



# Contest VBAR-100DW Dynamic White Architectural Projectors IP66 Instruction Manual

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**Contest VBAR-100DW Dynamic White Architectural Projectors IP66**



## Product Information

### Specifications

- **Model:** H11382-H11380
- **Version:** 1 / 08-2023
- **DMX – RDM:** Yes
- **Power:** AC 100-240V 50/60Hz
- **Fuse:** T1A/250V 50W
- **Max Power Output:** 11A
- **Weight:** N/A
- **Dimensions:** N/A
- **Manufacturer:** HITMUSIC SAS FRANCE
- **Country of Origin:** China

### Product Usage Instructions

- **Transport**  
When transporting the device, use the original packaging.
- **Connections**  
The device has DMX/Power connections with hybrid cords. Use IP67 connectors for both IN and OUT connections.
- **Description of the Device**
- **The device consists of:**
  - Power and DMX Output
  - Suspension Lyre for hanging or placing the device on the ground and adjusting its position

### Fixation of the Lyre and Orientation of the Projector

To fix the lyre and adjust the projector's position, use the locking screws and central screw provided.

- **Mounting the Spoiler**

Follow the instructions provided to mount the spoiler on the device.

### **Fiche IP67**

The IP67 connectors have the following wire color codes:

- **Power:**

- **L (Live):** Brown
- **N (Neutral):** Blue
- **Ground:** Yellow/Green

- **DMX:**

- **Masse:** Black
- **Data 2:** White
- **Data 3:** Red

### **Power Specifications**

The device supports AC 100-240V 50/60Hz power input. The maximum power output is 11A.

### **Booster Power**

For additional power, a booster can be used with an input of 16A (max 3500W).

### **FAQ**

1. **Q: Can I use any type of connectors for the DMX/Power connections?**

A: No, you should use IP67 connectors for both the IN and OUT connections to ensure proper functionality and protection.

2. **Q: What is the maximum power output of the device?**

A: The device has a maximum power output of 11A.

3. **Q: What is the weight and dimensions of the device?**

A: Unfortunately, the weight and dimensions of the device are not provided in the user manual. Please refer to the product packaging or contact the manufacturer for this information.

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### **USER GUIDE**

VBAR-DW – IP66 architectural projectors with 12/24 Dynamic white LEDs

### **Safety information**

#### **Important safety information**

- Any maintenance procedure must be performed by a CONTEST authorised technical service. Basic cleaning

operations must thoroughly follow our safety instructions.

This product contains non-isolated electrical components. Do not undertake any maintenance operation when it is switched on as it may result in electric shock.

- **Symbols used**

- This symbol signals an important safety precaution.
- The WARNING symbol signals a risk to the user's physical integrity. The product may also be damaged.
- The CAUTION symbol signals a risk of product deterioration.

### Symbols used on the projector



The DMX - RDM symbol indicates that the projector is configurable and controllable in DMX via the RDM (Remote Data Management) protocol.



The IP66 - IK07 symbols indicate the protection levels of the device:  
**IP66:** Totally protected against dust and protected against strong jets of water from all directions.  
**IK07:** Protected against an impact energy of 2 Joules.



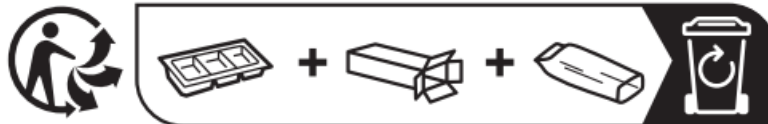
The 1m symbol indicates the minimum distance to be observed between the projector and the illuminated surface.



The -20° / +45° symbol indicates the extreme ambient temperature range in which the projector can operate.



This symbol indicates a risk of burns in the event of contact with the projector in operation. (passive heat dissipation via projector body).



### CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

- **WARNING :** This unit contains no user-serviceable parts. Do not open the housing or attempt any maintenance by yourself. In the unlikely even your unit may require service, please contact your nearest dealer.
- In order to avoid any electrical malfunction, please do not use any multi-socket, power cord extension or connecting system without making sure they are perfectly isolated and present no defect.

### Instructions and recommendations

#### 1. Please read carefully :

We strongly recommend to read carefully and understand the safety instructions before attempting to operate this unit.

#### 2. Please keep this manual :

We strongly recommend to keep this manual with the unit for future reference.

#### 3. Operate carefully this product :

We strongly recommend to take into consideration every safety instruction.

**4. Follow the instructions:**

Please carefully follow each safety instruction to avoid any physical harm or property damage.

**5. Installation :**

Installation must be performed by qualified personnel and with certified equipment only. Do not place this appliance on an unstable support, the appliance could fall, seriously injuring a child or an adult and being seriously damaged. Make sure the mounting bracket can hold 10 times the weight of the device. Always use a double hook with a standard safety cable. Have the installation inspected by an expert before commissioning.

**6. Ceiling or wall installation :**

Please contact your local dealer before attempting any ceiling or wall installation.

**7. Heat exposure :**

It is advisable to keep the product away from sources of heat and flammable materials and liquids. Do not cover the ventilation openings, this could lead to overheating. The appliance cools by natural convection, its surface can be very hot and cause burns. Allow to cool before handling.

**8. Electric power supply :**

This product can only be operated according to a very specific voltage. These information are specified on the label located at the rear of the product.

**9. Power cords protection:**

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at lugs, convenience receptacles and the point where they exit from the fixture.

**10. Cleaning precautions :**

Unplug the product before attempting any cleaning operation. This product should be cleaned only with accessories recommended by the manufacturer. Use a damp cloth to clean the surface. Do not wash this product.

**11. This product should be serviced when :**

Please contact the qualified service personnel if :

- The power cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the appliance.
- The appliance has been exposed to rain or water.
- The product does not appear to operate normally.
- The product has been damaged.

**12. Inspection/maintenance :**

Please do not attempt any inspection or maintenance by yourself. Refer all servicing to qualified personnel.

**13. Operating environment :**

Ambient temperature: -20 to +45°C. Do not operate this product in a non-ventilated, or warm place.

**CAUTION**

This device is equipped with class 2 LEDs. Avoid staring directly into the beam as serious eye damage is possible.

