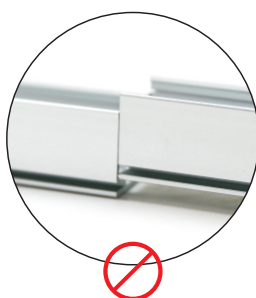
## 4. Splice Structure on Mounting Surface

In the case of an outdoor mounting surface with the splice structure, please make sure the mounting profile goes across the gap or separate the light and profile as per the splice structure.

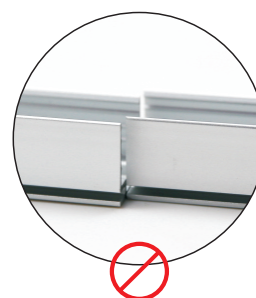
When the profile jointing lies where the mounting surface splices, contraction and expansion of the mounting surface in the long term will cause the misalignment of profiles and lights, and lead to the damage of inside PCB.



Angular Misalignment



Parallel Vertical Misalignment



Parallel Horizontal Misalignment

Above wrong misalignments will make the light improperly bent, and lead to the wrinkle or fracture on PCB.

## Light Installation



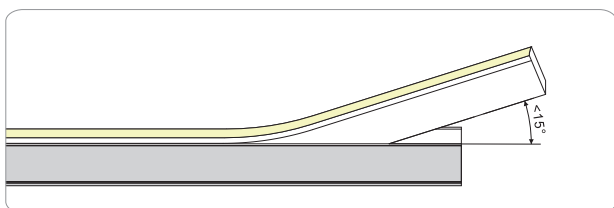
It's not recommended to install the light repeatedly, otherwise the light inside might be damaged.



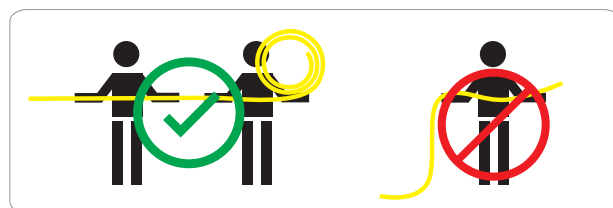
Make sure the light is fitted in vertically.



Press the light into the profile by the palm instead of the finger, otherwise it might damage inside electronic components due to the overpressure caused.

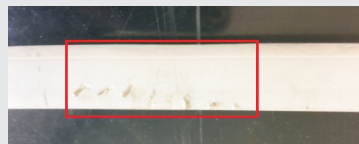
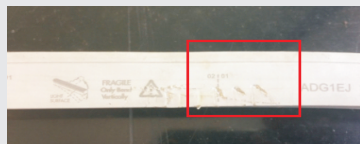


Make sure the angle between the light and profile is not bigger than 15°, otherwise inside PCB might be damaged.

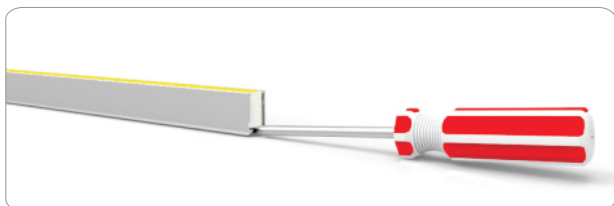


When light length > 2m, make sure somebody helps to lift the light, in case the heavy weight of light itself generates too small bending angle or twisting, which may damage inside PCB.

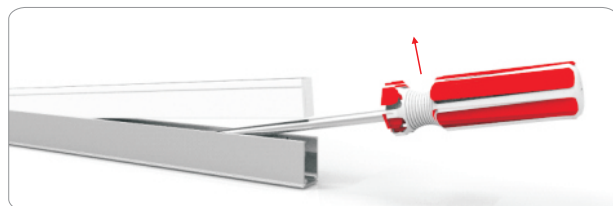
Make sure the light body is not scratched during installation, otherwise the light housing will be impaled and cause water ingress.



## Light Uninstallation



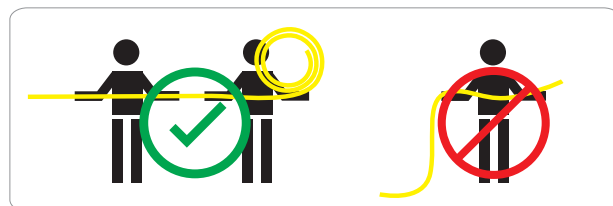
Prepare a screwdriver, and put the screwdriver at the bottom of light.



Move the screwdriver and unclench the light upwardly. Be careful the angle between the light and profile should not be bigger than 15°.



Once the end of light is out, hold both sides of light by hand and pull it out along the profile slowly and orderly. Make sure the angle between the light and profile is not bigger than 15°, otherwise inside PCB might be damaged.

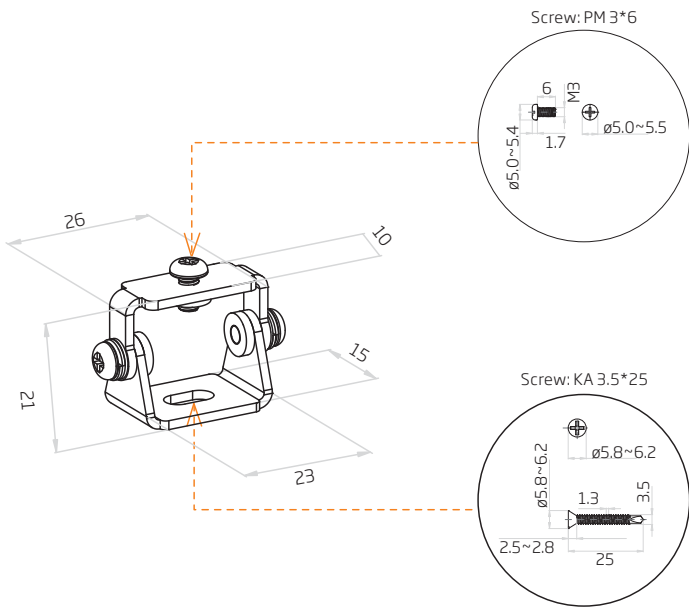
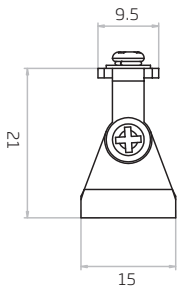
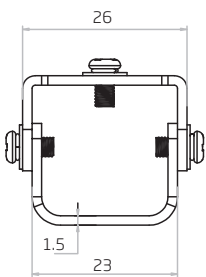


When light length > 2m, make sure somebody helps to lift the light, in case the heavy weight of light itself generates too small bending angle or twisting, which may damage inside PCB.

# Pivot Mounting Bracket



Item Code: PM/B



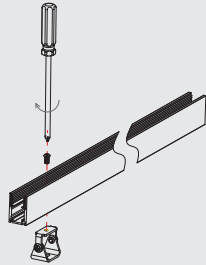
**Note:**  
Applicable to all types of mounting profiles

## Installation Instructions

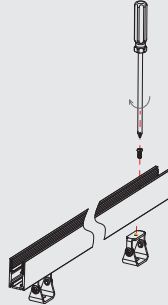
### ➤ Step 1



### ➤ Step 2



### ➤ Step 3



#### Step 1:

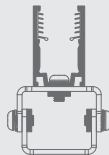
Remove the upper screw from pivot mounting bracket.

