



Mid-BRiO & Mid-BRiO LT M24 & X24

Underwater LED lighting

Ref: PK10R400 (M24) / PK10R401 (M24K) / PK10R402 (X24) / PK10R404 (M24 LT) / PK10R405 (M24K LT) / PK10R406 (X24 LT)

Table of Contents

1. Package contents	2
2. Technical specifications	2
3. Safety	2
4. Projector Protection	2
5. Installation	3
5.1. Electrical connexion	3
5.2. Installation into 1.5" standard wall conduit / nozzle	3
5.3. Installation into a BRiO niche (PF10R261 or PF10R262)	3
6. Monochromatic lights: dimming / luminous intensity variation (Only PK10R400-401)	3
7. Use - Autonomous mode (color models only)	4
8. Cable sizes	4
A. Declaration of conformity	4



Read these instructions carefully before installing, commissioning and using this product.

Immersed use only.

Only use a safety transformer.

1. Package contents

1 light Mid-BRiO & Mid-BRiO LT M24 & X24 (white or multicoloured) with

- Cable included: 3m
- Technical manual (this document)

2. Technical specifications

Dimensions	Ø70 mm / depth 80 mm	
Installation	In a standard 1.5" brush socket	
	In the CCEI universal side exit mini-recess PF10R261 In the CCEI universal axial exit mini-recess PF10R262	
Power supply	Voltage: 12 V ~ (AC) / Frequency: 50Hz/60Hz	
Power consumption	24W - Versions M24 and M24K - 2400 lm	
Max. luminous flux	24W (Version X24 RGBW) - 1800 lm (depending on the colour)	
	12W - Versions M24 LT and M24K LT - 1200 lm	
	12W (Version X24 LT) - 900 lm (depending on the colour)	
	<i>Take into account the total power for all lighting to determine which 12V (100 / 300VA) transformer to use.</i>	
LED type	PK10R400 (M24)	18 Power LEDs cold white (~6500°K)
	PK10R401 (M24K)	18 Power LEDs warm white (~2700°K)
	PK10R402 (X24)	24 Power LEDs monochrome (6R/6G/6B/6W)
	PK10R404 (M24 LT)	9 Power LEDs cold white (~6500°K)
	PK10R405 (M24K LT)	9 Power LEDs warm white (~2700°K)
	PK10R406 (X24 LT)	12 Power LEDs monochrome (3R/3G/3B/3W)
	Risk group 1 (low risk) as per IEC62471:2006	
Protection rating	IP-68	

3. Safety

If there is an abnormal temperature rise inside the Mid-BRiO & Mid-BRiO LT M24 & X24, a safety device automatically reduces the lighting intensity. If the heat is too high, even following a reduction in the intensity, the light cuts the lighting and emits red flashes (color models only). In order to work normally again, it is needed to power OFF the light.

4. Projector Protection

Independent protection is necessary for each Mid-BRiO & Mid-BRiO LT M24 & X24 (even if several projectors are connected to the same transformer). Protection must be ensured in the secondary of the transformer using fuses or breakers at 2A (M24LT & X24LT) or 4A (M24 & X24). The cable cross-section must be adapted accordingly.

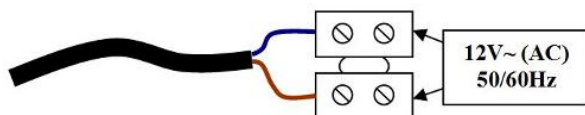
5. Installation

5.1. Electrical connexion



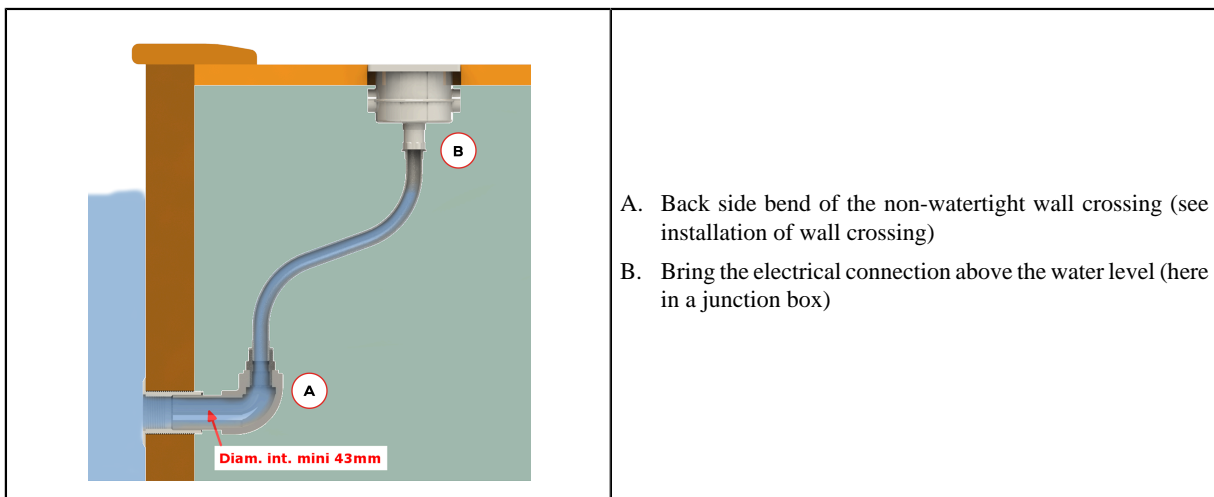
Installation of this project involves a hazard of electric shocks. We strongly recommend you contract a professional installer. An installation error can put you in danger and may irreversibly damage the product and the equipment connected to it. In compliance with the NF C 15-100 standard, pool lights installed in Volume 0 must always be powered by VLSV (Very low safety voltage). Always cut off the power upstream before handling the electrical installation.

