

DMX Downlight Driver LDD-DMX User Manual



LED Lighting and Control
Designed and Manufactured in Australia

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Product specifications are subject to change without notice.

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Safety Notes

- Install in a dry sheltered position
- 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.

Introduction

The LDD-DMX range of LED drivers are single channel DMX receivers with constant current outputs. Specifically the different versions are matched to Digilin's range of LED downlights (including the Freedom, Liberty, Latitude and ICON Mini families).

The drivers make use of a non-linear dimming curve, allowing for finer control at low light levels, and combines this with Digilin's smoothed transitions software which makes transitions in light levels almost imperceptible.

Specifications

Physical

		Units
Dimensions	121 x 54 x 39	mm
Weight	90	g

Inputs

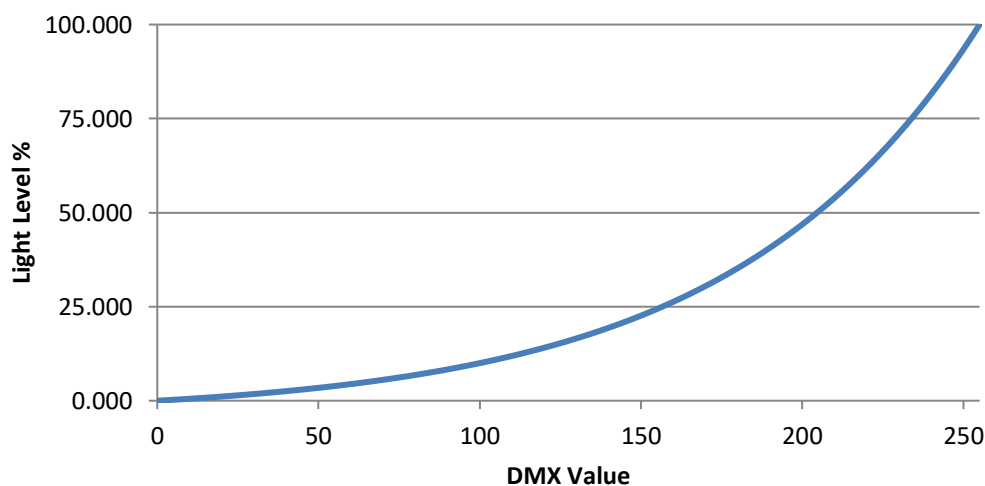
	1400	1050	700	350	270	Units
Voltage	42-48					VDC
Current	1300	1000	620	320	250	mA
Fuse	1.6					A (resettable)
Communications	DMX					
DMX Load	0.25					Standard Devices

Outputs

	1400	1050	700	350	270	Units
Outputs	1 Channel Constant Current PWM					
Current Per Channel	1400	1050	700	350	270	mA
Nominal Voltage	36	36	36	36	36	V
PWM Frequency	122					Hz

Dimming Curve

		Units
Minimum Level	0.05	%
Maximum Level	100	%



Installation



Installation of the LDD-DMX is a simple process.

1. Connect the DMX input (and output if required)
2. Set DMX address
3. Connect the LED fitting. Always connect the LED fitting before applying power. Failure to do so may result in damage to the LED.
4. Connect to a power supply (between 42 to 48 VDC)

Operation

Once powered, the red power LED should be on. Under normal operation, with good DMX reception, the green activity LED should also be on constantly.

Setting Address

The DMX address is set using the rotary DIP switch. Positions 1 – 9 correspond to DMX addresses 1 – 9. By setting the switch to position 0, the unit uses the address stored in internal memory (default is 10). This allows access to the full range of DMX addresses. Refer to Appendix A. Using AddTool to Set DMX Address for instruction on how to program the address stored in memory.

Using with DMX Input

Once connected, the unit will respond to any DMX commands sent to its set address. A DMX value unit will set the unit off, while a value of 255 will set the output light level to 100%. The end of the DMX network should be terminated with a 120Ω resistor.

Fallback Output

The LDD-DMX output will be set to 50% at start-up and loss of DMX signal.

Appendix A. Using AddrTool to Set DMX Address

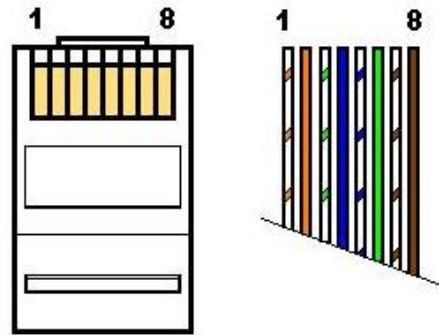
The AddrTool allows the user to set the address used by the LDD-DMX when the DMX address switch is set to position 0. To do this, the AddrTool uses alternate start code and Digilin's registered Company ID. No non-Digilin device should react in any way to the commands sent by the AddrTool.

1. Apply power to the AddrTool
2. Plug the AddrTool into the DMX in port of the LDD-DMX. Any other units also connected to the DMX network will also be programmed.
3. Power up the LDD-DMX unit(s)
4. Turn the dial on the AddrTool to display the desired address.
5. Press the dial in to program the connected units
 - a. The display on the AddrTool will change briefly to show that the command has been sent.
 - b. The DMX activity on the connected units should flash to indicate that the command has been received.

Appendix B. DMX on Cat5 Cables

The LDD-DMX uses RJ45 connectors for DMX as per E1.11-2008(R2013). DMX cabling uses straight through cables (ie both ends should be wired identically). The below table and diagram show the standard for the T568B wiring scheme.

RJ45 Pin	Wire Colour	Signal
1	Orange/White	Data +
2	Orange	Data -
3	Green/White	
4	Blue	
5	Blue/White	
6	Green	
7	Brown/White	Data Common
8	Brown	Data Common



Appendix C. Wiring Diagram

