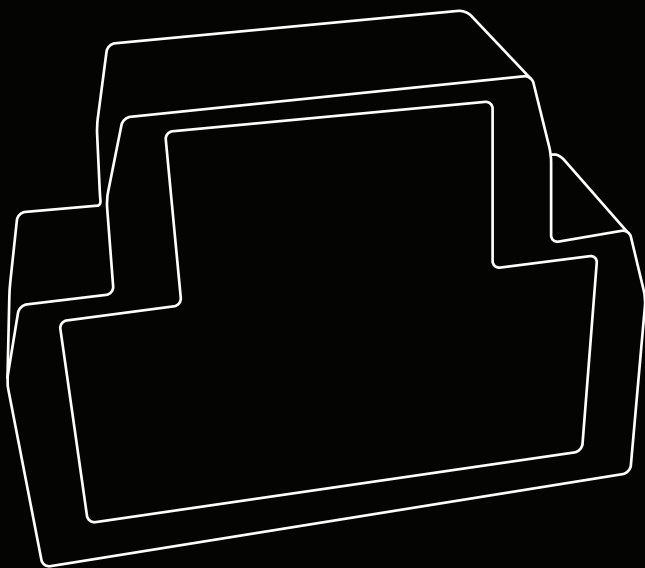




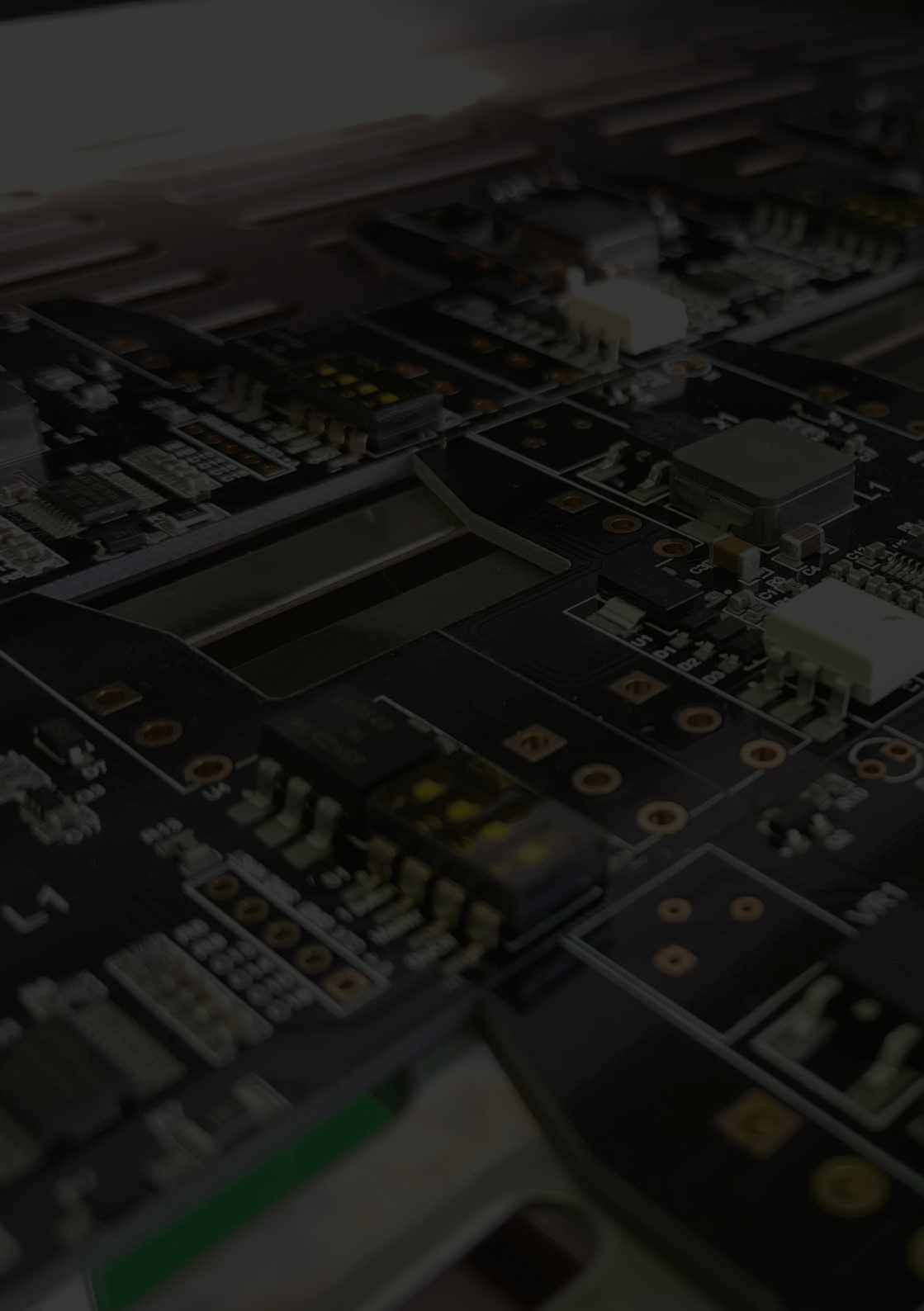
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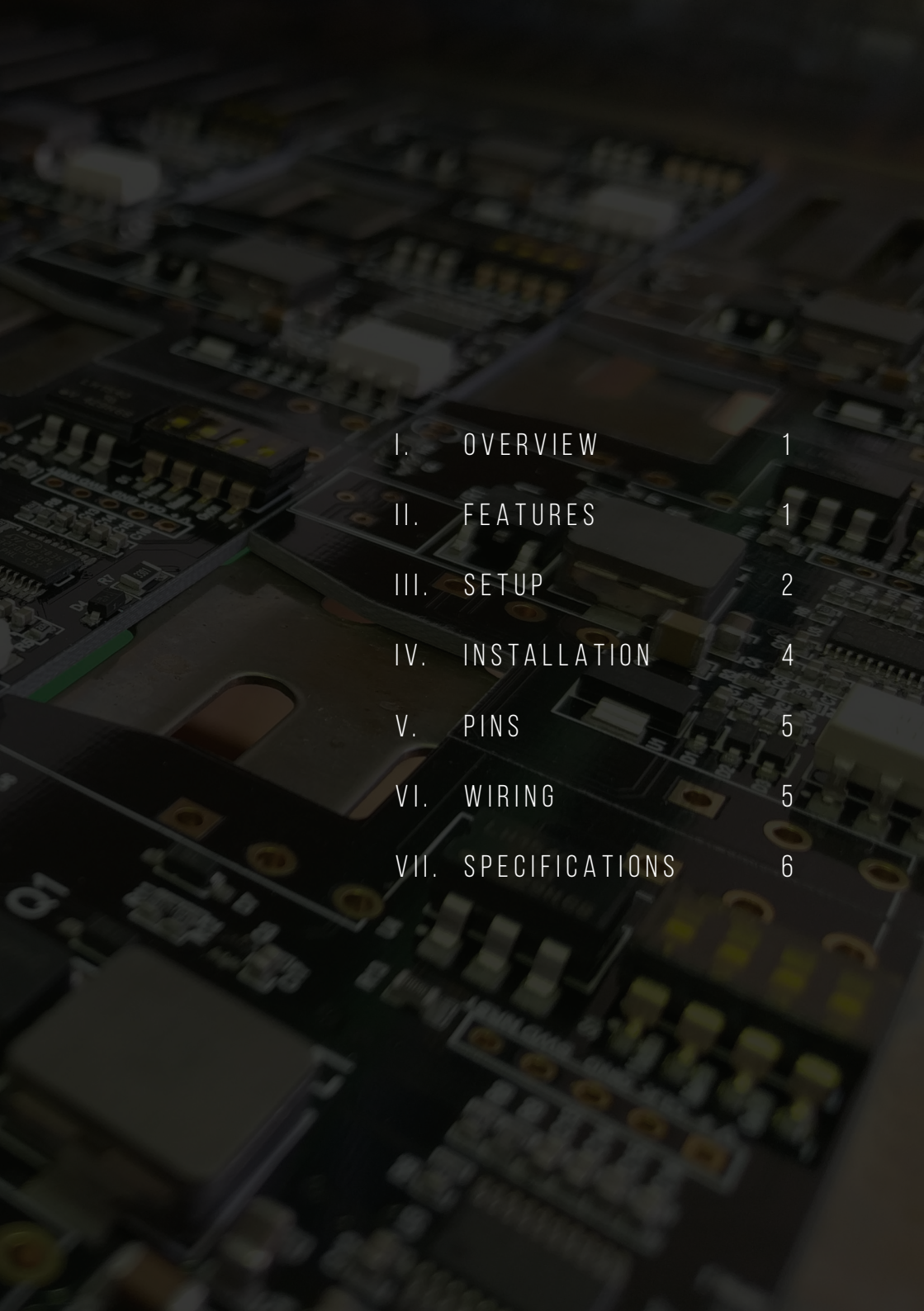
LIGHTING DIMMER

v3.0



User Manual





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I. OVERVIEW

The IMED Lighting Dimmer is designed to control 12 or 24 volt LED or incandescent lighting with soft, smooth on/off transitions and even dimming using one or two button control.

