ELEGANT MIDI II OBC

(On Board Control)

Installation Manual

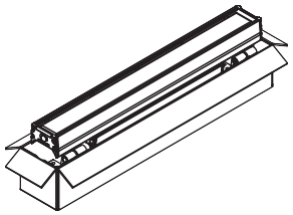
ELECTRON

ELECTRON SA, PROFESSIONAL LIGHTING SYSTEMS - 68 Antiohias Str, N.Philadelphia, 14341 Athens, Greece, info@electron.gr, www.electron.gr

Exterior Linear

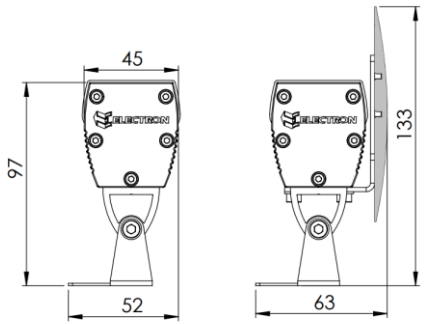
INCLUDED

Box Contents



- Luminaire
- Mounting Brackets

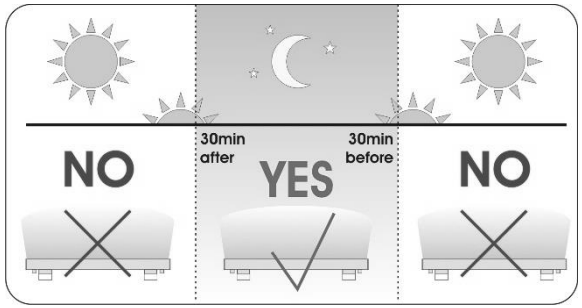
Dimensions	**LxWxH DIMENSIONS**
Luminaire	250/300/500/600/1000/1200 x 52 x 97mm
Luminaire with Antiglare	250/300/500/600/1000/1200 x 63 x 133mm
Run Box	Varies depending on quantity



ATTENTION!

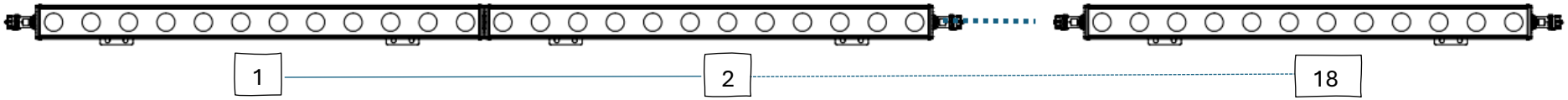
- Make sure to read thoroughly all the instructions before using the product.
- The installation of the luminaire must be done by a specialized technician.
- Make sure that the power supply is turned off during the installation procedure.

- Do not install the luminaire near any kind of heating source.
- The supply input of multichannel models is common anode, and the appropriate power supply and controller should be used.
- Do not look directly at the light source when it's turned on.
- Do not try to fix any damage or malfunction; by opening the luminaire. This must be done by an experienced and specialized technician.
- The manufacturer is not responsible for any injury or damage that will occur from the improper installation or use of the product.
- Make sure that all the local laws and regulations are followed during the installation procedure.
- Failure to observe installation instructions and handling will void warranty of the product.
- All connections and are IP 68 graded
  It is the installer's responsibility to ensure that all connections are properly executed in order to maintain that IP grade.



INSTALLATION LIMITS FOR **MONOCHROMATIC** (STANDARD & CONSTANT POWER) MODELS @**24VDC**

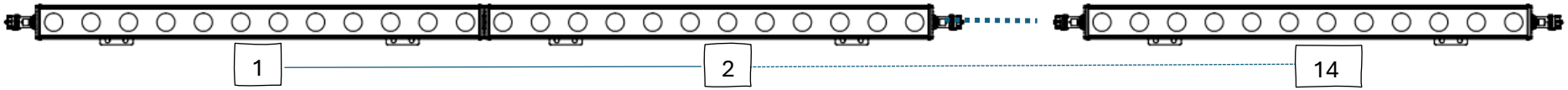
Maximum power in daisy chain **360W**.



*Example installation of a Standard Monochromatic Elegant MIDI II OBC **20W (60cm)** (360W/20W=**18** luminaires)

INSTALLATION LIMITS FOR **TW& RGBW** (STANDARD & CONSTANT POWER) MODELS @**24VDC**

Maximum power in daisy chain **280W**.



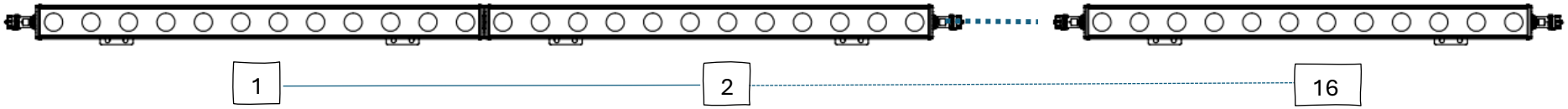
*Example installation of a Standard TW Elegant MIDI II OBC **20W (60cm)** (280W/20W=**14** luminaires)

Note. In daisy chains it is possible for the luminosity of the first luminaire to be different from the luminosity of the last one (only Standard Models). This happens because of the voltage drop in the power supply cable. To avoid this, you can also supply the output of the last luminaire from the same power supply.

The voltage drop only affects the luminosity of Standard Models. The luminosity of High Efficiency & Constant power Models is not affected by the drop of voltage.

