Installation instruction |
EVA LED Candle

Index

Chapter 1: Instructions

IMPORTANT! Safety and general mounting instructions

RISK OF ELECTRIC SHOCK OR INJURY - This lighting system should be installed by a certified electrician in accordance with applicable local rules and regulations. Improper installation can cause electrical hazards.

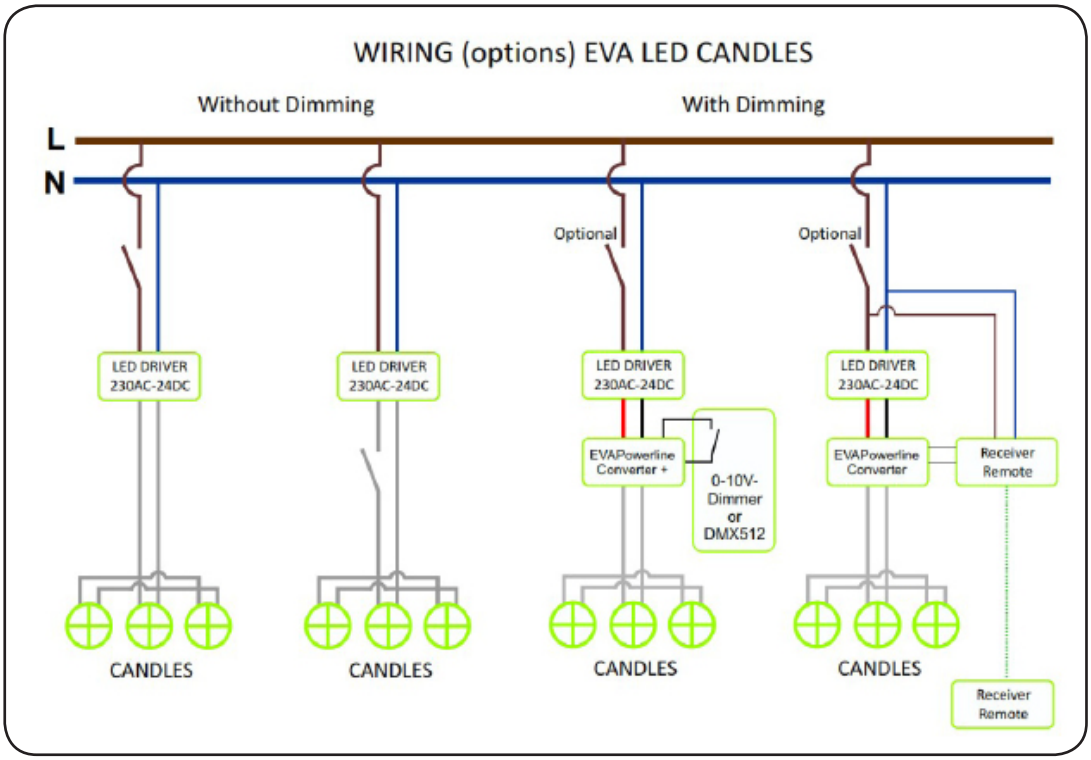
SWITCH OFF POWER BEFORE INSTALLATION - Switch off all relevant live wiring before starting the installation.

CAREFULLY FOLLOW THE INSTALLATION INSTRUCTIONS - Follow the installation instructions carefully.
For questions please contact our support department: +31 (0)38 - 337 5067.

