

C002 RGB High Power Controller The intelligent 55W LED Driver



Product Overview The powerful new *C002* LED driver is designed to optimize the performance of high power lighting fixtures using high power LEDs including Luxeon™.

The patented *C002* technology enables excellent color 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 *C002* 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 *C002* functions. There are no complicated DIP switches!

The patented thermal control of attached LED boards, using our unique *C002* Technology, optimizes your LED installation for any environment.

C002 can be controlled by DMX512, or use the hundreds of pre-programmed settings to provide independent scenes, color combinations and effects.

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Features

- Compact size and rugged construction with standard 5-pin XLR DMX in/out connectors.
- Universal voltage input with standard IEC connector.
- Patented **C002** thermal management system to optimize and prolong the life of fixtures and LEDs.
- The **C002** technology is licensed and patented in the UK and USA with Worldwide applications pending.
- Patented color 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 color functions and programs.
- Self test functions.
- No binning of LEDs results in cost savings.
- Internal Thermal Protection.
- CE Approved

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.

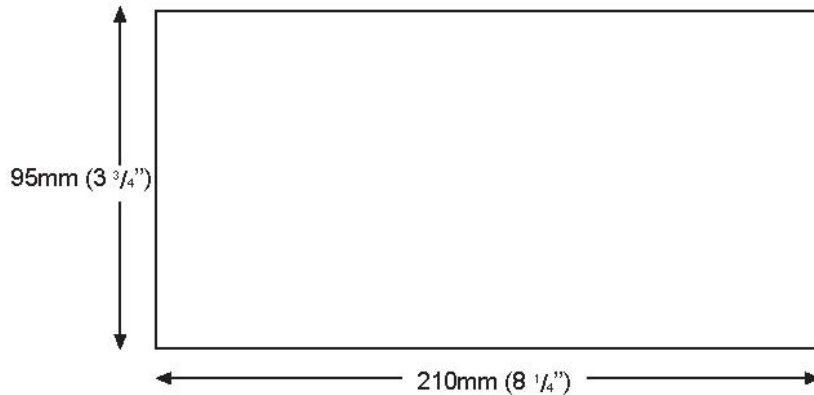
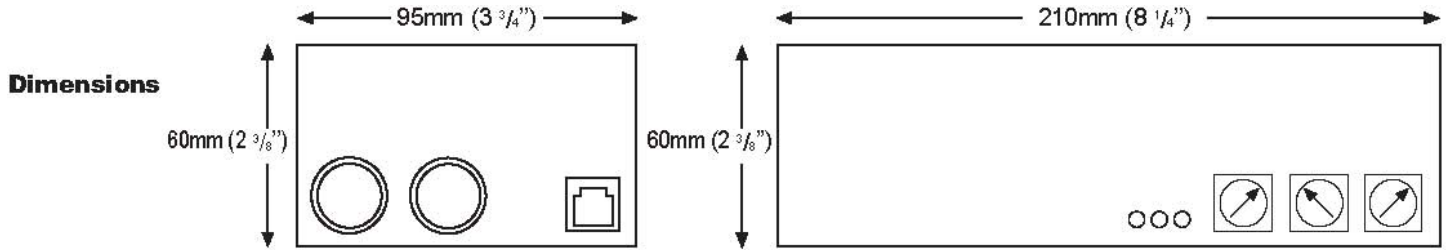
Programmes : See user manual for all pre-sets :

Mechanical

Mounting : Four 3mm holes for wall fixing.

Construction : Aluminum casing for improved thermal performance.

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Weight: 600 grams

Environmental

Operating Ambient Temperature : -20°C to + 50°C

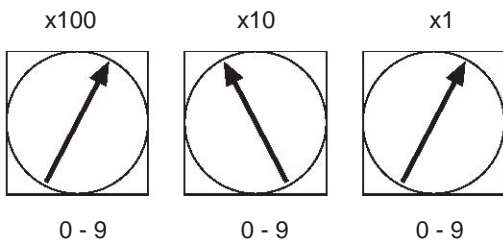
Storage Ambient Temperature : -20°C to + 70°C

Case Temperature : + 65°C

Relative Humidity : 80%

Lifetime (failures after 50,000 hours): 5% 95mm (3 3/4") 210mm (8 1/4")

DMX AND PRE-SET PROGRAMME SETTINGS



Switch Settings

001 – 510

600 – 636

700 – 799

800 – 819

Function

DMX-512A start address

Fixed Colour pre-set

Cross Fade pre-set

Cyclic Wash pre-set

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WIRING SPECIFICATION INFORMATION RJ45 WIRING INPUT

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

C002 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:

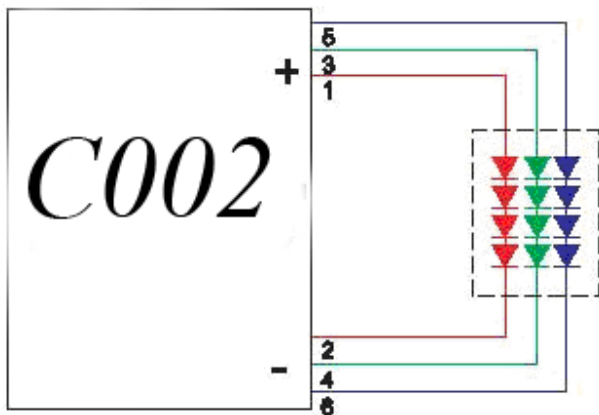
- EN 60595-1 & 61558-1

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.

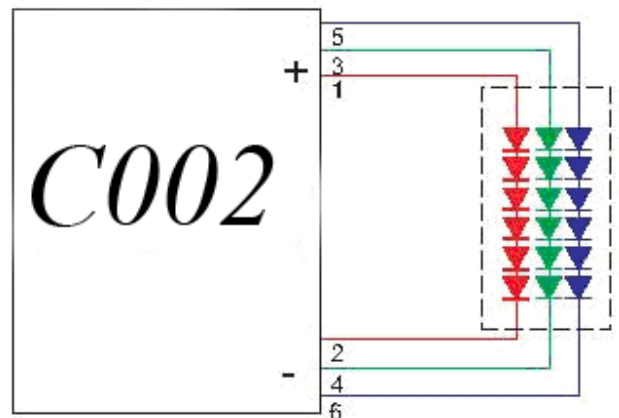
WARNING! Accidental connection of the RJ45 LED fixture output to non LED equipment may result in damage (e.g. an Ethernet Hub)

Typical wiring configurations for 350mA LED RGB system

12 x RGB systems



18 x RGB Systems



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

36 x RGB Systems