INSTALLATION LIMITS FOR **MONOCHROMATIC** (HIGH EFFICIENCY) MODELS @**24VDC**

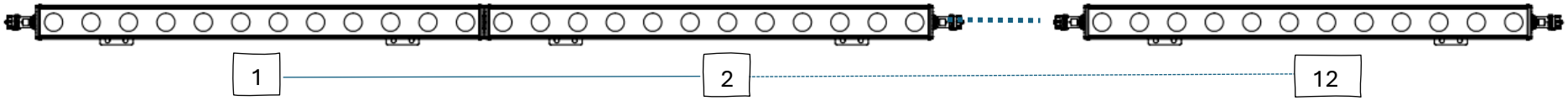
Maximum power in daisy chain **320W**.



*Example installation of a High Efficiency Monochromatic Elegant MIDI II OBC **20W (60cm)** (320W/20W=**16** luminaires)

INSTALLATION LIMITS FOR **TW& RGBW** (HIGH EFFICIENCY) MODELS @**24VDC**

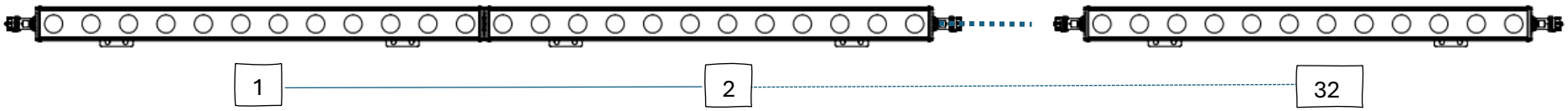
Maximum power in daisy chain **240W**.



*Example installation of a High Efficiency TW Elegant MIDI II OBC **20W (60cm)** (240W/20W=**12** luminaires)

INSTALLATION LIMITS FOR **MONOCHROMATIC** (HIGH EFFICIENCY) MODELS @**48VDC**

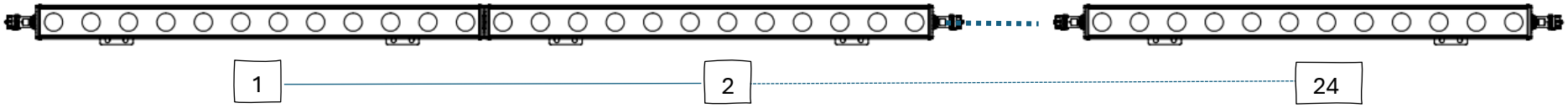
Maximum power in daisy chain **640W**.



*Example installation of a High Efficiency Monochromatic Elegant MIDI II OBC **20W (60cm)** (640W/20W=**32** luminaires)

INSTALLATION LIMITS FOR **TW& RGBW** (HIGH EFFICIENCY) MODELS @**48VDC**

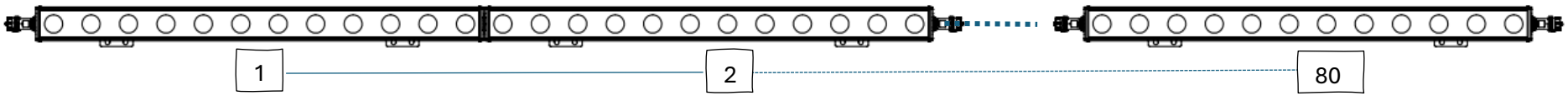
Maximum power in daisy chain **480W**.



*Example installation of a High Efficiency TW Elegant MIDI II OBC **20W (60cm)** (480W/20W=**24** luminaires)

INSTALLATION LIMITS FOR **MONOCHROMATIC** (HV) MODELS @**230VAC**

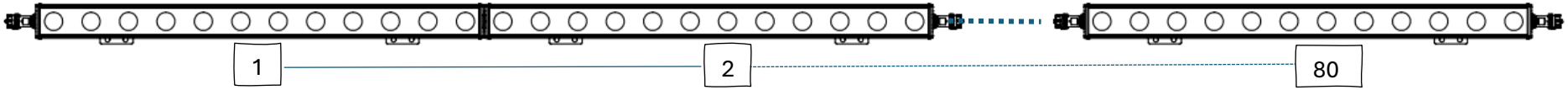
Maximum power in daisy chain **1600W**.



*Example installation of a HV Monochromatic Elegant MIDI II OBC **20W (60cm)** (1600W/20W=**80** luminaires)

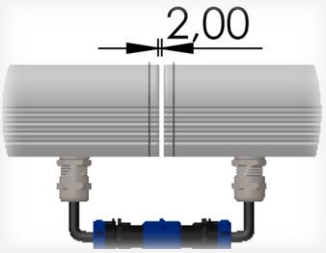
INSTALLATION LIMITS FOR **TW& RGBW** (HV) MODELS @**230VAC**

Maximum power in daisy chain **1600W**



*Example installation of a HV TW Elegant MIDI II OBC **20W (60cm)** (1600W/20W=**80** luminaires)

Keep 2mm distance between the luminaires in order to keep consistent LED pitch and have adequate space for thermal expansion.

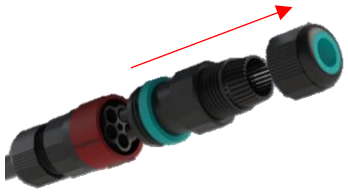


Cables and power connector's description.

Elegant MIDI II OBC is delivered with input power connector as standard.
Each connector pole has a numerical description that must match the numerical description of the cable.

