

## RGB Controller

The RGB controller is designed for the operation of circuit boards fitted with RGB-type LEDs such as our circuit boards "Wilma" or "Vicki".

The system converts the 12 volts input voltage into the voltages required for the three basic colours red, green and blue. A maximum number of 400 LEDs can be operated with the system.

The housing is made of plastics (IP 54) and measures 85 x 85 x 45 mm.

The speed of a colour cycle can be adjusted by means of a potentiometer. Different programme sequences or constant light colours can be selected with a pushbutton.

Article no.: 6 0120 003



### Technical specifications:

Input voltage: 12 V DC  
Input power: 120 W (max.)  
Output voltage: 0-12 V DC  
Output current: 3 x 3.3 A (max.)

### Selectable programmes:

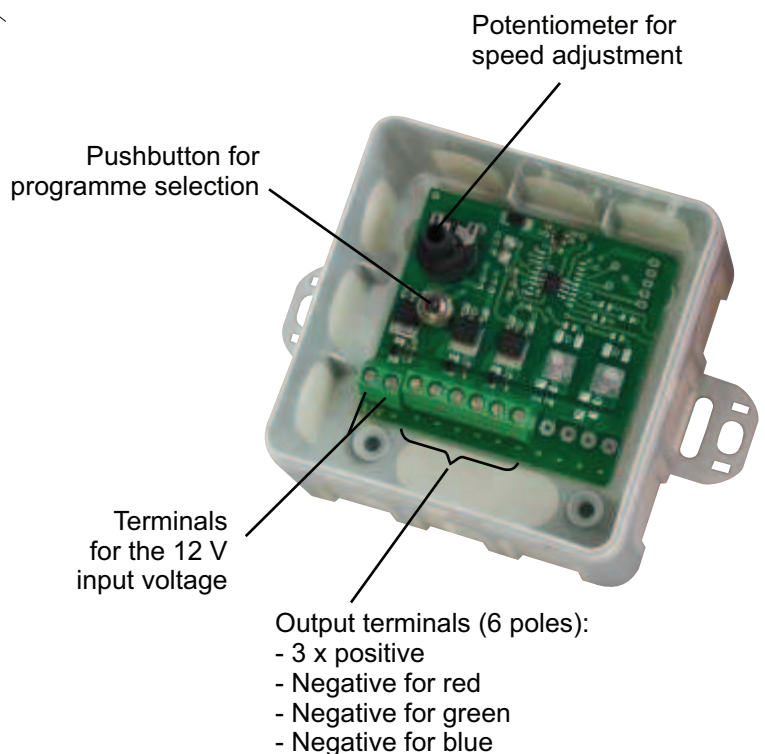
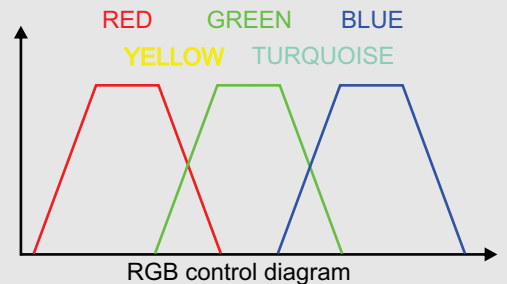
- 1 - RGB colour cycle
- 2 - RGB - 0% - 100% - 0%
- 3 - Red continuous light
- 4 - Green continuous light
- 5 - Amber continuous light
- 6 - Magenta continuous light
- 7 - Blue continuous light
- 8 - Cyan continuous light
- 9 - White continuous light
- 0 - RGB flashing sequence

### RGB light mixture:

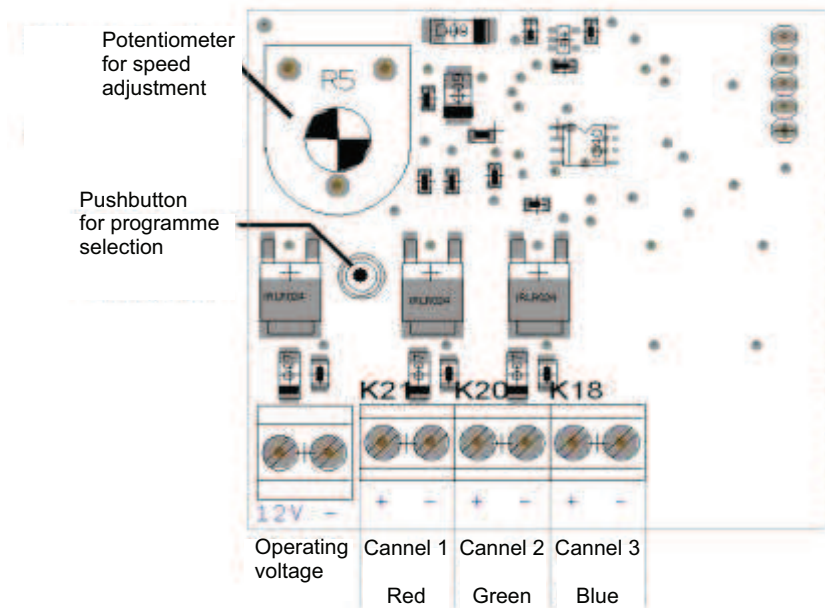
The three light colours red, green and blue are dimmed up and down with a slight overlap.

This way, mixed colours such as yellow or magenta are generated in addition to the three basic colours.

White light is generated when all three LEDs shine with the same intensity.



## Operating Instructions 3-Channel RGB Controller



### Internal control elements

#### Programme selection via pushbutton\*:

The pushbutton can be used to select one of the following programmes (other programmes are available on request):

- |                            |                                       |
|----------------------------|---------------------------------------|
| 1 - RGB colour cycle       | 6 - Purple continuous light           |
| 2 - RGB - 0% - 100% - 0%   | 7 - Blue continuous light             |
| 3 - Red continuous light   | 8 - Cyan continuous light             |
| 4 - Green continuous light | 9 - White continuous light (optional) |
| 5 - Amber continuous light | 0 - RGB flashing sequence             |

#### Speed control via potentiometer:

The potentiometer can be used to adjust the running speed of all programmes.

### Technical data

$U_{on}$  = 12 V +/-10%

$U_{off}$  = 0-12 V

$P_{max}$  = 120 W overall

Max. 3.3 A (40 W) per channel,  
corresponding to a circuit board length  
of 5.5 m per channel (static sequence)  
or 8.0 m per channel (dynamic flow)

### Housing dimensions

Housing colour: light grey



Weight  
150 g

85x85x40mm

## Manual RGB Controller

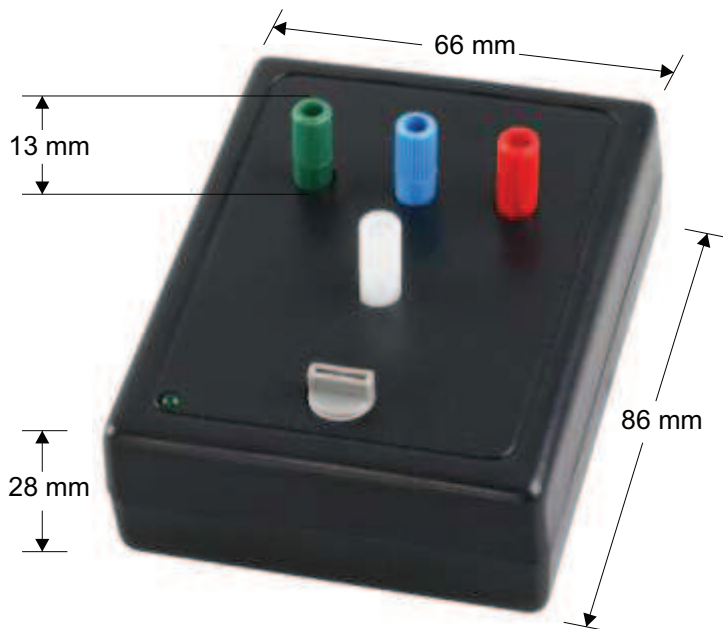
The manual RGB controller is designed for the operation of circuit boards fitted with RGB-type LEDs such as our circuit board "Sancho".

The manual controller operates on 12 V and sends the data for the three basic colours red, green and blue to the LED circuit board via a data cable. Up to 45 RGB groups can be operated with the system.

The housing is made of plastics (IP 30) and measures 86 x 66 x 41 mm.

The manual controller has four rotary regulators and a rotary switch. The rotary switch can be used to select the programme, whereas the rotary regulators are used to adjust the speed or dimming respectively.

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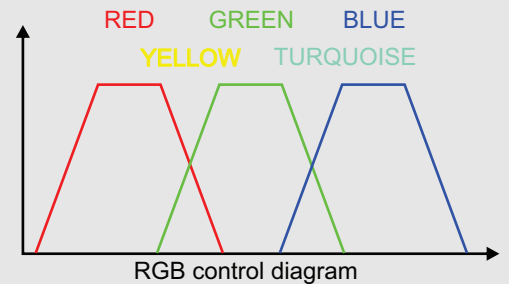


### RGB light mixture:

The three light colours red, green and blue are dimmed up and down with a slight overlap.

This way, mixed colours such as yellow or magenta are generated in addition to the three basic colours.

White light is generated when all three LEDs shine with the same intensity.



### Programmes:

- 0 - Manual colour adjustment
- 1 - RGB colour cycle
- 2 - Red/green colour change
- 3 - Red/blue colour change
- 4 - Green/blue colour change
- 5 - Flashing sequence with different colours
- 6 - Flashing red
- 7 - Flashing green
- 8 - Flashing blue
- 9 - RGB flashing sequence, then colour cycle
- A - RGB colour cycle, short mixed colours
- B - RGB colour cycle, then RG switchover
- C - Colour cycle with large delta\*
- D - Colour cycle with medium delta\*
- E - Colour cycle with small delta\*
- F - Colour cycle with smallest delta\*

\*Time difference of the individual modules



## Infrared Remote Control

### On/Off

Any unsaved changes will be lost when switching off.<sup>1)</sup>



### Select saved colour

- Change red component
- Change green component
- Change blue component

### Select animation

- Change speed
- Change direction<sup>1)</sup>
- Change difference<sup>1)</sup>

Save changes permanently

Change overall brightness

<sup>1)</sup> This function is only effective when multiple colours can be displayed simultaneously, e.g. with our LED circuit board "Sancho".

<sup>1)</sup> Pressing the **ON/OFF** button while keeping the button on the IR receiver depressed will load the factory settings.  
Press the **PROG** button to apply them permanently.

## Operating Instructions & Connection Diagram for Slave Modules

### Slave Module with 3 PWM outputs

Slave modules can be used to achieve higher powers or to build more complex control schemes. They are controlled by a central control unit and drive one or more sets of circuit boards each. The data line is routed from one module to the other. The addressing (required for separate control of the modules) takes place automatically.

One slave module corresponds to one RGB group.  
A maximum of 45 slave modules (or RGB groups) can be connected to the manual controller.

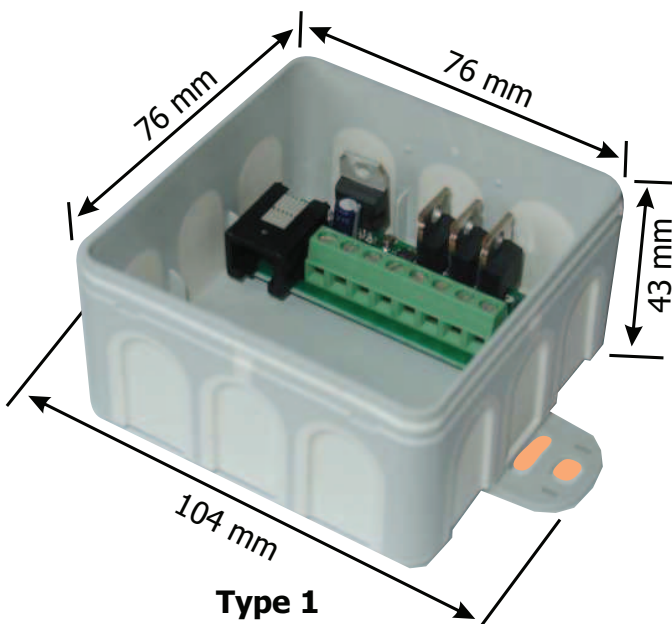
The slave modules can control a current of 3 A per output.  
The applied voltage can be in the range of 9-12 V.

The slave modules are deployed in the return lead to the power supply unit (PSU) where they switch the current with the help of pulse width modulation allowing the current to be dimmed. The PWM does not contain any current limitation, this must be integrated in the LED module.

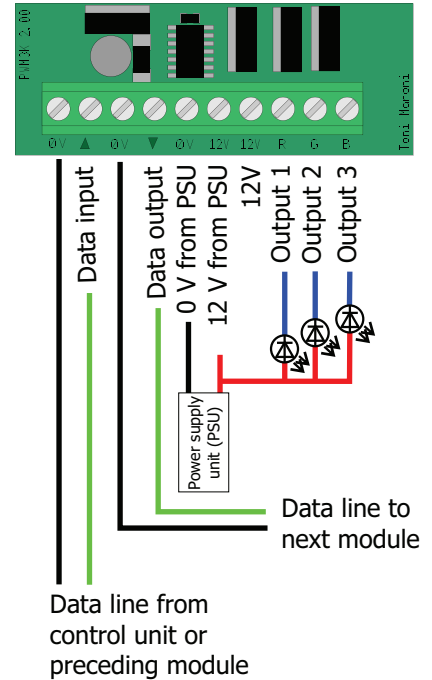
Two types of slave modules are available:

**Type 1** with a direct connection to the manual controller via a RJ12 jack

**Type 2** with a screw terminal for the data input



### Connection diagram



Type	Order no.
1 with 3 A per output	60120300-000
2 with 3 A per output	60120200-000