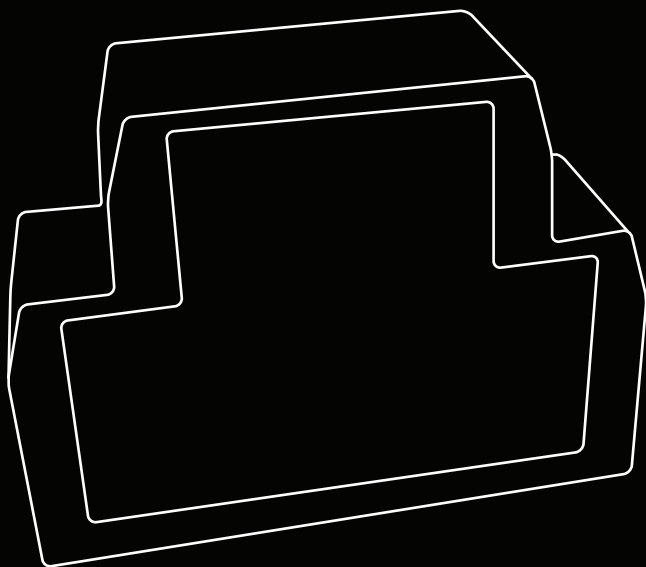




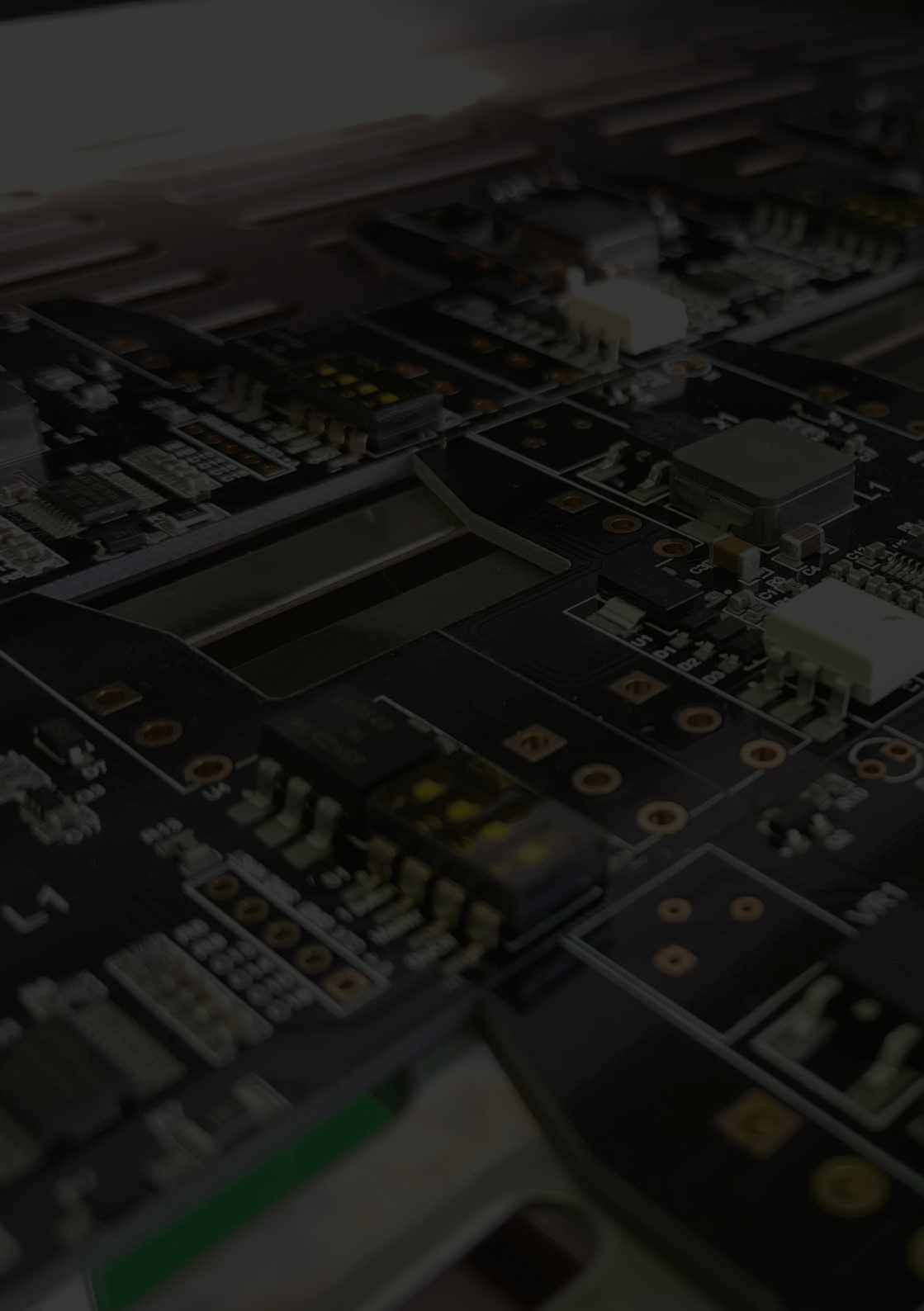
Electrical Solutions & Control Stations

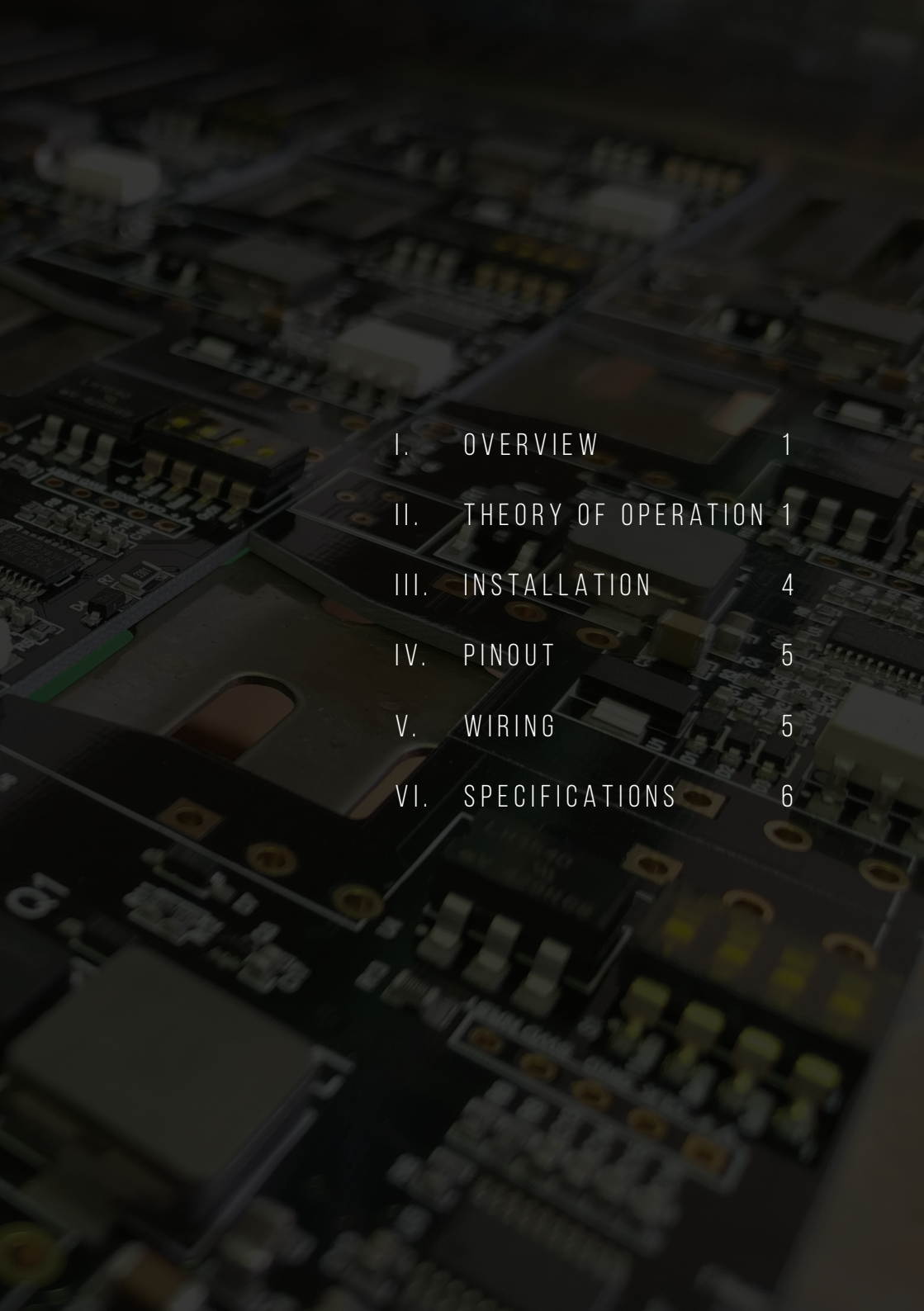
RGB LED LIGHTING DIMMER

v2.0



User Manual





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I. OVERVIEW

The IMED RGB LED Lighting Dimmer is designed as an integrated dimming solution for controlling RGB lighting. It comes with IMED UltraDIM technology, industry's lowest minimum brightness levels for improved night time visibility.

Two control buttons allow easy and seamless brightness, On/Off and colour control.

II. THEORY OF OPERATION