#### Step 2:

Fix pivot mounting bracket and mounting profile tightly by the screw.

#### Step 3:

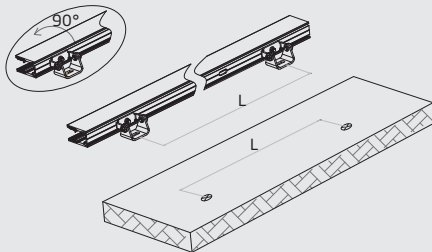
Repeat step 1 & step 2 for the remaining brackets and secure at least 2 locking points for each mounting profile, and the equal interval is more recommended.



#### Warning:

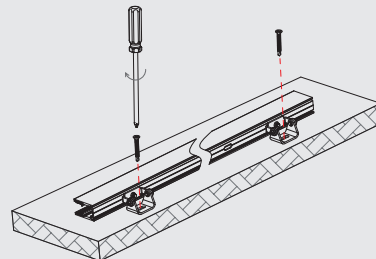
Keep pivot mounting bracket and mounting profile parallel from the side view.

### ➤ Step 4



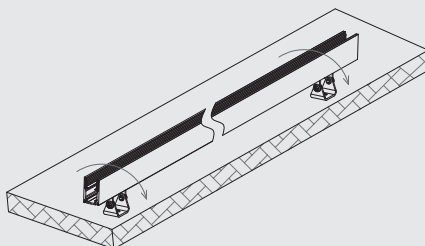
Rotate pivot mounting bracket till the showing up of the unfixed screw hole to facilitate the installation with mounting surface as per the pre-marked hole.

### ➤ Step 5



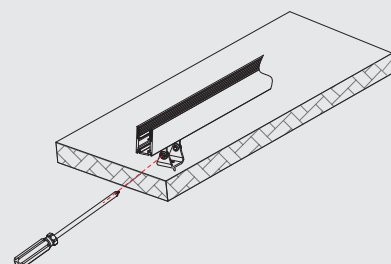
Fix pivot mounting bracket to mounting surface by KA3.5\*25 screw.

### ➤ Step 6



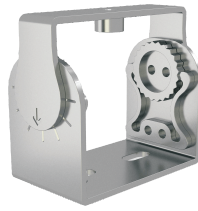
Adjust the angle of mounting profile to the one required.

### ➤ Step 7

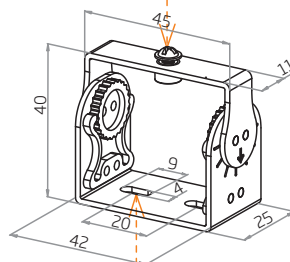
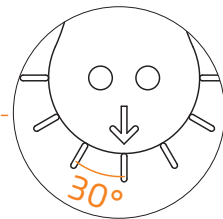
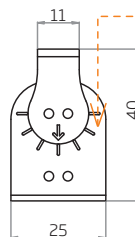
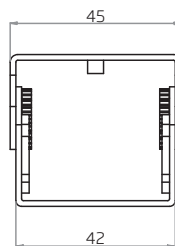


Tighten the side screws of pivot mounting bracket to avoid loosened locking point.

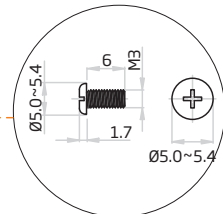
# Rotary Locking Bracket



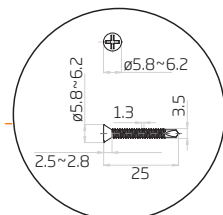
Item Code: RL/B



Screw: PM3\*6 1PC



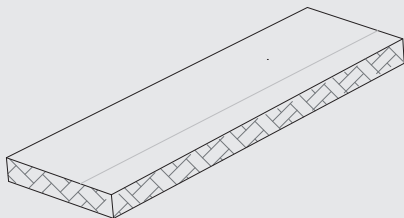
Screw: KA 3.5\*25 2PCS



Note:  
Applicable to all types of mounting profiles

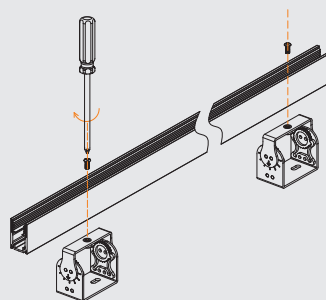
## Installation Instructions

### ➤ Step 1



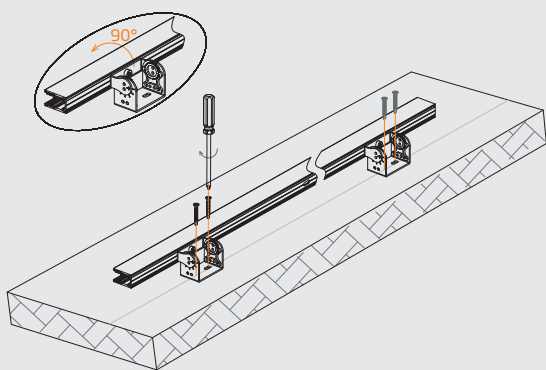
Mark the installation position on the mounting surface.

### ➤ Step 2



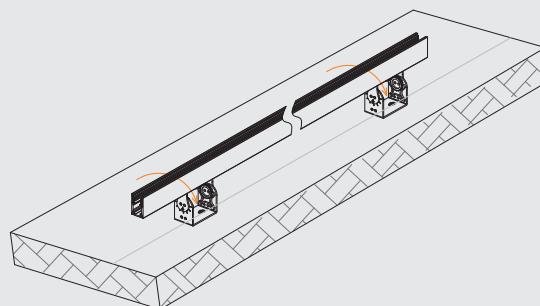
Fix the mounting profile to the rotary locking bracket by screws.

### ➤ Step 3



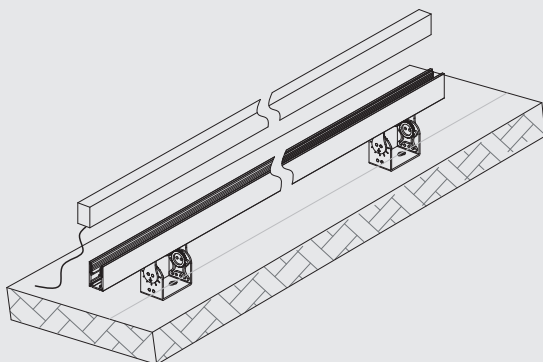
Lay the mounting profile aside and fix the rotary locking bracket to the mounting surface by screws along the marking line.

### ➤ Step 4



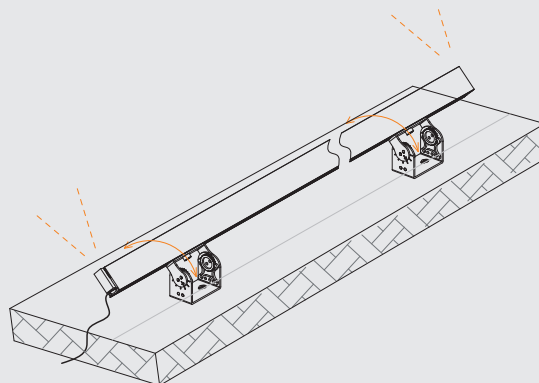
Turn back the mounting profile.  
Please skip to step 7 for length extension (one piece of light crossing multiple pieces of mounting profiles).