It comes with IMED UltraDIM technology, industry's lowest minimum brightness levels for improved night time visibility.

The dimmer is stackable in a master/slave configuration to serve high power requirements and freely configurable by the installer on-site.

II. FEATURES AND OPERATION

Dimmer features are enabled/disabled via the configuration switch. (See Setup section).

Single button mode

Control lights with single button. Press and hold to alter brightness of lights (direction will toggle with each subsequent press). Both button modes allow for on/off control with short press.

Two button mode

Control lights with two buttons. Hold button 1 to increase and button 2 to decrease brightness. Both button modes allow for on/off control with short press.

Master mode

Default control mode. Allows for normal, individual dimmer function through button control. Keep in Master mode to control other slave dimmers.

Slave mode

Use to repeat signal from master. All button controls are disabled in this mode. The relative brightness offset can be changed (See *Brightness offset* feature).

Status light Provides visual status of dimmed lights by simulating output.

On/Off toggle Enables lights to be turned off/on with a single short button press. This on/off feature can be disabled if dimmer is used for indicator lights that must not be switched off. (See *Button mode* features).

Minimum brightness Minimum dimmed setpoint can be adjusted to set lowest level of brightness by using the *Min Dim Setpoint* potentiometer located on top of case (See *Setup* section).

Status indicator A potential free contact is available to test whether dimmer is on. The contact will close when dimmer is active.
Max switching load: 350 VDC, 120 mA.
Max isolation: 350 VDC

III. SETUP

Unless specified otherwise, all dimmers are pre-configured to 1 button, master, and on/off mode.

To access the configuration DIP-switch to change modes, use a flatheaded screwdriver to pry open the dimmer case from the bottom side.

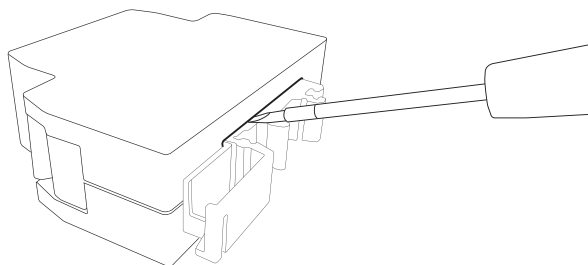
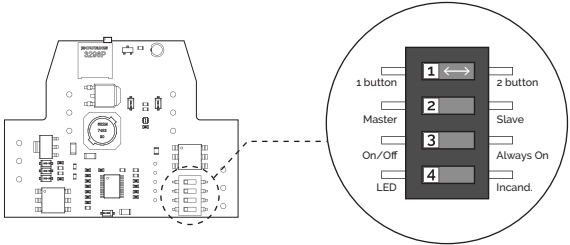


Figure 1.
Opening the dimmer case
with flathead screwdriver.

The configuration DIP-switch can be located on the bottom right-hand corner of the PCB. Set each switch to desired mode.

Figure 2.
Configuration switch
location.



Set switch 4 to "LED" if driving LEDs and to "Incand." position if using incandescent lamps. This switch changes the dimmer's brightness curve to match the characteristics of the used lighting equipment.

To set the minimum brightness level, first dim down the lights to the lowest possible brightness. Using a small flathead screwdriver, rotate the dial located at *Min Dim Setpoint* on top of case until desired intensity is achieved.

Figure 3.
Dimmer setpoint
potentiometer.



In slave mode, a relative offset brightness can be set for each slave module via *Min Dim Setpoint*. Rotate potentiometer dial clockwise/anti-clockwise to achieve levels brighter/darker than that of Master dimmer.

IV. INSTALLATION

The IMED LED lighting dimmer is din rail mounted and can be mounted in any orientation.

