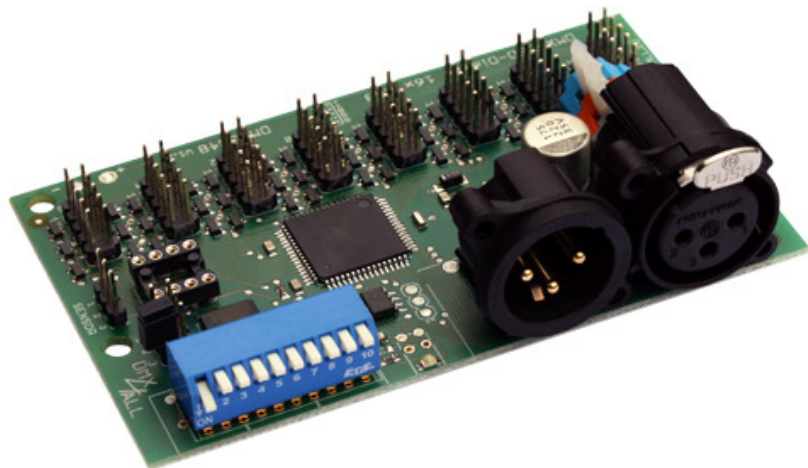


DMX-LED-DIMMER

16x RGB

User Manual



DMX[®]
4
ALL

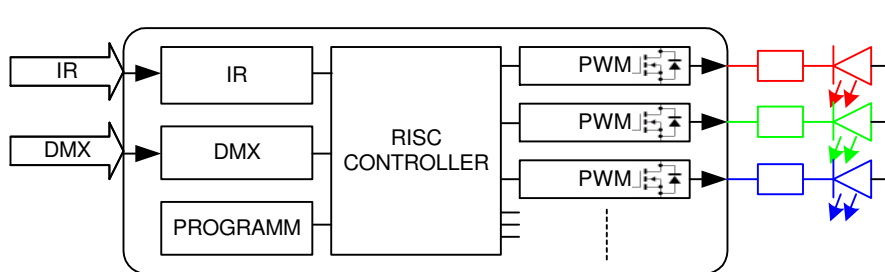
Description

The **DMX-LED-Dimmer 16xRGB** is especially designed for controlling RGB LED-strips.

It features about 48 PWM outputs or 16 RGB-groups which are controllable independent of each other with DMX.

A global master dimmer (all outputs) or a master dimmer pro RGB group can be activated. The global master dimmer can be fixed on the first DMX address as system-master dimmer.

Internal or user-defined¹ colour shades can be called by the configurations switches without external control or with a remote control, witch is available as equipment.



Technical Data

Power supply:

7-24V DC / 100mA of load

DMX-IN:

Up to 64 DMX channels

Output:

46 PWM signals in 256 levels

max. 2A per output (14A for all outputs)

common voltage supply

StandAlone function:

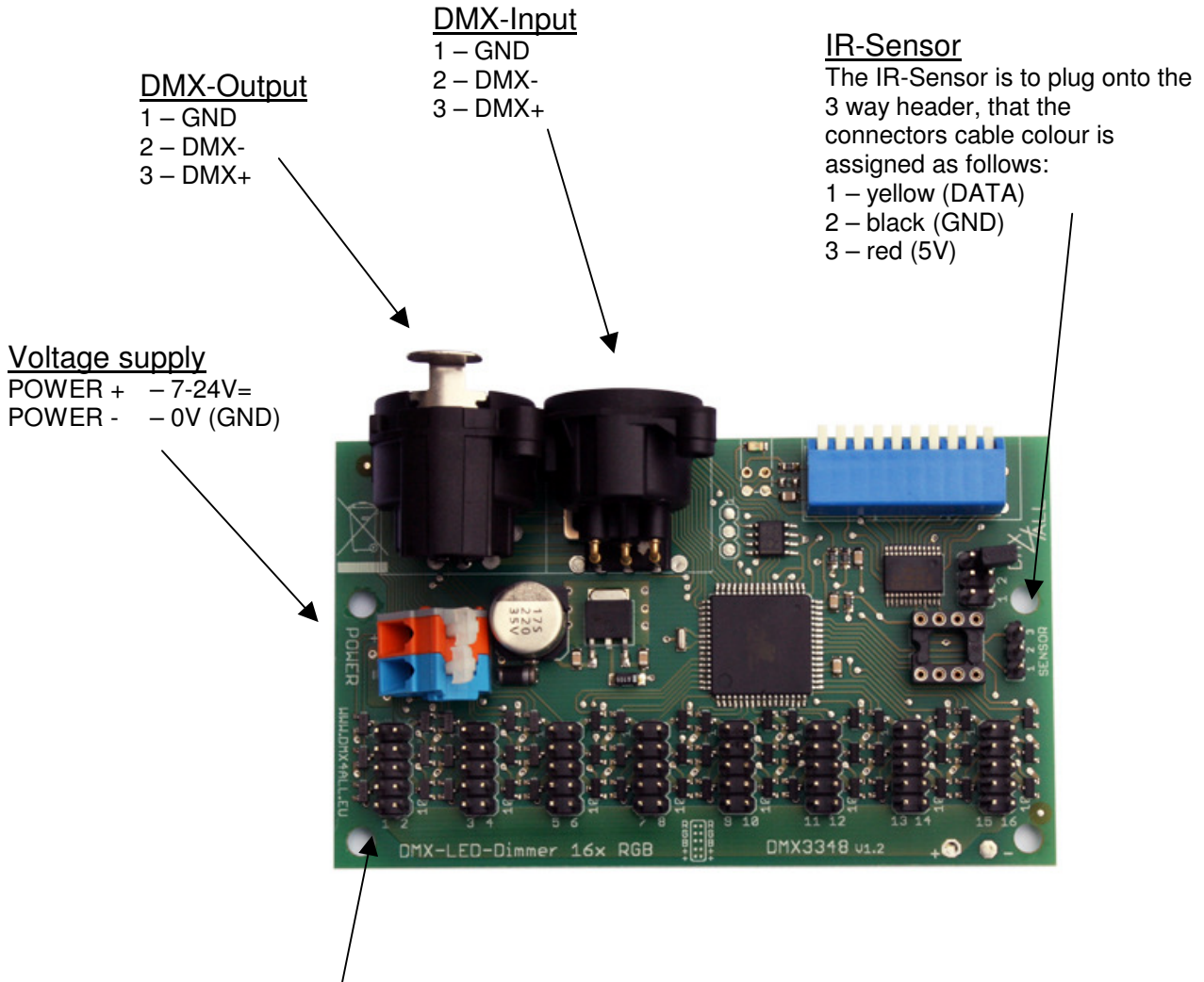
- 10 fixed internal StandAlone-Programs or up to 16 user-defined StandAlone-Programs
- IR-remote control/IR-Sensor is available as an optional extra

Board dimensions:

100mm x 60mm

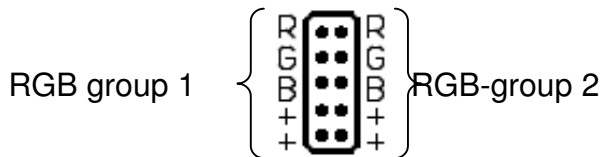
¹ Programmer is needed

Connection



RGB-Connection

On every 10 way connection there are 2 RGB groups. The assignment is as follows:

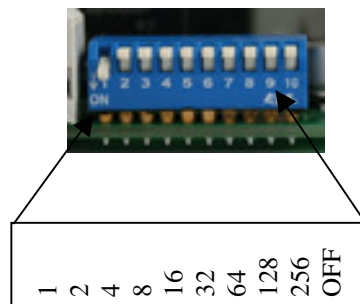


DMX-Addressing

The starting address is adjustable about switch 1 to 9.

Switch 1 has the valency 2^0 (=1), switch 2 the valency 2^1 (=2) and so on ... finally switch 9 has the valency 2^8 (=256). The sum of the switches which are moved to ON position, represents the starting address.

Switch 10 is reserved for the StandAlone-function and has to show OFF in the DMX operation mode.



LED-Display-Codes

The integrated LED is a multifunctional display.

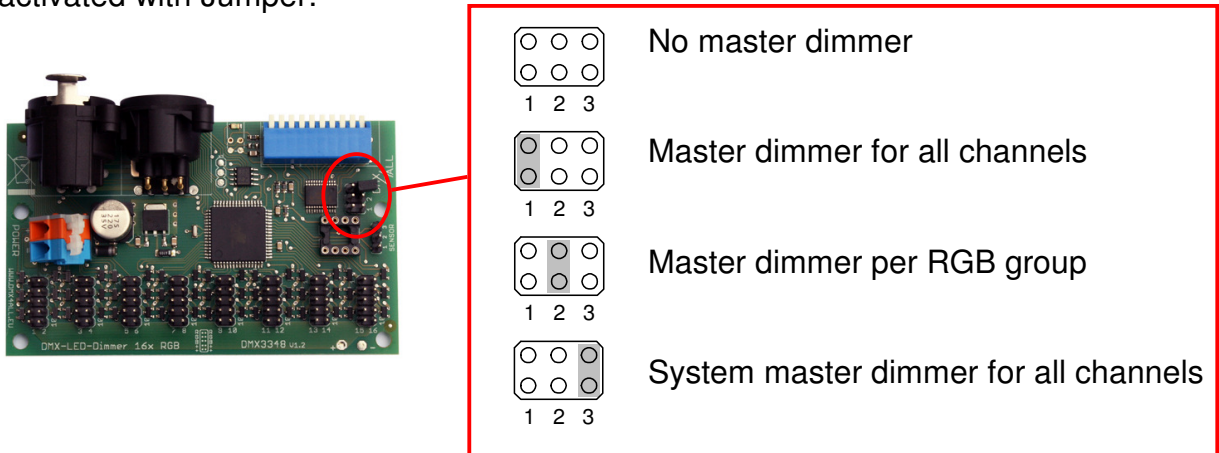
This LED lights nonstop in normal operation. If the LED does'nt lights, there is no DMX512-input-signal at the entry.

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

Error-Status	Error	Description
2	Address error	Check if a valid DMX- starting address is adjusted at the DIP-switch.
4	Internal error	An invalid DMX input signal is determined, invert the signal line by changing switch 2 and 3 or use a twisted pair wire.

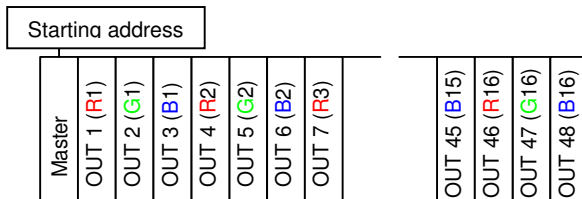
DMX-Master-Dimmer

The **DMX-LED-Dimmer 16xRGB** has different Master-dimmer which can be activated with Jumper:



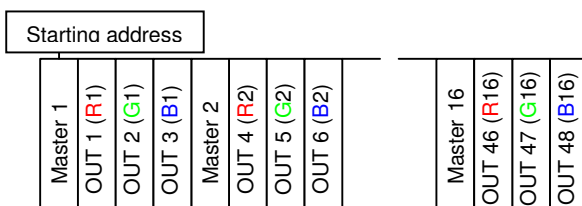
Master-dimmer for all channels

This DMX-channel which is set up with the start address will be used the Master dimmer for all 48 Outputs. The DMX address assignment is shown as follows:



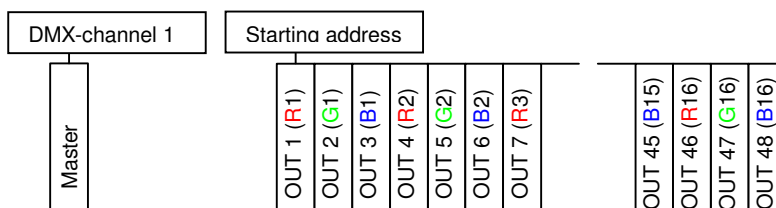
Master dimmer per RGB group

For every RGBgroup one Master dimmer will be used. The DMX-address assignment is as follows:



System master dimmer for all channels

The value of the Master-dimmer corresponds with the DMX-channel 1 which will be used as Master-dimmer for all 48 Outputs. The DMX start address specifies the DMX channel on which the DMX-values begin for the outputs. The DMX address assignment is shown as follows:



Calling the internal colour change

By setting switch 10 on ON you can call up the internal colour change.