**Recycling your device**

- As HITMUSIC is really involved in the environmental cause, we only commercialize clean, ROHS compliant products.

- When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

## Features

### VBAR-50DW :

- **LED** :12x LEDs 4W Dynamic White 2700-5600K
- **Luminosity** :
- **2355 Lm – 325 Lux à 5 m CRI** : 95
- Asymmetrical lenses with 15° x 30° aperture
- **Power consumption** : 50 W
- **Dimensions** : 484 x 117 x 53 mm
- **Weight** : 3.2 kg

### VBAR-100DW :

- **LED** :24x LEDs 4W Dynamic White 2700-5600K
- **Luminosity** :
- **4724 Lm – 729 Lux à 5 m CRI** : 95
- Asymmetrical lenses with 15 x 30° aperture
- **Power consumption** : 102 W
- **Dimensions** : 997 x 117 x 53 mm
- **Weight** : 5.7 kg

## Connections

DMX/Power connections via hybrid IN and OUT cables with IP67 plugs

## Features

- Control by external box VRDM-Control for setting by RDM. Compatible with RDM consoles on certain settings.
- DMX control protocol on 2 to 4 channels depending on the selected mode
- **Power supply** : 110-240V/50-60Hz
- Selectable refresh rate from 900Hz to 3600Hz.
- **Cooling**: By convection
- **Finish** : Cast aluminum epoxy painted white gray RAL9002
- **Degree of Protection IP66**: Resistant to dust and water splashes in all directions.
- **Shock resistance IK07**: Protected against a mechanical shock of 2 joules, i.e. a 500g object falling 40cm.
- Sealed diaphragm depressurization Valve

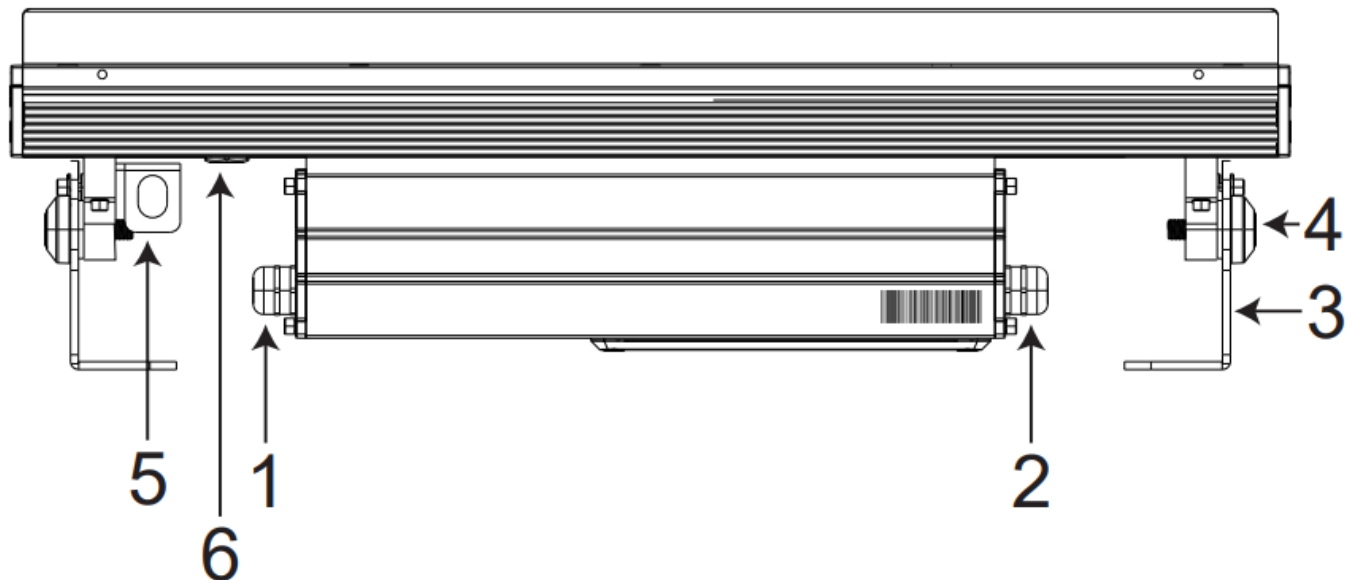
## Package contents :

The packaging should contain the following:

- The projector

- The user guide
- A spoiler delivered with mounting screws
- 1m stripped wire cord and IN hybrid plug
- Projector OUT cable outlet plug

## Product description



### 1. Power supply input + DMX

Connects the projector to the mains via a hybrid power supply + DMX cord on a molded plug.

#### **CAUTION !**

This appliance must be connected by a qualified technician in accordance with the regulations in force. This device is class 1 and must be earthed.

#### **Power supply :**

Make sure that the voltage of the place of service corresponds to the instructions noted on the product.

### 2. Power supply output + DMX

Used to connect a projector at the output via the hybrid power supply + DMX cable. Please respect the output power limits of the projector see chapter 6. If no projector is connected at the output please use the plug provided.

### 3. Suspension Bracket

Allows you to hang or place on the ground and to direct the projector.

### 4. Suspension bracket clamping system

Allows you to adjust the tilt and lock the position of the projector.

### 5. Safety ring

Connect a double safety sling to this ring.