Pins layout possition	Cable's Numerical Description
Monochromatic Model:	
Terminal1: Positive (+)	Wire No1
Terminal 2: Negative (-)	Wire No2
Tunable White Model	
Terminal1: Common (+)	Wire No1
Terminal 2: Warm (-)	Wire No2
Terminal 3: Cool (-)	Wire No3
RGBW Model	
Terminal1: Common (+)	Wire No1
Terminal 2: Red (-)	Wire No2
Terminal 3: Green (-)	Wire No3
Terminal 4: Blue (-)	Wire No4
Terminal 5: White (-)	Wire No5

(a)



(b)

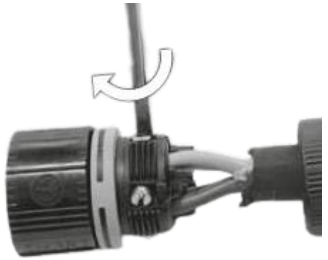
Remove the cable connector from the luminaire, by turning counterclockwise, the part marked as red. **(a),**
once removed then proceed with the disassembly of the unplugged connector **(b)**

Prepare the cable that is going to be used.
Cable Diameter Ø 7.00~12.00mm
Insulator removal **(X)**: 20mm
Peeling of the conductor **(Y)**: 6,00mm

The maximum / minimum cross section wire that can be connected to the terminals are the following:

Model	Min / Max Cross Section
Monochromatic	**2 x 2.5mm² / 2 x 4mm²**
Tunable White	**3 x 1.5mm² / 3 x 4mm²**
RGBW	**5 x 1.5mm² / 5 x 1.5mm²**

- The Elegant MIDI II OBC is available with three voltage options, 24VDC/24~48VDC and 230VAC, please check the label of the fixture, in order to verify the voltage.
- In Tunable white and RGBW models the positive pole is common for all channels. Thus, the controller or power supply that is going to be used for these models must be Common Anode.
- Dimming can be done by PWM (Pulse Width Modulation) from 100Hz up to 4kHz.
- During the installation of Elegant should not be supplied with voltage.

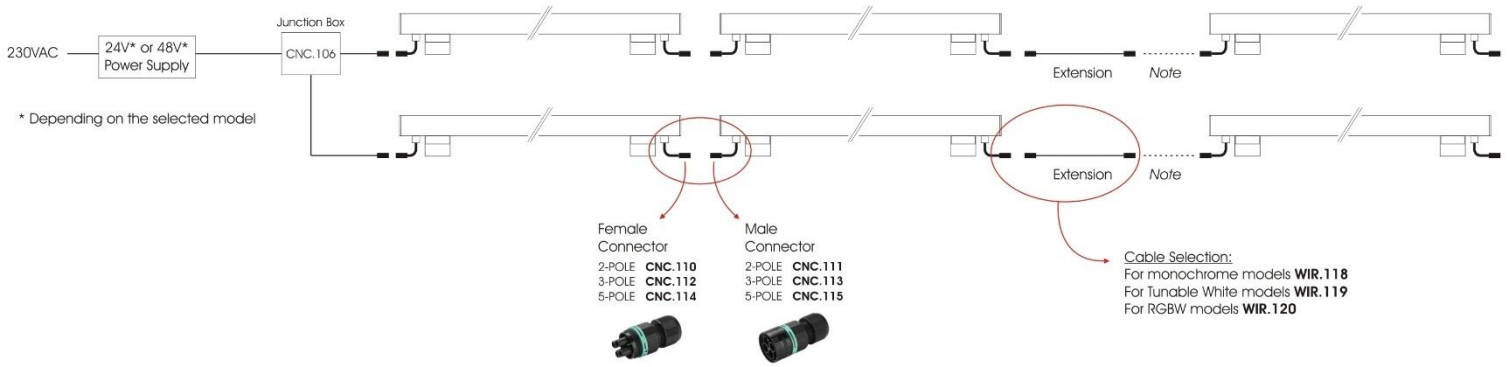


Insert the induvidual conductors into the connector terminal, make sure that all the cables are installed and secured correclty.

