

Product Overview

The COLOURDRIVER™ range of dimming LED Power Drivers represents true innovation in LED technology. Designed to optimise the performance of LEDs COLOURDRIVER™ incorporates a host of world leading features.

Excellent dimming (0-100%) is achieved via an on board DMX512 interface combined with PWM power control.

A unique thermal feedback circuit constantly monitors LED temperature ensuring maximum reliability and protection.

COLOURDRIVER™ is available in a range of options from stand alone remote ballasts, IP65 enclosed or OEM modules for integration within light fixtures.

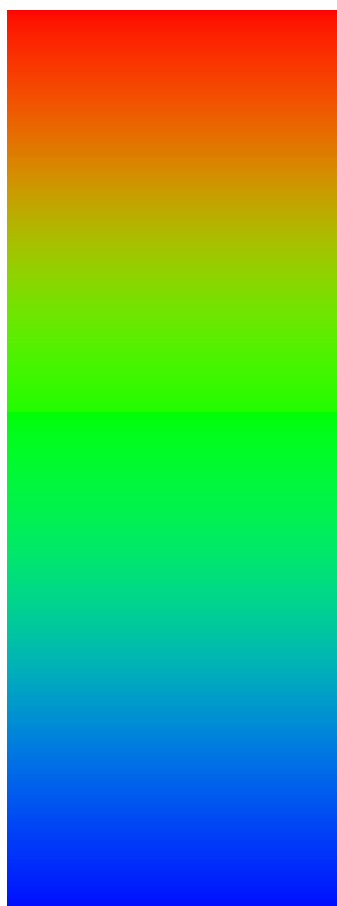


Features

- 3 Fully Addressable constant current outputs
- Digital Dimming level from 0 – 100 %
- On board DMX512 compliant control interface
- LED temperature compensation feedback
- Energy efficient switch mode power electronics
- Short and open circuit protected
- Long Life (> 50,000 hours)
- High quality rugged construction
- Meets lighting approbation requirements (CE)
- Compliant with Luxeon™ Power Light Sources
- Can be remote mounted from LEDs ~ 30 meters

Typical Applications

- RGB Colour Mixing
- Floodlighting
- Cove & Cornice Lighting
- Signalling
- Signage
- Fibre Optic systems
- Architectural Lighting



Electrical Specifications

Input

Input Voltage Range	: V_{in}	: 195 – 265Vac
Frequency	: f	: 50 – 60 Hz
Power Consumption Range	: P_{in}	: 6 – 54 W
Power Factor	: Pf	: 0.95
Efficiency	: η	: 80% typical

Output

Power Output Range	: P_{och}	: 4.8 – 14.4 W Per Channel
Output Current	: I_{och}	: 350mA @ 100%
Output Voltage	: V_o	: 48Vdc

Control Input

Dimming Control	: DMX	: DMX512
Dimming Method		: Constant Current PWM
Address Range	: n_{ad}	: 1 – 505 via DIP switch
Channel 1		: = n
Channel 2		: = $n+1$
Channel 3		: = $n+2$
Special Address Functions		: 0 = White Mix
		: 511 = Self Test Cycle
		: 510 = Channel 1 100%
		: 509 = Channel 2 100%
		: 508 = Channel 3 100%
		: 507 = All Channels 100%

Temperature Feedback	: t_{fb}	: 10k Ω SMT Thermistor Epcos B57621C103J62
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Notes.

1. Temperature feedback Thermistor (not supplied) should be mounted close to LEDs on Metal Clad PCB. Internal Control program is set to reduce power in the event of over temperature 80 °C and shut down 90°C if stability cannot be restored. DMX address needs to be set before power up. Address set via DIP switch array
2. DMX Line terminator selectable on board.
3. Output Isolation 3.0KV 50Hz
4. For volume applications with single stand alone fixtures integral control can be programmed to provided desired output pattern.

