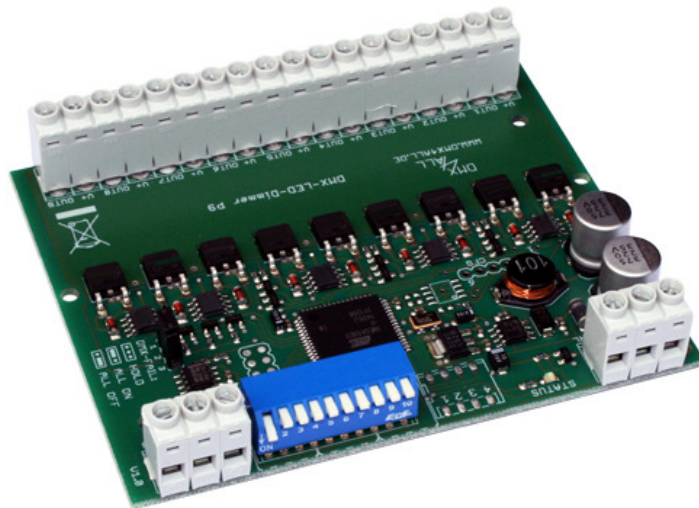# DMX-LED-DIMMER P9

9x PWM per 10A
controlled anode

User Manual

DMX®**4ALL**

Description

The **DMX-LED-Dimmer P9** is especially designed for controlling RGB LED-Stripes with a common cathode (-) but it can also be used for single colored LED-Stripes.

It has 9 High-Power PWM-outputs which can be controlled independently via DMX.

Each output loads up to 10A can be run (for 12V up to 120W / for 24V up to 240W).

Alternatively internal gradients can be called without an external controlling.

Energy Saving Design:
By using modern switching power supply technology the warmth generating is clearly less and so the energy usage will be reduced.

Data Sheet

|	
Power supply:	12-24V DC / 100mA without load
DMX:	9 channels
DMX-Fail:	Hold / Off / On
Output:	9 PWM-signals in 256 steps / 244Hz PWM common cathode (-)
Output current:	max. 10A per output 90A in sum with all connected V+ terminals (directly from power supply)
Output power:	9x 120W (12V) / 9x 240W (24V)
StandAlone-Function:	9 internal StandAlone programms
Energy-Save Output:	Controlling output for turning off the load power supplies
Dimensions:	99 x 82mm

Connection with one power supply
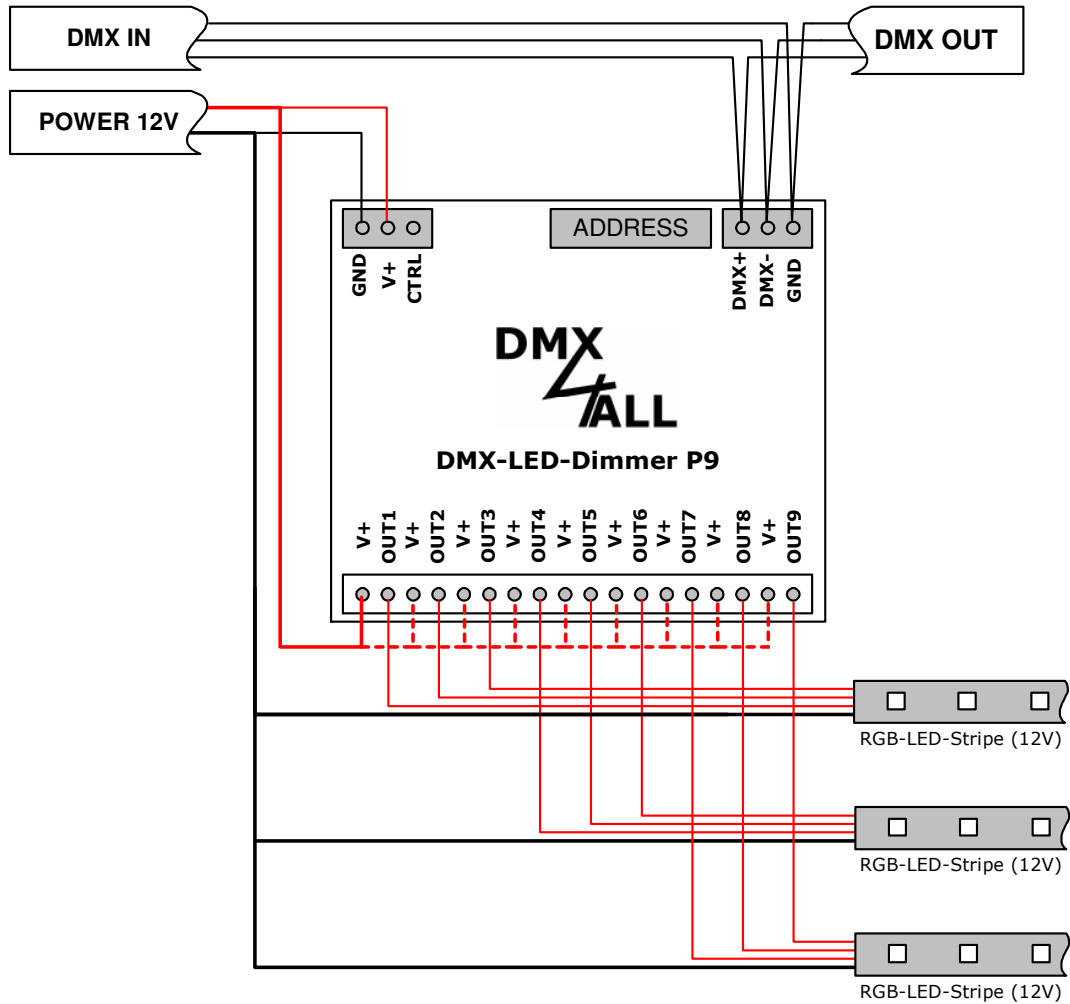
Must be connected directly
from the power supply.
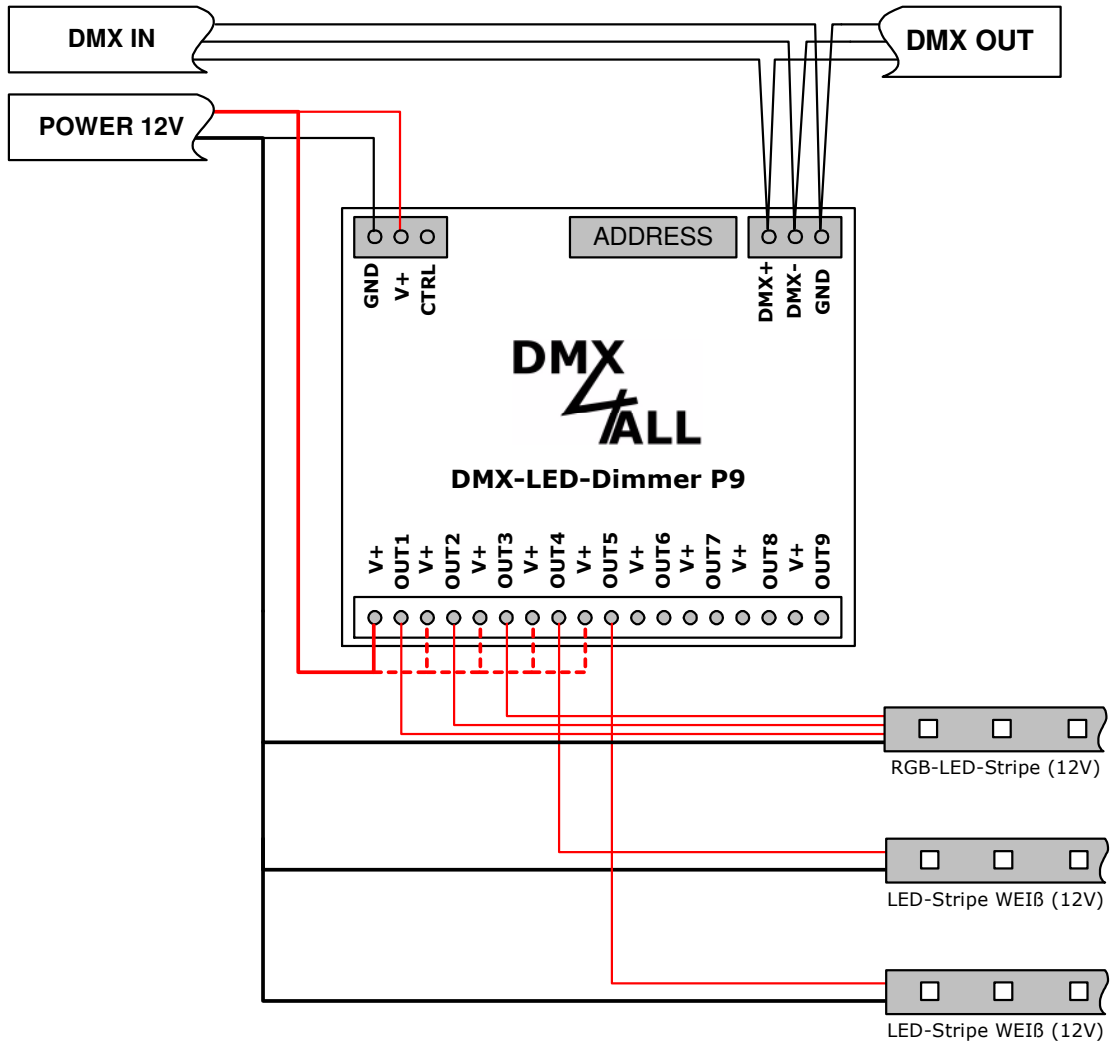Depending on the current for
the LED-Stripes!

Connection with several power supplies

⚠ **For DMX-LED-Dimmer P9 it is only allowed to use power supplies with an equal tension !**
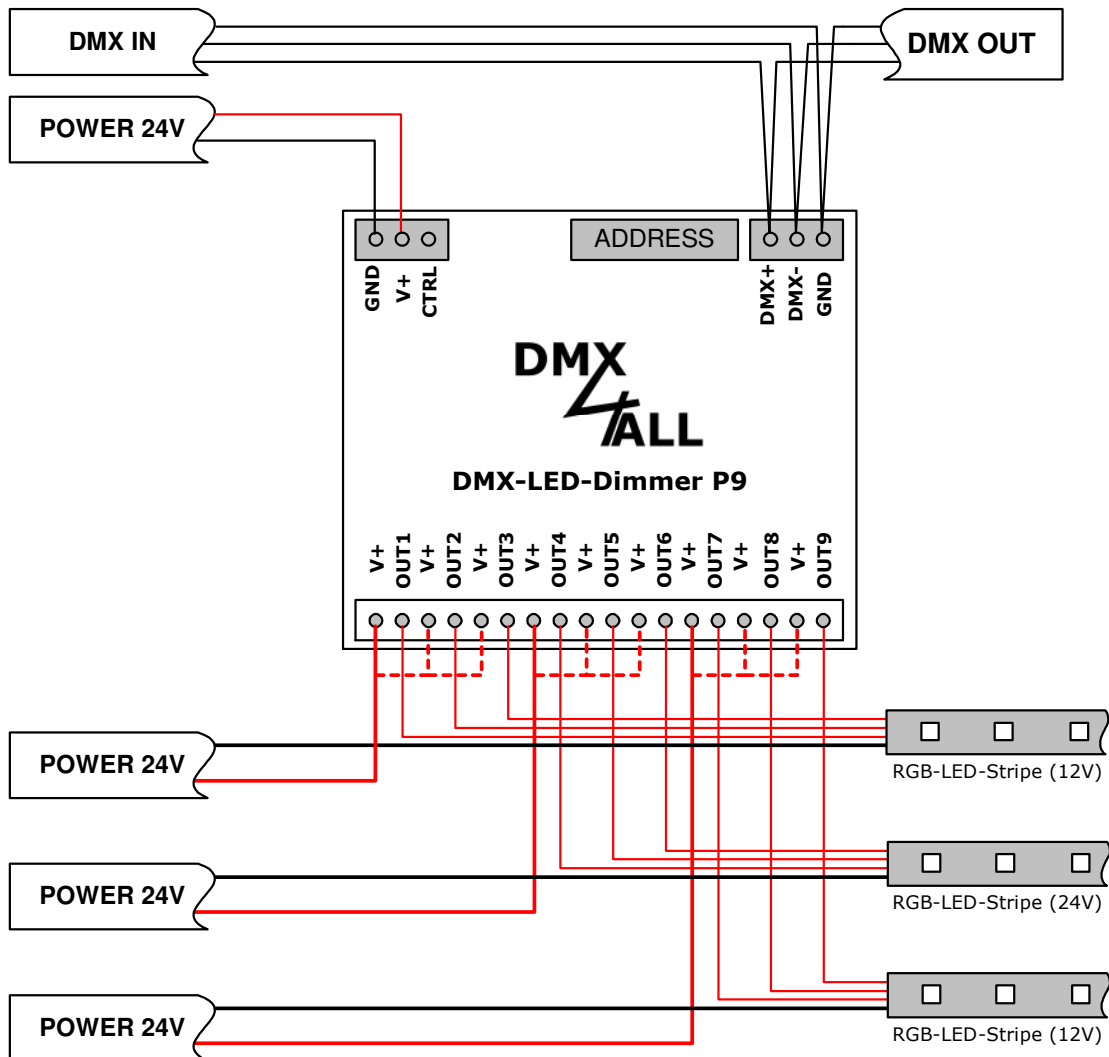
Must be connected directly
from the power supply.
Depending on the current for
the LED-Stripes!

Connection for single color and multi color Stripes

RGB-LED-Stripe (12V)

LED-Stripe WEIß (12V)

LED-Stripe WEIß (12V)

Must be connected directly
from the power supply.
Depending on the current for
the LED-Stripes!

DMX-Addressing

The DMX-start-address is adjustable about the switches 1 until 9.

Thereby switch 1 has the valency 2^0 (=1), switch 2 the valency 2^1 (=2) and so on until switch 9 has the valency 2^8 (=256). The sum of the switches standing on ON corresponds to the start address.

Switch 10 is exclusive for the StandAlone-Function and must show the DMX-mode OFF.
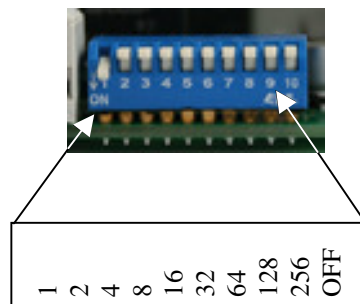
LED-Display-Codes

The integrated LED is a multi-functional-display.
In the normal DMX-mode the LED lights up nonstop. In this case the device is working.

Also the LED signalled the operation status. In this case the LED lights up in short pitches and then turns into the off modus. The number of flashing signals is equal to the number of the error status.

Error Status	Error	Description
1	No DMX	There is no DMX-Signal coming into the dimmer
2	Address error	Check if a valid DMX starting address is adjusted at the DIP-switch.

DMX-Fail option

The DMX-LED-Dimmer P9 can hold the last value in the case of a DMX-Fail (DMX-Fail) which switches on or switches off the LED outputs.

This DMX-Fail option is selectable with the Jumper.
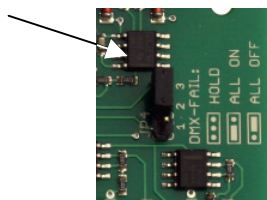
Cabel length

The DMX-LED-Dimmer P9 should be used with short cable lengths.

Due to the less supply voltage in LED-installations the cable cross section should be large at most to keep a voltage drop low as possible.

The cable cross section should be choose last at most by a rising distance and rising load.

The following cable length should be not exceeded:

From power supply to DMX-LED-Dimmer X9 ➔ 1m

From DMX-LED-Dimmer X9 to LEDs ➔ 10m

Energy-Save Output (CTRL)

The **DMX-LED-Dimmer P9** has an Energy-Save controlling output (CTRL) which can turn off the load-power supplies for the LEDs.

If no output will be controlled for a time period of 5 minutes respective all DMX-values for 5 minutes to the value of 0, the controlling output will be shut down.

So the dissipation for the power supply which will not be needed for a longer time can be avoided.
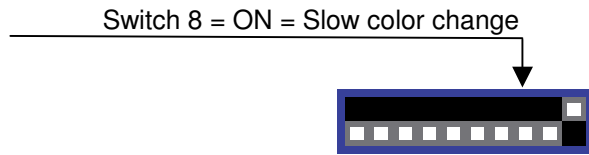
Installation sample:
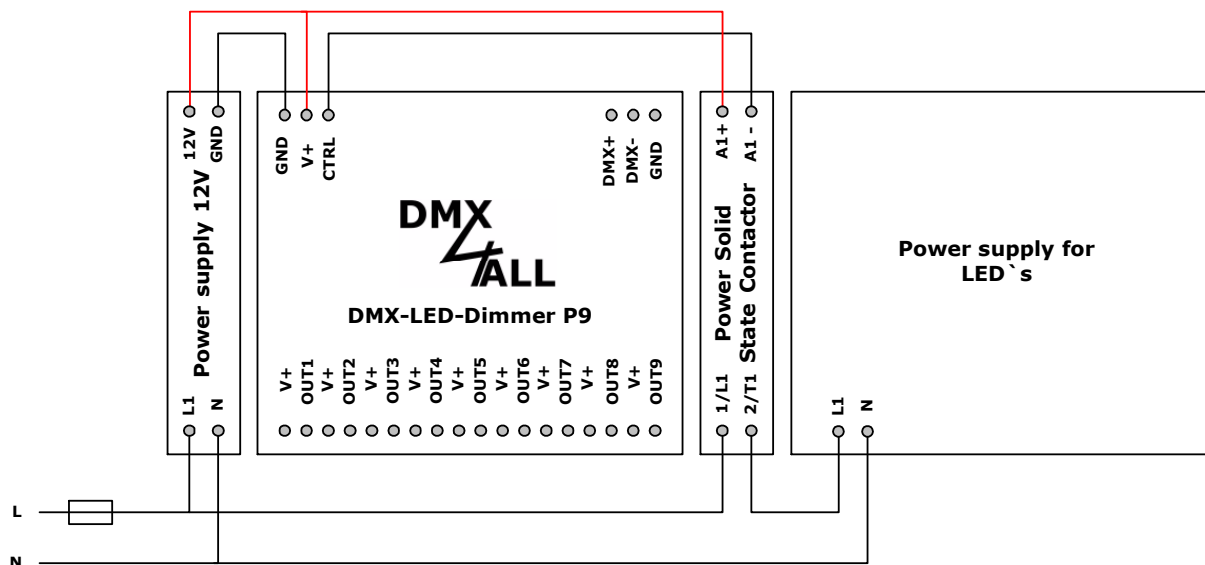
Call up the internal color changes

You can call up the internal color change by switching switch 10 to ON.

The DMX-LED-Dimmer X9 offers a SLOW-Mode for slow color changes.
This is activated by adjusting switch 8 to ON.

Switch 8 = ON = Slow color change

Now, you can select via switches 1, 2 and 3 the color change programm.
The following color changes are selectable:

Color change 1:

Color change 2:

Color change 3:

Color change 4:

Color change 5:

Color change 6:

Color change 7:

Color change 8:
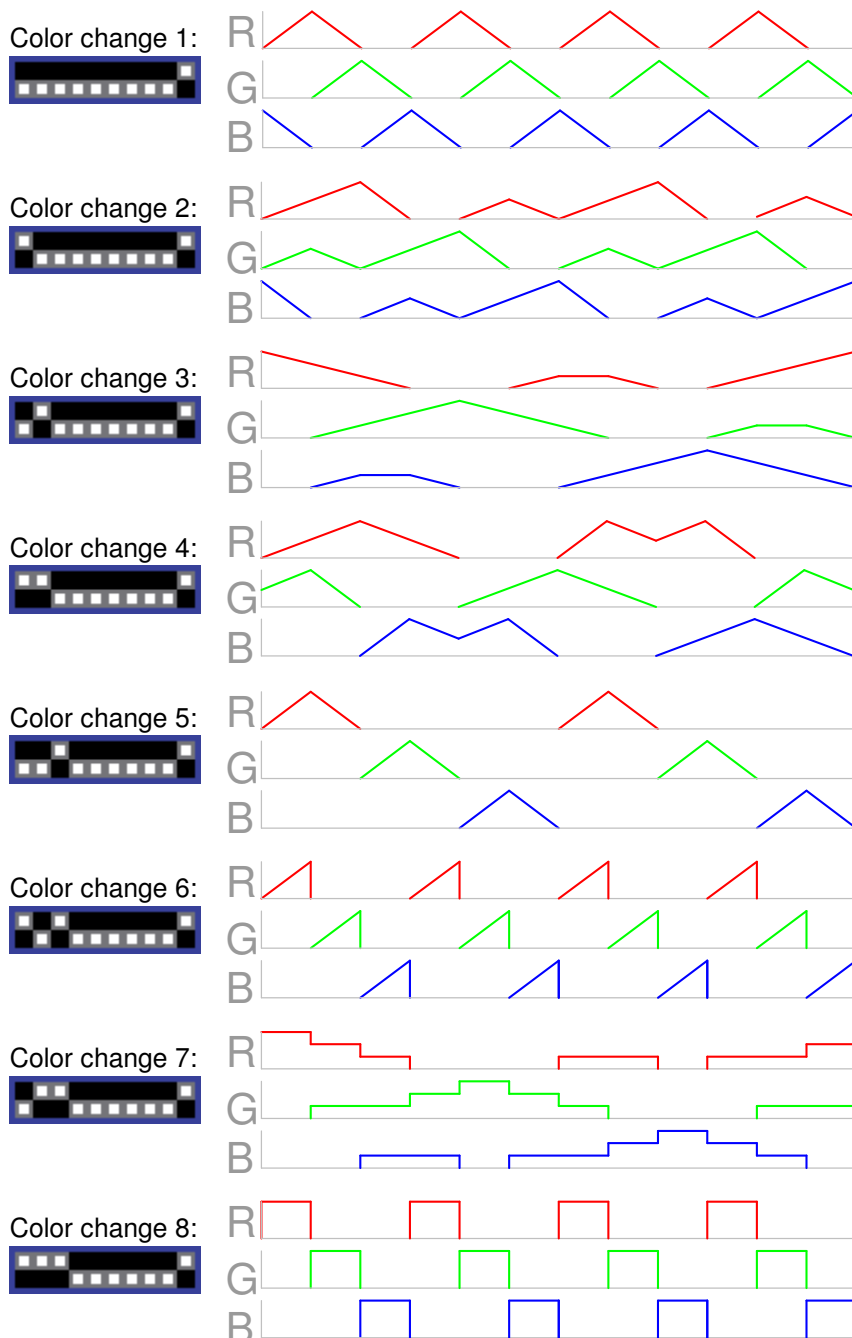
Dimensions
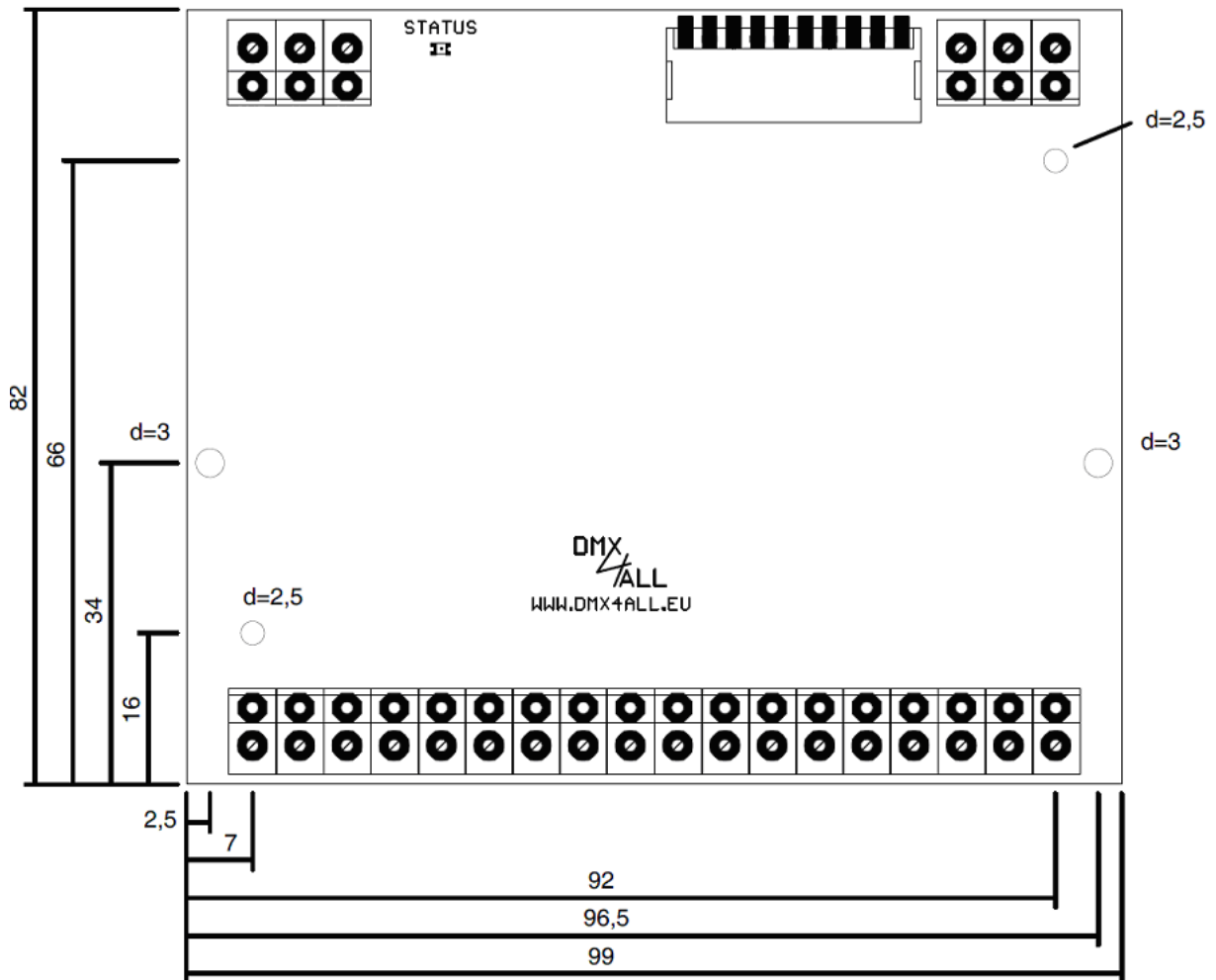
All details in mm

Accessories

Housing for DIN-mounting

Top-hat rail housing 1050

CE-conformity

This assembly (board) is controlled by a microprocessor and uses high frequency (8MHz). To get the characteristics of the assembly in relation to the CE-conformity, an installation in a compact metal casing is necessary.

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not excluded:

Failure risk: The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk: The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk: Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.

DMX 4ALL ®

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