Mini BRIO M12CA (& M12KCA, M12BCA)

Underwater LED lighting

c UL us LISTED

No-Niche Underwater Luminaire for Swimming Pool

UL FILE E471596

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Read all of this leaflet carefully before installing, operating or using this product.

1. Packaging Contents

1 Mini BRIO M12 projector with

- Locking/unlocking tool
- 2xAWG18 cable: Depending model
  - 4,6m (15ft)
  - 15,2m (50ft)
  - 30,4m (100ft)
- Wall through: Depending model
  - Wall through PF10R191 for fiberglass or concrete pool (supplied with 2" gasket + 2" locknut)
  - Wall through PF10R192 for liner pool (supplied with 2" gasket + 2 liner gasket + 4 inox screws + liner flange + 2" locknut)
- Projector / Wall through O-ring (D35xd3,5mm)
- Technical manual (this document)

2. Technical characteristics

<table>
<tr><td>Dimensions</td><td>Ø 47 mm (1-11/16in) / length 84mm (3-5/16in)</td></tr>
<tr><td>Installation</td><td>Only in a threaded 1.5" niche ref. PF10R191 or PF10R192</td></tr>
<tr><td>Power supply</td><td>Voltage: 12 V~ AC / Frequency: 50Hz/60Hz</td></tr>
<tr><td>Power consumed</td><td>14W</td></tr>
<tr><td>Weight</td><td>
<table>
<tr><th>Cable lenght</th><th>Projector only</th><th>Complete box</th></tr>
<tr><td>4,6m (15ft)</td><td>0,5kg (1,1lb)</td><td>1,2kg (2,6lb)</td></tr>
<tr><td>15,2m (50ft)</td><td>1,2kg (2,6lb)</td><td>1,9kg (4,2lb)</td></tr>
<tr><td>30,4m (100ft)</td><td>2,2kg (4,4lb)</td><td>2,9kg (6,4lb)</td></tr>
</table>
</td></tr>
<tr><td>LED type</td><td>3 monochrome power LEDs
<table>
<tr><td>PK10R300 (M12)</td><td>Cool White (~6000°K)</td></tr>
<tr><td>PK10R301 (M12K)</td><td>Warm White (~3000°K)</td></tr>
<tr><td>PK10R302 (M12B)</td><td>Blue</td></tr>
</table>
Risk group 1 (low risk) according to IEC62471:2006</td></tr>
<tr><td>IP Rating</td><td>IP-68</td></tr>
<tr><td>Max light stream</td><td>
<table>
<tr><td>PK10R300 (M12)</td><td>866 lm max.</td></tr>
<tr><td>PK10R301 (M12K)</td><td>866 lm max.</td></tr>
<tr><td>PK10R302 (M12B)</td><td>160 lm max.</td></tr>
</table>
</td></tr>
</table>

The projector must never be powered other than in water.

3. Description

BRIO Mini BRIO M12 LED projector are designed to replace incandescent lighting, to reduce your energy consumption and to light your swimming pool.

3.1. Warnings

This product must be installed by a licensed or certified electrician or a qualified pool professional in accordance with the current National Electrical Code (NEC), NFPA 70 or the Canadian Electrical Code (CEC), CSA C22.1. All applicable local installation codes and ordinances must also be adhered to. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock, and may also cause damage to power source. Always disconnect the power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to service person, pool users or others due to electrical shock.

For countries in compliance with International Electrotechnical Commission (IEC) regulatory standards: The light fixture must be installed by a licensed or certified electrician or a qualified pool service person, in accordance with current IEC 364-7-702 and all applicable local codes and ordinance. Improper installation will create an electrical hazard, which could result in death or serious injury to pool user, installer or other due to electrical shock and may also cause damage to the property.