### ➤ Step 5



Install the light orderly and leave the front connector and end cap outside of mounting profile .

### ➤ Step 6

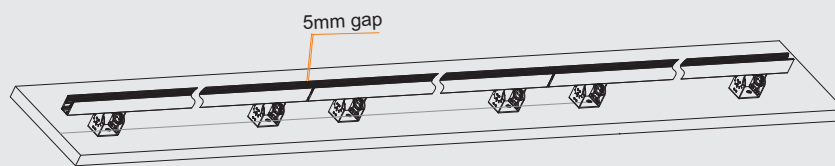


Power on the light and rotate the mounting profile to the desired lighting angle.



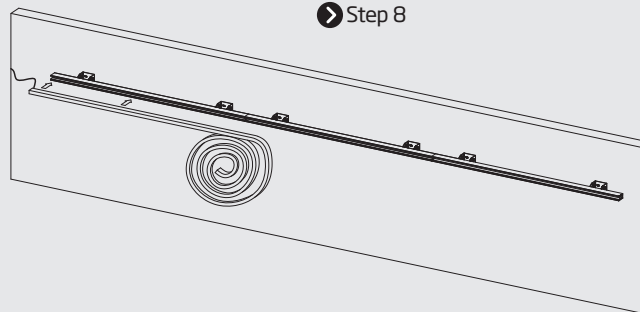
For length extension (one piece of light crossing multiple pieces of mounting profiles)

➤ Step 7



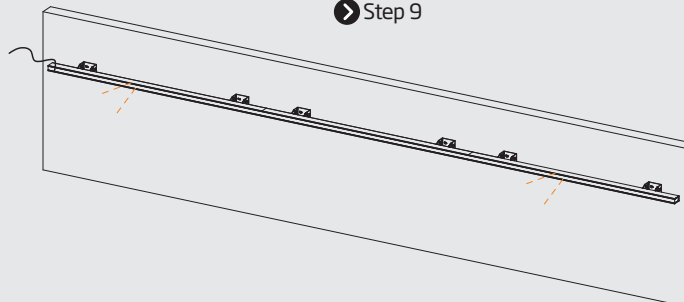
Please reserve 5mm gap between mounting profiles in case of contraction and expansion.

➤ Step 8



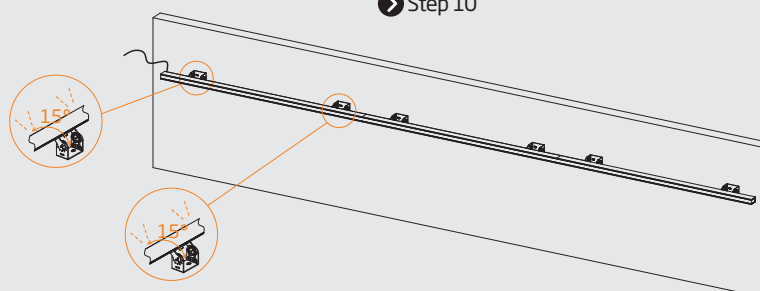
Fit the light into the first piece of mounting profile and keep the remaining lights coiled. Next repeat step 6 to adjust the lighting angle.

➤ Step 9



Adjust the rest of mounting profile to the same angle and then install the coiled light orderly.

➤ Step 10

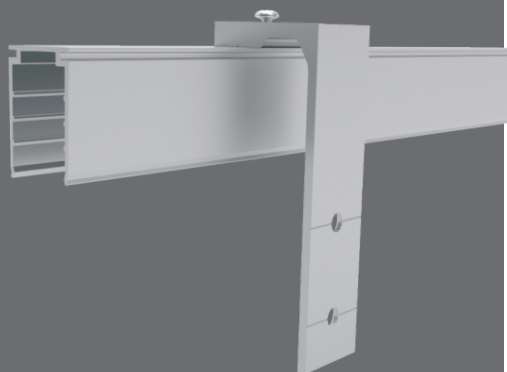


If you need further adjustment after installation, please fine tune rotary locking bracket 15 degree each time one by one in case of twisting on lights.

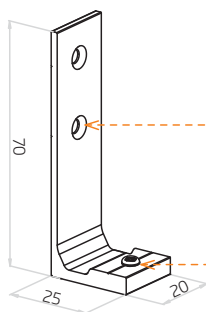




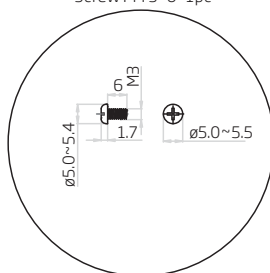
## Side Mounting Bracket



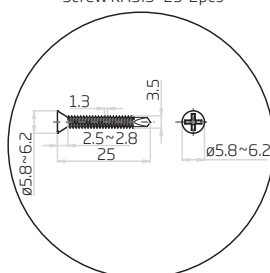
Item Code: SM/B



Screw PM3\*6 1pc



Screw KA3.5\*25 2pcs

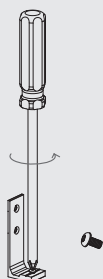


**Note:**

Applicable to all types of mounting profiles

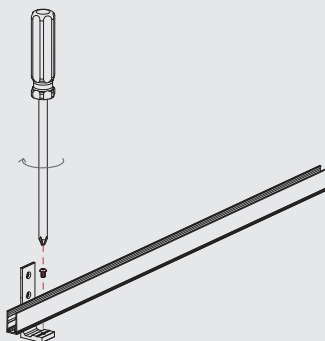
## Installation Instructions

### ➤ Step 1



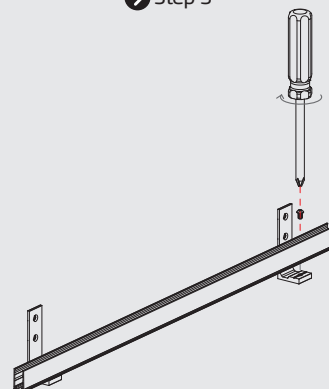
Remove the PM3\*5 screw of side mounting bracket.

### ➤ Step 2



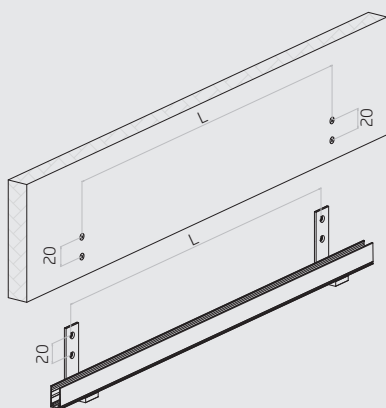
Fix side mounting bracket and mounting profile tightly by the screw.

### ➤ Step 3



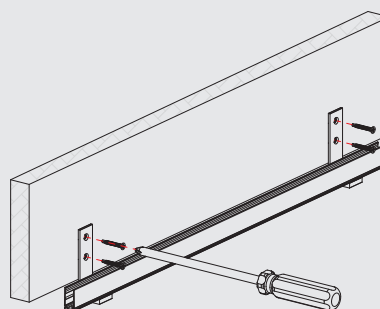
Repeat step 1 & step 2 for the remaining brackets and secure at least 2 locking points for each mounting profile, and the equal interval is more recommended.