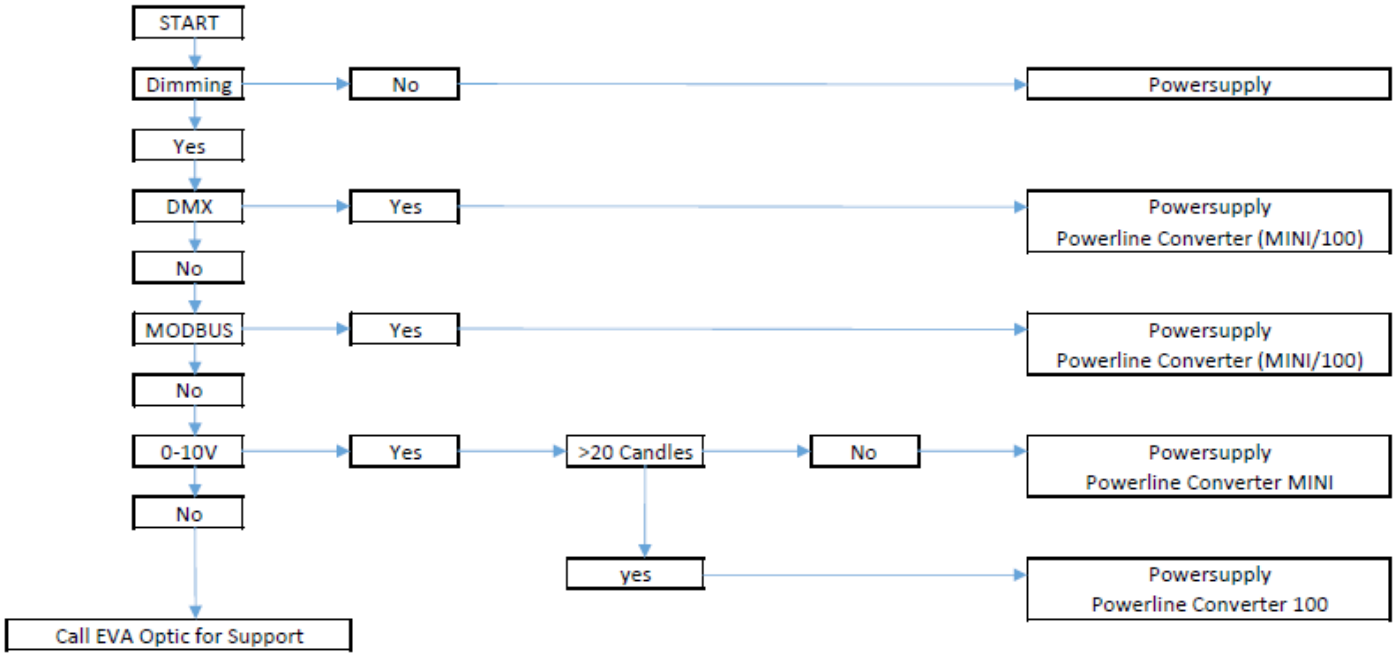
ONLY USE MATERIALS SUITABLE FOR YOUR APPLICATION - Please note! The fastening materials used must comply with the requirements and guidelines that apply to your application. Pay attention on the cable length and diameter from power supply/powerline coverter to candles. The max. length of cable with the use of a powerline converter is 25 meters.

Chapter 2: Set up LED Candles

Set up LED Candles (different configurations)



Control of EVA LED Candles



Realistic flame motion
No dimming - programmed on candle (see page 4).
Dimming - programmed on powerline converter (see page 6 and further).

Calculate powersupply
Powersupply = amount of candles x candle (W) + optional powerline converter (4W) = ... W minimum
2000K = 3W 2500K = 4W

Example of powersupply dimensions

25W	160 x 40 x 30 mm
52W	193 x 42,4 x 34 mm
75W	179 x 99 x 33 mm
100W	179 x 99 x 45 mm
150W	210 x 98 x 50 mm
200W	210 x 98 x 50 mm
240W	210 x 98 x 50 mm
300W	215 x 115 x 50 mm

Powerline converter dimensions

Mini	100 x 45 x 25 mm (incl. housing)
100	180 x 45 x 55 mm (excl. housing)

