

Flexglo™ F15B Monochrome - AC230V White Light (PVC)



Certification Mark	CE	CE	CE	CE	CB	SAA
Test Standard/Directive	CE-LVD	CE-EMC	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	LCS191008146BS	LCS191008145BE	DE 2-018301	TUV017540EA
Report Reference	17036967 001	17037105 001	LCS191008146BS	LCS191008145BE	14713952 001	



Ambient Working Temperature
≤12W/m -20 ~ 35°C / -4 ~ 95°F

Ambient Installation Temperature
5 ~ 35°C / 41 ~ 95°F

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

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

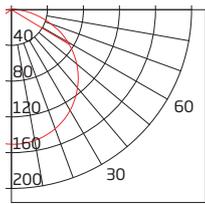
High Voltage
AC230V

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

C-FR-F15B-HB



C-FR-F15B-HB-AC230-30K-WM-72-80-12W-1000



AVERAGE BEAM ANGLE (50%): 114.9°

Min. Cutting Length
166.7mm/6.56in, 14LEDs
1000mm/39.37in, 72LEDs

Min. Bending Diameter
120mm/4.72in

11.5mm/0.45in
21mm/0.83in

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.

Feature

Flexglo™ F15B 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.

Item Code

C	FR	F15B	HB	AC230	30K	WM	72	80	12W	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	F15B= Monochrome	HB= Horizontal Bending	AC230V & High Voltage	22K=2200K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 57K=5700K	WM= White & Milky	72	80	12W	1000
							84		10W	166.7

Electrical Parameter

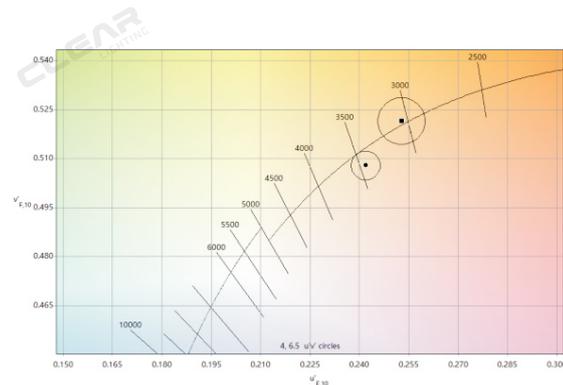
Category	C-FR-F15B-HB	C-FR-F15B-HB
Voltage	230	230
Current (mA/m)	52.2	43.5
Power (W/m)	12	10
Circuit Type	AC	AC
LED Type	2835	5050
LEDs Qty/m	72	84
LEDs Qty/unit	72	14
Unit/m	1	6
Min. Cutting Length (mm)	1000	166.7
Min. Cutting Length (in)	39.37	6.56

Optical Parameter

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-FR-F15B-HB-AC230-22K-WM-84-80-10W-166.7	2200K	2238±102K	<6.5SDCM	80		320lm	98lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-27K-WM-84-80-10W-166.7	2700K	2725±145K	<6.5SDCM	80		400lm	122lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-30K-WM-84-80-10W-166.7	3000K	3045±175K	<6.5SDCM	80		400lm	122lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-35K-WM-84-80-10W-166.7	3500K	3465±245K	<6.5SDCM	80		400lm	122lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-40K-WM-84-80-10W-166.7	4000K	3985±275K	<6.5SDCM	80		400lm	122lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-57K-WM-84-80-10W-166.7	5700K	5669±355K	<6.5SDCM	80		400lm	122lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-22K-WM-72-80-12W-1000	2200K	2238±102K	<6.5SDCM	80		200lm	61lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-27K-WM-72-80-12W-1000	2700K	2725±145K	<6.5SDCM	80		200lm	61lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-30K-WM-72-80-12W-1000	3000K	3045±175K	<6.5SDCM	80		200lm	61lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-35K-WM-72-80-12W-1000	3500K	3465±245K	<6.5SDCM	80		240lm	73lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-40K-WM-72-80-12W-1000	4000K	3985±275K	<6.5SDCM	80		240lm	73lm	<2.3SDCM	82~87
C-FR-F15B-HB-AC230-57K-WM-72-80-12W-1000	5700K	5669±355K	<6.5SDCM	80		240lm	73lm	<2.3SDCM	82~87

Note:

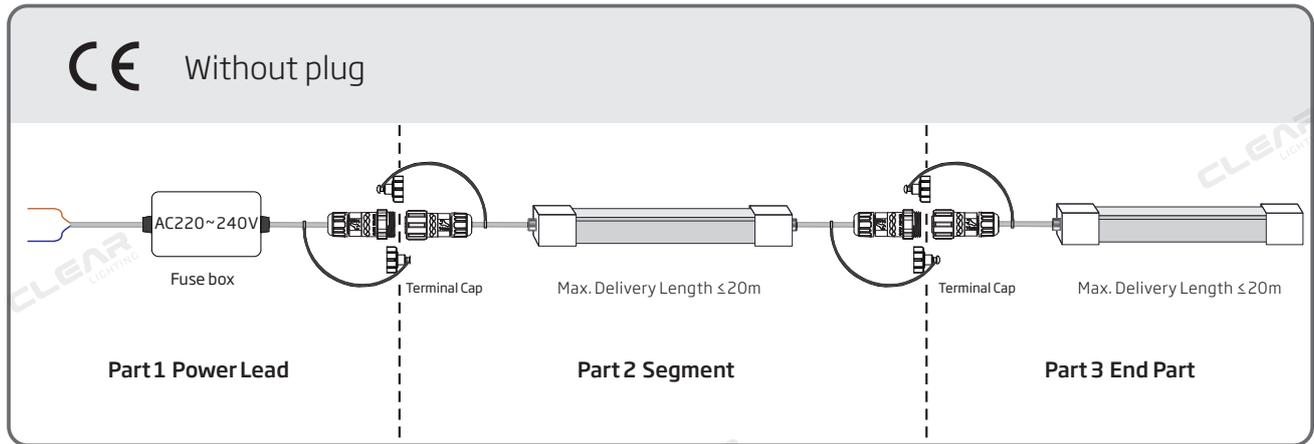
1. CCT Tolerance refers to target CCT and tolerance (ANSI C78.377).
2. Color Tolerance refers to CLEAR standard for the different batch of finished product and LED, and it's <4SDCM for same batches of finished product.



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.

Flexglo™ F15B-AC230V Wiring Diagram



Part 1 Power Lead



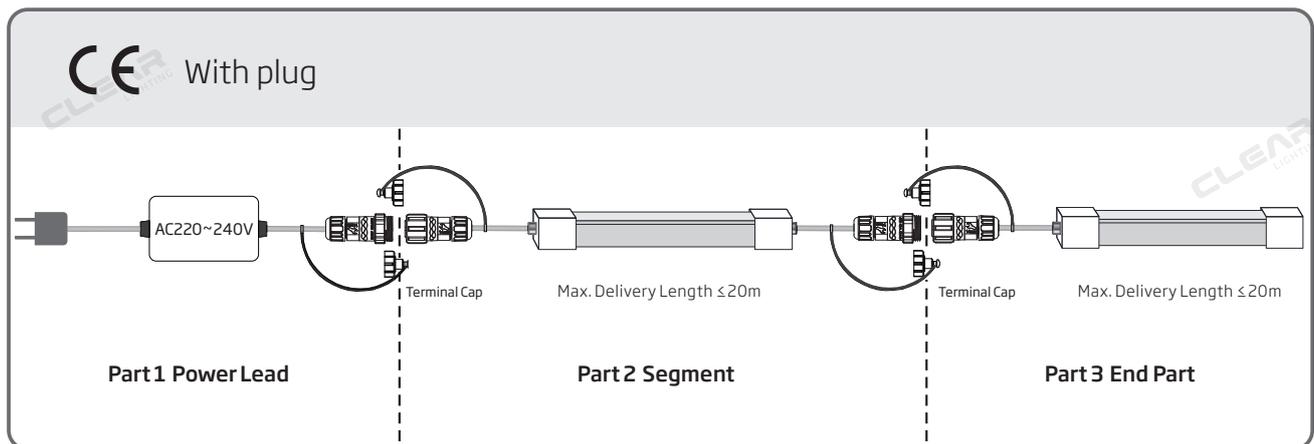
Item Code

PL-AC230-FBox-1800MM



Tolerance: ±2mm

1. It's H05RN-F 2x1.0mm² 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.



Part 1 Power Lead

1. It's H05RN-F 2x1.0mm² 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.



Tolerance: ±2mm



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:

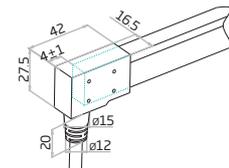
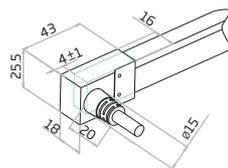
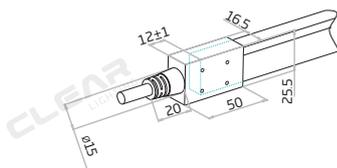
1. The products will be made and preassembled in compliance with the required certificate and lengths, and any cutting or disassembly on site is forbidden.
2. Attention should be paid that all unconnected female connectors shall be sealed with terminal caps.

