DALI Downlight Driver
LDD-DALI
User Manual

LED Lighting and Control
Designed and Manufactured in Australia

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DIGILIN

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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 LDD-DALI range of LED drivers are single channel DALI to constant current PWM LED drivers. They have been developed to provide smooth dimming down to off via Digilin's S.I. DALI Dimming Curve and have models in the range to specifically match with Digilin's LED downlight range.

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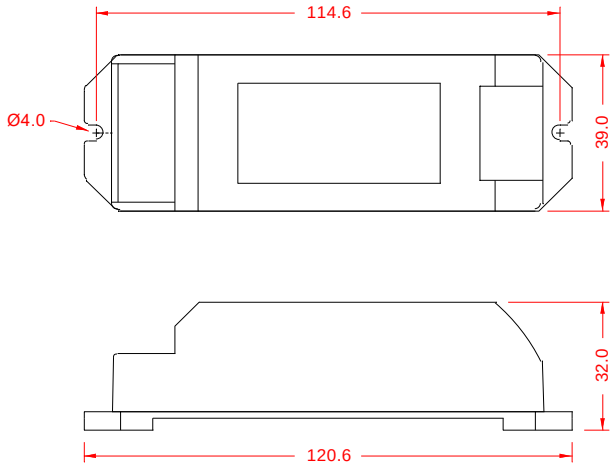
Specifications

Physical

		Units
Dimensions	120.6 x 39 x 32	mm
Weight	65	g



Inputs

	1400	1050	700	350	270	Units
Voltage	42-48					VDC
Current	1300	1000	620	320	250	mA
Fuse	1.6					A (resettable)
Communications	DALI (IEC62386)					

Outputs

	Model					Units
	1400	1050	700	350	270	
Output	1 Channel Constant Current PWM					
Nominal Current	1400	1050	700	350	270	mA
Nominal Voltage	36	36	36	36	36	V
PWM Frequency	122					Hz
Minimum Dimming Level	DALI Level 1 (0.009%)					

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Installation

Figure 1 shows the connections to the LDD-DALI range. For standard operation connect the power input to the specified voltage, the DA pins to a DALI network (note that the DA pins are polarity insensitive), and finally connect the LED fitting to the output pins, as shown in Appendix B. Wiring Diagram.

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

Figure 1 Wiring Connections

Operation

When powered up, the LDD-DALI range 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.

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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

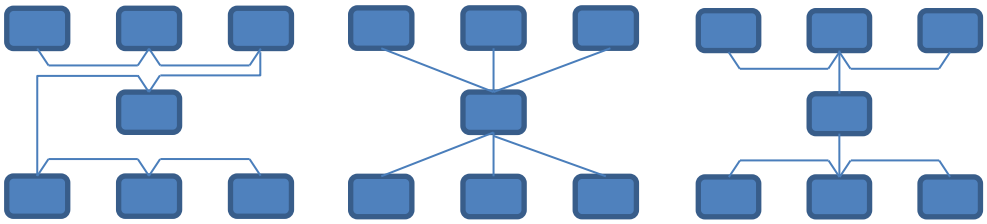

Figure 2 DALI Network Topologies

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

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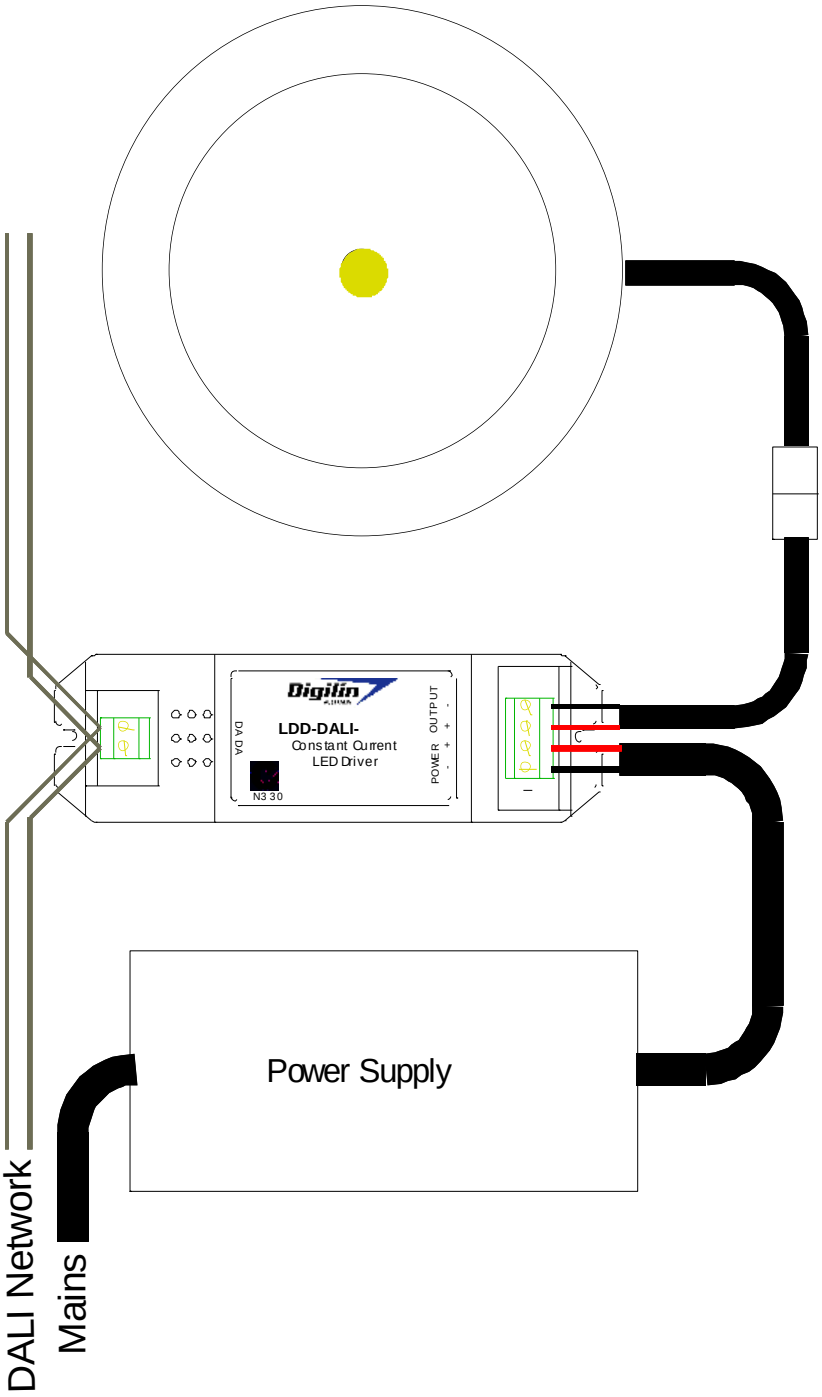
Appendix B. Wiring Diagram



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