*i*Drive™ lite The intelligent 55W LED Driver

Product Overview

The powerful new *i***Drive**™ lite LED driver is designed to optimize the performance of high power lighting fixtures using high power LEDs including Luxeon™.

The patented *i***Drive**™ lite technology enables excellent colour matching and 100% smooth dimming with precise DC current control combined with advanced automatic heat management system to enhance the long life of both fixtures and LED boards.

The 55 Watt system provides a universal voltage input with both UL and CE approvals so you can install them in practically any location.

The *i***Drive**™ lite has been designed to make installation simple and to save time by using standard power and DMX connectors with a unique user interface to control all *i***Drive**™ lite functions. There are no complicated DIP switches!

The patented thermal control of attached LED boards, using our unique Colour Cool™ Technology, optimises your LED installation for any environment.

*i***Drive**™ lite can be controlled by DMX512, or use the hundreds of pre-programmed settings to provide independent scenes, colour combinations and effects.

Features

• Compact size and rugged construction with standard 5-pin XLR DMX in/out connectors.

• Universal voltage input with standard IEC connector.

• Patented Colour Cool™ thermal management system to optimise and prolong the life of fixtures and LEDs.

• The *i***Drive**™ lite technology is licenced and patented in the UK and USA with Worldwide applications pending.

• Patented colour mixing 3 channel system.

• Simple 3 rotary switch interface sets DMX address and controls all additional pre-set functions.

• Smooth dimming control 0 - 100%.

• High efficiency (>88%).

• Long life and high reliability (50,000 hours).

• LED lamp connection with 8 pin RJ45 connector.

• Short and open circuit protection.

• Standalone mode (no DMX controller required) incorporating many static and dynamic colour functions and programmes.

• Self test functions.

• No binning of LEDs results in cost savings.

• Internal Thermal Protection.

• CE Approved

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SPECIFICATIONS
ELECTRICAL CHARACTERISTICS

Input

Input Voltage Range	: 100 - 240V AC
Input Frequency	: 50 - 60Hz Power
Consumption	: 6 - 55W Power
Power Factor	: 0.95
Efficiency	: 88%
Connection	: standard IEC
Insulation Class	: One

Output

Power Output Range	: 0 - 16.8W Per Channel
Maximum Output Current	: 350mA @ 100% Maximum Output
Voltage	: 14V - 48V DC
Connection	: RJ45 (8 pin)

**Control Input**

Dimming Control	: DMX-512A
Connection	: standard XLR 5 pin
Dimming Range	: 0 - 100 %
DMX Start Address Range	: 1 - 510 via 3 rotary BCD switches.
Programmes	: See user manual for all pre-sets :

Mechanical

Mounting	: Four 3mm holes for wall fixing.
Construction	: Aluminum casing for improved thermal performance.

Dimensions

95mm (3 ³/₄") 60mm (2 ³/₈")

210mm (8 ¹/₄") 60mm (2 ³/₈")

Weight: 600 grams

95mm (3 ³/₄")

210mm (8 ¹/₄")
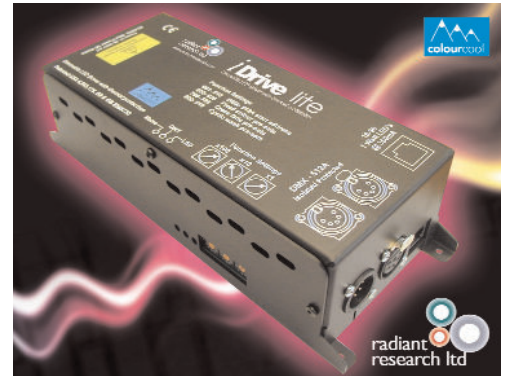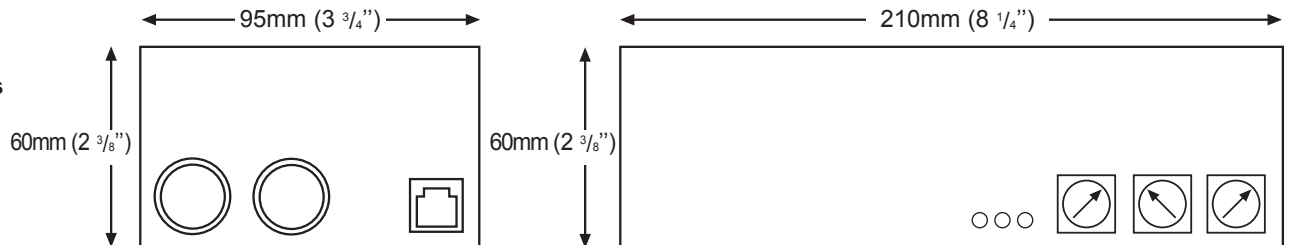
Environmental