Colour and brightness are controlled independently of each other by pressing and holding the "Dim" or the "Colour" button.

Changing Brightness

To change system brightness, press and hold the "Dim" button. The RGB backlighting brightness will slowly ramp from 0.1% - 100% or vice versa. A quick tap on the "Dim" button turns the backlighting completely off and back on.

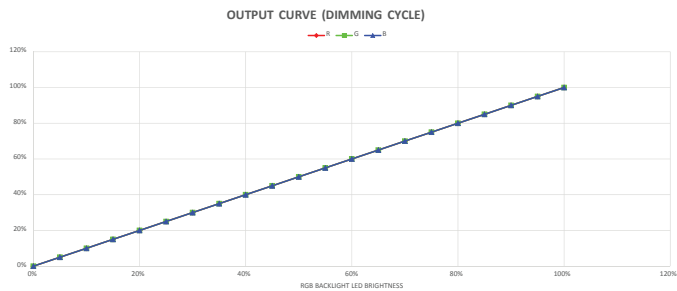


Figure 1.
Backlight vs status light
Dimming curve

Changing Colour

To change RGB colour, press & hold the "Colour" button. The dimmer now starts to slowly cycle through the full colour spectrum from red over green and blue back to white.

A quick tap on the "Colour" button quickly moves on to the next major colour. The major colours are listed in Figure 2 (**bold, underlined**).