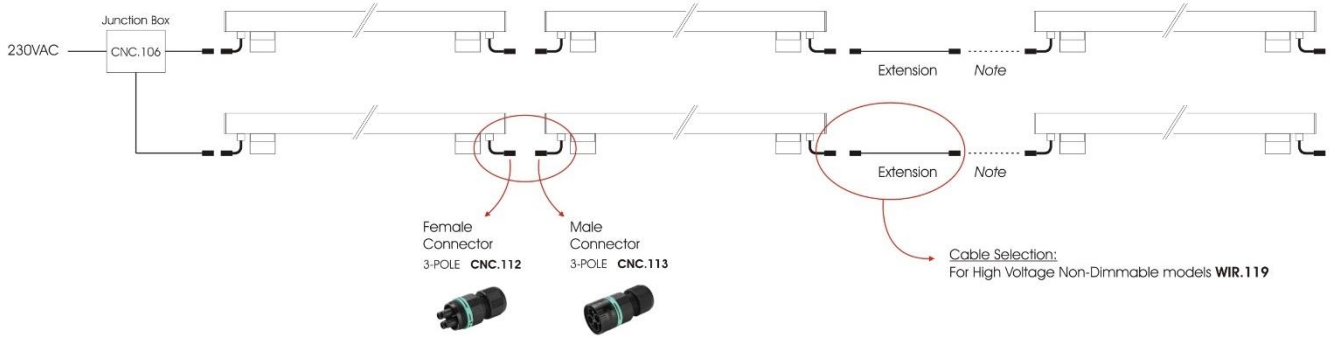
WIRING DIAGRAM

Non-Dimmable Installation

Low Voltage Non-Dimmable Models

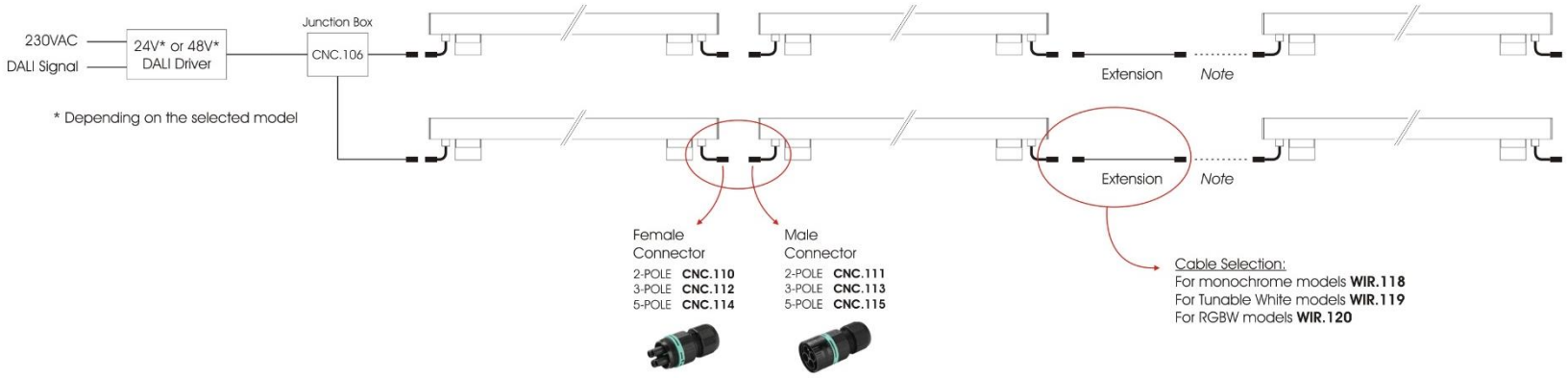


High Voltage Non-Dimmable Models

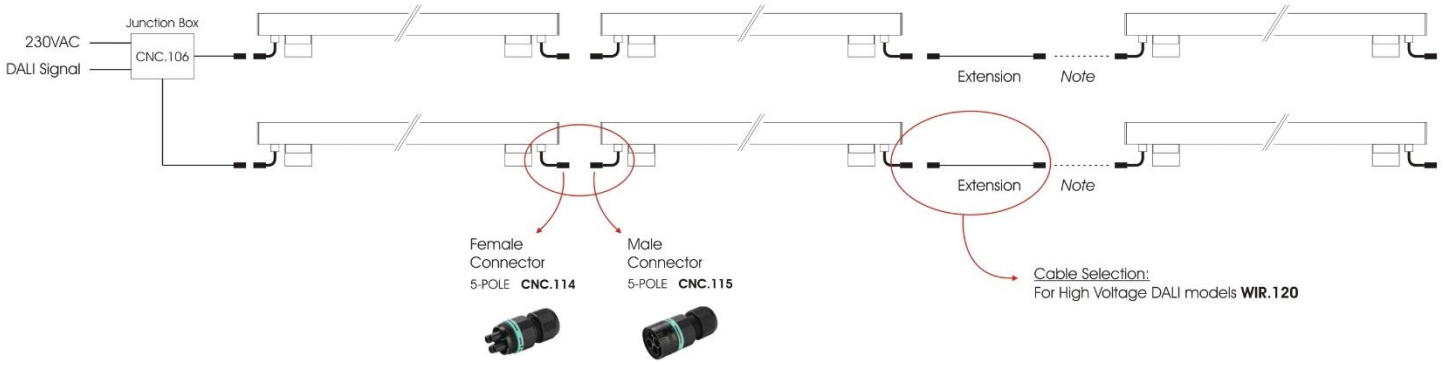