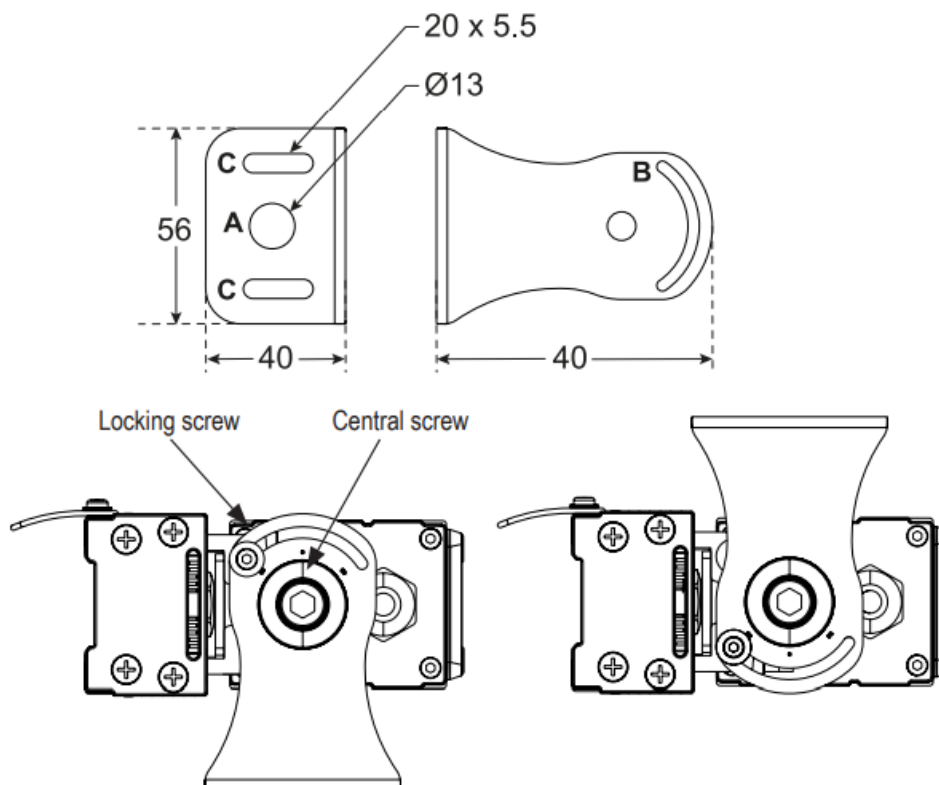
#### **CAUTION !**

- Make sure the attachment point is properly tightened.
- It is mandatory to install a safety sling. When installing in a public place, legislation requires each device to have a double safety hook. This security system must support 10 times the weight of the device so you must provide a sling capable of supporting at least 35 kg minimum for the VPAR-70DW, 55 kg for the VPAR-120DW and 70 kg for the VPAR-150DW.

## 6. Decompression valve

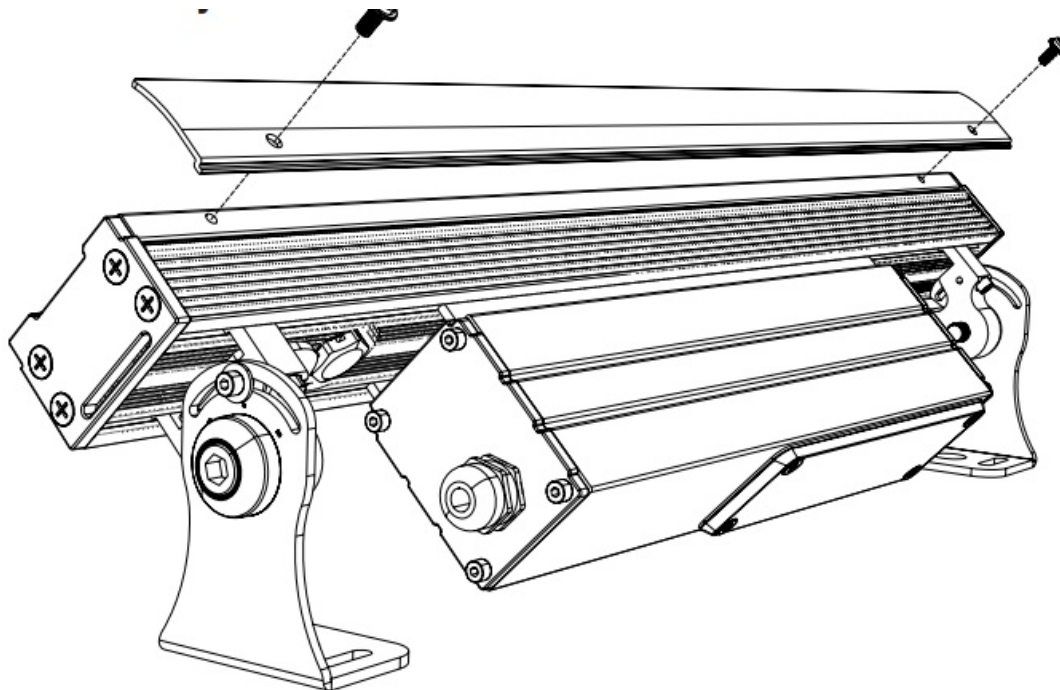
This valve automatically balances the pressure in the projector and thus eliminates the risk of water infiltration by suction. Please do not obstruct this valve.

### Attaching the bracket and aiming the projector



- The projector can be fixed on a suitable flat surface using three attachment points A C C. The notch B is used to lock the rotation of the projector in Pan over 180°.
- Temporary hanging is possible using two clamps fixed through the external holes C.
- To choose the tilt angle of your projector, loosen the central screw using a 6 mm Allen key and loosen the locking screw using a 2.5 mm Allen key.

### Spoiler assembly



The spoiler is provided in the device packaging. It is fixed using 2 screws on the top of the projector. The example above illustrates the mounting of the spoiler on the VBAR-50, the principle is the same for VBAR-100.

## Connection and wiring

### 6.1 – IP67 plugs :

#### CAUTION !

- The projector is fitted with molded IP67 hybrid plugs.
- These plugs guarantee a good seal of the product. Cutting the plugs will void the projector warranty if water ingress occurs.
- The projector is delivered with a bare wire adapter to IP67 IN connector in order to connect to an IP junction box.

#### CAUTION !

- **Risk of electric shocks**

Do not plug or unplug any cables while the system is powered on.



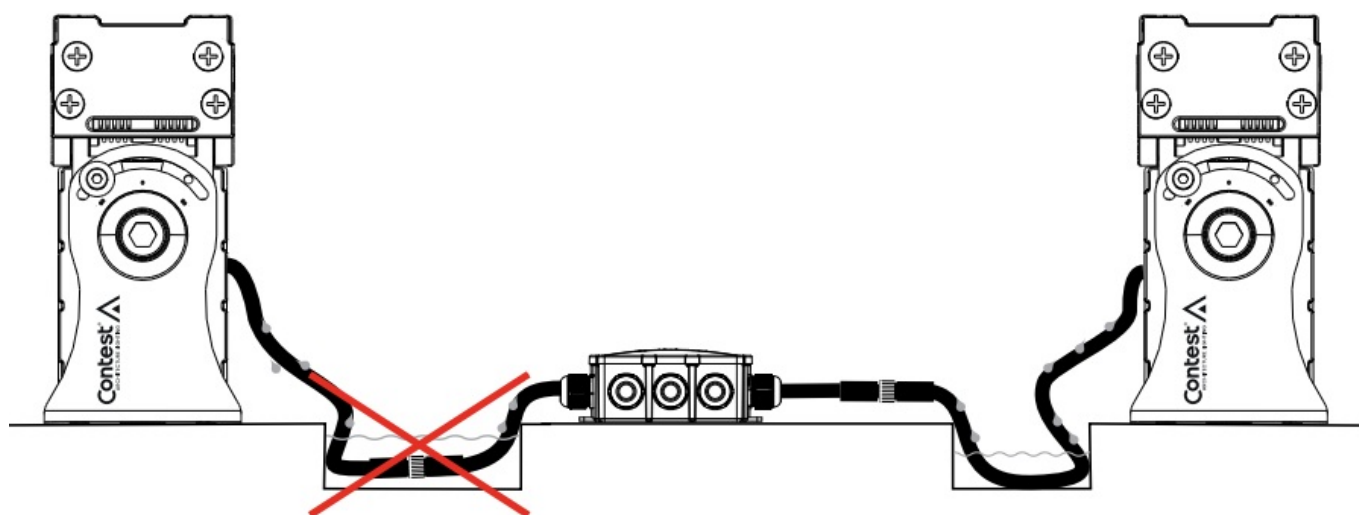
Power : Alimentation	Wire color : Code couleur	DMX	Wire color : Code couleur
<b>L</b> : Live : Phase	Brown : Marron	<b>1</b> : Masse	Black : Noir
<b>N</b> : Neutral : Neutre	Blue : Bleu	<b>2</b> : Data -	White : Blanc
Ground : Terre	Yellow/green : Jaune/vert	<b>3</b> : Data +	Red : Rouge

The plugs are equipped with three pins for the power supply and three pins for the DMX signal. The hybrid cable is used for the power supply part in 3 x 1.5 mm<sup>2</sup> and for the isolated DMX part in a separate sheath. The color code of the corresponding wires is shown in the diagram opposite.

### CAUTION !

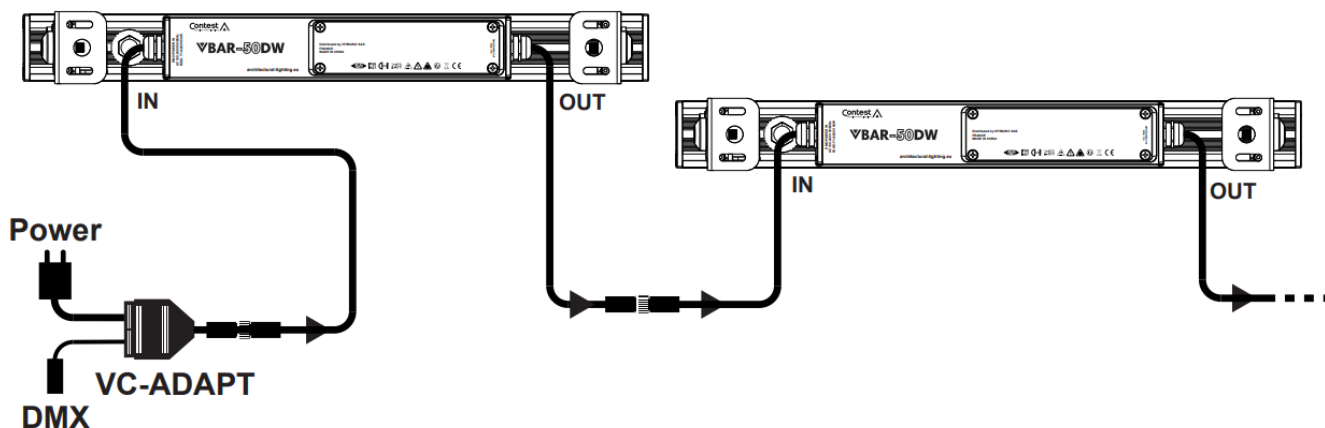
The plugs mounted on the projector cables are IP67, so they are waterproof but it is not recommended to leave them in standing water.

Water may be sucked into the interior of the projector due to vacuum caused by temperature changes in the projector. Ensure that the projector is protected against water ingress through the cables by using connectors or junction boxes that meet at least IP66. Create a drip loop before the cable glands or connection points to prevent them from being constantly immersed in water as shown in the figure below.