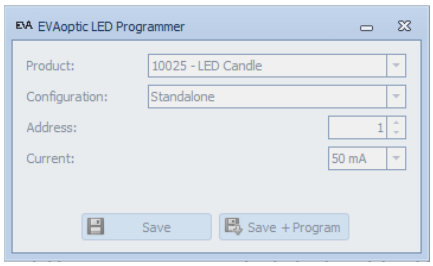
Remote 0-10V dimensions

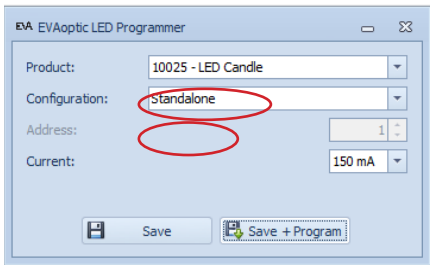
Receiver	165 x 47 x 35 mm
Hand transmitter	125 x 40 x 10 mm
Wall transmitter	86 x 86 x 9,5 mm

Chapter 3: Programming LED Candle

The EVA LED candles will be programmed by EVA Optic at order. In case of a spare candle or desirable change, the candles can be programmed with the optional Candle Programmer. In this chapter we will instruct you how to do this.

Step by step:





1. Install the EVA LED programmer software on a Windows PC.
   The software can be found on **www.evaoptic.com**
2. By starting the EVA LED programmer software you will see the first screen of the images at the right
3. Connect the programmer (white box) by USB to a Windows PC
4. Connect the candle that you want to program with the programmer
5. Choose product 10025 - LED Candle
6. Choose a configuration from the list. You can choose from the following options:
   - Standalone (without dimming)
   - Standalone with flickering (no dimming)
   - Remote from powerline (with powerline converter)

   Set address for DMX operated candles only! Choose a DMX address. For more information see powerline converter 100 with DMX (page 10).
7. Set address (DMX512 only) - candle channel, see powerline converter 100
8. Set maximum current:
   For the 2000K candle this is maximum 150mA
   For the 2500K candle this is maximum 300mA

   Press the **save** button to save the settings on the programmer. Then press the button on the controller to program the candle.

   Or

   Press **save** + **program** to directly program the candle. When correctly programmed, the candle will light up, otherwise programming has failed.

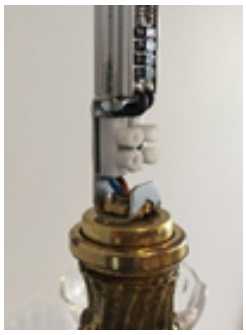
Chapter 4: Mounting LED Candle

For installation of the LED candles on a chandelier or Candelabra: first remove the old lamp holder with the bracket. Secondly remove the tube from the EVA LED candle.

Option 1: Mount with rubber bung

1. Remove the rubber bung from the old bracket
2. Remove the tube from the EVA LED Candle for better grip
3. Screw the rubber bung on the EVA LED Candle Bracket
4. Mount the candle in de candle cup
5. When you twist the candle 90 degrees, the bung will tighten itself in the candle cup
6. Connect the wire on the connector (polarity independent)
7. Place the flame tip on top of the candle
8. Place the tube over the candle. At the bottom should be a space of >1mm for the necessary convection cooling of the candle

Option 2: Mount on M10x1



1. Remove the tube from the EVA LED Candle for better grip
2. Screw the EVA LED Candle on the M10x1
3. Connect the wire on the connector (polarity independent)
4. Place the flame tip on top of the candle
5. Place the tube over the candle. At the bottom should be a space of >1mm for the necessary convection cooling of the candle

Chapter 5: Connection of LED Candle (standalone)

Install the candles standalone (without dimming)*:

- Calculate power supply:
  - 2000K = 3W
  - 2500K = 4W
  - Amount of candles x W = minimum of power supply 24V
- Connect the power supply 24V at the cable of the candles
- Polarity independent

