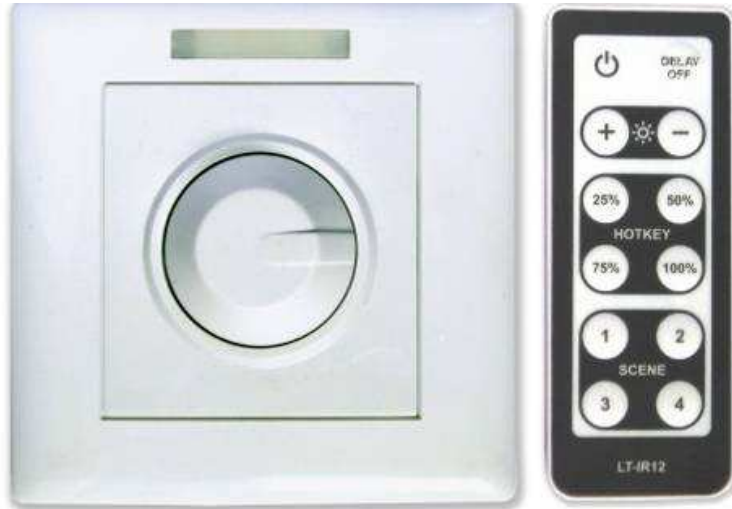


Constant Voltage LED Dimmer User Manual



A slimline LED Dimming panel, with remote, capable of dimming up to 120W of single colour LED lighting without the need for any additional drivers.



Specifications

| | |
|------------------------|----------------------------------|
| Digilin Stock Code | LDP-CV-5A |
| Switch Dimensions (mm) | 87mm x 87mm |
| Remote Dimensions (mm) | 86mm x 33mm |
| Weight | 200g (total package) |
| Input Power | 24VDC |
| Outputs | Low side switched PWM signal @5A |



Safety Notes

Ensure correct polarity of both inputs and outputs before applying power.
Mount in a well ventilated location.

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At The Forefront of LED & Fibre Optic Lighting

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Introduction

The Constant Voltage LED Dimmer panel is the perfect solution to provide user control to dim LED light installations. Unlike other solutions, the LDP-CV-5A requires no additional LED driver, to drive up to 120W of single colour LED light fittings, such as Digilin's range of LED strips.

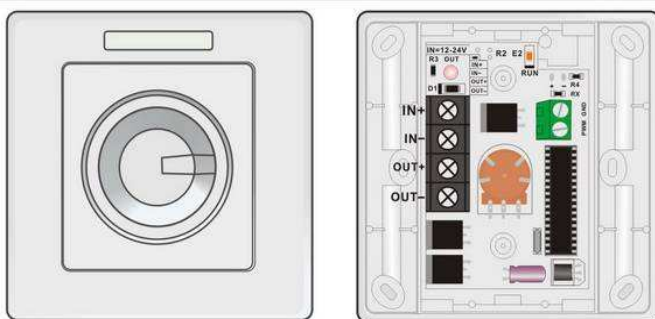


Figure 1 Front and rear view of the dimming panel, including wiring connections.

Specifications

| | | |
|-------------------------|----------|---|
| Input Voltage | 24VDC | This should be matched to the input voltage for the LED fitting |
| Maximum switched output | 5A | |
| PWM Frequency | 500Hz | |
| PWM Levels | 256 | |
| Dimming Range | 0 – 100% | |
| Remote battery | CR2025 | |

Maximum Load

To run the LDP-CV-5A at full load, it requires a 150W LED power driver, such as the LPC3144E-24

| LED Strip | Max Load | |
|--|--------------|--------|
| | Strips | Metres |
| PL500 (requires separate power supply for strips) | 250 | 125 |
| MPL500 | 18 | 9 |
| UL500 | 30 | 15 |
| UFL4000 | 3.45 (reels) | 13.8m |

Note the maximum load for the LDP-CV-5A may exceed the maximum continuous run length of LED strip. Refer to the wiring instructions for the LED strip being installed to determine how the strips should be connected.