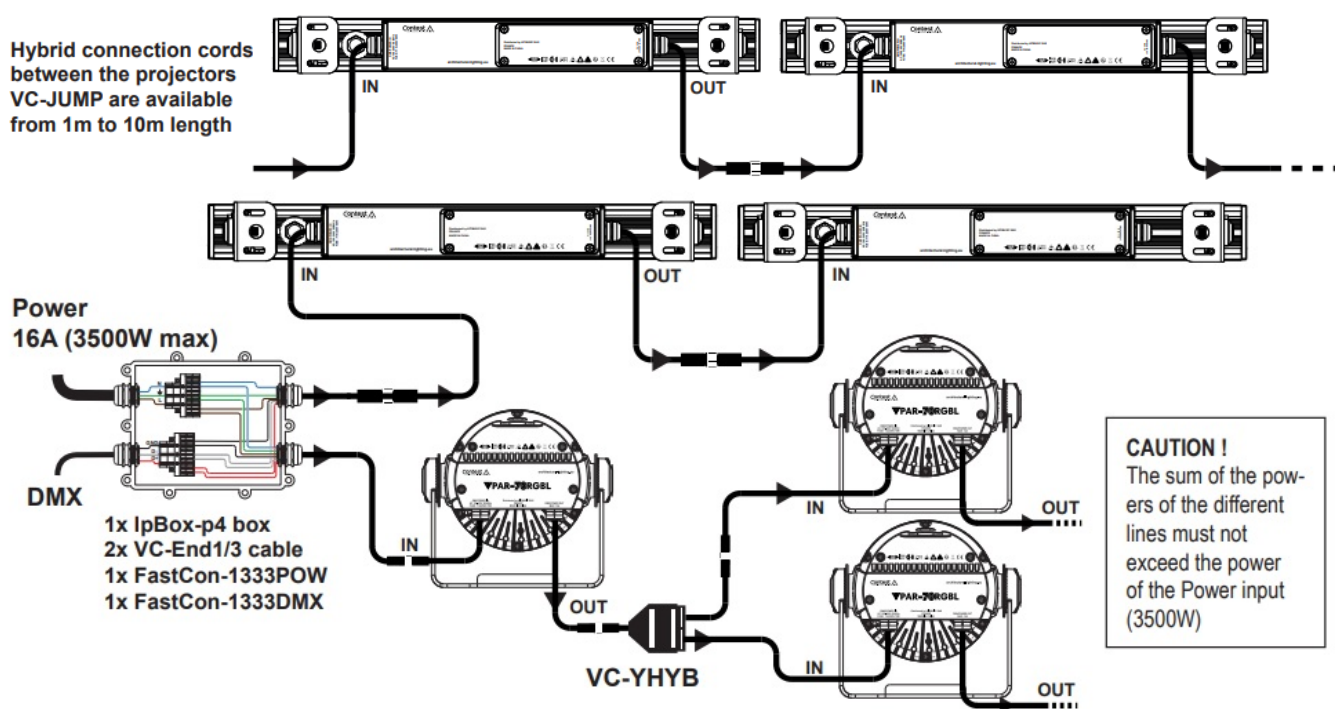
### Indoor line cabling with VC-ADAPT:

To power your line of indoor projectors, you can use the VC-ADAPT adapter cord which has a 2P+E power plug for the power supply and an XLR plug for the DMX and which comes out on a Power+DMX hybrid plug as shown in the figure below.



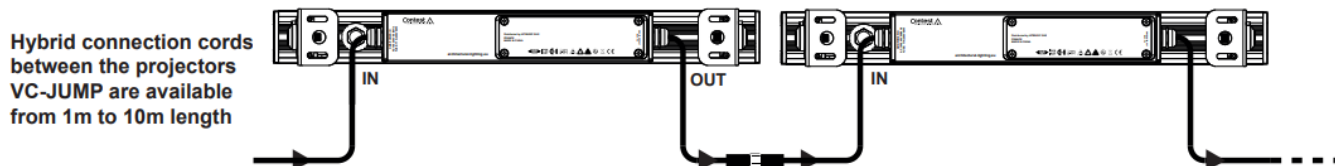
### Outdoor line wiring with junction box and VC-YHYB adapter :

For outdoor connections that must remain sealed, you can use a junction box and a hybrid Y adapter to distribute the power and the DMX as shown in the figure below.



### Projector chains :

The wiring of a projector group can be done in different ways. The hybrid cables are used to supply the projector with electricity and data. The chaining of the projectors can be done simply as shown in the figure below.



### Line length :

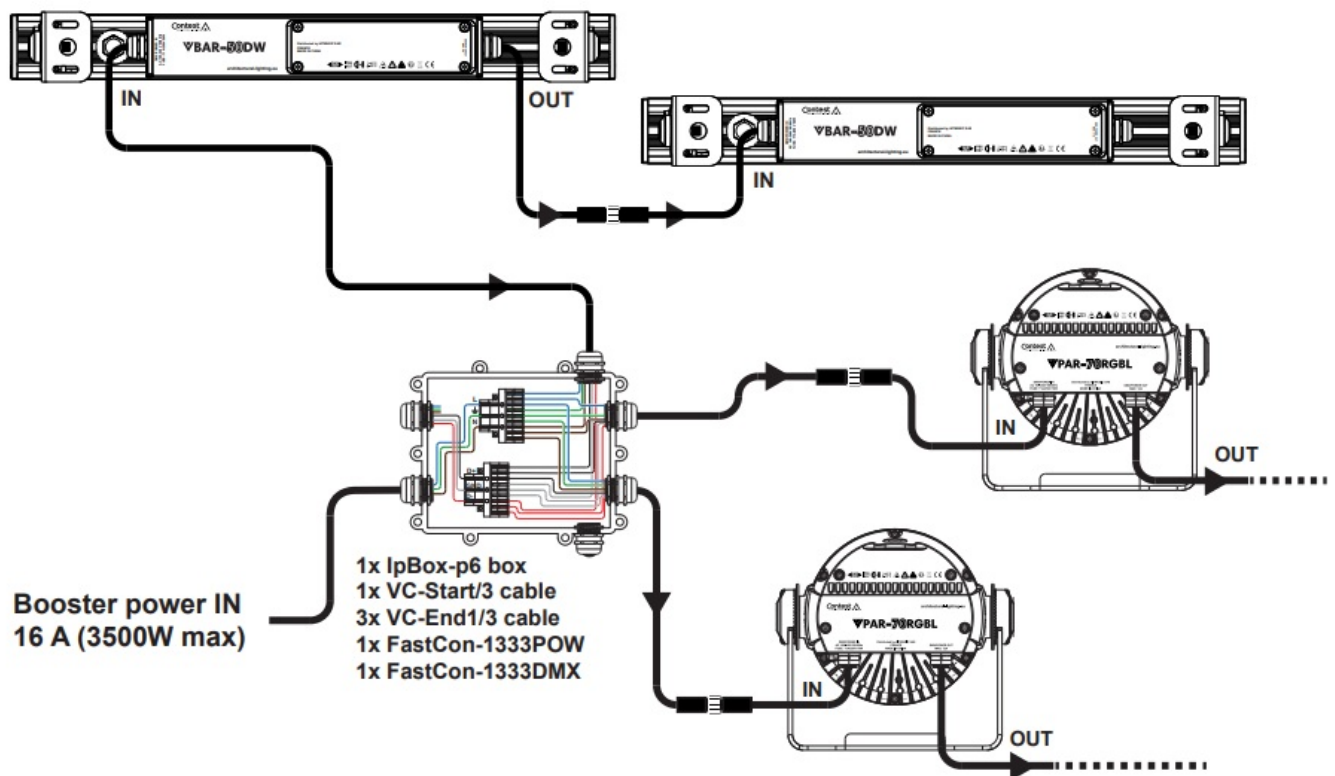
The number of projectors on a single line depends on the length of the wiring, its section (here 3 x 1.5 mm<sup>2</sup>) and the type of projector associated, as shown in the table below. A safety margin is applied to guarantee the correct operation of the installation.

