



ZM20 & 40 (& ZM40K)

Underwater LED lighting

Réf : PK10R001 - PK10R002 - PK10R003

Table of Contents

1. Technical characteristics	1
2. Packaging contents	2
3. Electrical connection	2
4. Installation	2
4.1. Mounting in the niche	3
5. Cable Cross-Section	4
6. Projector Protection	4
A. Connection schematic	4
B. Declaration of conformity	4



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

Floodlights must never be turned on outside of water

Always use safety transformer only

1. Technical characteristics

Dimensions	Ø 176mm / depth 85mm (without trim)
Installation	PAR-56 niche - with fixing kit
Power supply	Voltage: 12 V~ AC / Frequency: 50Hz/60Hz
Consumed power	20W (M20 and M20K models) 40W (M40 and M40K models)
LED type	M20 - 27 monochrome MidPower LEDs / Cool White (~ 6000°K) M40 - 96 MidPower monochrome LEDs (Cool White (~6000°K) - Warm White (~3000°K)) Risk group 1 (low risk) according to IEC62471:2006
IP Rating	IP-68 (after installation)
Max light stream	1400 lm max. (M20 and M20K models) 4400 lm max. (M40 and M40K models)

2. Packaging contents

1 ZM20 & 40 (& ZM40K) with

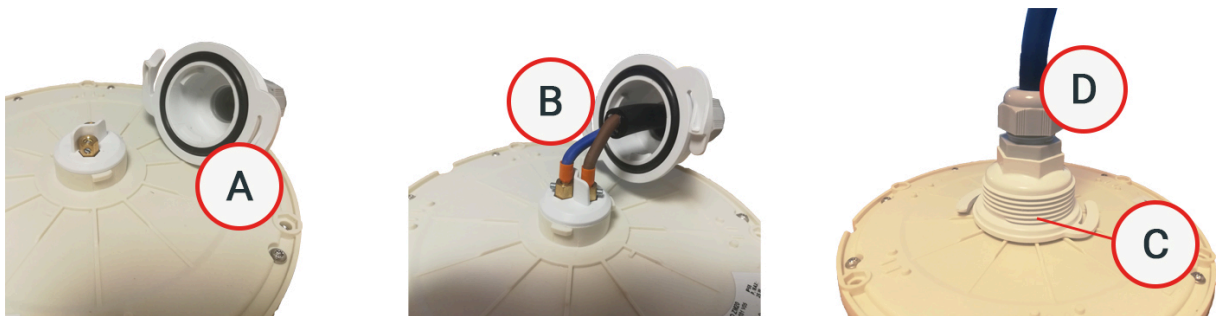
- Mounting accessory kit :
 - Cap + seal int.
 - IP68 + seal
 - 4 stainless steel fixing brackets + screws
- 2x4mm² cable pre-equipped with terminal lugs for electrical connection
- Technical manual (this document)

3. Electrical connection



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.



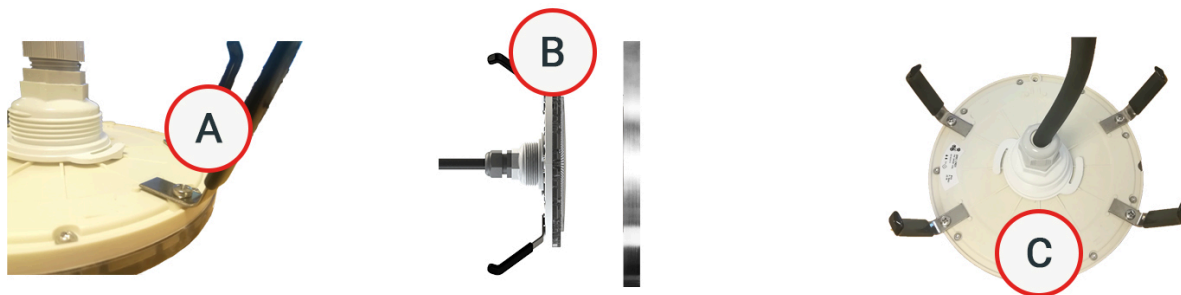
1. Place the o-ring in the dedicated housing of the bayonet plug (refer to picture). **Before the assembly it is required to lubricate the o-ring to ensure a proper tightening. (A)**
2. Pass the cable through the cable gland of the bayonet plug.
3. connect the cable at the back of the light and check if the tightening is well done. **(B)** (Don't strip the cable to ensure a good tightening in the cable gland)
4. Let the cable gland open and fix the bayonet plug onto the back of the light. Check if the o-ring is well placed between the bayonet plug and the light **(C)**. According to the tightening you may hear 2 or 3 clicks.
5. Tighten the cable gland **(D)** and check if the black cable sheath is clamped as well.



