

Installation instruction

Micro BLC 0-10V Industrial



The Mymesh micro BLC 0-10V industrial is a product in the Chess program for building light control. The micro BLC 0-10V industrial is a wireless light controller for 0-10V LED drivers. The micro BLC 0-10V industrial is powered by an auxiliary power supply of the 0-10V driver or by an external power supply.

Safety



- Installation and service should be performed by qualified personnel only.
- The electrical installation must be in conformance with the national legislation and relevant standards.
- Do not use the micro BLC 0-10V industrial if it is damaged.
- **Do not screw the micro BLC 0-10V industrial too tight**, as the material might break under high pressure. This may also damage the electronics !!

Application

Refer to the micro BLC 0-10V industrial product sheet (see chess.nl) for the environmental conditions.





Installation

Mount the micro BLC 0-10V industrial on a flat surface using the mounting holes.

- The micro BLC 0-10V industrial can be wired in two configurations: powered by an auxiliary power supply of the 0-10V driver or by an external power supply. See wiring diagrams below.
- Do not use cables longer than 3m.
- One micro BLC 0-10V industrial controls **one** luminaire.

Product mounting

The micro BLC 0-10V industrial contains an internal antenna for wireless communication with other Mymesh products. Operation of the antenna should not be disrupted.

- Do **not** mount the micro BLC 0-10V industrial inside a metal housing or directly next to a large metal object.
- Some glass and plastic materials such as safety glass, tinted glass and double glass influence the operation of an antenna.
- Use a plastic, polycarbonate or fiberglass housing **without** carbon
- Mount the micro BLC 0-10V industrial **outside** the fixture if necessary.
- Depending on the installation of the micro BLC 0-10V industrial in the luminaire the range is damped to a greater or lesser extent. The range of the antenna is divided into four categories:
 -  – 75 to 100% antenna range for situations where luminaires are installed far apart in an open space (approx. 30-50 meters) **OR** for situations where luminaires are installed in close proximity (approx. 20-30 meters) in complex buildings with a lot of attenuation through walls, partitions and ceilings
 -  – 50 to 75% antenna range is acceptable for situations where luminaires are installed in close proximity (approximately 10-20 meters) in buildings with limited attenuation due to partitions.
 -  – 25 to 50% antenna range is acceptable for situations where luminaires are installed in an open space in close proximity (approximately 10-20 meters).
 -  – no antenna range. Do not apply.
- The following installation examples of the antenna are for illustrative purposes. Contact Chess in case of doubt.

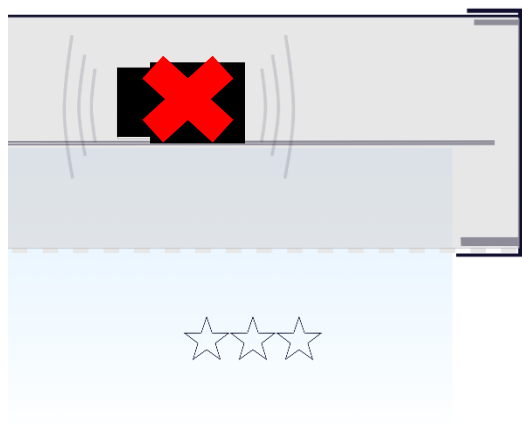


Figure 1: Do not place the micro BLC 0-10V industrial in a metal housing / fixture.

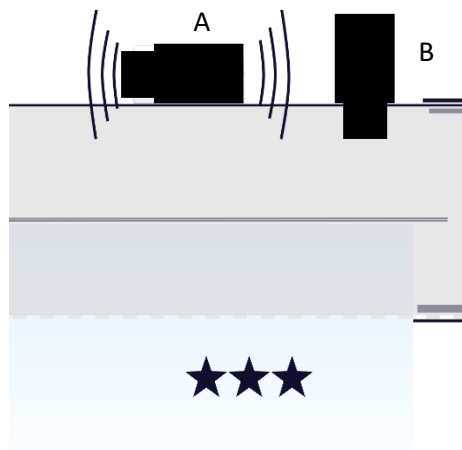


Figure 2: Place the micro BLC 0-10V industrial outside a metal housing / fixture.