A line is the length from the feed point to the last fixture.

PROJECTOR	Qty on 10 m	Qty on 20 m	Qty on 30 m	Qty on 50 m	Qty on 100 m
VCOB-60DW	31	30	20	11	5
VCOB-120DW	14	14	10	6	2
VBAR-50DW	32	32	23	13	6
VBAR-100DW	19	19	12	7	3
VPAR-70DW	27	26	17	10	4
VPAR-120DW	16	16	10	6	2
VPAR-150DW	11	11	8	5	2
VCOB-60RGL	31	30	20	11	5
VCOB-150RGL	12	12	8	5	2
VBAR-50RGL	32	32	23	13	6
VBAR-100RGL	19	19	12	7	3
VPAR-70RGL	27	26	17	10	4
VPAR-120RGL	16	16	10	6	2
VPAR-150RGL	11	11	8	5	2
VPANEL-200RGL	9	9	6	3	1
VH20-90	22	21	13	7	3
Available power on each line	2300 W	2216 W	1477 W	886 W	443 W

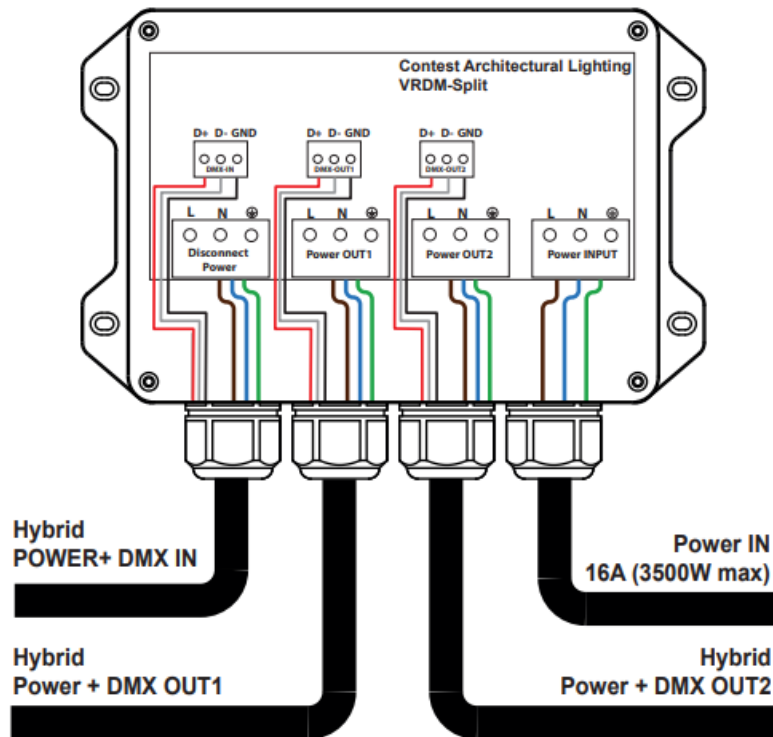
### Power supply booster :

- To overcome the lack of power of the line or the voltage drop due to a long cable length, it is necessary to be able to boost the power supply. To do this, you will need to use a junction box and separate the DMX coming out of the hybrid cable at the end of the line and isolate the power supply. A new mains power supply can then be injected into one or more chains of projectors on hybrid connectors at the outlet of the box as shown in the figure below.



### CAUTION !

The sum of the powers of the different lines must not exceed the power of the Power input (3500W). The power per line is limited to the characteristics of each of the devices, see table in the section on chaining of projectors.



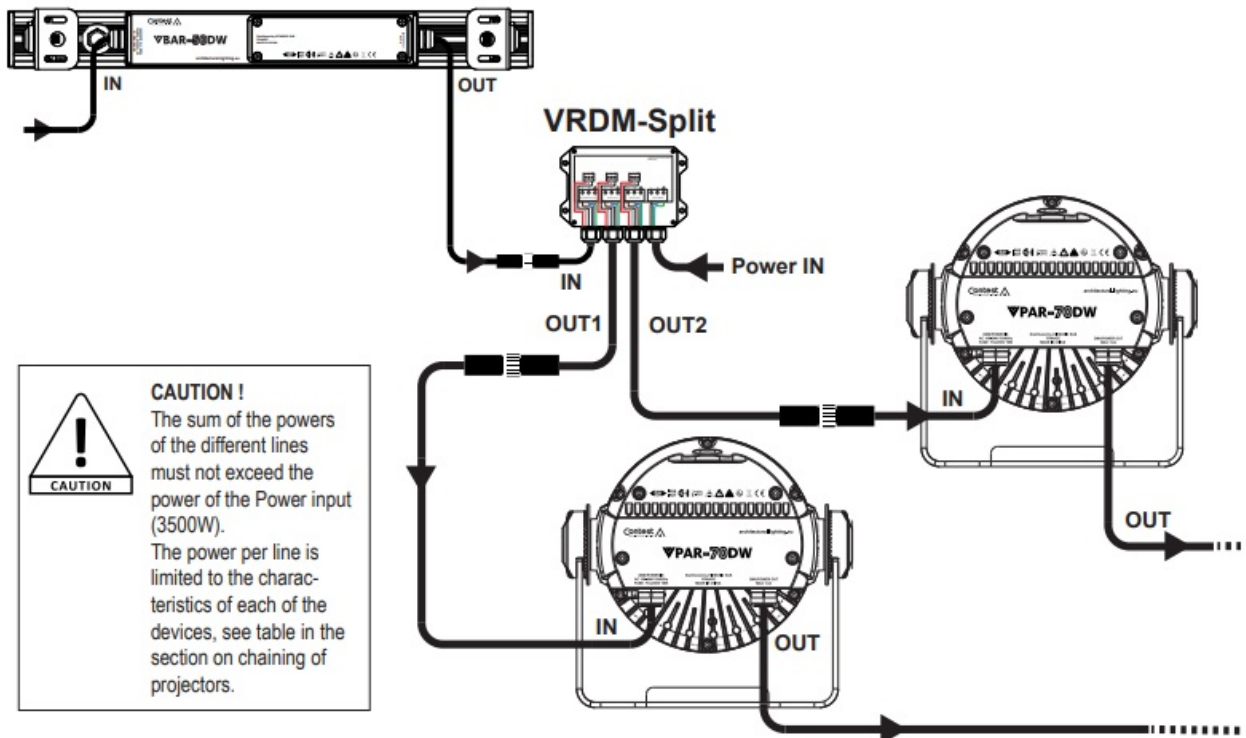
### CAUTION !