Part 2 Segment



1. Out of the convenience of installation and maintenance, max. delivery length is 20m each light, and up to 80m in series connection.
2. It's H05RN-F 2x1.0mm² 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
F15B-IM/MC-HV-CE&ETL-E-300MM	F15B-IM/MC-HV-CE&ETL-S-300MM	F15B-IM/MC-HV-CE&ETL-B-300MM



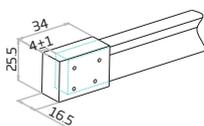
Note: unless otherwise stated, the tolerance is ±0.5mm, To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

Part 3 End Part



1. It's H05RN-F 2x1.0mm² 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.
2. 3 types of cable entry including End, Side, and Bottom are available.

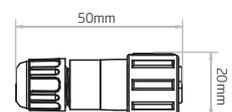
End Cable Entry	Side Cable Entry	Bottom Cable Entry
Item code	Item code	Item code
F15B-IM/EC-HV-CE&ETL-E-300MM	F15B-IM/EC-HV-CE&ETL-S-300MM	F15B-IM/EC-HV-CE&ETL-B-300MM



Female Connector



Male Connector



Note: unless otherwise stated, the tolerance is ±0.5mm

For plug and play cable junction, IP65

Tolerance: ±2mm

F15 Dual Injection-moulded Connector IP68



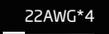
Recommended for,

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°C).
3. Customized lengths and bulky connector.
4. Harsh working conditions .

F15B  18AWG*2

F15D/S(SPI)  18AWG*3

F15A  22AWG*3
20AWG*1

F15E  22AWG*4
20AWG*1

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 F15, 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.

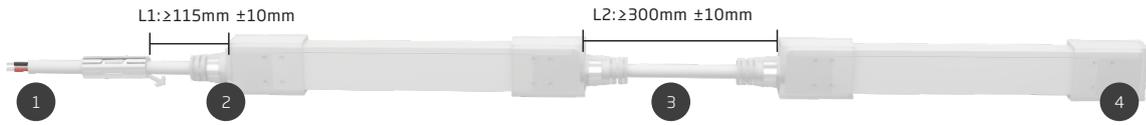
In-house Test

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 [®]
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	2	3	4
<p>Male & Female Connector (Optional)</p> <div data-bbox="212 685 400 869"> <p>Male Connector</p> </div> <div data-bbox="212 1021 400 1205"> <p>Female Connector</p> </div>	<p>Dual Injection-moulded Front Connector</p> <div data-bbox="544 685 732 869"> <p>End</p> </div> <div data-bbox="544 1021 732 1205"> <p>Side-L</p> </div> <div data-bbox="544 1357 732 1541"> <p>Side-R</p> </div> <div data-bbox="544 1693 732 1877"> <p>Bottom</p> </div>	<p>Dual Injection-moulded Middle Connector</p> <div data-bbox="874 685 1062 869"> <p>Dual Injection-moulded Jumper Maximum 8 jumpers in 20m light Maximum 4 jumpers in 10m light</p> </div> <div data-bbox="874 1021 1062 1205"> <p>Dual Injection-moulded T-feed Maximum 8 T-feeds in 20m light Maximum 4 T-feeds in 10m light</p> </div>	<p>Dual Injection-moulded End Cap</p> <div data-bbox="1204 685 1393 869"> <p>End cap</p> </div>

Note:

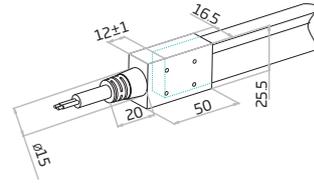
1. Please ensure the cable length is not more than the "maximum cable length" according to light length and its wire gauge to minimize voltage drop.
2. All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering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

Dimension: mm

Dual Injection-moulded Front Connector-End



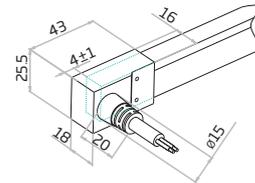
F15B/F15D/F15A/F15E/F15S-HB-DIM/FC-01/02-E