### ➤ Step 4



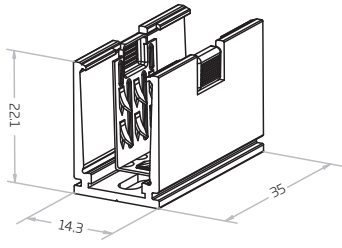
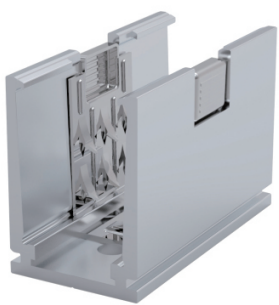
Mark the pilot holes on mounting surface accordingly.

### ➤ Step 5

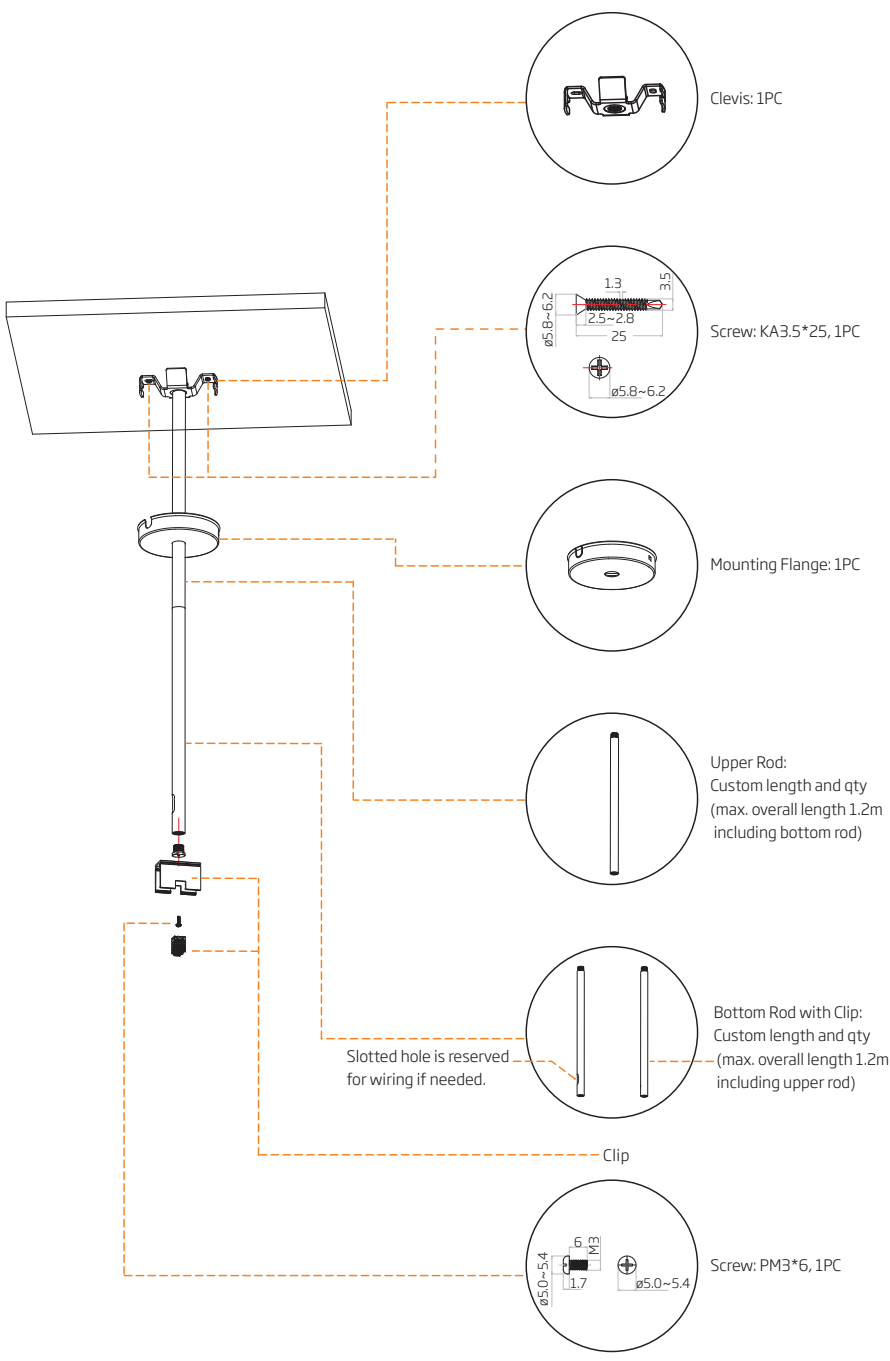


Fix the side mounting bracket by KA3.5\*25 screws.

# Suspended Mounting Clip



Item Code: SM/C



# Installation Instructions

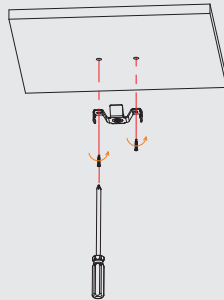
## Suspended Mounting Rod **without Wiring**

### ➤ Step 1



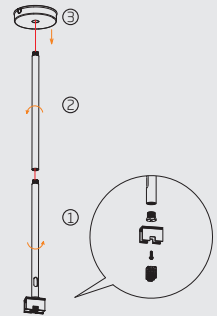
Mark the installation position of clevis on the ceiling with sufficient load-carrying capacity.

### ➤ Step 2



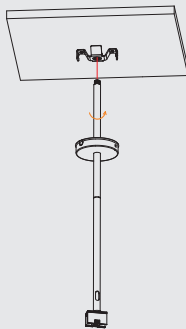
Tighten the clevis by screws.

### ➤ Step 3



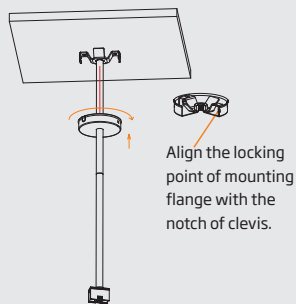
Assemble the mounting flange and the rods in order of ①②③.

### ➤ Step 4



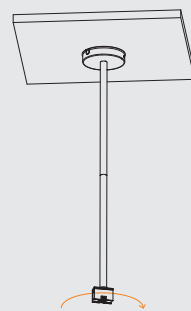
Rotate and fasten them clockwise.

### ➤ Step 5



Shield the clevis by the mounting flange and rotate anticlockwise until it clicks into place.

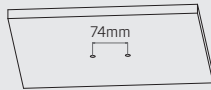
### ➤ Step 6



Adjust the clip to the angle you need (max. 180° in a clockwise direction).

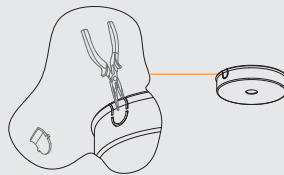
## Suspended Mounting Rod with Surface Wiring

### ➤ Step 1



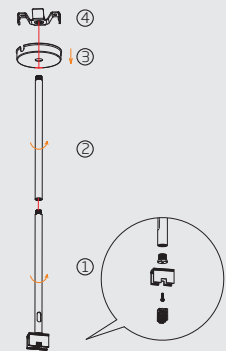
Mark the installation position of clevis on the ceiling with sufficient load-carrying capacity.

### ➤ Step 2



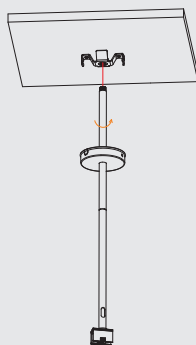
Cut a cable hole along with the pre-marked notch on the lateral side of mounting flange.