Risk of electric shock. Only connect to a circuit which is protected by a ground fault circuit breaker . If you are not sure if these types of device are fitted, contact a qualified electrician.



It is imperative to connect to the electricity supply in a dry environment, in a sealed connection box of which the cable glands must be tight to prevent any water ingress.

5.2. Installation into 1.5" standard wall conduit / nozzle



- A. Back side bend of the non-watertight wall crossing (see installation of wall crossing)
- B. Bring the electrical connection above the water level (here in a junction box)

1. Mount the separately ordered bezel on the Mid BRiO using the 4 notches on the front of the light.
2. Put the light unit in the axis of the outlet nozzle and screw it in until the bezel touches the wall.

5.3. Installation into a BRiO niche (PF10R261 or PF10R262)

1. Fix the bezel supplied with the BRiO niche to the Mid BRiO using the 4 notches on the front of the light unit.
2. Put the light unit in the BRiO niche (after connecting and tightening the cable gland at the back of the niche, see instructions provided with the niche).
3. Make a quarter turn once the light is in place to secure it to the BRiO niche.

6. Monochromatic lights: dimming / luminous intensity variation (Only PK10R400-401)

You have the possibility to manage the luminous intensity of your lights with micro-power cuts (<1s). 3 levels are available :

- 1 micro-cut = 100% of power
- 2 micro-cuts = 75% of power
- 3 micro-cuts = 50% of power
- 1 micro-cut = Back to 100%

When the projector is re-powered after being switched off for more than 5 seconds, it switches back on at the last selected power level.

7. Use - Autonomous mode (color models only)

In the absence of a control unit, the bulbs operate autonomously and the user can choose between 18 modes: 11 colour sets and 7 programs (with shorts cutting power supply).

Change of mode and reset

- A small cut of power supply (less than 1s) switches to the next colour / sequence. Once all the colours are displayed, the light goes back to the first colour (pure white).
- A cut of supply (2s) resets the light synchronization and switches them to the second colours (blue)
- After a long stop (more than 4s) the light show the last displayed colour.

Fixed colours and available sequences

The colours and sequences are displayed in a preassigned order:

- **1 to 11 : fixed colours.** 1.Pure white | 2.Blue | 3.Blue Lagoon |4.Cyan | 5.Violet | 6.Magenta | 7.Pink | 8.Red | 9.Orange | 10.Green | 11.Warm white
- **12 to 18 : sequences.** 12.Fast gradient | 13.Slow rainbow | 14.Colours parade | 15.Techno rhythm | 16.Blue variations | 17.Random parade | 18. Ramdom colours






8. Cable sizes

Voltage drops in the Mid-BRiO & Mid-BRiO LT M24 & X24 power cable must be limited to comply with applicable standards and guarantee optimum lighting. Use the information in the table opposite (one light per cable);	Maximum length (m)	Cable cross-section (mm ²)			
		1.5 mm ²	2.5 mm ²	4 mm ²	6 mm ²
	15 (LT)	25 (LT) 12 (M/X24)	40 (LT) 20 (M/X24)	60 (LT) 30 (M/X24)	

For larger cable sizes, use the configuration tool <http://www.bleuelectrique.com/swimming-tools/electricity.php>

A. Declaration of conformity

CCEI S.A.S (FR 47 40 35 21 693) declares that the Mid-BRiO & Mid-BRiO LT M24 & X24 product meets the safety and electromagnetic compatibility requirements of European directives 2014/35/EU and 2014/30/EU.		
 		Emmanuel Baret Marseille, on 29/11/2022
Distributor's stamp		
Date of sale: Batch N°:		