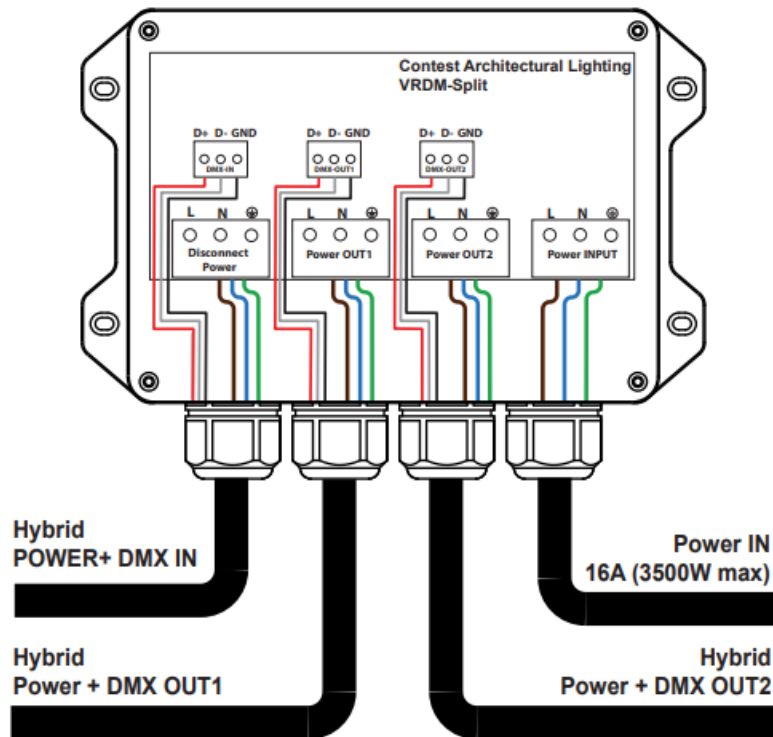
Outgoing power supply OUT to be isolated from the Booster power supply IN

### VRDM-Split splitter :

The VRDM-Split is a DMX RDM 1xIN 2x OUT IP66 splitter. It reboots the incoming DMX signal on two RDM-compatible DMX outputs. It has a Hybrid Power/DMX input on which the DMX signal will be extracted in order to be divided into two separate isolated and protected lines.

The Hybrid input supply will be disconnected and a new Power IN supply will be injected on the two Hybrid outputs.





- The Hybrid Power + DMX IN input on the left is used to recover the DMX signal which will be filtered, divided and protected.
- The power supply will be disconnected from the circuit via the Disconnect Power connector.
- The Power IN input on the right is used to supply the splitter and to re-inject the supply into the outputs.
- Outputs OUT1 and OUT2 therefore have a rebooted DMX signal and power supply to start new lines.

#### Note :

- In this case, the VRDM-Split is used in a Hybrid 1 x IN, 2 x OUT configuration.
- It is possible to use the VRDM-Split simply by entering with a DMX IN signal to 2 x DMX OUT and supplying the box with power IN only.
- It is also possible to mix the two combinations for more flexibility.

#### Setting setting

VBAR-50DW and VBAR-100DW projectors are configured using the remote RDM control box VRDM-CONTROL. This box makes it possible to deport the control part of the projector in order to make all the adjustments (settings) of the projector via the DMX cord by RDM protocol.

The menu is different depending on the type of projector, the functions are as follows:

#### VRDM-CONTROL

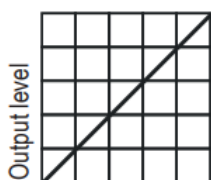
MENU						
RDM	Products List	Label:	"Product Name"	The name of the product connected to the box		
		Model:	"Product Name"	The name of the product connected to the box		
		Manufacturer:	Hitmusic SAS	The name of the manufacturer		
		Firmware:	V1.00	Firmware version		
		DMX Address:	001 (XXX)	DMX address 001 start (XXX) end		
		DMX Personality:	X CH list	Number of used channels		
		DMX Slots:				
		Identify:	ON (by default)	Allows you to flash the selected projector in order to identify it among the other projectors		
			OFF			
		Temperature:	...	Internal temperature of the projector		
			NO DMX	Blackout		
				Freeze (by default)		
				Stand-Alone		
			Slave mode	Single		
				Master		
				Slave (by default)		
			Stand-Alone Mode	Master Dimmer	Values from 000 to 255	
				Flash	Values from 000 to 255	
				CCT adjust	Values from 000 to 255	
Macro	Presets/Macro					
		Fade Speed				
Fixture Menu	Setting Mode	Dimmer curves	Linear			
			Exponential (by default)			
			Logarithmic			
			S-Curve			
		White Balance	WW			
			CW			
		PWM Frequency	900Hz			
			1200Hz (by default)			
			2400Hz			
			3600Hz			
		Temperature	°C (by default)			
			°F			
		Time info	...			
		DFSET	OFF			
ON						

	In case of loss of DMX signal either Blackout mode or stays on the last value or launches the Stand-Alone program	
	Allows to have an autonomous color per projector	
	Master Projector controls the Slaves	
	Projector controlled by the Master	
	Dimming from 0 to 100%	
	Flash speed from slow to fast	
	CCT setting	
	Show all Presets list	Allows to choose the presets or macro to launch
	Speed from 0% to 100%	Crossfade time from slow to fast
	Allows you to choose the type of dimmer curve. See details in next paragraph	
	Values from 000 to 255	Adjust white balance
	Values from 000 to 255	
	Allows you to choose the LED oscillation frequency to avoid Flicker effects in video. The higher the frequency, the better the refresh rate, but the brightness may be degraded.	
	Choosing the type of display for the internal temperature of the projector	
	Displays the elapsed time in hours since the first power on	
	Return to factory settings	

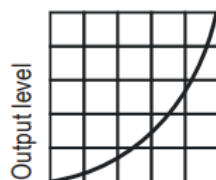
### Detail of the 4 DimCurve modes

DimCurv modes allow you to define the behavior of the dimmer.