### ➤ Step 3



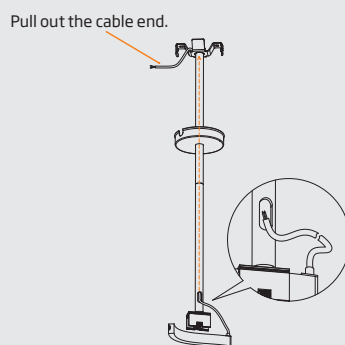
Assemble the mounting flange and the rods in order of ① ② ③ ④.

### ➤ Step 4



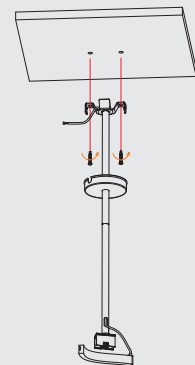
Rotate and fasten them clockwise.

### ➤ Step 5



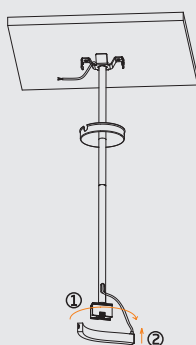
Thread the cable through slotted hole to the top of rod.

### ➤ Step 6



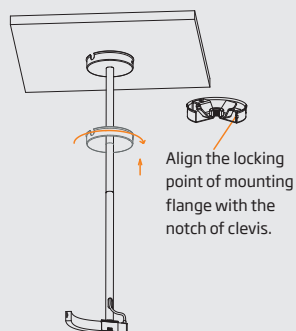
Tighten the clevis by screws.

### ➤ Step 7



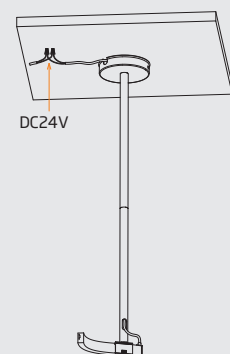
- ① Adjust the clip to the angle you need (max. 180° in a clockwise direction).
- ② Install the light to the clip and adjust the cable length.

### ➤ Step 8



Align the locking point of mounting flange with the notch of clevis.  
Shield the clevis by the mounting flange and rotate anticlockwise until it clicks into place.

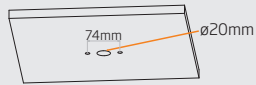
### ➤ Step 9



Connect the Power DC24V

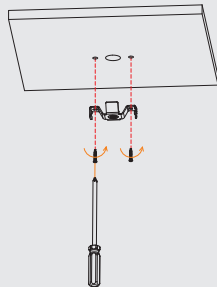
## Suspended Mounting Rod with Concealed Wiring

### ➤ Step 1



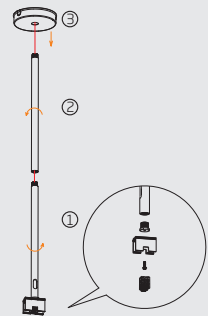
Mark the installation position of clevis on the ceiling with sufficient load-carrying capacity, and in between punch a Ø20mm cable hole.

### ➤ Step 2



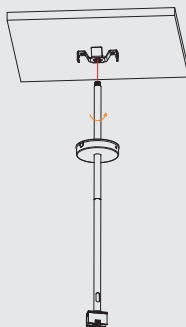
Tighten the clevis by screws.

### ➤ Step 3



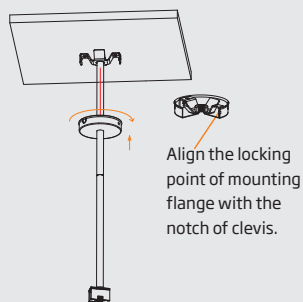
Assemble the mounting flange and the rods in order of ① ② ③.

### ➤ Step 4



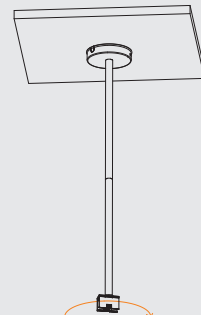
Rotate and fasten them clockwise.

### ➤ Step 5



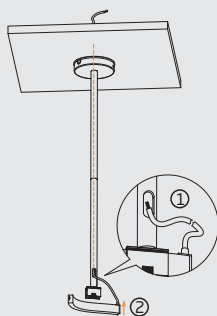
Shield the clevis by the mounting flange and rotate anticlockwise until it clicks into place.

### ➤ Step 6



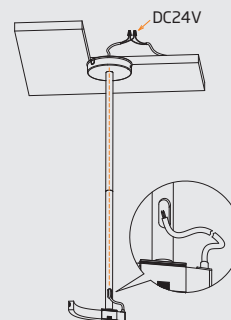
Adjust the clip to the angle you need (max. 180° in a clockwise direction).

### ➤ Step 7



- ① Thread the cable through holes to the inside of ceiling.
- ② Install the light to the clip and adjust the cable length.

### ➤ Step 8

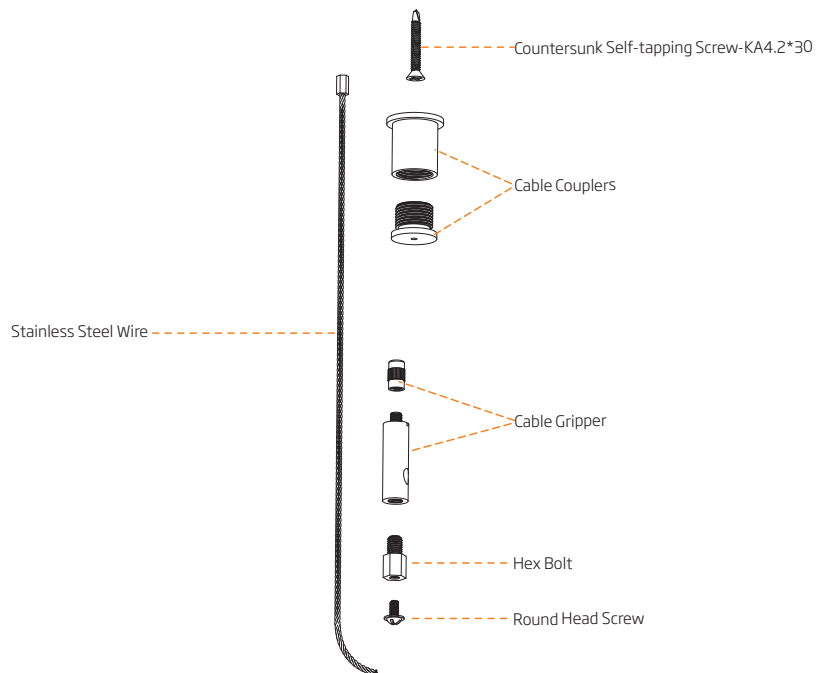
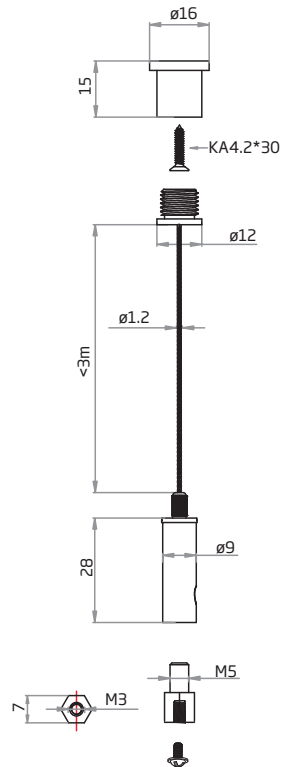


Connect the Power DC24V

## Suspended Mounting Wire



Item Code: SM/W



### Note:

Applicable to serrated aluminum profile.