Now, about the switches 1 up to 4 you can select the program of colour changing.

Follow-up internal colour changes are selectable:

Colour change 1 (Switch 1 ON):
All RGB-Outputs WHITE

Colour change 2 (Switch 2 ON):
All RGB-Outputs RED

Colour change 3 (Switch 1+2 ON):
All RGB-Outputs GREEN

Colour change 4 (Switch 3 ON):
All RGB-Outputs BLUE

Colour change 5 (Switch 1+3 ON):
All RGB-Outputs 3 COLOUR-FADE

Colour change 6 (Switch 2+3 ON):
All RGB-Outputs 7 COLOUR-FADE

Colour change 7 (Switch 1+2+3 ON):
R-G-B one by one on the RGB Outputs

Colour change 8 (Switch 4 ON):
Rainbow

Colour change 9 (Switch 1+4 ON):
Flashes

User-defined colour changes

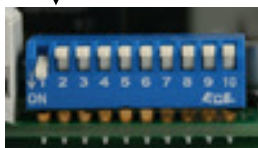
The **DMX-LED-Dimmer 10xRGB** provides the option for programming up to 16 free colour changes with an attachable.

There to, an EEPROM and an EEPROM programmer is needed. The DMX-Player S can be used as programmer.

The following EEPROMs can be used: 24C64 / 24C128 / 24C256

The switches 1-4 are for the lighting patterns selection.

Switch 1-4: program selection



Creating the colour changes

The colour changes will be created with the program *DMX-Configurator*. Thereby the adjustable DMX-channels 1-48 are assigned to the Outputs 1-48. The assignment of the programmable scenes is analog to the selected light pattern. So, the first scene complies to the first light pattern (Switch 1 ON).

The creation of light patterns with the DMX-Configurator is precisely described in the user manual of the program.

Note:

The indicated time units by preparing the light patterns can differ by replaying with the **DMX-LED-Dimmer 16xRGB**. Therefore these are only reference values!

If the wanted light patterns are created you have to generate a program file for the EEPROM under *File*→*Export HEX-Data*. Now this file has to be written in the EEPROM with a commercially available programmer. Than the programmed EEPROM have to plugged into the IC-mount of the DMX-LED-Dimmer 16xRGB.

IR-Operation

With an IR-receiver the **DMX-LED-Dimmer 16xRGB** can be controlled in the StandAlone-mode.

Thereto the StandAlone-Operation mode must be selected and switch 10 has to show ON. The switches 1-9 have to show OFF by operating with an IR-remote control!



The suitable remote control as well as the IR-receiver is available as equipment.

The program selection takes place about the keys **1, 2, 3 ... 9** according to the programs from 1 up to 9.

About the keys **+** and **-** the brightness and speed is adjustable as well as a program selection is possible.

- After activating the key **SPEED**, the speed is adjustable;
- After activating the key **PROG SELECT**, the programs are selectable;
- After activating the key **R, G** or **B**, the brightness is adjustable. It is only adjustable for total brightness.