DALI Installation

Low Voltage DALI Models

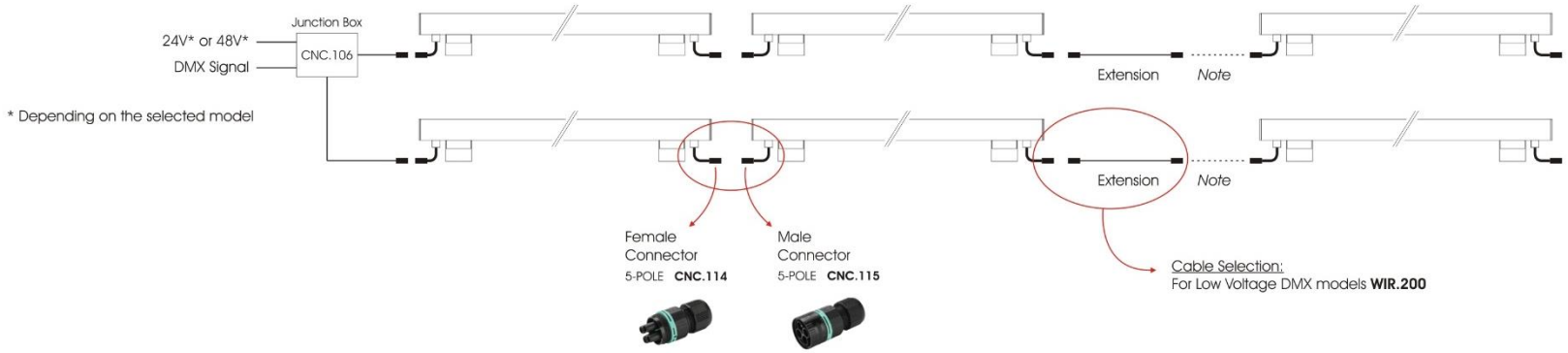


High Voltage DALI Models

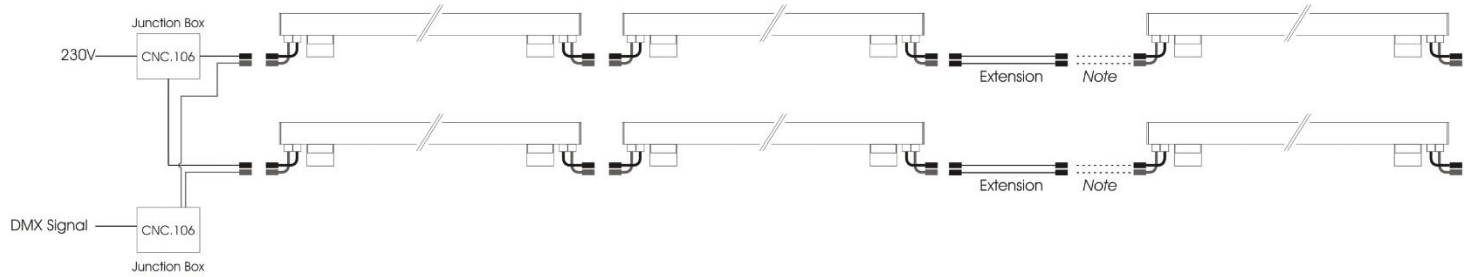


DMX Installation

Low Voltage DMX Models

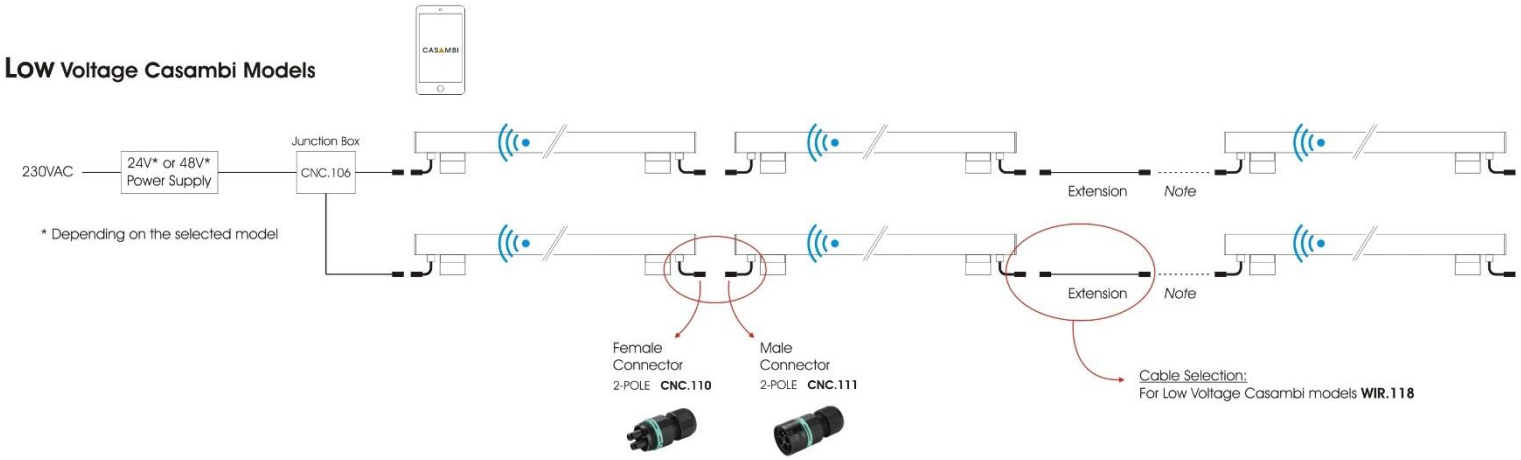


