

1 Channel DALI LED Driver

LDALI-PWM-1

User Manual



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Safety Notes

- Install in a dry sheltered position
- Ensure adequate ventilation
- Installation should only be performed by a qualified professional
- Install in accordance with all appropriate wiring standards
- Never connect a LED fitting to a driver that is powered. Doing so may result in damage to the LED.
- Always make sure the output voltage range and output current of the LED driver match the requirements of the LED fitting. Failure to do so may result in damage both the driver and fitting.
- DALI is not SELV and installation must therefore follow appropriate standards

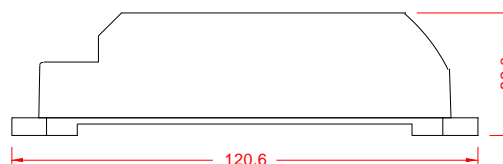
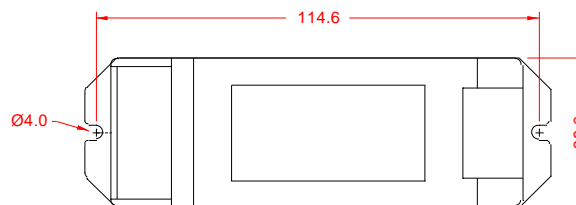
Introduction

The LDALI-PWM-1 is a single channel DALI to constant voltage PWM LED driver. It is an ideal solution for integrating single colour LED strips into a DALI lighting control system.

Specifications

Physical

		Units
Dimensions	120.6 x 39 x 32	mm
Weight	65	g



Inputs

		Units
Voltage	12 – 24	VDC
Current	10	A
Communications	DALI (IEC62386)	

Outputs

		Units
Outputs	1 Channel Common Anode (low side) PWM	
Current Per Channel	10	A
Fuse	15	A (Quick Blow)
Minimum Dimming Level	DALI Level 1 (0.1%)	

Installation

Figure 1 shows the connections to the LDALI-PWM-1. For standard operation connect the power input to 12-24VDC, the DA pins to a DALI network (note that the DA pins are polarity insensitive), and finally connect the LED fittings/strips to the output pins. Note the common positive, which is directly connected to the input power.

For further information on connecting the DALI network, refer to Appendix A. DALI Networking Basics.



Figure 1 Wiring Connections

Operation

When powered up, the LDALI-PWM-1 will set its output to the Power On Level as defined in the DALI standard. It will then respond to any commands on the DALI network accordingly.

Note that before general operation, a DALI network requires commissioning to set ballast addresses, groups, scenes and control parameters.

Appendix A. DALI Networking Basics

DALI is very flexible in its network configuration, to the point that DALI control lines and mains voltage supply lines can be wired together.

The DALI control line input to a ballast is polarity insensitive, meaning there is no + or -.

A DALI network can consist of up to 64 ballasts.

Wiring of the DALI network can be almost any fashion, be it a daisy chain, star or branch, as per the below figure

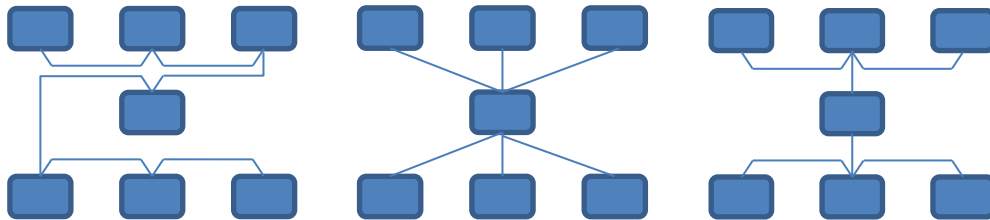


Figure 2 DALI Network Topologies

Cable sizes should follow the guide given in the table below.

Lead Length	Minimum Lead Diameter
Up to 100m	0.5mm ²
100 – 150m	0.75mm ²
150 – 300m	1.5mm ²