Dual Injection-moulded Front Connector-Side



F15B/F15D/F15A/F15E/F15S-HB-DIM/FC-02-SL

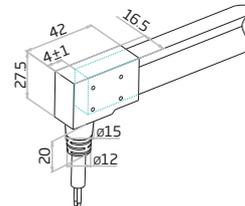


F15B/F15D/F15A/F15E/F15S-HB-DIM/FC-01-SR

Dual Injection-moulded Front Connector-Bottom



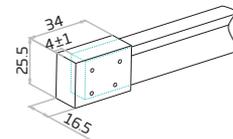
F15B/F15D/F15A/F15E/F15S-HB-DIM/FC-01/02-B



Dual Injection-moulded End Cap



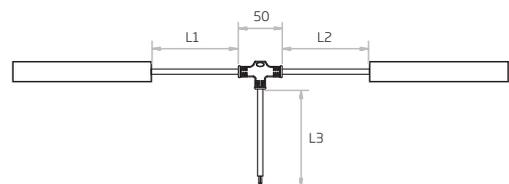
F15-DIM/EC



Dual Injection-moulded Middle Connector & Power T-feed



F15B/F15D/F15A/F15E/F15S-HB-DIM/MC-PTF
L1 and L2 available in 300mm.
L3 available in 300mm/1000mm/3000mm.



Note:

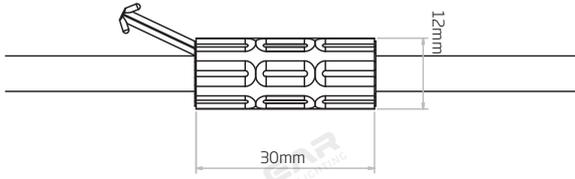
1. Unless otherwise stated, the tolerance of the connector is ± 0.5 mm;
2. To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

Anti-wicking Ferrule

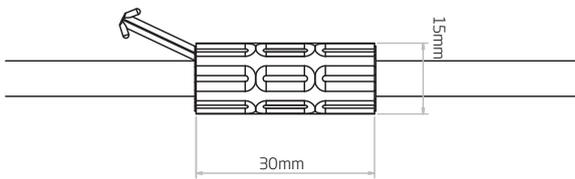


The anti-wicking ferrule is designed to lower the risk of water ingress from the cable in case of inadequate waterproof treatment on site.

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



F15B 18AWG*2



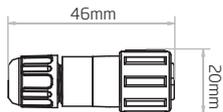
F15D/S (SPI) 18AWG*3 **F15A** 22AWG*3 / 20AWG*1 **F15E** 22AWG*4 / 20AWG*1

Note:
 1. Unless otherwise stated, the tolerance is ±0.5mm.
 2. The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