The cable to connect at the light is the one with the shortest stripped part (2.5cm). The other part (6cm stripped part) is for the connection at the 12V AC power supply..

4. Installation

The ZM20 & 40 (& ZM40K) are installed instead of the 300W incandescent bulbs in most of swimming pool niches (in PAR56 format) once the electrical connection is done (on projector side).



1. Mount the 4 fixing tabs (ABS or stainless steel) (A) with the 4 screws. They are placed behind the light and cross the nut in the heatsink. **Avoid to overtighten the screws, it may damage the light.**
2. Put the bezel on (B). **Avoid to overtighten the screws, it may damage the light**

Nova / Bahia : use the supplied screws with the bezel to fix it. The screws pass through the optical unit by the front of the light. Use the holes highlighted with C

3. You can adapt the stainless steel brackets to the niche by spreading them.

4.1. Mounting in the niche

Pass the cable through the niche's cable gland then pull it through the electrical sheath. Be sure that there is enough cable to remove the light from the niche !

Press the light into the niche after winding the cable.

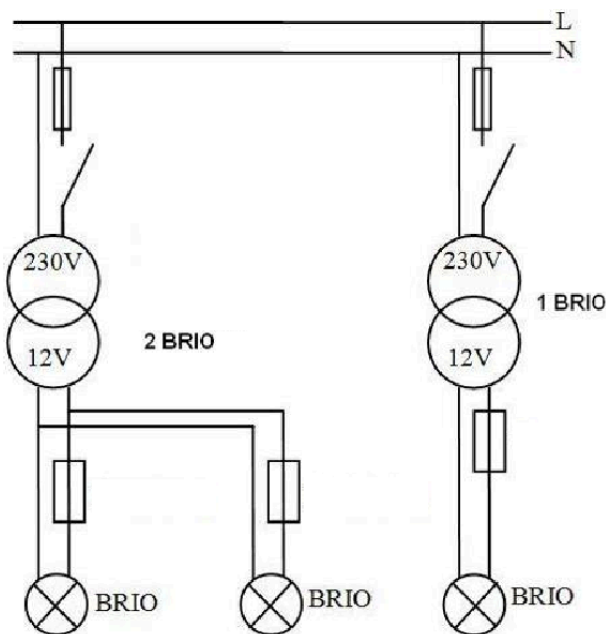
5. Cable Cross-Section

The voltage drop in the supply cable of the ZM20 & 40 (& ZM40K) cable should be limited in order to comply with the applicable standards and ensure optimal illumination. Follow the table opposite (one projector per cable)		CROSS-SECTION (mm ²)				
		1,5 mm ²	2,5 mm ²	4 mm ²	6 mm ²	10 mm ²
	Max. length (m)	10,9 (M20)	10,0 (M40) 18,2 (M20)	17,0 (M40) 29,1 (M20)	25,6 (M40) 43,6 (M20)	42,6 (M40)

6. Projector Protection

Independent protection is necessary for each ZM20 & 40 (& ZM40K) (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 3A (M20 / 20K) , 5A (M40 & M40K) . The cable cross-section must be adapted accordingly.

A. Connection schematic



B. Declaration of conformity

CCEI S.A.S (FR 47 40 35 21 693) declares that the ZM20 & 40 (& ZM40K) product meets the safety and electromagnetic compatibility requirements of European directives 2014/35/EU and 2014/30/EU.



Emmanuel Baret
Marseilles, on 02/06/2021

Distributor's stamp

Date of sale: Batch N°: