

# MagiarLED II flex DMX-Controllerbox

User Manual



**MAGIAR**  
LED-SOLUTIONS BY DMX4ALL

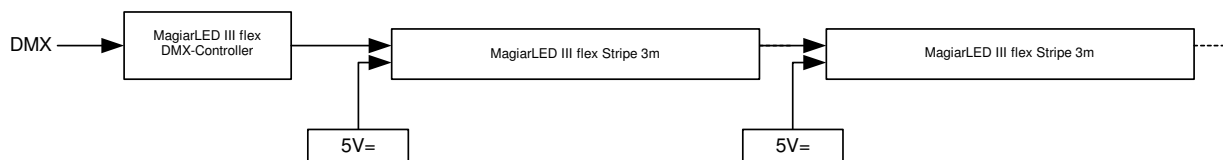
**DMX**®  
**4**  
**ALL**

## Description

The **MagiarLED III flex DMX-Controller** is especially designed to control the RGB MagiarLED II flex Stripes by which ever single LED can be individually controlled. Moving lights, Colour gradients up to rainbow effects can be generated.

The output is construed for a direct connection to our MagiarLED II flex or MagiarLED III flex products (stripes or screens).

## Connecting MagiarLED III flex systems



## Technical Data

### Power supply:

5V / 50mA via MagiarLED flex Stripe

### DMX-IN:

Depending on mode and length of the connected MagiarLED III flex Stripe

DMX512: up to 512 DMX-channels

DMX1024: up to 1024 DMX-channels

(compatible with all DMX4ALL products with DMX1024)

### Output:

Controlling signal for MagiarLED II flex Stripe or MagiarLED III flex Stripe  
(adjustable via jumper)

### Max. pixel number:

Demo programs: 256 Pixel

DMX-mode: 512 Pixel

DMX-mode DMX512: 170 Pixel\* (RGB-mode)  
512 Pixel\* (FixedColour-mode)

DMX-mode DMX1024: 340 Pixel\* (RGB mode)  
512 Pixel\* (FixedColour-mode)

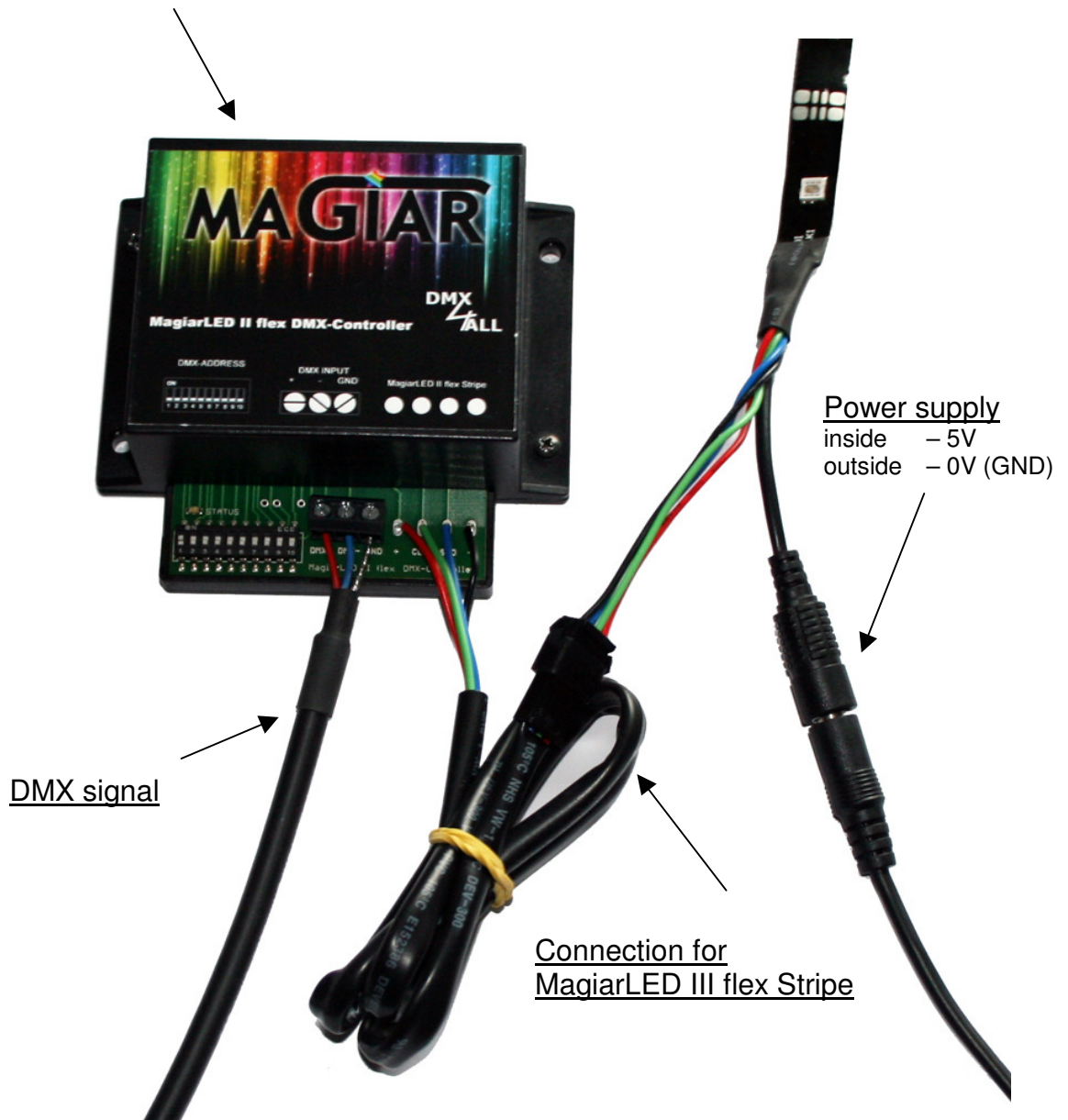
\* each pixel is individually controllable (Pixel-Group=1; Repeat=OFF)