3.2. Technical support

Website : www.ccei.ca / Phone : +1.514.649.7748

4. Installation

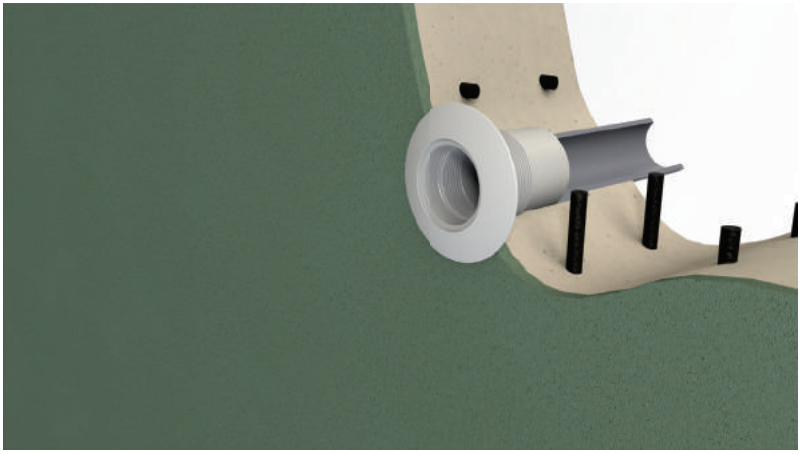
4.1. Wall through installation

4.1.1. Fiberglass pool

Prior to installing, drill a hole in the pool using a 60-mm (2 3/8-in) diameter cylinder saw. The wall through is connected on the rear to a 1,5" threaded coupling.

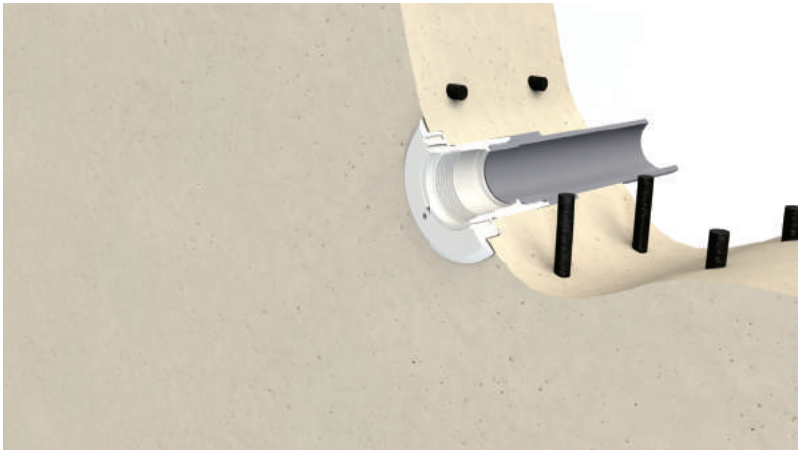
4.1.2. Concrete pool

Assemble a pipe of sufficient length with a 1,5" threaded coupling onto the wall through before sealing the assembly.

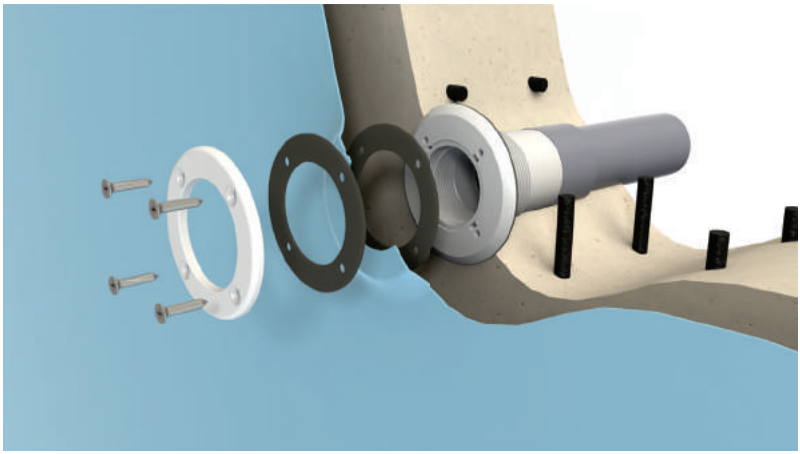


4.1.3. Concrete + liner pool

Assemble a pipe of sufficient length with a 1,5" threaded coupling onto the wall through before sealing it.



Then glue a first gasket before placing the liner ;



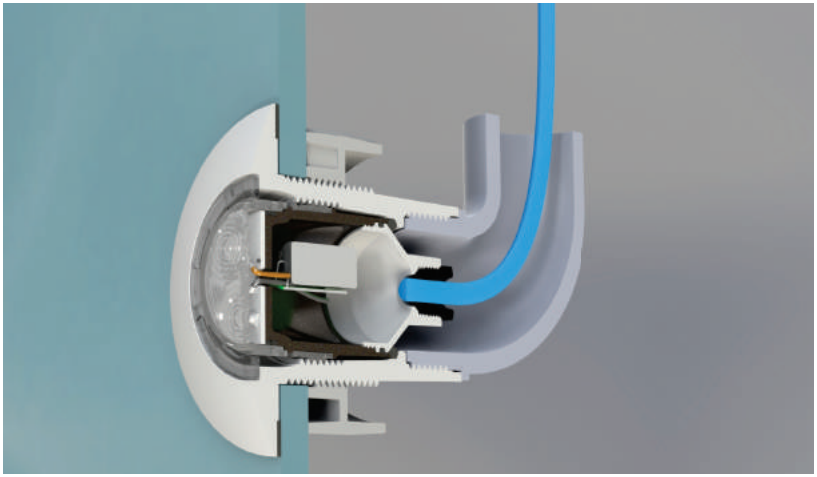
4.1.4. Panels + liner pool

Prior to installing, drill a hole in the pool using a 80-mm (3 1/8-in) diameter cylinder saw. Think to glue the first liner gasket before installing it.