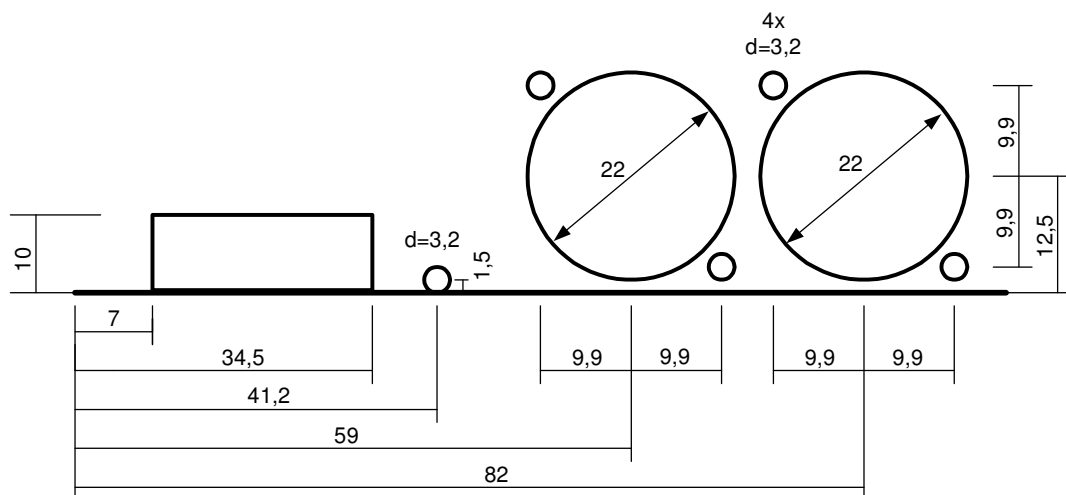
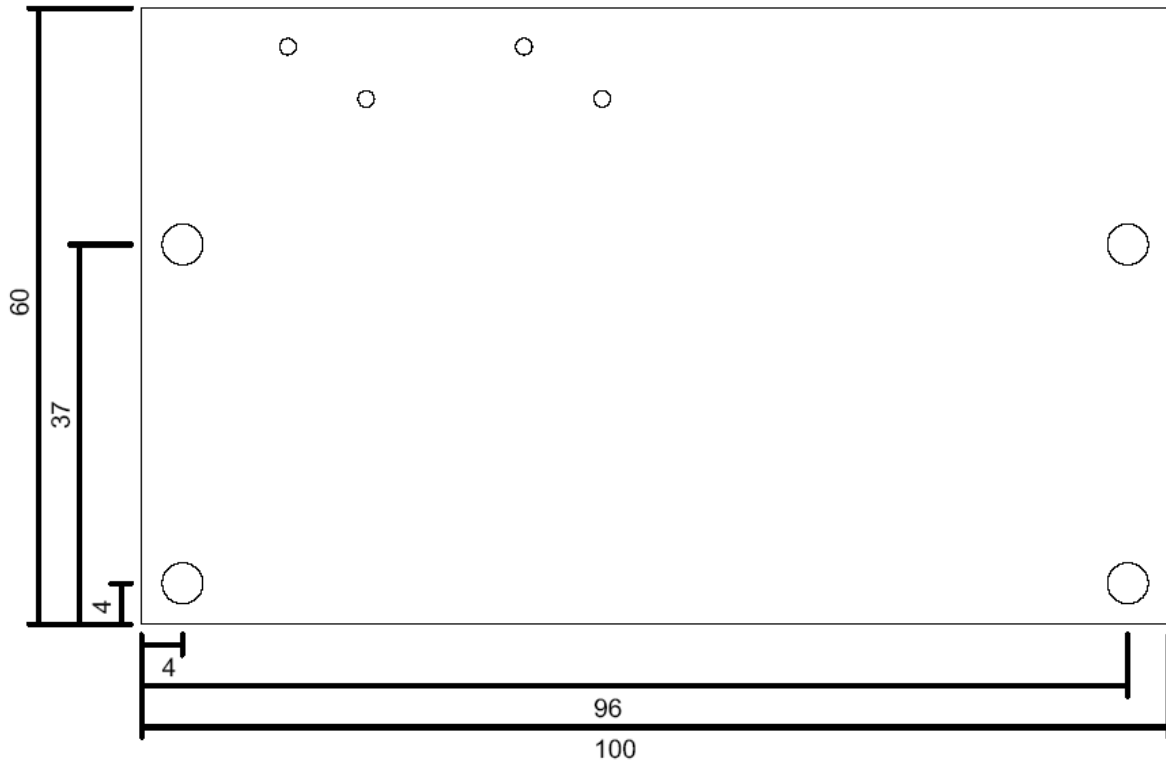
The switch **BLACK OUT** activates and deactivates the BlackOut-function. Besides the brightness setting will be persisting.

The switch **FLASH** activates and deactivates the Flash-function, which engaging all Channels on 100%. Besides the brightness setting will be persisting.

The switch **AUTO RUN** stops the program.



Dimensions



All dimensions in mm

Equipment

RGB-connection-cable-Set

consisting of 16 pieces RGB-connection cables with 4 pin plug per ca. 25 cm



IR-remote control



IR-Sensor

with ca. 25 cm connection cable and 3 pin plug



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. Conformance to the best available technology the following risks should not be 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.



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