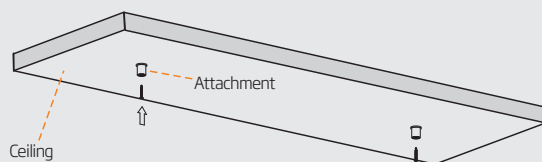
2 sets of stainless steel wires are offered to pair with 1 piece of 1m serrated aluminum profile.

3 sets of stainless steel wires are offered to pair with 1 piece of 2m serrated aluminum profile.



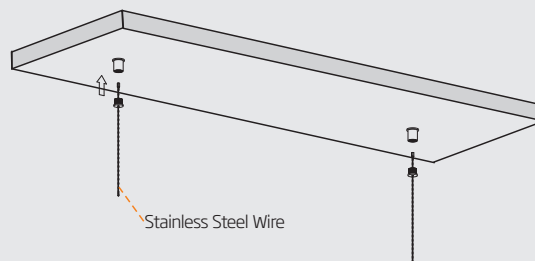
## Installation Instructions

### ➤ Step 1



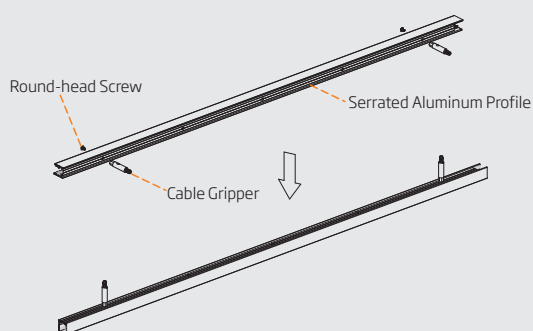
Mount the attachment of cable couplers to the ceiling with sufficient load-carrying capacity and tighten them with screws.

### ➤ Step 2



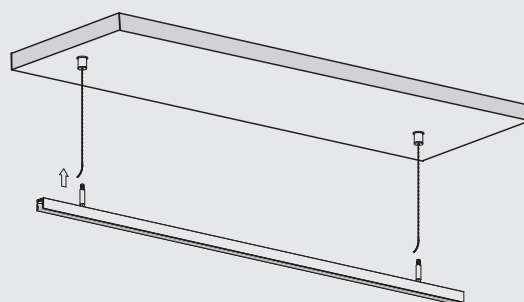
Thread the stainless steel wire through the male screw of cable couplers and then connect to the mounted attachment of cable couplers.

### ➤ Step 3



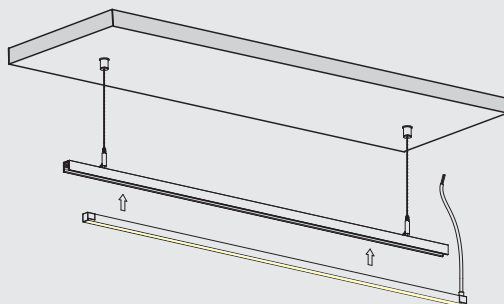
Insert the screw into the serrated aluminum profile to lock with the cable gripper sliding from the bottom slot of serrated aluminum profile.

### ➤ Step 4



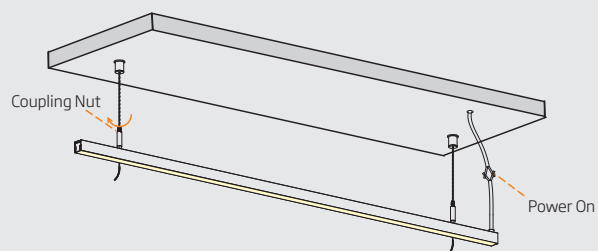
Thread the stainless steel wire through the bushing of cable gripper.

### ➤ Step 5



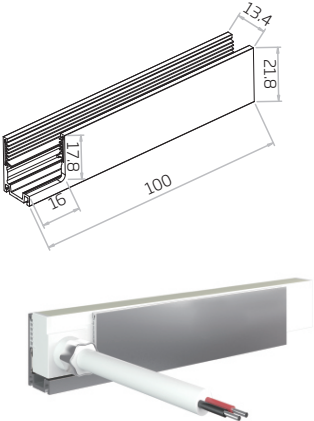
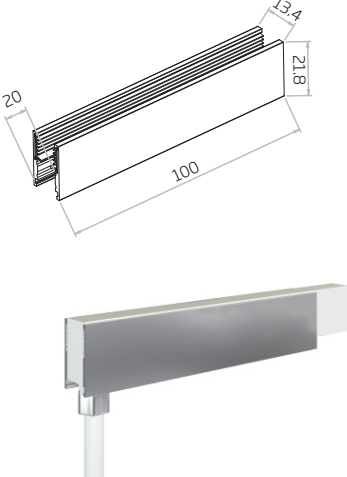
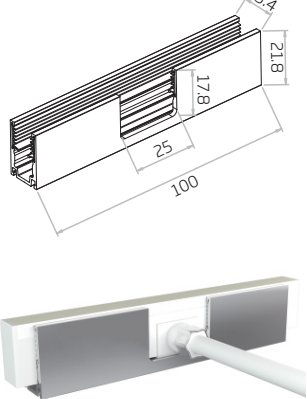
Fix the light into the aluminum profile.

### ➤ Step 6



Adjust the length of stainless steel wires to the desired height. Tighten the coupling nut and cut or roll up the excess stainless steel wires after the power-on test.

# Cable-exit Mounting Clip

Cable-exit Mounting Clip-Side	Cable-exit Mounting Clip-Bottom	Cable-exit Mounting Clip-Middle Side
<p>Item Code F10-SA/PL-SR F10-SA/PL-SL</p>  <p>Applicable to the following products: C-FR-F10B-HB</p>	<p>Item Code F10-SA/PL-B</p>  <p>Applicable to the following products: C-FR-F10B-HB</p>	<p>Item Code F10-SA/PL-MS</p>  <p>Applicable to the following products: C-FR-F10B-HB</p>