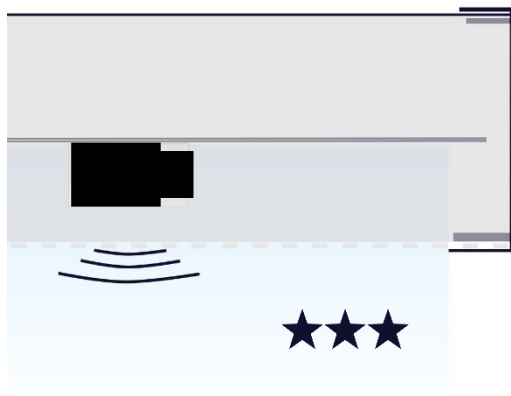


Figure 3: In case of a metal fixture place the micro BLC 0-10V industrial on the side of the light diffuser.

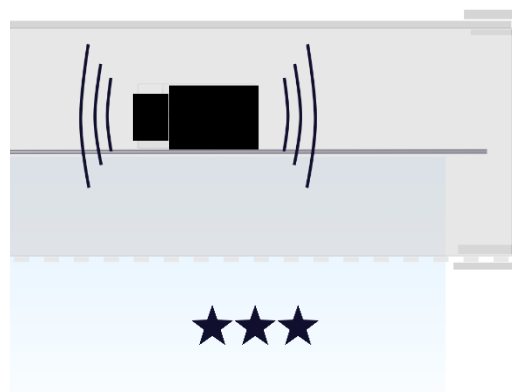


Figure 4: Place the micro BLC 0-10V industrial in a full plastic housing / fixture.



Figure 5: Do not place the micro BLC 0-10V industrial in a metal housing / junction box.

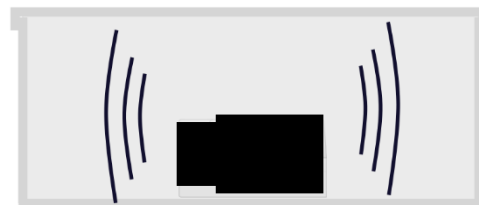


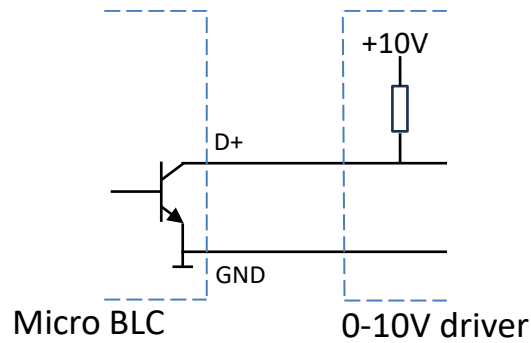
Figure 6: Place the micro BLC 0-10V industrial in a full plastic housing / junction box.



Wiring diagrams

The micro BLC 0-10V industrial is powered by an auxiliary power supply of the 0-10V driver or an external power supply.

The Micro BLC provides an open collector output for operation with 0-10V LED drivers. The Led driver (or an external circuit) should provide +10V in this case as shown below.



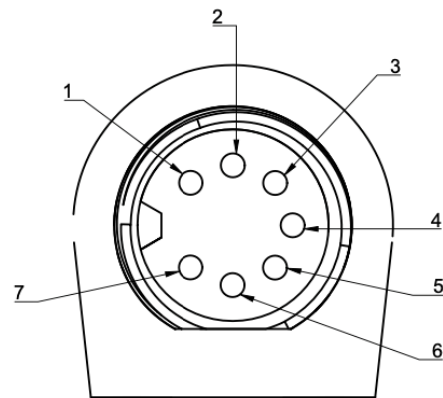
Use the supplied connector.