Dimension Drawings

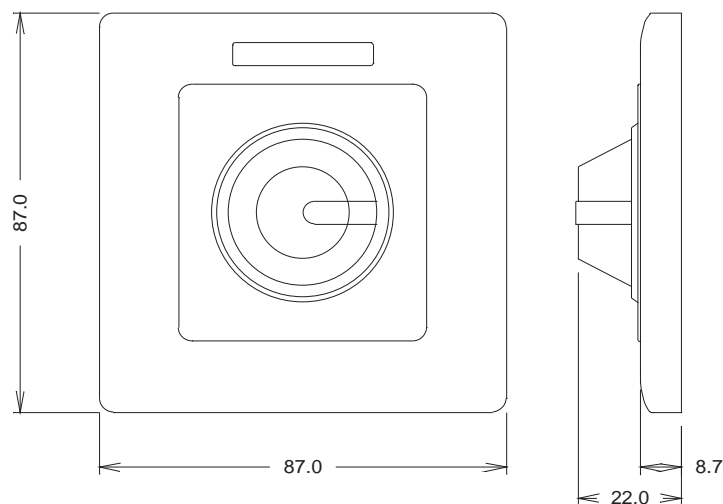


Figure 2 Dimensions of the wall panel

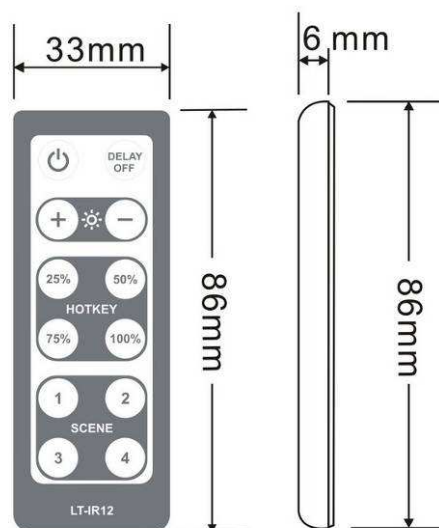


Figure 3 Dimensions of the infra-red remote control.

Installation

Mounting

Figure 4 shows the wall cut-out required to mount the dimming panel on the wall. The screw holes should be drilled to suit either self tapping screws or screws as the situation requires. To install the dimming panel:

1. Remove the face plate from the panel by using a small screwdriver in the notch on the bottom of the panel.
2. Prepare the wall by removing the cutout and drilling the necessary holes.
3. Attach the power and LED output wires to the dimmer, being careful to observe the correct polarity.
4. Screw panel to the wall
5. Clip the face plate back in place.
Ensure the window for the remote receiver is positioned over the sensor (if installed in the normal orientation, this would be the top).

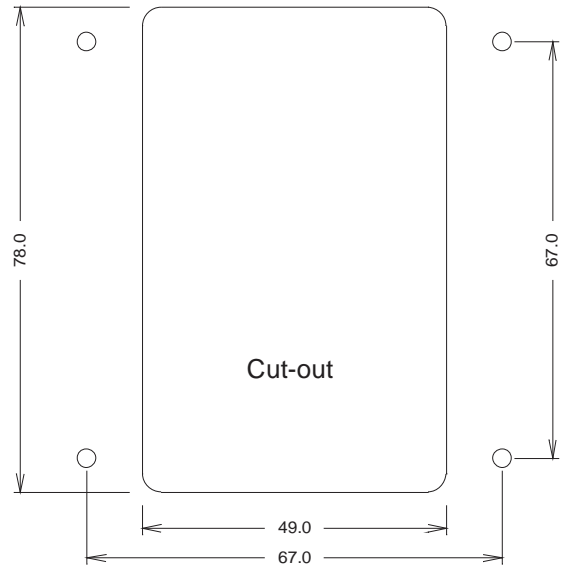


Figure 4 Cut-out and mounting holes

Wiring

Figure 1 shows the four input and output terminals on the unit. The inputs should be connected to a 24V supply, the outputs should be connected to the LED fittings, as shown in the wiring diagram in Appendix A. Wiring Diagram

Replacing the Remote Battery

To replace the battery, push the locking tab across, then slide the tray out. Be sure to replace the battery in the same polarity.

Operation

Using the Panel






The dimming panel has single knob to control the LED fitting brightness. This is rotated clockwise to increase the brightness (to 100%), or anti-clockwise to decrease it (to 0%). Rotating the knob beyond the 0% point will cause it to click into the off position.

Using the Remote Control

BEFORE USING THE REMOTE, REMOVE THE BATTERY ISOLATION TAB

An important fact to keep in mind when using the remote control is that it is an infra-red remote control and it therefore works on line of sight. It will not work if not pointed towards the dimming panel.

When the dimming panel receives a command from the remote, the indicator will flash briefly. The following tables describes the function of each button on the remote.

| Sign | Button | Description |
|---|--------------|---|
|  | ON /OFF | Turns the dimmer on/off Note: Any button can start the controller from off status |
|  | DELAY OFF | Lights will turn off automatically after 30 seconds |
|  | BRT+ BRT- | Increase or decrease the brightness. Holding the button continuously will cause the brightness to ramp up or down. |
|  | HOTKEY | Press these four keys to select 25%, 50%, 75% or 100% brightness. |
|  | SCENE | User-defined presets - press and hold for 3 seconds, after which the indicator light on the dimmer will flash several times, indicating the current brightness has been automatically saved. Press briefly to recall this saved setting. |

Appendix A. Wiring Diagram

The diagram below shows 3 options for connecting long lengths of LED strip, using either daisy chained, end to end or Tee-junction connections.