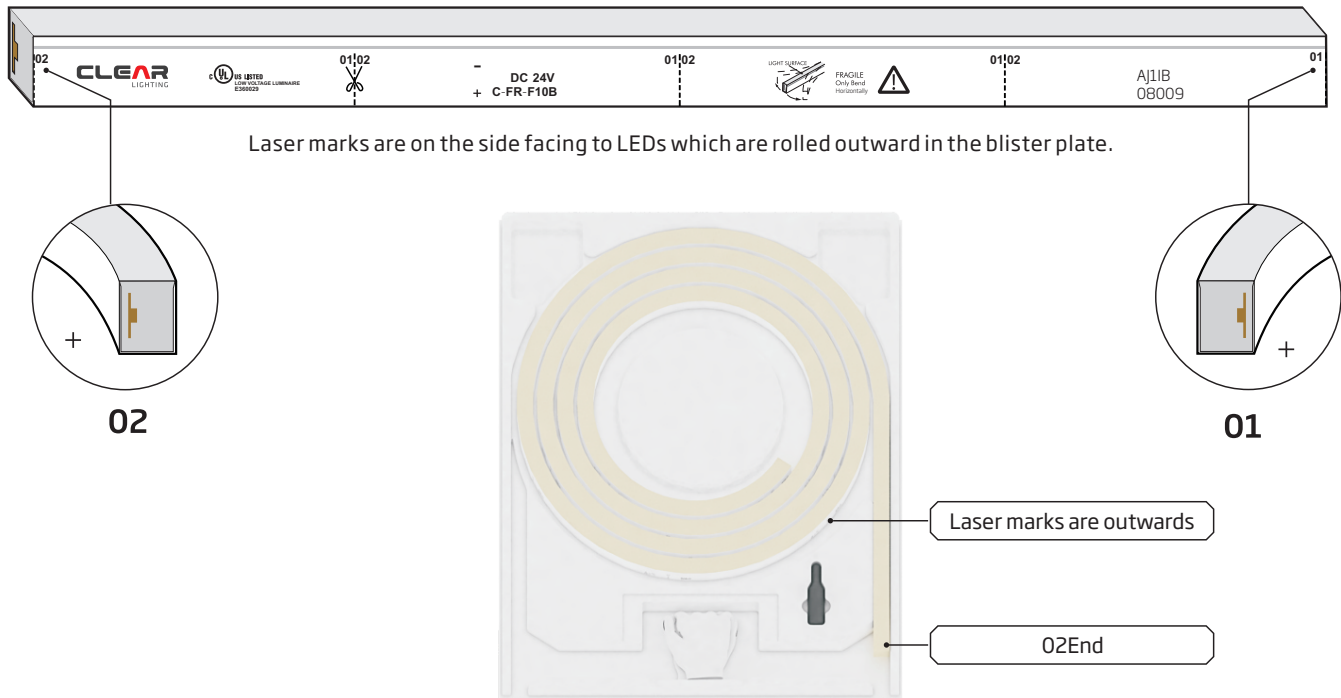
**Warning:**  
Cable-exit mounting clip-middle side must be preinstalled for injection-moulded seamless middle connector as protection during transportation.

- Note:**
1. Applicable to single-layer injection-moulded connector with side, or bottom cable entry, whose size can be matched exactly.
  2. Allow the cable to exit from gap loosely without over-bending and protect the cable joint from the damage of excessively external force in the process of installation.
  3. 10cm/piece, combined with other lengths of mounting profiles to fit the equivalent light length.