### Dimensions:

98 x 89 x 35mm / connecting cable ca. 60cm

## Connection MagiarLED III flex DMX-Controller

MagiarLED III flex DMX-Controllerbox

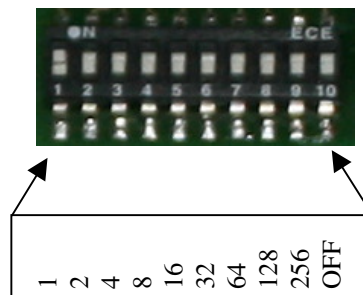


## DMX-Addressing

The DMX-starting address is adjustable via switch 1 to 9.

The starting address is adjustable via the DIP-Switch. Switch 1 has the valency  $2^0$  (=1), switch 2 has the valency  $2^1$  (=2) and so on. Finally switch 9 has the valency  $2^8$  (=256). The sum of the switches showing ON represents the starting address.

Switch 10 is reserved for demo programs and has to show OFF during the DMX-operation mode.



With switch 10 = ON the demo mode will be activated

Switch 1-4 = demo program

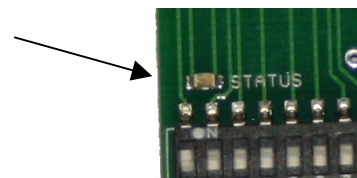
Switch 5-7 = colour for demo program

Switch 8-9 = speed

## LED-Display-Codes

The integrated LED is an multifunctional display.

In the normal DMX-operation mode the LED flashes continuously. In this case the device is working. If the LED is permanently dark, there is no DMX512-signal at the entry.



Furthermore the events will be signalled via the LED. In this case the LED lights up in shorts pitches and expires for a longer period. The number of the flashing lights represent the event number:

Event number	Error	Description
1	No DMX-Signal	There is no DMX-signal
2	Addressing error	Check if a valid DMX- starting address is adjusted at the DIP-switch.
3	DMX-Signal error	An invalid DMX input signal is established. Invert the signal line by changing switch 2 and 3 or use a twisted pair wire.

## DMX-channel assignment

During the RGB-Mode or the FixedColour-Mode all pixel from the MagiarLED III flex Stripe are individually controllable.

### DMX MODE-channel

The first DMX-channel (MODE) specifies how long a pixel section with the same colour should be. The maximum length is 127 pixel. Up to the DMX-value 128 the internal demo programs will be called up.

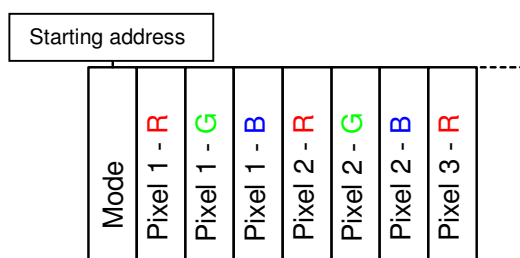
The DMX-MODE channel can be turned off if only exclusively individual pixel should be controlled. In this case please remove jumper J3.



The adjusted starting address shows the DMX-channel for pixel 1.  
The REPEAT function is only available with the DMX MODE-channel.

### RGB-Mode

During the Pixel-Mode the DMX-channel 1 determines the length of the pixel section with the same colour. The following DMX-addresses are intended for the colour settings. Therefore one DMX channel is for red, one for green and one for blue.