High Voltage DMX Models

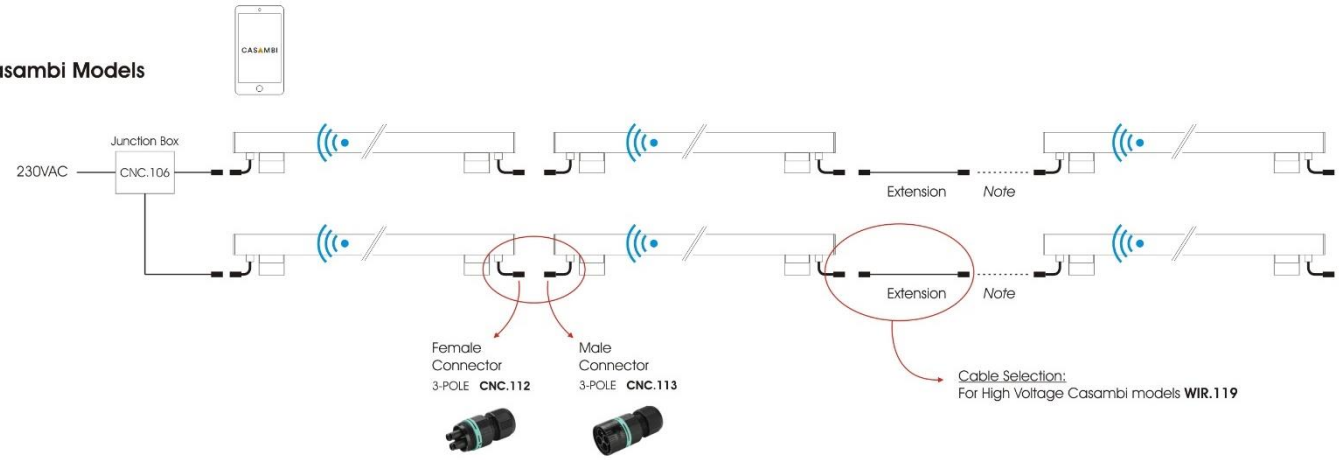


Casambi Installation

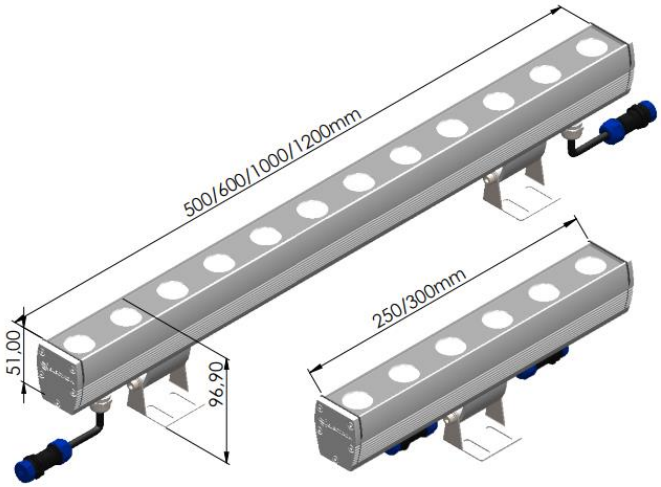
Low Voltage Casambi Models

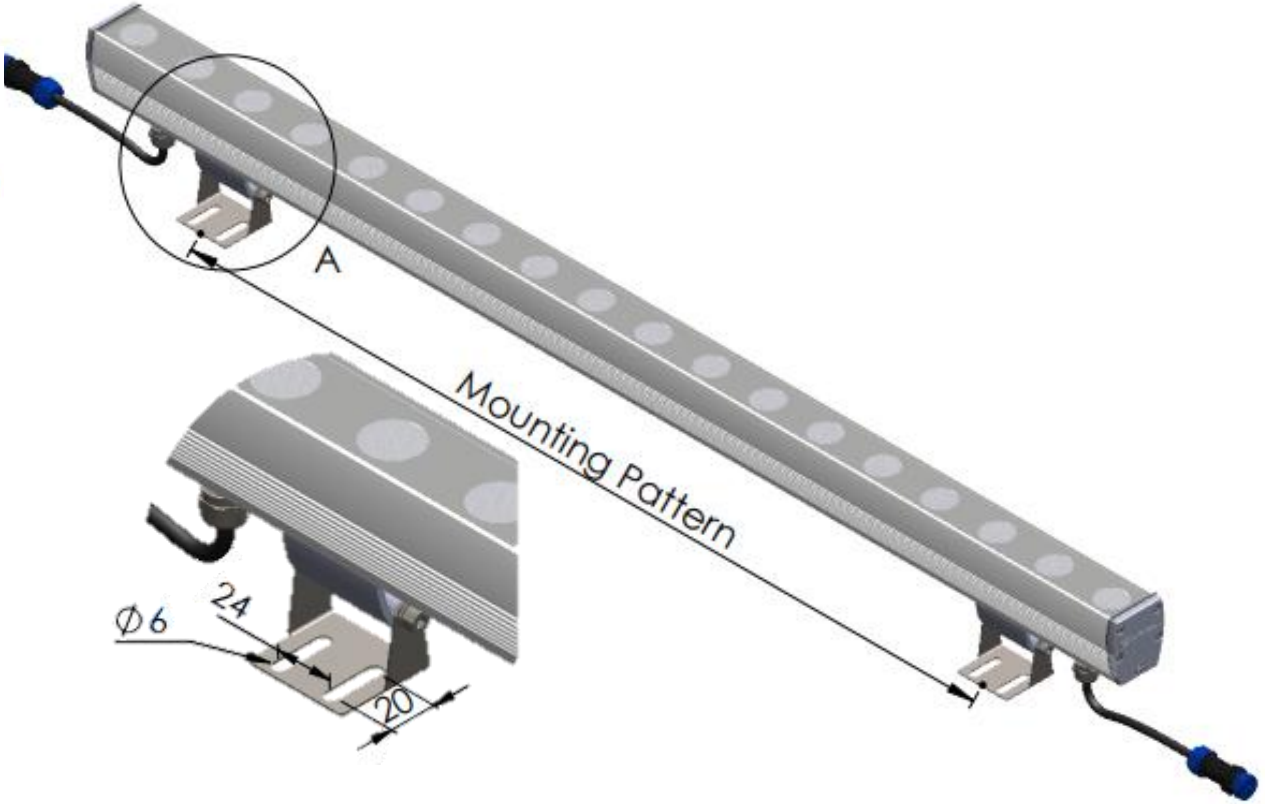


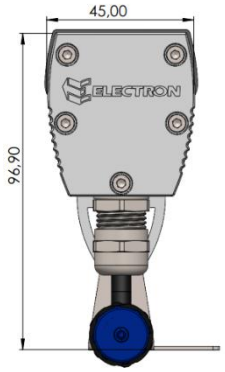
High Voltage Casambi Models



Dimensions





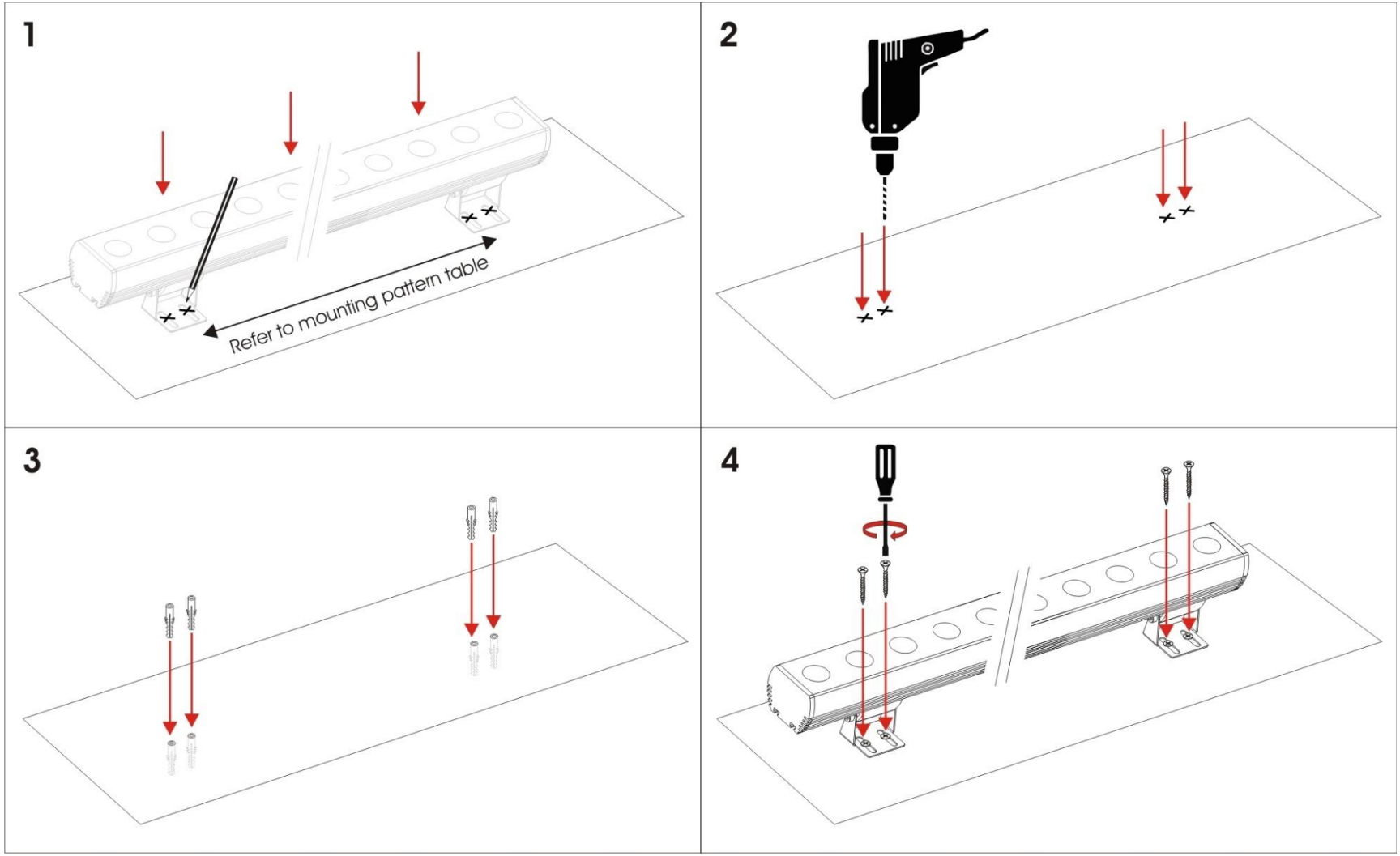


Elegnant Midi II OBC

Models	**Distance (From the center of bracket to bracket)**
25 cm	-
30 cm	-
50 cm	29cm
60 cm	39cm
100 cm	70cm
120 cm	90cm

