# Installation instruction

## mini BLC 4DI


The Mymesh mini BLC 4DI is a product in the Chess program for building light control. The mini BLC 4DI is a wireless sensor for monitoring of up to four voltage free contacts and executing related control commands.

### 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.
- The mains connection of the mini BLC 4DI must be provided with a fuse or circuit breaker.
- Disconnect power at the source before installation, inspection or removal.
- Do not use the mini BLC 4DI if it is damaged.
- The mini BLC 4DI is suitable for use at indoor locations (IP20 protection class). Mount the mini BLC 4DI in an IP66 housing for use at outdoor locations.
- The mini BLC 4DI is double insulated (protection class II).
- The optional strain relief mini BLC can be used to fixate and protect wiring to the mini BLC 4DI.

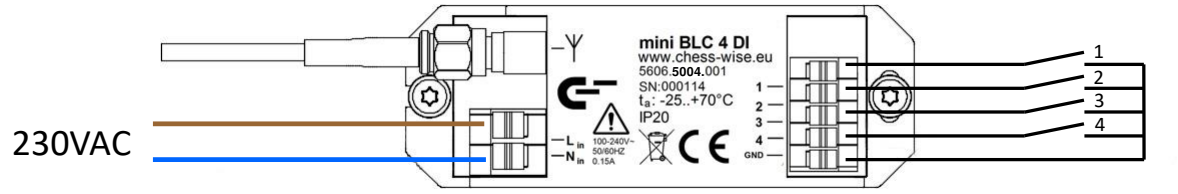
## Application

Refer to the mini BLC 4DI product sheet (see chess.nl) for the product specifications and environmental conditions.

## Installation

- Install the mini BLC 4DI in the direct neighborhood of other Mymesh products.
- Mount the mini BLC 4DI with 2x M3 screw/bolt (76 mm distance) or double sided tape.
- Use maximal 1.5 mm² (AWG16) wiring for all connections. Push the wires completely into the terminal block. Use wire end sleeves when using flexible wires.
- Connect the 230VAC supply voltage to the mini BLC 4DI.
- Connect up to four contact inputs and the common GND to external voltage free contacts (see wiring diagram below). Use shielded 0.25 mm² (AWG24) cable or better, e.g. a CAT6 FTP cable.
- Ground the shield only at **one** end of the cable.
- Maximum cable length is 1000m.

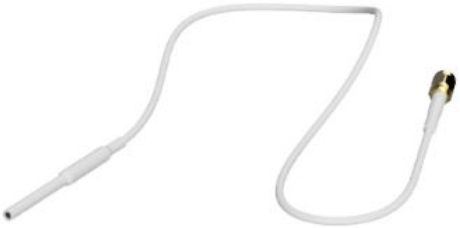
## Mini BLC 4DI + voltage free contacts:




## Antenna mounting

- Connect the supplied antenna to the antenna connector.
- The antenna is used for wireless communication with other Mymesh products. Operation of the antenna should not be disrupted.
    - Do **not** mount the antenna inside a metal housing, flat on a metal surface 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 antenna **outside** the housing/cabinet if necessary. Ensure that the thickened part at the end of the antenna is positioned **outside** a housing plus 1.5cm of the antenna cable. Use a grommet for protection of the antenna cable.

- Depending on the installation of the antenna in the housing/cabinet 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 damping 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.



*Antenna Mini BLC*

*Grommet*

*Antenna with grommet*

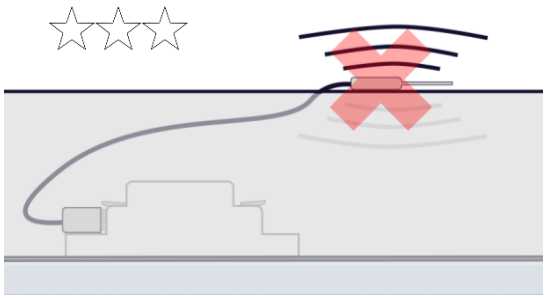


*Figure 1: Do not mount the antenna flat on a metal surface.*

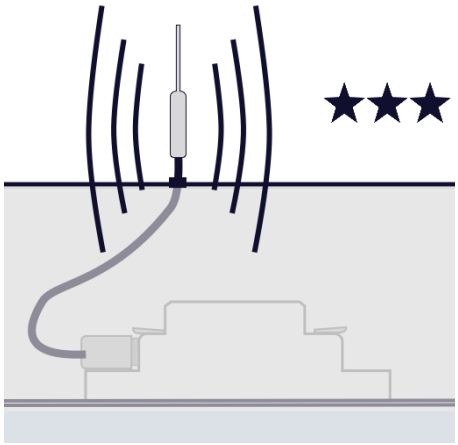


*Figure 2: Route the thickened part of the antenna completely through the metal housing / cabinet plus 1.5cm of the antenna cable.*

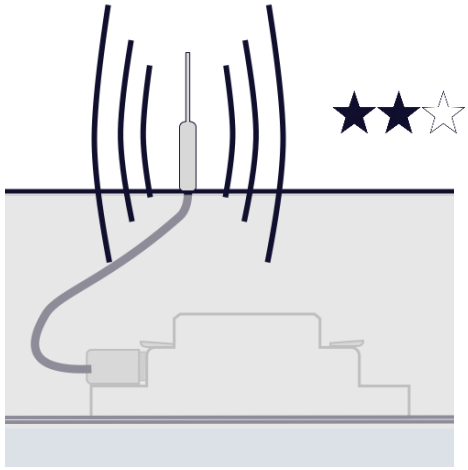


*Figure 3: Route the thickened part of the antenna completely through the metal housing / cabinet*

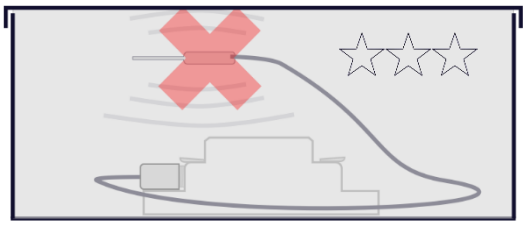


*Figure 4: Do not place the antenna in a metal housing / junction box.*

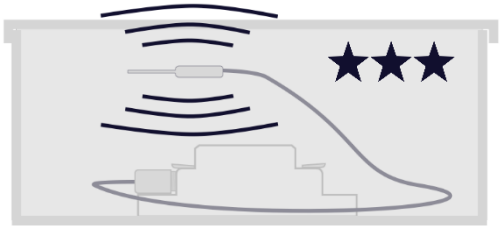


*Figure 5: Freely place the antenna in a plastic junction box / housing (not against plastic)*

## Configuration

Use the iPad Mymesh commission app for configuration of the mini BLC 4DI.

Warning: the mini BLC 4DI solely detects **contact changes** (for example from open to closed contact) and no contact status.

## Usage

The mini BLC 4DI will detect changes of the connected contacts and execute the related operations..

## Compliance

This product complies with the European directives and relevant standards for RED, REACH and RoHS. The mini BLC 4DI 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 mini BLC 4DI is in compliance with Directive 2014/53/EU.  The full text of the EU declaration of conformity is available at chess.nl

## Repair

Do not open this product. In case of failure the mini BLC 4DI must be replaced.

## Recycling

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