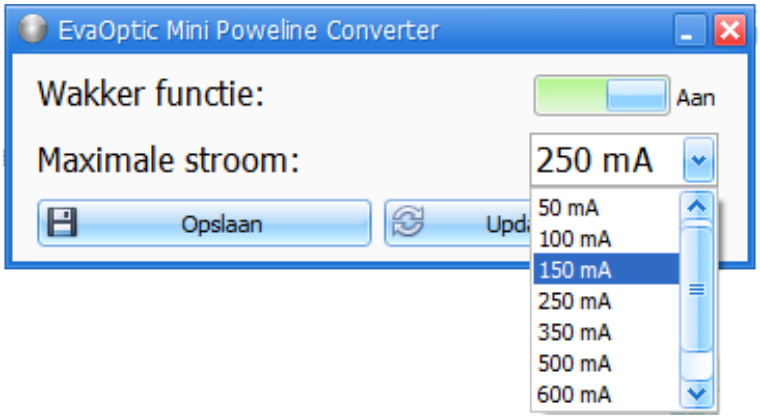
* *Without dimming. For dimming options use a EVA powerline converter, see page 6.*

Chapter 6: Programming powerline converter mini

For max. 20 candles, 0-10V dimming

The powerline converter mini is standard programmed with 350 mA and flickkering off. Programming is not necessary for standard operation.

1. Go to **www.evaoptic.com** and download the EVA Optic mini powerline converter software for a Windows PC
2. Install the EVA Optic mini converter software on your PC
3. Connect the powerline converter mini by USB on a Windows PC
4. Start the software
5. Set a current (see picture below for more information)
6. Choose flickering **ON** or **OFF**. With flickering ON all candles will flicker randomly
7. Save the settings
8. Disconnect the USB cable



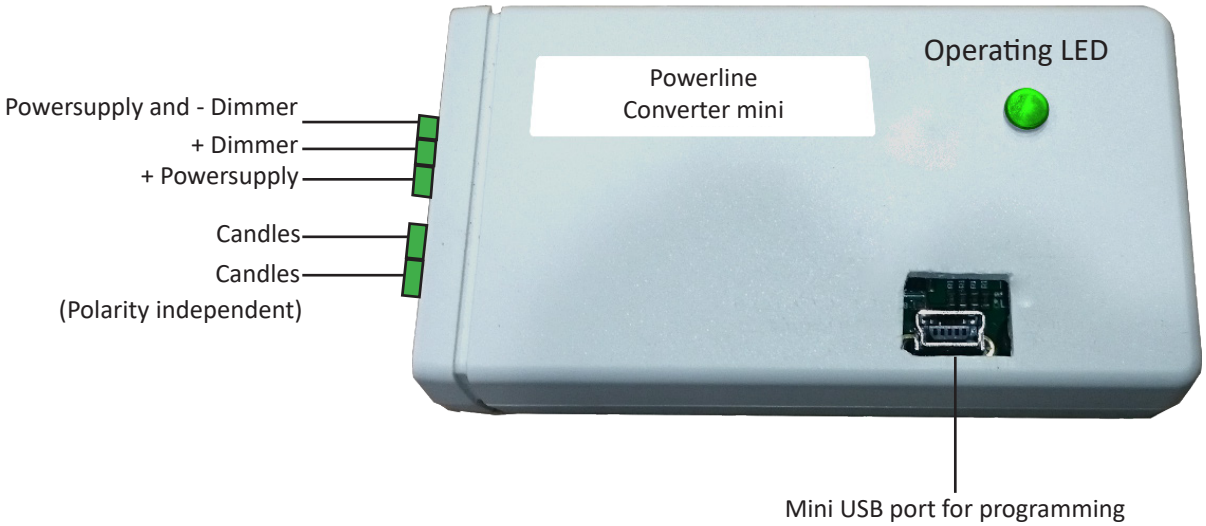
Current settings:
If the light of all candles at 100 procent is too much, it is possible to set a lower maximum current
For 2000K candle - current settings 50, 100 or 150 mA
For 2500K candle - current settings 50, 100, 150, 200, 250 or 350 mA

Setting the current to high will dramatically decrease the lifetime of the EVA LED Candle. EVA Optic advises strictly not to go higher then 350mA for the true colour LED Candle (2500K) and 150mA for the LED Candle (2000K).

Chapter 7: Connection candles with powerline converter mini

For max. 20 candles, 0-10V dimming

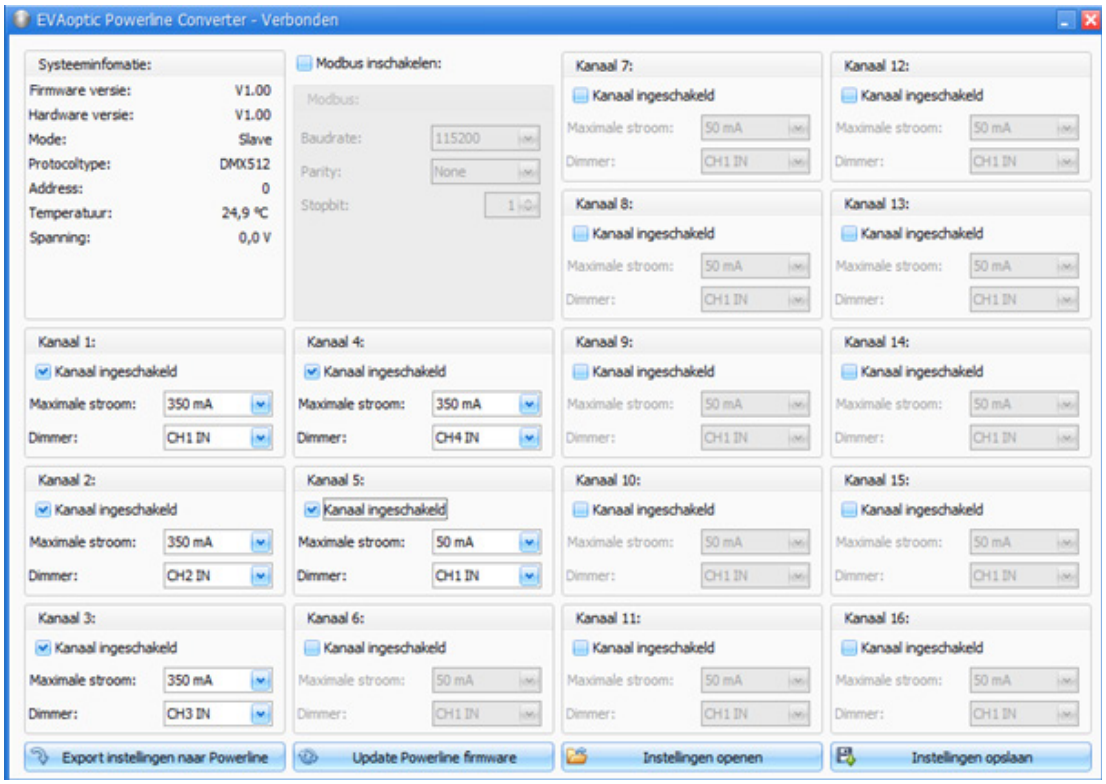
1. Connect the power supply 24 Vdc
2. Connect the dimmer 0-10V
3. Connect the cable of the candles. Polarity independent



Chapter 8: Programming powerline converter 100

For max. 100 candles, 0-10V dimming or DMX512

The powerline converter can be programmed by EVA Optic at order. Contact EVA Optic for the various options.



Connect the powerline converter 100 by USB on a Windows PC

1. Start EVA Optic powerline converter software
2. “Modbus inschakelen” - always OFF (no mark)
3. Set channel 1 (kanaal 1) at max current of 350mA
4. Channel 1 (kanaal 1) = candle channel 1

When used with a 0-10V dimmer

1. Set channel x (kanaal x) ON when used
2. Set dimmer on CHx depending on installation of 0-10V dimmer and candle address

When used with DMX512

1. Set channel x (kanaal x) ON when used
2. Dimmer function is not used (setting independent)
3. Save on PC (instellingen opslaan)
4. Export settings to powerline converter (export instellingen naar powerline)
5. Disconnect USB cable

Flickering of the candles can be programmed with DMX

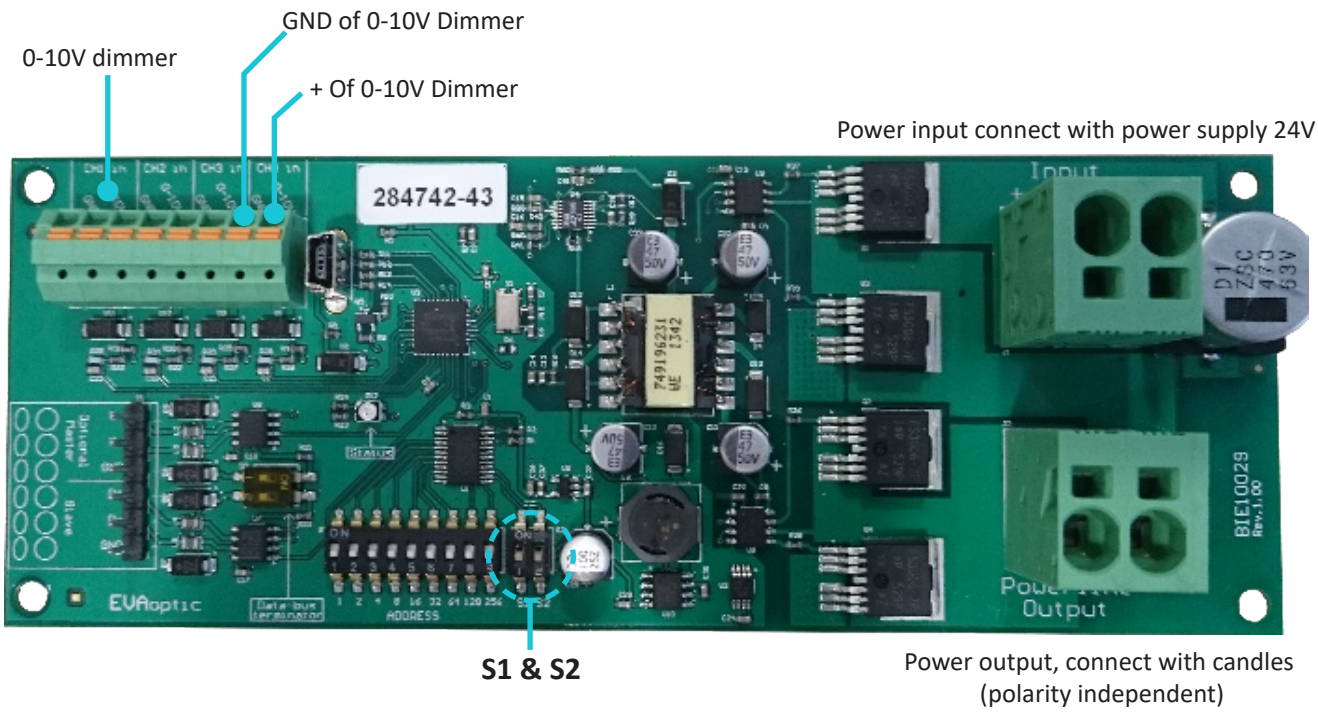
Current settings:
If the light of candles at 100 procent is too much, it’s possible to lower the maximum current
- 2000K Candle - current settings 50, 100 or 150 mA
- 2500K Candle - current settings 50, 100, 150, 200, 250 or 350 mA

Chapter 9: Connection powerline converter 100 with 0-10V dimming

For max. 100 candles, 0-10V dimming

In this chapter you will connect the powerline converter 100 with 0-10V dimming. If you are using DMX512, go to the next chapter on page 10.

1. Connect the dimmer(s) on CHX (a maximum of 4 dimmers, see the programming)
2. Connect the cables of the candels with the powerline output. Polarity independent
3. Check the settings of the S1 and S2 switchtes
4. Connect the power suply (24Vdc) with the input Vdc



Settings S1 and S2:
S1 ON = 0-10V mode
S1 OFF = DMX512 mode

(Only at dimming 0-10V)
S2 ON = flickering ON
S2 OFF = flickering OFF

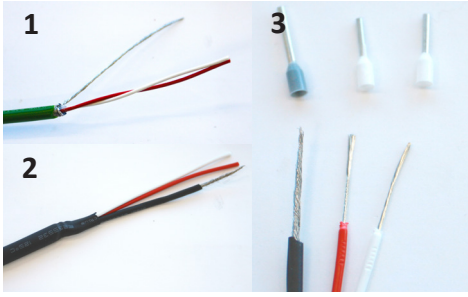
Chapter 10: Connection powerline converter 100 with DMX512

For max. 100 candles, DMX512

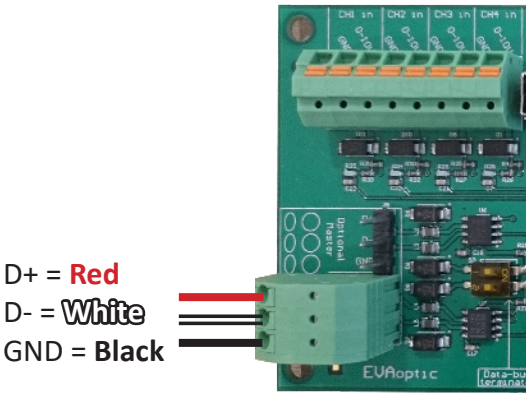
In this chapter you will connect the powerline converter 100 with DMX512. If you are using 0-10V dimming, go to the previous chapter on page 9.

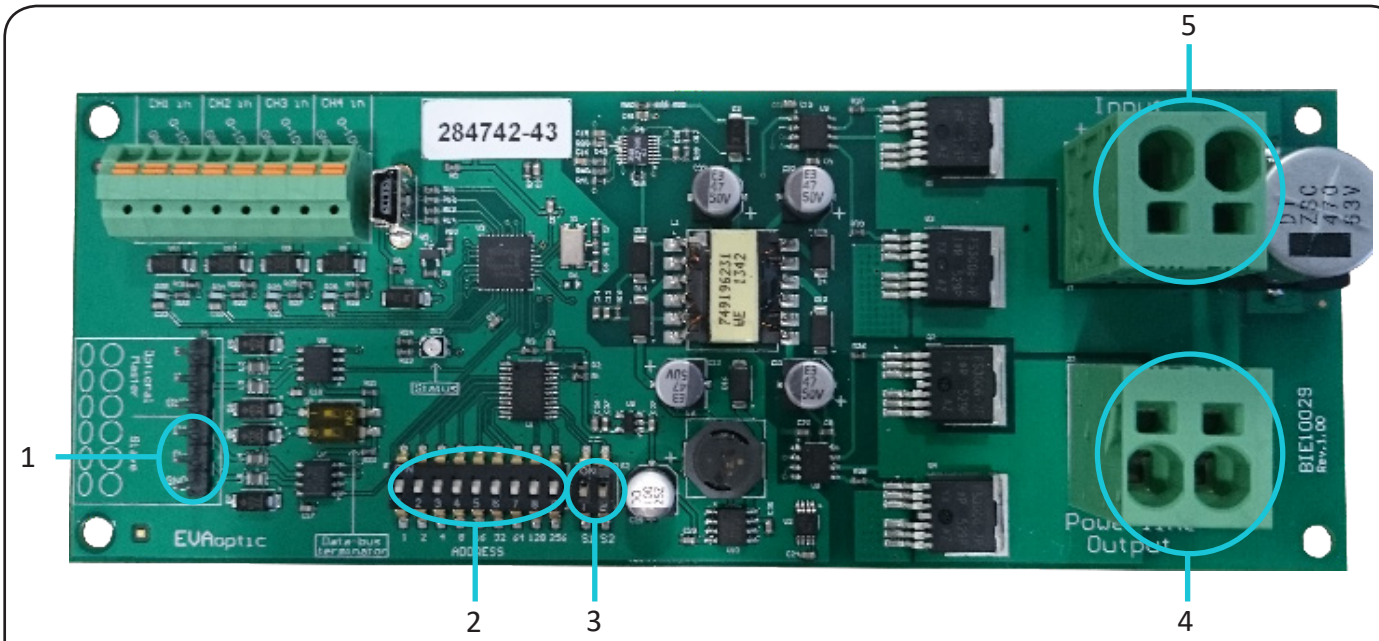
1. Connect the DMX
2. Connext the cable of the candles (polarity independent)
3. Check the settings of S1 and S2 (S1 should be set off)
4. Set the correct DMX address
5. Connect with the power-supply (24 Vdc)