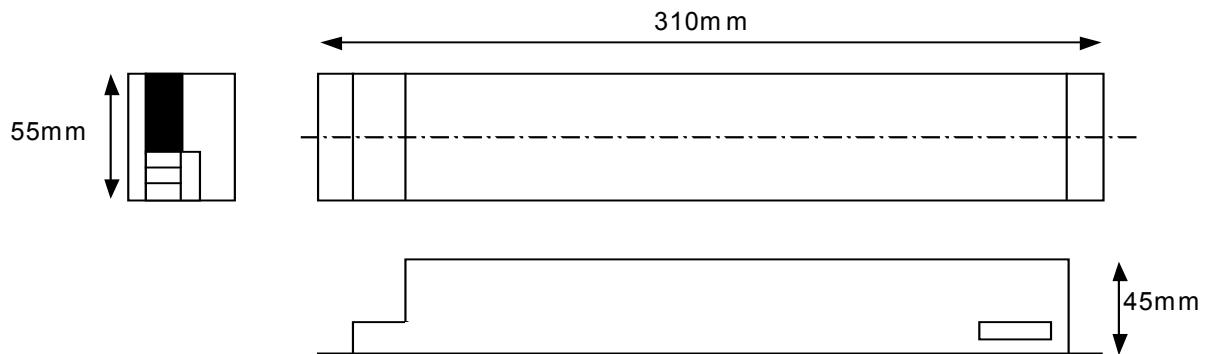
Environmental

Operating Ambient Temperature	: T_{op}	: -10°C to + 40°C
Storage Ambient Temperature	: T_{st}	: -20°C to + 70°C
Case Temperature	: T_c	: +65°C
Relative Humidity	: RH	: 80%
Lifetime (failures after 50,000 hours)	: L_{50k}	: 5%

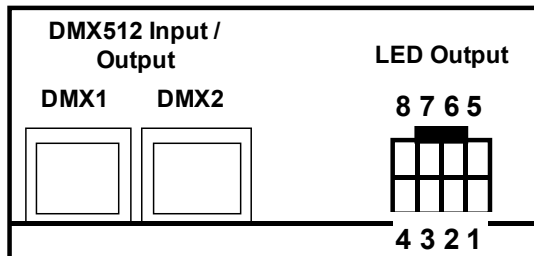


Mechanical Dimensions

Construction	: Zintec coated mild steel 1.0 mm to IP20
AC Input	: Wieland 3 Pole GST18 Series Connector (1.0m lead supplied)
DMX Input	: RJ45 Connector
LED Output & Thermal Feedback	: MOLEX Micro Fit 3.0 System (Female)
Mounting	: 2 slots M3 size screws

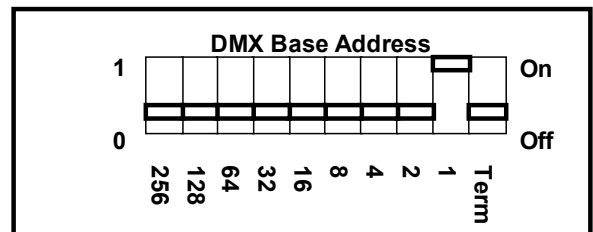


Driver Wiring Diagram



DMX / RJ45 Connections	LED Output
Pin 1 : Data +	1 : CH1 Common (+)
Pin 2 : Data -	2 : CH2 Common (+)
Pin 7 : Common	3 : CH3 Common (+)
Pin 8 : Common	4 : tfb 1
	5 : CH1 (-)
	6 : CH2 (-)
	7 : CH3 (-)
	8 : tfb 2

DMX Address Selection



Eg - Address Shown = 1 = Channel 1

Line terminator is set to off

Warning.