Male & Female Connector

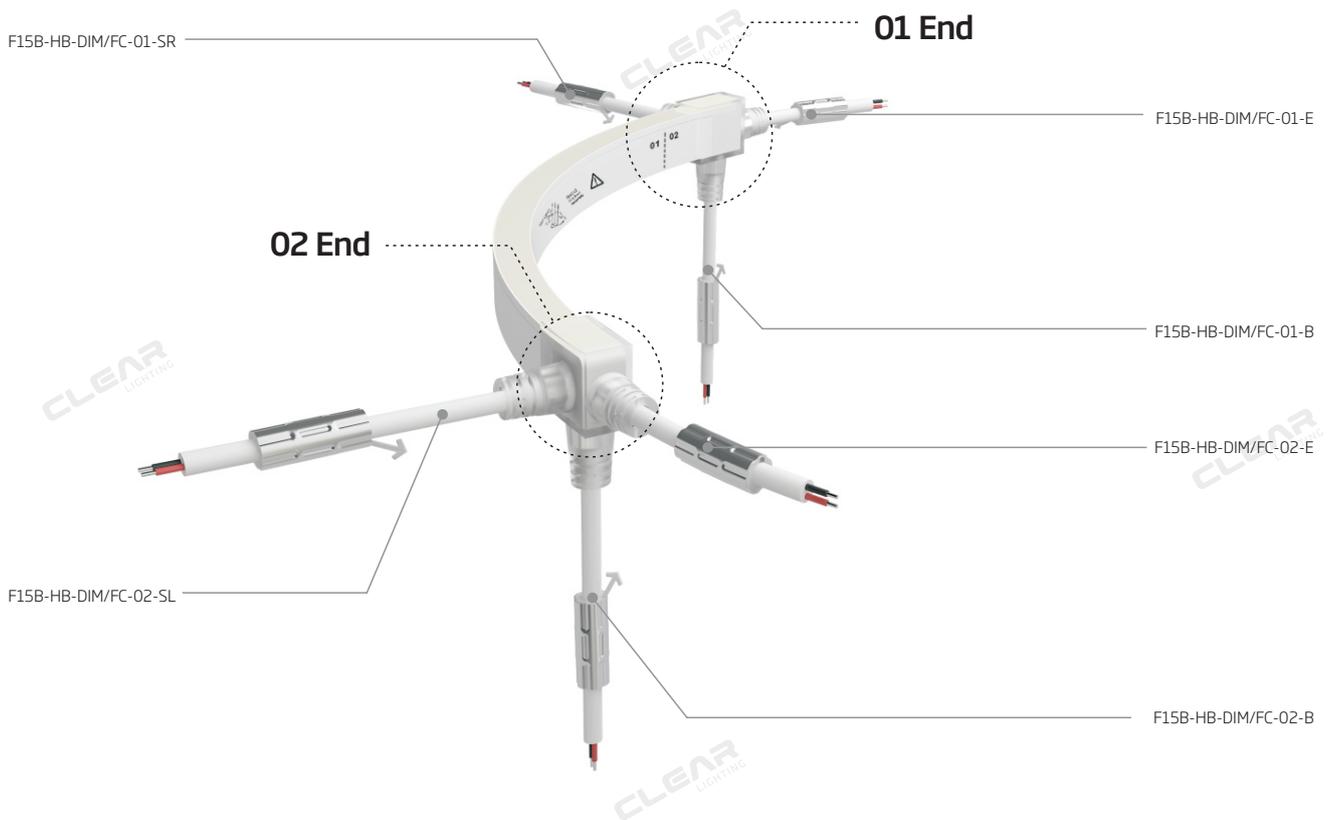


For plug and play cable junction, IP67



Note:
 Unless otherwise stated, the tolerance is ±2mm.

F15B	DIM/FC	01	B	300mm
F15B-HB F15D-HB F15A-HB F15E-HB F15S-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-F15B/D/A/E/S-HB

Item Code(B)	Item Code(D)	Item Code(A)	Item Code(E)	Item Code(S)
F15B-HB-DIM/FC-01-E-300mm	F15D-HB-DIM/FC-01-E-300mm	F15A-HB-DIM/FC-01-E-300mm	F15E-HB-DIM/FC-01-E-300mm	F15S-HB-DIM/FC-01-E-300mm
F15B-HB-DIM/FC-02-E-300mm	F15D-HB-DIM/FC-02-E-300mm	F15A-HB-DIM/FC-02-E-300mm	F15E-HB-DIM/FC-02-E-300mm	F15S-HB-DIM/FC-02-E-300mm
F15B-HB-DIM/FC-01-B-300mm	F15D-HB-DIM/FC-01-B-300mm	F15A-HB-DIM/FC-01-B-300mm	F15E-HB-DIM/FC-01-B-300mm	F15S-HB-DIM/FC-01-B-300mm
F15B-HB-DIM/FC-02-B-300mm	F15D-HB-DIM/FC-02-B-300mm	F15A-HB-DIM/FC-02-B-300mm	F15E-HB-DIM/FC-02-B-300mm	F15S-HB-DIM/FC-02-B-300mm
F15B-HB-DIM/FC-01-SR-300mm	F15D-HB-DIM/FC-01-SR-300mm	F15A-HB-DIM/FC-01-SR-300mm	F15E-HB-DIM/FC-01-SR-300mm	F15S-HB-DIM/FC-01-SR-300mm
F15B-HB-DIM/FC-02-SL-300mm	F15D-HB-DIM/FC-02-SL-300mm	F15A-HB-DIM/FC-02-SL-300mm	F15E-HB-DIM/FC-02-SL-300mm	F15S-HB-DIM/FC-02-SL-300mm
F15B-HB-DIM/MC-PTF-300mm	F15D-HB-DIM/MC-PTF-300mm	F15A-HB-DIM/MC-PTF-300mm	F15E-HB-DIM/MC-PTF-300mm	F15S-HB-DIM/MC-PTF-300mm
F15B-HB-DIM/JU-300mm	F15D-HB-DIM/JU-300mm	F15A-HB-DIM/JU-300mm	F15E-HB-DIM/JU-300mm	F15S-HB-DIM/JU-300mm
F15-DIM/EC	F15-DIM/EC	F15-DIM/EC	F15-DIM/EC	F15-DIM/EC