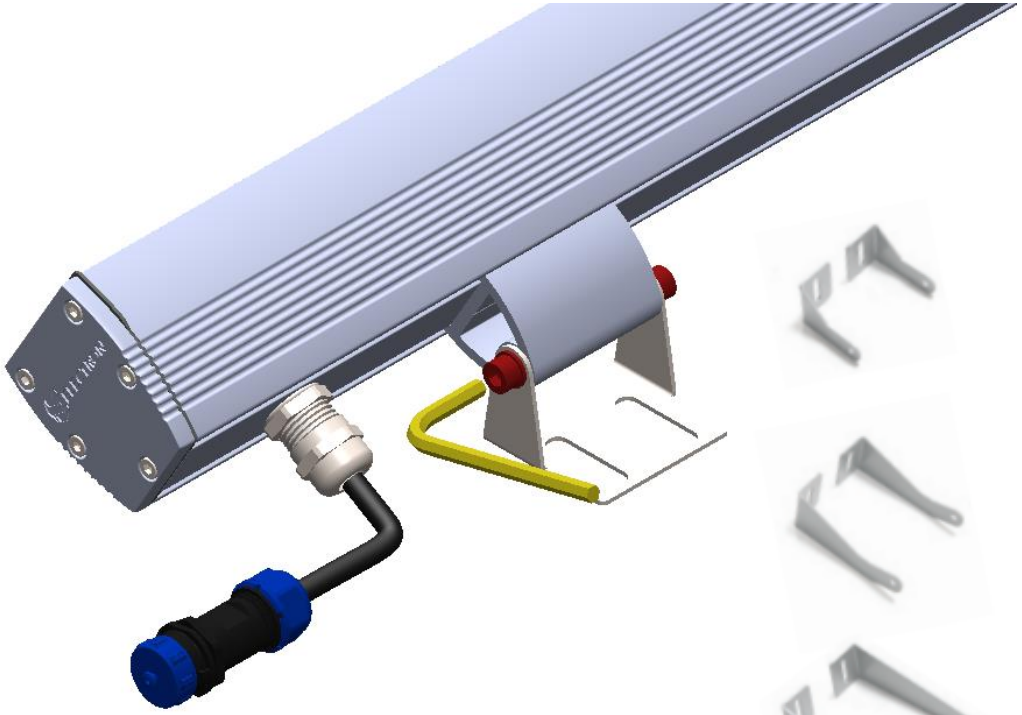
Installation

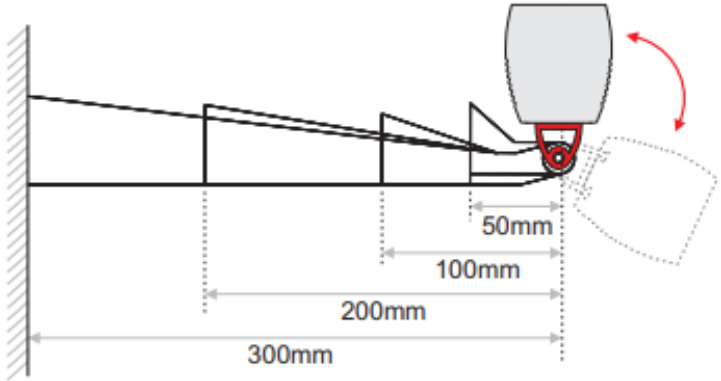
Mark the installation area based on the mounting pattern, then proceed to drill accordingly. Ensure to utilize the appropriate anchors for the installation surface.



Adjustment

In order to adjust Elegant you must untight the screws marked with red colour (Using A 4mm Allen key). This applies for all mounting brackets.





Antiglare Installation

1.

2.

3a.

3b.

5.

Picture 1. Place the luminaire and the antiglare on a flat, stable surface.
Picture 2. Remove the screws from the designated area of the antiglare, indicated by a sticker.
Picture 3a. Position the luminaire on top of the antiglare.
Picture 3b. Securely fasten the antiglare to the luminaire, ensuring the screws are tightened properly.
Picture 5. For adjustable models, loosen the marked nuts to reposition the antiglare as needed. Once adjusted, retighten the screws securely to lock it in place.

Technical specifications.

Length.	25/30/50/60/100/120cm
LEDs.	Directional lighting / Samsung LED.
LED / Lenses quantity.	6 @25/30cm, 12 @50/60cm, 24 @100/120cm.
Lenses.	Φ23mm (PMMA).
Pitch size.	25cm, 50cm & 100cm: 41,65mm/ 30cm, 60cm & 120cm: 50,00mm.
Beam angle.	Monochromatic: 15, 25, 40, 10x30 & 15x45 degrees. Tunable white(2in1), RGBW(4in1): 12, 25, 15x30 & 12x50 degrees.
Dimming.	PWM 24VDC (STD /HECP) / PWM 24-48VDC (HE DR).
PWM Range.	0.1kHz – 4kHz.
Ambient temperature.	-25°C / +50°C.
IP rating.	IP66.
Power connector.	IP68 2,3 or 5 poles depending on the model.
Connectors.	PA66 NYLON.
IK rate.	IK04.
Protective cover.	3mm tempered Low-Iron glass.
Main body.	Powder coated natural anodized anticorodal aluminum EN AW-6060.
Input voltage.	24VDC STD_HECP / 24-48VDC HE models. / 230VAC HV modles
Input type.	Common anode (Valid only for multichannel models).
Power consumption. (±4%)	Low Voltage models 25/30cm, 50/60cm & 100/120cm : 10W, 20W & 40W. High Voltage models 50/60cm & 100/120cm :15W & 30W.
Compliance standards.	LVD Directive, EMC Directive.

Maximum power of Elegant MIDI II OBC in daisy chain connection.

Elegant Midi II OBC models offer input - output cabling (available upon request) thus, daisy chain connection can be used. As a result, only the first luminaire has to be supplied with power.

When daisy chain connection is in place, the power of each chain should not exceed the values shown in the table below.

Elegant Midi II OBC	**Maximum power in daisy chain (Standard models & Constant Power Models).**	**Maximum power in daisy chain (High efficiency models)*.**
Monochromatic @24VDC	Up to 360W	Up to 320W
Monochromatic @48VDC	-	Up to 640W
TW & RGBW @24VDC	Up to 280W	Up to 240W
TW & RGBW @48VDC	-	Up to 480W
Monochromatic, TW &RGBW @ 230V	-	Up to 1600W

***The distance (D) from the power supply to the first fixture must not exceed 5m. For D>5m & D≤10m the maximum power of the daisy chain must be reduced by 30% or you must power supply the output of the last Elegant from the same power supply as well (supply both in & out of the daisy chain).**

Note. In daisy chains it is possible for the luminosity of the first Elegant to be different from the luminosity of the last one (**Standard Models**). This happens because of the voltage drop in the power supply cable. To avoid this, you can also supply the output of the last Elegant from the same power supply.

The voltage drop only affects the luminosity of Standard Directional Models. The luminosity of High Efficiency & Constant power Models is not affected by the drop of voltage.

For more information, please scan here!