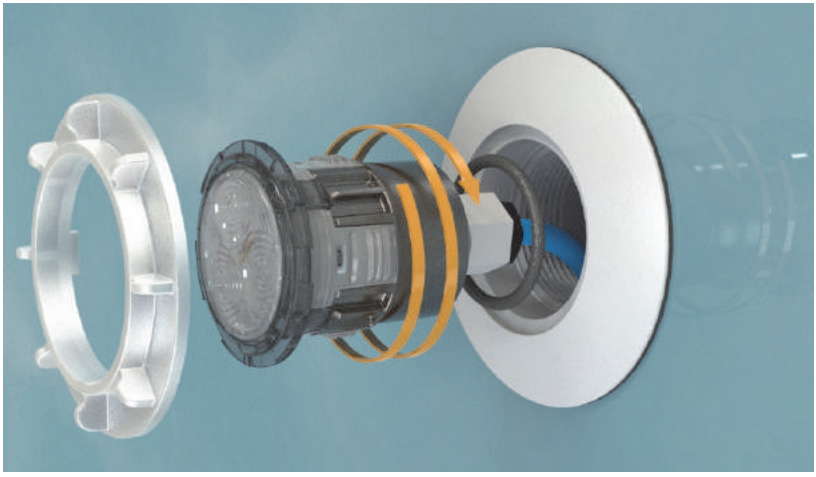
The wall through is connected on the rear to a pipe with a 1,5" threaded coupling.

4.2. Placement in a wall

BRIO Mini BRIO M12CA (& M12KCA, M12BCA) LED projectors must only be installed in a threaded 1.5" niche ref. PF10R191 or PF10R192. We recommend that installation is performed by a professional.



4.2.1. In wall through



1. Pass the gasket and the projector cable through the wall passage up to the connection box.
2. Push and screw the projector to the back.
3. Use provided tool to securely screw the projector.

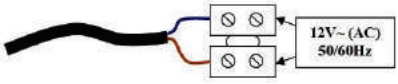
4.3. Electrical Connections

Installing this product could expose you to an electric shock. We strongly recommend that you use a qualified professional. An installation error could put you at risk and irreversibly damage the product and the equipment connected to it.

In compliance with the current National Electrical Code (NEC), underwater lighting must always be supplied with SELV (Safety Extra Low Voltage). Turn off the power supply upstream before doing anything to the electrical installation.

Risk of Electrical Shock. Connect only to a circuit protected by a ground-fault circuit-interrupter (GFCI). If you cannot verify that the circuit is protected by a GFCI, contact a qualified electrician.

THE LED LIGHT AND PLASTIC NICHE FORM A COMPLETE NON-METALLIC LOW VOLTAGE LIGHTING SYSTEM. THIS CONFIGURATION DOES NOT REQUIRE BONDING OR GROUNDING WHEN POWERED BY A LISTED TRANSFORMER AND INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC).



The electrical connection must be performed dry, in a sealed connection box whose cable glands must be tightened in order to avoid any water infiltration.

Once startup and the operation tests are complete, it is recommended to drown the connection with a reusable soft hydrophobic insulating gel. (ref. CCEI PNSP0002)

The soft external cable of this lighting system cannot be replaced.

If this cable is damaged, the lighting system must be disposed of or returned to the manufacturer for possible reconditioning.

5. Transformer Power

The transformer to be used must have a secondary voltage of 12V (12.5V depending on the model). The power of the transformer must be in line with the power of the projectors to be connected.

In any case, the sum of the powers of the projectors must remain below or equal to the power of the transformer.

Transformer Power	Max no. of Mini BRIO M12
50VA	3
100VA	7
300VA	21

It is preferable to use power supplies from the same manufacturer.

A. Declaration of Conformity

The Company CCEI Inc. (Québec 1170122155) declares that the product Mini BRIO M12CA (& M12KCA, M12BCA) satisfies the safety and electromagnetic compatibility requirements of European directives 2006/95/EC and 2004/108/EC and is UL listed under file E471596.

Pierre-Yves Flattot

Montreal, 05/02/2016

Distributor's stamp

Date of Sale: . . . . . *Serial No:* . . . . . .