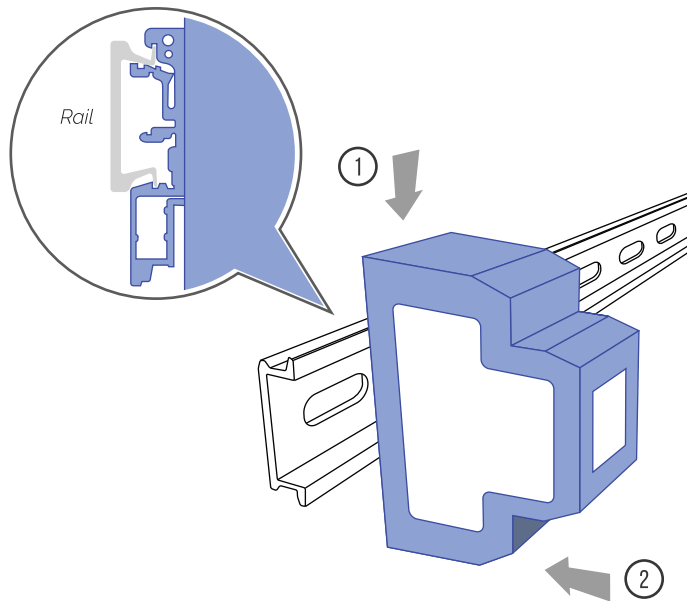
Dimmer supply must be protected by adequately rated fuses - do not use fuses in excess of 6 A.

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.



V. PIN DESCRIPTIONS

<i>Pin</i>	<i>Name</i>	<i>Function</i>
1	V+	Supply voltage: 9 - 30V. Slave modules can have independent supply. Connect with 6A fuse.
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	Vdim	PWM dimming output. Connect to LED cathode.
6	Vdim	PWM dimming output. Internally linked to pin 5.
7	Dim Ctrl Btn 1	Control button 1. Link button(s) to pin 1/2. Up/down control in single button mode. Up control only in 2 button mode.
8	Output Enabled	Output Enabled. Contact 1 of solid state relay. (120 mA MAX)
9	Dim Ctrl Btn 2	Control button 2. Link button(s) to pin 1/2. Up/down control in single button mode. Down control only in 2 button mode.
10	Output Enabled	Output Enabled. Contact 2 of solid state relay.
11	Slave V+	Slave supply voltage. Connect to master V+.
12	Slave Vin	Slave PWM input. Connect to master Vdim.

VI. WIRING EXAMPLE

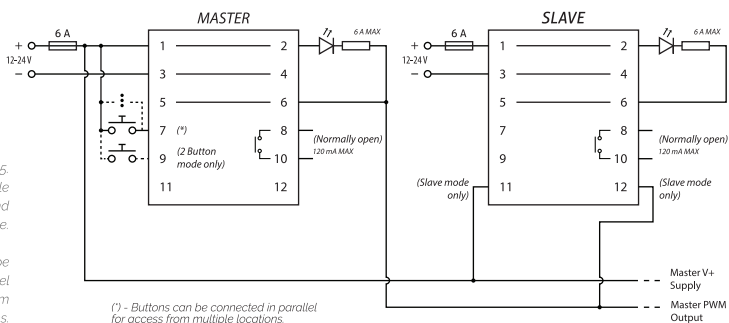


Figure 5.
Wiring example
using master and
slave module.

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

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

VII. SPECIFICATIONS

Nominal ratings	Supply voltage:	9 - 30 VDC
	Output:	6 A
	Input:	N/O Pushbutton
	Operating environment:	-20 to 65 °C, 10 - 90% rh (non cond.)
	Case material:	ABS
	IP Rating:	IP 20
	Dimension:	80 mm x 70 mm x 25 mm
	Installation:	35 mm din rail

Maximum ratings	Max voltage:	35 VDC
	Max current:	8 A

Note -
Exceeding could risk
damage to device

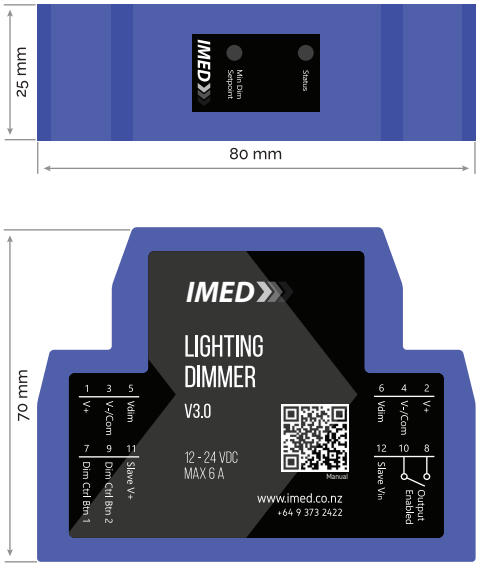


Figure 6
Dimmer top
and side view.



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