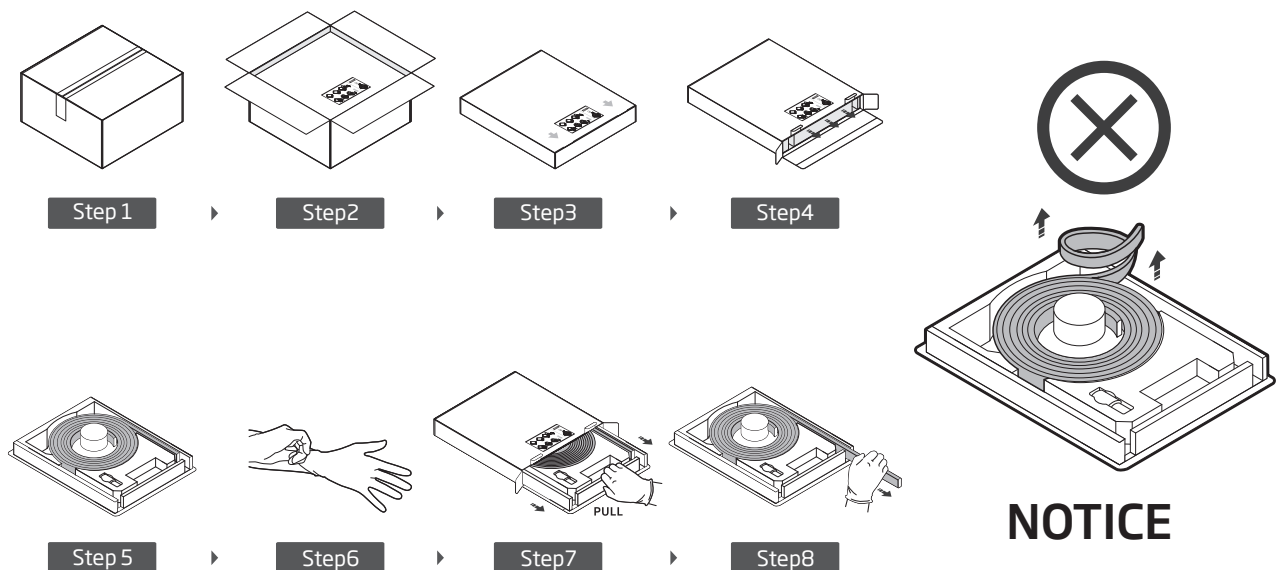


# Standard Packaging:

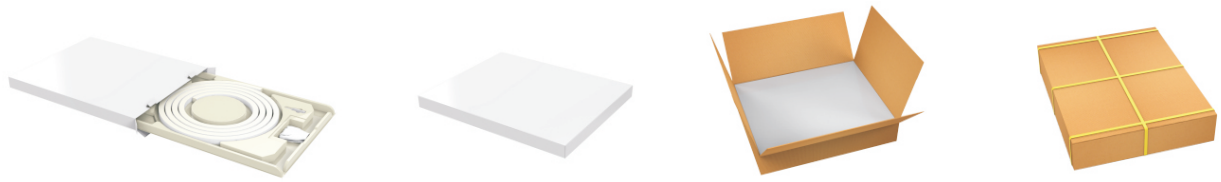
## F10-HB



## Unpacking White Box Packaging



## Flexglo™ F10 White Box Packaging



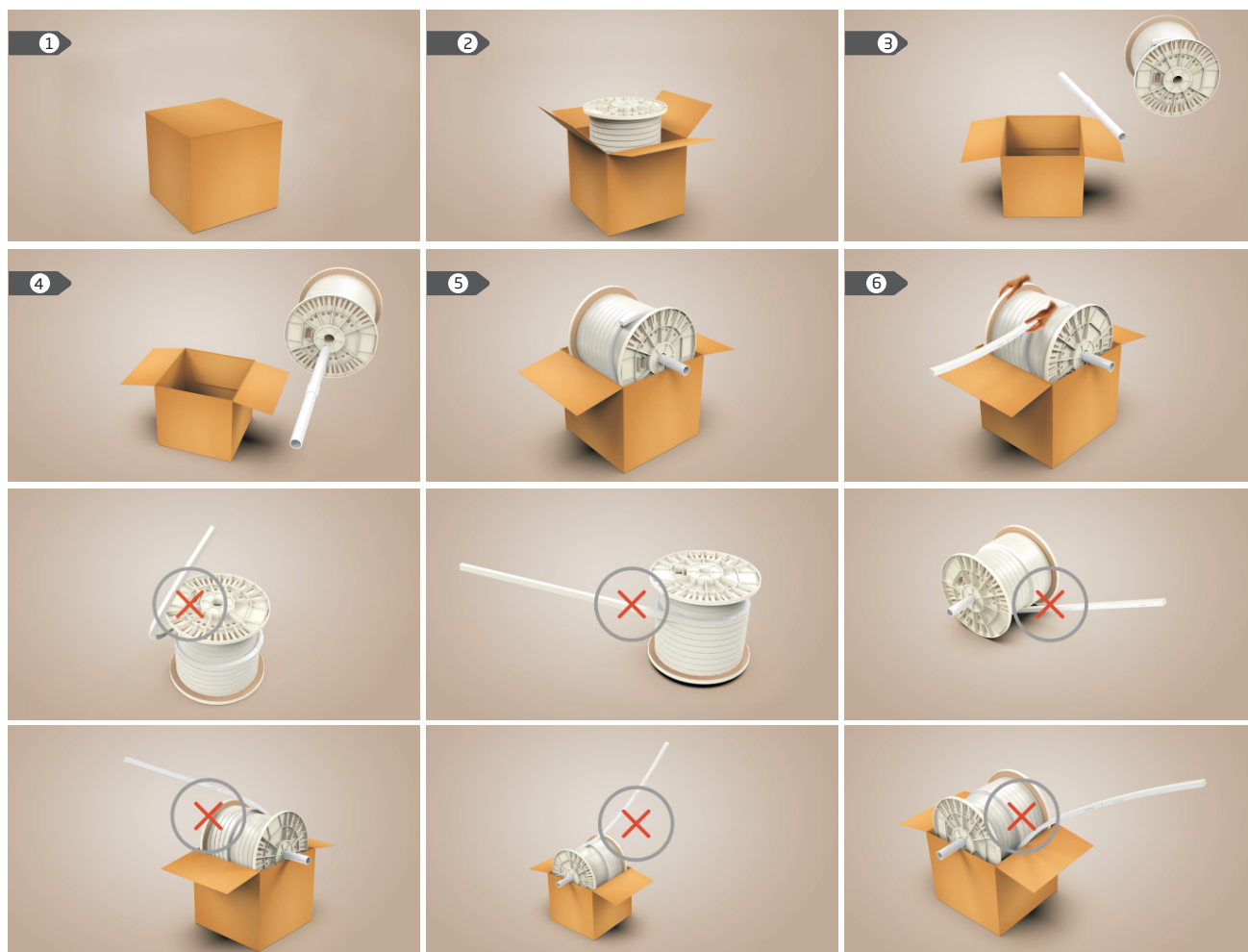
Cable Entry	Packing Length of PVC Product, L (m/box)	Packing Length of Silicone Product, L (m/box)	Inner Box Qty Per Carton (box/ctn)	Carton Dimension (cm)	G.W. of PVC Product (kg)	G.W. of Silicone Product (kg)
End / Side Feed	5	3.2	5	47.5*36*22.5	8.98	6.90
	5	3.2	1	48.2*37.2*5.3	2.09	1.67
	5	3.2	2	47.5*36*10.5	3.63	2.80
	10	8.2	5	58.5*48*22.5	16.83	14.75
	10	8.2	2	58.5*48*10.5	7.41	6.58
	10	8.2	1	59.2*49.2*5.3	3.78	3.37
	15	13.2	5	63.5*52*27.5	23.75	21.67
	15	13.2	3	63.5*52*17.5	14.72	13.47
	15	13.2	1	64.2*53.2*6.3	5.16	4.74
	20	18.2	2	73.5*62.5*10.5	13.52	12.69
	20	18.2	1	74.2*63.7*5.3	6.92	6.50
	20	18.2	3	74.3*63.8*14.5	19.54	18.29
	30	28.2	2	80.5*69*12.5	18.96	18.13
	30	28.2	1	81.2*70.2*6.3	9.70	9.29
Bottom Feed	5	3.2	5	51.5*40*27.5	9.83	7.76
	5	3.2	2	51.5*40*12.5	4.30	3.47
	5	3.2	1	52.2*41.2*6.3	2.28	1.86
	5	3.2	1	48.2*37.2*5.3	2.09	1.67
	5	3.2	1	52.2*41.2*7.3	2.31	1.89
	5	3.2	5	51.5*40*32.5	10.07	7.99
	10	8.2	1	59.2*49.2*5.3	3.78	3.37
	10	8.2	1	64.2*53.2*7.3	4.03	3.61
	10	8.2	3	63.5*52*20.5	11.45	10.20
	10	8.2	5	63.5*52*32.5	17.94	15.86
	20	18.2	1	74.2*63.7*5.3	6.92	6.50
	20	18.2	1	81.2*70.2*7.3	7.48	7.06
	20	18.2	2	80.5*69*14.5	14.60	13.77
Middle Feed	≤5	/	5	47.5*36*22.5	8.98	/
	≤5	/	1	48.2*37.2*5.3	2.09	/
	5<L≤10	/	5	58.5*48*22.5	16.83	/
	5<L≤10	/	1	59.2*49.2*5.3	3.78	/
	10<L≤15	/	5	63.5*52*27.5	23.75	/
	10<L≤15	/	3	63.5*52*17.5	14.72	/
	15<L≤20	/	2	73.5*62.5*10.5	13.52	/
	15<L≤20	/	1	74.2*63.7*5.3	6.92	/

Note:

1, Min. volume of package shall be offered based on the actual order.

2, Packing details are subject to change, and please refer to the final packing list of each order.

# Unpacking Reel Packaging



## Flexglo™ F10 Reel Packaging





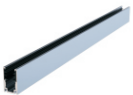
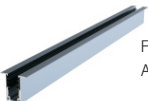

Cable Entry	Packing Length of PVC Product (m/reel)	Reel Qty Per Carton (reel/ctn)	Carton Dimension (cm)	G.W. of PVC Product (kg)
End / Side / Bottom Feed	20	1	34.0*34.0*12.0	5.06
	30	1	36.0*36.0*12.0	7.37
	50	1	34.0*34.0*24.0	12.32
	50	1	37.0*37.0*26.5	12.38
	100	1	37.0*37.0*26.5	23.93

### Note:

1, Min. volume of the package shall be offered based on the actual order.

2, Packing details are subject to change, and please refer to the final packing list of each order.

Flexglo™ F10 Mounting Profile Packaging

Type	Profile Length(mm)	Carton Dimension(cm)	Qty(pcs)	G.W.(kg)
 Aluminum Profile	35	29.0*22.0*14.5	1120	6.60
	500	55.0*12.0*12.0	36	4.00
	1000	104.0*26.5*13.2	80	13.80
	2000	206.0*19.0*12.0	45	15.50
 Flange Aluminum Profile	35	29.0*22.0*14.5	700	4.50
	500	55.0*12.0*12.0	24	3.50
	1000	104.0*26.5*13.2	42	8.00
	2000	206.0*19.0*12.0	36	12.60
 Serrated Aluminum Profile	20	29.0*22.0*14.5	1300	6.30
	500	55.0*12.0*12.0	32	5.50
	1000	104.0*26.5*13.2	72	16.80
	2000	206.0*19.0*12.0	42	20.00
 Flange Serrated Aluminum Profile	20	29.0*22.0*14.5	780	4.20
	500	55.0*12.0*12.0	16	2.40
	1000	104.0*26.5*13.2	44	10.80
	2000	206.0*19.0*12.0	28	13.80
 Bendable Serrated Aluminum Profile	500	55.0*12.0*12.0	32	3.50
	1000	104.0*26.5*13.2	72	15.00