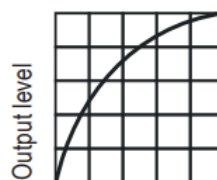
Below 4 diagrams show you the evolution of the output level according to the chosen mode and the DMX level of the dimmer channel.



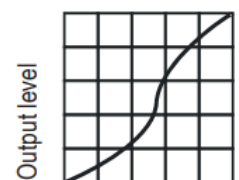
% DMX  
Mode 1 : Linear



% DMX  
Mode 2 : Exponential



% DMX  
Mode 3 : Logarithmic



% DMX  
Mode 4 : S-curve

### The different DMX modes

As soon as a DMX signal is present on the DMX IN input, the projector automatically switches to DMX mode.

#### channel mode A

Channels	Values	Action
<b>1</b>	<b>Color presets</b>	
	000-011	2800K
	012-022	3000K
	023-033	3200K
	034-044	3400K
	045-055	3600K
	056-066	3800K
	067-077	4000K
	078-088	4200K
	089-099	4400K
	100-110	4600K
	110-121	4800K
	122-132	5000K
	133-143	5200K
	144-154	5400K
	155-165	5600K
	166-255	5800K
<b>2</b>	<b>Dimmer</b>	
	000 - 255	Intensity from 0 to 100%

## 2-channel mode B

Channels	Values	Action
<b>1</b>	<b>CCT setting</b>	
	000 - 255	CCT with increasing value
<b>2</b>	<b>Dimmer</b>	
	000 - 255	Intensity from 0 to 100%

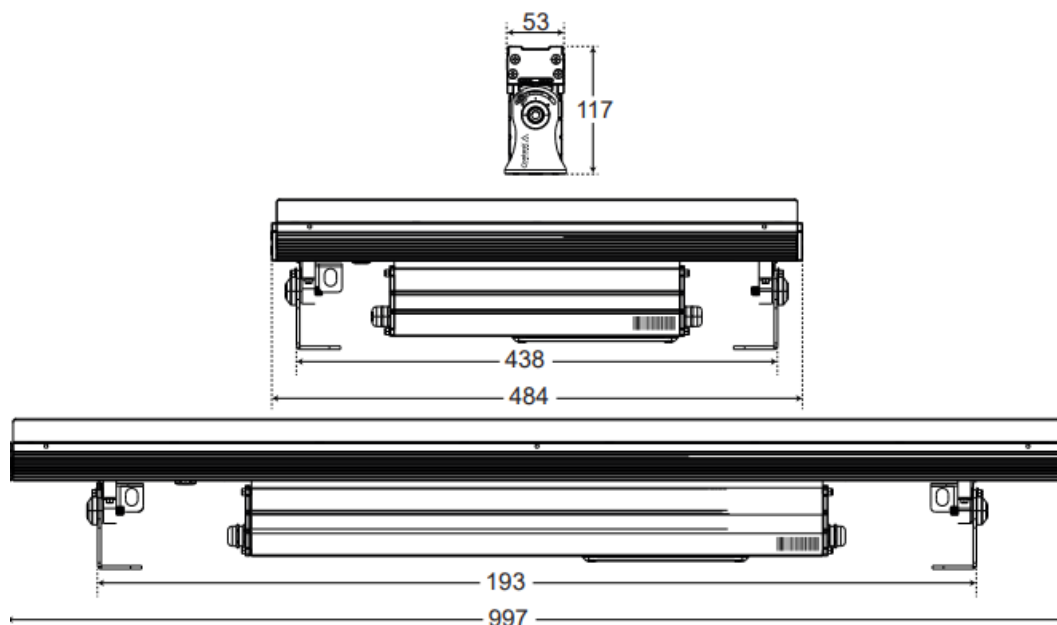
## 3-channel mode

Channels	Values	Action
<b>1</b>	<b>CCT setting</b>	
	000 - 255	CCT with increasing value
<b>2</b>	<b>Dimmer</b>	
	000 - 255	Intensity from 0 to 100%
<b>3</b>	<b>Shutter</b>	
	000 - 031	LED off
	032 - 063	LED on
	064 - 095	Strobe effect with increasing speed
	096 - 127	LED on
	128 - 159	Pulse effect chaining
	160 - 191	LED allumée
	192 - 223	Random strobe effect with increasing speed
	224 - 255	LED on

## 4-channel mode

Channels	Values	Action
1	<b>CCT setting</b>	
	000 - 255	CCT with increasing value
2	<b>Dimmer</b>	
	000 - 255	Intensity from 0 to 100%
3	<b>Shutter</b>	
	000 - 031	LED off
	032 - 063	LED on
	064 - 095	Strobe effect with increasing speed
	096 - 127	LED on
	128 - 159	Pulse effect chaining
	160 - 191	LED on
	192 - 223	Random strobe effect with increasing speed
	224 - 255	LED on
4	<b>Color presets</b>	
	000-003	No fuction
	004-011	2800K
	012-022	3000K
	023-033	3200K
	034-044	3400K
	045-055	3600K
	056-066	3800K
	067-077	4000K
	078-088	4200K
	089-099	4400K
	100-110	4600K
	110-121	4800K
	122-132	5000K
	133-143	5200K
	144-154	5400K
	155-165	5600K
	166-255	5700K

## Dimensions



Because CONTEST® takes the utmost care in its products to make sure you only get the best possible quality, our products are subjects to modifications without prior notice.

- That is why technical specifications and the products physical configuration might differ from the illustrations.
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## References

- [Contest Architecture Lighting - La lumière qui révèle l'architecture](#)
- [HIT MUSIC fabricant et distributeur en son & lumières](#)
- [User Manual](#)

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