Operating Ambient Temperature	: -20ºC to + 50°C
Storage Ambient Temperature	: -20ºC to + 70ºC
Case Temperature	: + 65ºC
Relative Humidity	: 80%
Lifetime (failures after 50,000 hours):	5%
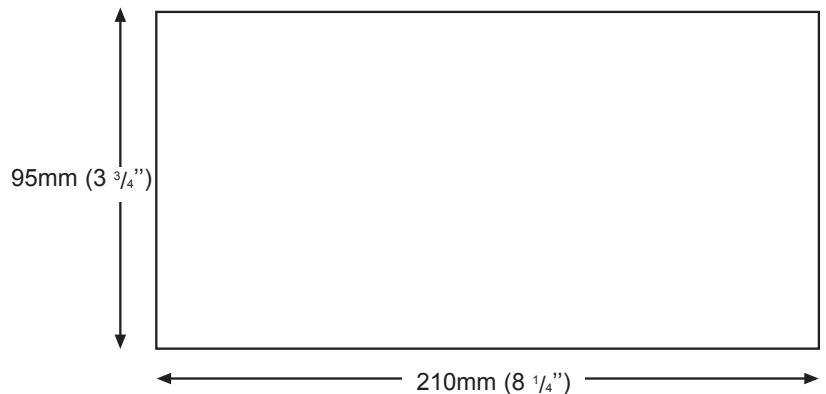
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DMX AND PRE-SET PROGRAMME SETTINGS

x100   x10   x1

0 - 9   0 - 9   0 - 9
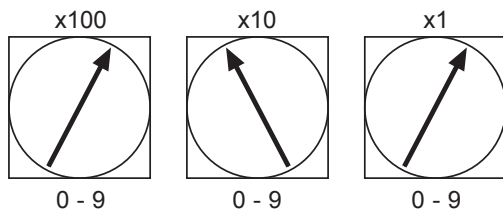
Switch Settings	Function
001 - 510	DMX-512A start address
600 - 636	Fixed Colour pre-set
700 - 799	Cross Fade pre-set
800 - 819	Cyclic Wash pre-set

WIRING SPECIFICATION INFORMATION

RJ45 WIRING INPUT

1 = Red +
2 = Red -
3 = Green +
4 = Green -
5 = Blue +
6 = Blue -
7 = Thermistor ground*
8 = LED Temperature*

> * IST Ltd recommend that a 10K ohm SMT thermistor
> type: EPCOS B57621C103J62 is located in the centre of the
> LED board for effective thermal management control.

WARNING!
Accidental connection of the RJ45 LED fixture output to non
LED equipment may result in damage
(e.g. an Ethernet Hub)

*i*DRIVE™ CONFORMS TO THE FOLLOWING PSU SPECIFICATIONS.

EMC:
EN 55022/55015
EN 61000-6-3
EN 61000-6-4
EN 61547

Harmonic & Flicker
EN 61000-3-2
EN 61000-4-2 to EN61000-4-11

Safety:
EN 60595-1 & EN 61558-1
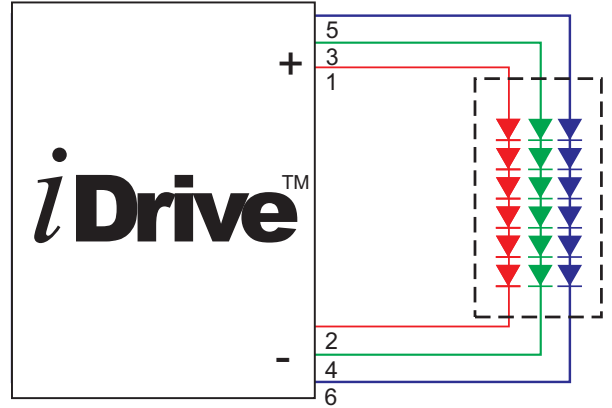
CE

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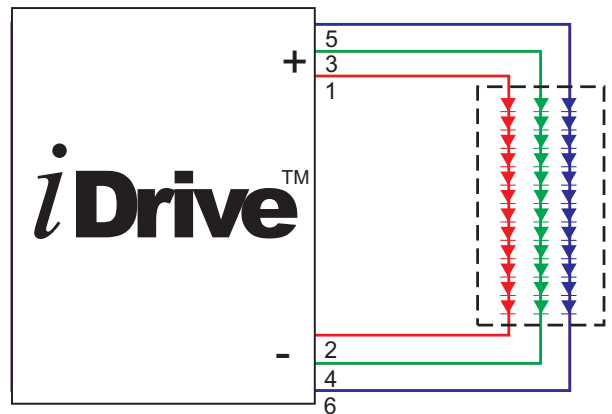
Typical wiring configurations for 350mA LED RGB system

12 x RGB systems
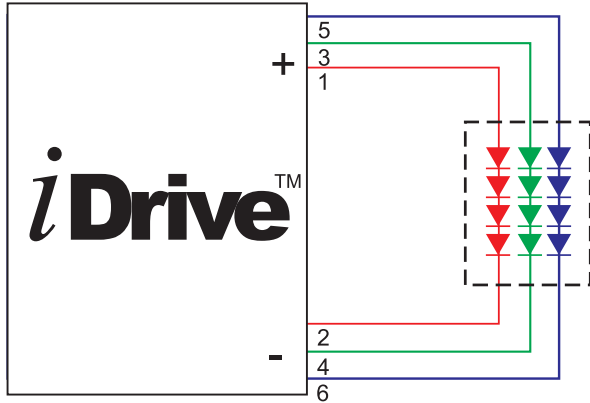
18 x RGB systems

These are typical wiring configurations but many other combinations can be used including white LED systems.

36 x RGB Systems