Prepare DMX cable



Connect the DMX512 to slave





Number	Description
1.	DMX Output
2.	DMX Address
3.	S1 and S2 OFF (down)
4.	Power output, connect with candles polarity independent
5.	Power input, connect with power supply 24V

Each DMX print can operate 16 different candle channels. Each candle can be programmed with their own channel (1-16).

Example

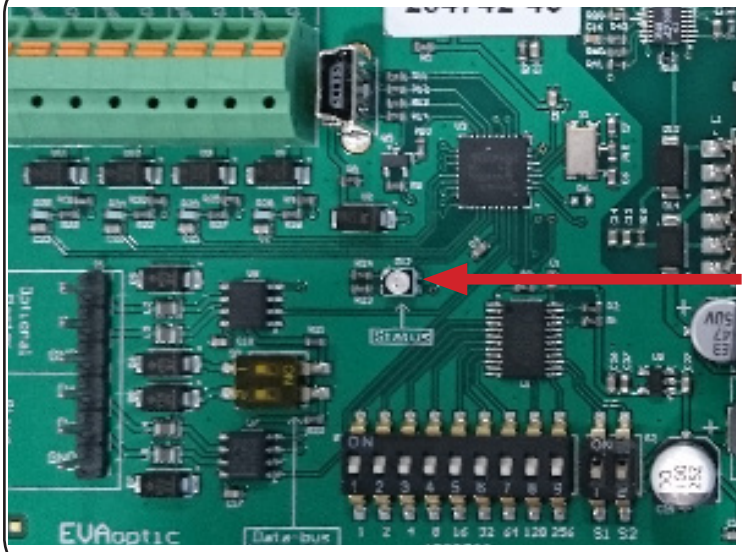
If you want to have 25 different candle addresses, then you need 2x EVA powerline converter 100 prints

1. Set the first EVA powerline converter 100 print on DMX address 1
2. Set each candle at channel 1 to 16

(The candle with candle 1 is known as number 1 in the DMX)
(The candle with candle 2 is known as number 2 in the DMX, etc.)

1. Set the second EVA powerline converter 100 print on address 17
2. Program the second group of candles from 1 to 9

(The candle with channel 1 on the second print is known as 17 in the DMX)
(The candle with channel 2 on the second print is known as 18 in the DMX, etc.)



Status LED on print:

- **GREEN = Ok**
- **RED = failure of DMX communication**

For product information and warranty, visit our website: www.evaoptic.com

Technical additions and/or changes and printing errors do not constitute grounds for compensation claims.

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