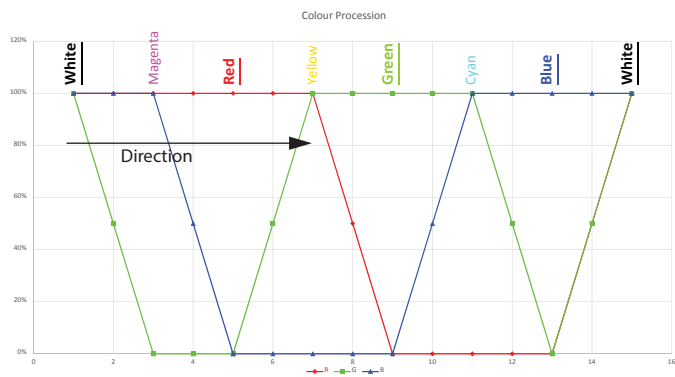


Figure 2.
Output colour progression

Setting minimum brightness To set the minimum brightness level, first dim the lights down to the absolute minimum. Then, using a small flathead screddriver, rotate the dial located inside the *Min Dim Setpoint* hole on top of the case until the desired intensity is achieved.

Figure 3.
Dimmer setpoint
potentiometer.



The "Colour" indicator shows the current brightness and colour for the RGB backlighting channels.

III. INSTALLATION

The IMED RGB LED Lighting Dimmer is DIN rail mounted and can be mounted in any orientation.