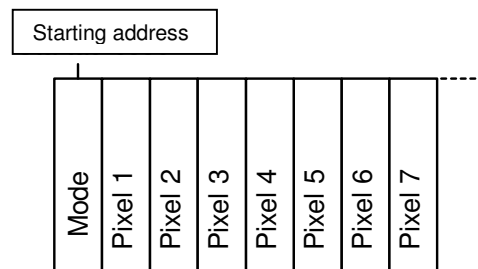
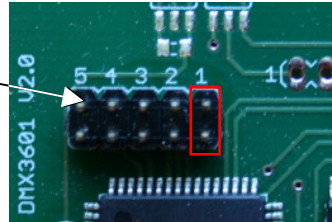


Channel	Function	Value	
1	Mode	0	DMX-Controlled - Single colour (all pixel)
		1-127	DMX-Controlled - Pixel-Mode DMX-value= length of the pixel
		128-255	See demo programs
2	Colour	0-255	Pixel 1 red
3		0-255	Pixel 1 green
4		0-255	Pixel 1 blue
:::		:::	::: red/green/blue for every pixel

## FixedColour-Mode

The FixedColour-Mode correlates to the RGB-mode with the predefined colours. Only one DMX-Value is intended for the colour setting for each pixel section.

This mode will be activated about Jumper J1.



Channel	Function	Value	
1	Mode	0	DMX-Controlled - Single colour (all pixel)
		1-127	DMX-Controlled - Pixel-Mode DMX-value= length of the pixel section
2	Colour Pixel 1	128-255	see demo programs
		0-31	off
		32-63	red
		64-95	green
		96-127	blue
		128-159	yellow
		160-191	cyan
3	Colour Pixel 2	192-223	pink
		224-255	white
		...	

## Adjusting the MagiarLED type

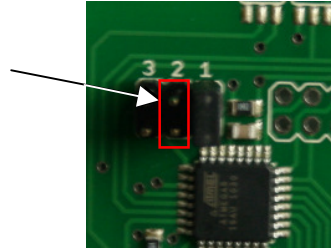
The MagiarLED flex type is adjustable via Jumper 5.

J5 open:           MagiarLED II flex  
J5 closed:         MagiarLED III flex (delivery conditions)

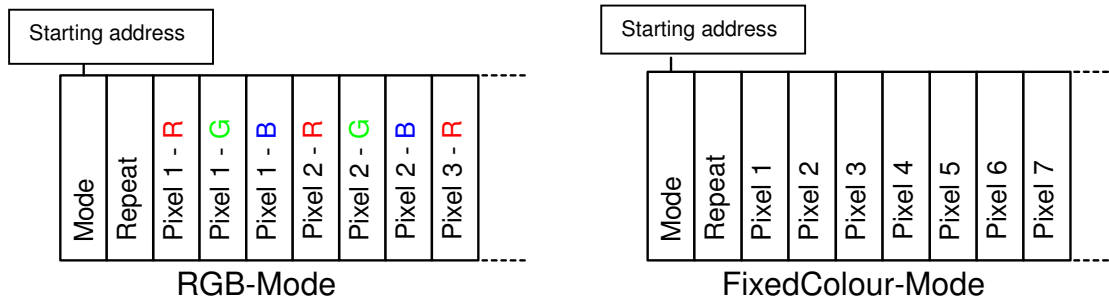
## Repeat-Function

The repeat function is available for the RGB-mode and FixedColour-Mode and can to be activated for Jumper 2.

The repeat function will be activated about the jumper J2.



Is the Repeat-function activated an additional DMX-channel is used. DMX-channel 2 specifies after how many pixel the colour values will be replayed. The DMX-values for the colour setting begins by active repeat-function at DMX-channel 3.



### Example:

Ch2: the colours are replayed after 4 pixel

## Demo programs

The predefined demo programs in the controller can be called in the DMX-channel 1 by a DMX-value 128. The speed will be adjusted about DMX-channel 2.

Channel	Function	Value				
1	Mode	0-127	See RGB-Mode			
		128-135	8 colour mix			
		136-143	R-G-B			
		144-151	RGB colour star			
		152-165	Single colour star	W R G B Y P C		
		166-177	Wave 1	R G B Y P C		
		178-189	Wave 2	R G B Y P C		
		190-203	Snake	W R G B Y P C		
		204-217	Fan	W R G B Y P C		
		218-231	Running Point 1	W R G B Y P C		
		232-239	Running point 2	W R G B		
		240-246	Blink	W R G B		
		247-255	Rainbow			
		2	Speed	0-255	Fast → Slow	

These programs are available in different colours. 2 DMX-values are used for each colour.

- W – White
- R – Red
- G – Green
- B – Blue
- Y – Yellow
- P – Pink
- C – Cyan



## Equipment

MagiarLED III flex Stripe 72 LEDs / 3m



MagiarLED III flex Stripe 144 LEDs / 3m



### Power supply

Output voltage: 5V  
Output current: 6A



Output voltage: 5V  
Output current: 30A



## 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.



DMX4ALL GmbH  
Reiterweg 2A  
D-44869 Bochum  
Germany

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