Do **not** connect drivers with **common mode chokes** to the micro BLC 0-10V industrial.

Cable length should be maximum 3m.

Contact Chess in case of doubt.

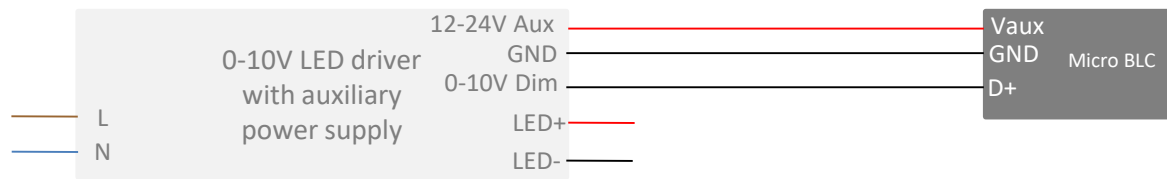
Pin	Description
1	Vaux (12V or 24V DC)
2	GND
3	Do not use
4	Do not use
5	Do not use
6	Do not use
7	D+ (0-10V Dim)



Micro BLC 0-10V industrial top view

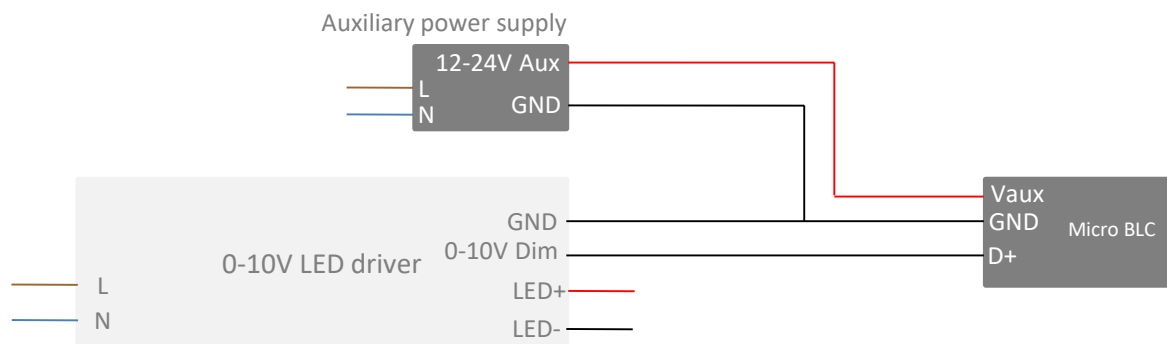
Option 1: 0-10V driver with integrated auxiliary power supply

The micro BLC 0-10V industrial can be connected to a 0-10V driver with integrated always-on auxiliary power supply.



Option 2: 0-10V driver with external auxiliary power supply

To connect a micro BLC 0-10V industrial to a 0-10V dimmable driver, the micro BLC 0-10V industrial must be powered by an external power supply.



Warning: auxiliary power supplies should be connected to the Vaux input (never to the D+ input).

Configuration

When the micro BLC 0-10V industrial is powered, the connected lamp should go on. Use the iPad Mymesh commission app for configuration of the micro BLC 0-10V industrial.

The micro BLC 0-10V industrial is shown in the commission app with a combined lamp/sensor symbol. Installation and configuration of an add-on motion sensor will be described in a future version of this document.



Usage

The micro BLC 0-10V industrial will control the connected driver and lamp.

Compliance



This product complies with the European directives and relevant standards for RED, REACH and RoHS. The micro BLC 0-10V industrial contains a 2.4 GHz radio. The applied frequency of the radio is within the band 2.401 – 2.482 GHz and the maximum transmit power is +4 dBm.

Hereby, Chess Wise B.V. declares that the radio equipment type micro BLC 0-10V industrial is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity will be available at chess.nl.

Repair

Do not open this product. In case of failure the micro BLC 0-10V industrial must be replaced.



Recycling

Do not dispose this product as household waste, but bring it to an appropriate collection point for recycling.