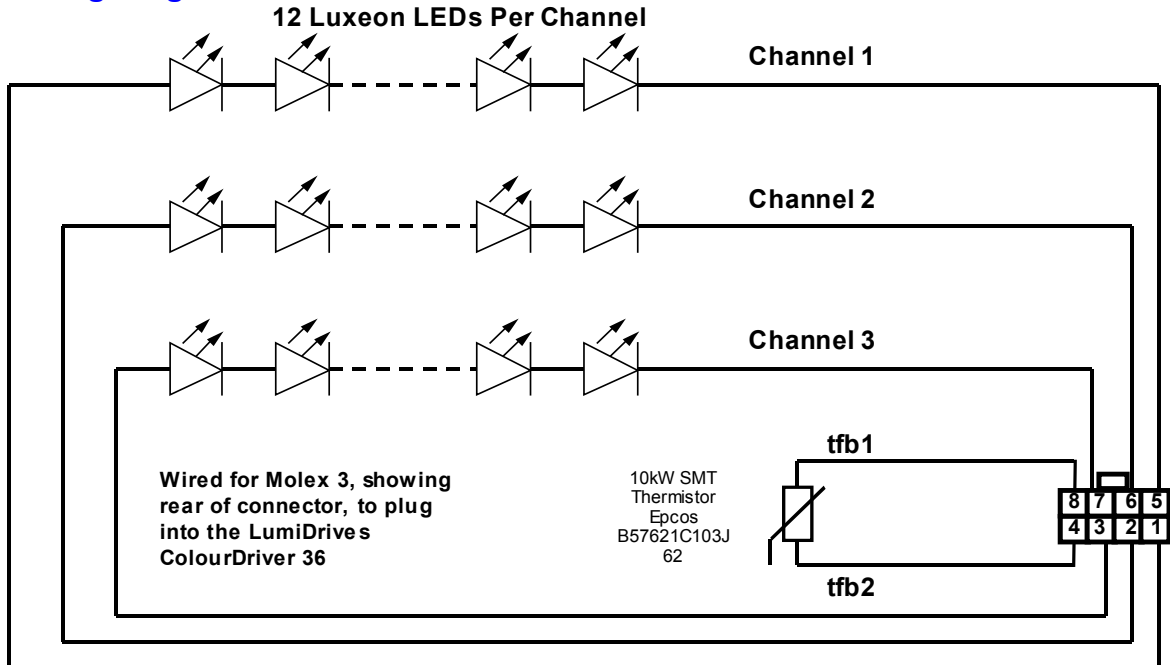
Accidental connection to non-DMX512 equipment likely to be encountered (e.g., an Ethernet Hub) may result in damage to equipment.

Cable Connections using Category 5 Cable

White / orange	: data +
Orange	: data -
White / brown	: signal common
Brown	: signal common

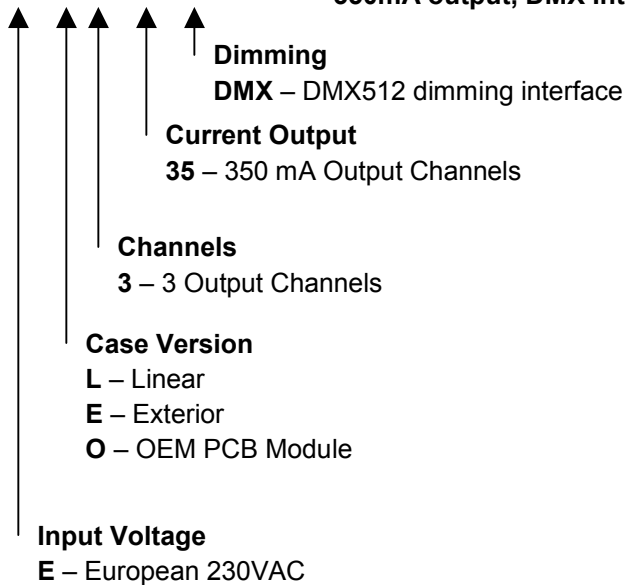


LED Wiring Diagram



Selection Guide

Part No	Description
CDE- L-3-35 DMX	COLOURDRIVER 36™, Euro input voltage, Linear case, 3 Channel 350mA output, DMX Interface.



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