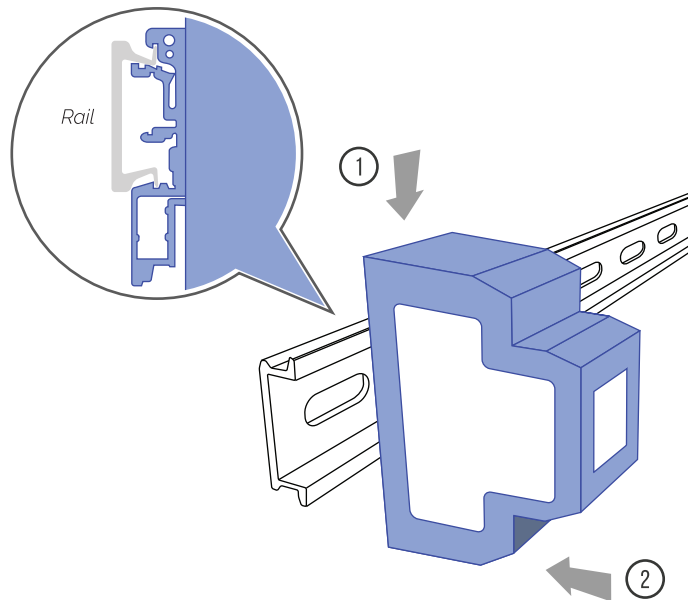
Dimmer supply must be protected by adequately rated fuses - do not use fuses in excess of 6 A.

Min wire diameter is 0.75 mm² (21 AWG).

Max wire diameter is 2.5 mm² (13 AWG).

Install dimmer in a dry location.

Figure 4.
Mounting dimmer
on din rail.



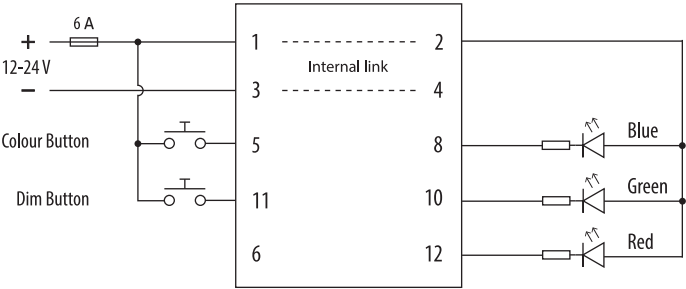
IV. PIN DESCRIPTION

Pin	Name	Function
1	V+	Supply voltage: 9 - 30V.
2	V+	Supply voltage. Internally linked to pin 1.
3	V-/Com	Ground/Common.
4	V-/Com	Ground/Common. Internally linked to pin 3.
5	Colour Button	Colour control button input. Single tap for next major colour.
6	NC	Not Connected.
7	NC	Not Connected.
8	Blue LED	Dim control for blue channel.
9	NC	Not Connected.
10	Green LED	Dim control for green channel.
11	Dim Button	Brightness control button input. Single tap for On/Off toggle.
12	Red LED	Dim control for red channel.

V. WIRING EXAMPLE

Figure 5
Wiring example.

(*) - buttons can be
connected in parallel
for access from
multiple locations.



VI. SPECIFICATIONS

Nominal ratings	Supply voltage:	9 - 30 VDC
	Output:	3 x 2 A
	Input type:	N/O Pushbutton
	Operating temperature:	-20 to 65 °C
	Case material:	ABS
	Dimension:	80 mm x 70 mm x 25 mm
	Installation:	35 mm din rail

Maximum ratings	Max voltage:	35 V
	Max current:	3 x 3 A

*Note -
Exceeding could risk
damage to device*

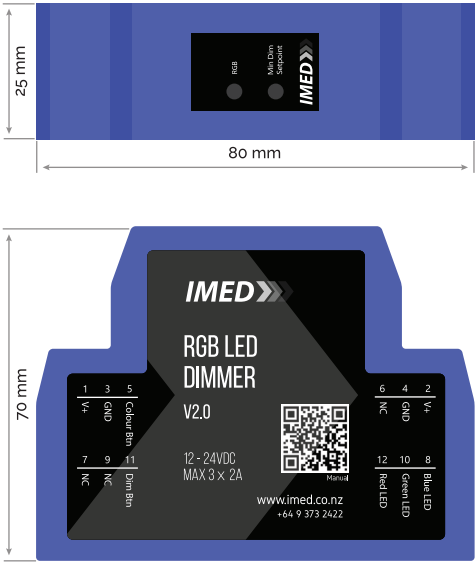


Figure 6
Dimmer top
and side view.



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