



DMX512-A 1.5 HUB

User Guide



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Document hub1.5_web_man_uk

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Warranty information

Limited warranty

Unless otherwise stated, your product is covered by a one (1) year parts and labor limited warranty. It is the owner's responsibility to furnish receipts or invoices for verification of purchase, date, and dealer or distributor. If purchase date cannot be provided, date of manufacture will be used to determine warranty period.

Returning under warranty

Any Product unit or parts returned to Luminex LCE must be packaged in a suitable manner to ensure the protection of such Product unit or parts, and such package shall be clearly and prominently marked to indicate that the package contains returned Product units or parts. Accompany all returned Product units or parts with a written explanation of the alleged problem or malfunction.

Freight

All shipping will be paid by the purchaser. Items under warranty shall have return shipping paid by the manufacturer only in the European Union. Under no circumstances will freight collect shipments be accepted. Prepaid shipping does not include rush expediting such as air freight. Air freight can be sent customer collect in the European Union.

Warranty is void if the product is misused, damaged, modified in any way, or for unauthorized repairs or parts.

General

Packaging

- 1 x DMX 512-A 1.5 HUB
- 1 x Instruction manual

Description

The DMX512-A 1.5 HUB is a full bidirectional isolated DMX splitter or booster with 1 dedicated input connector, 1 through and 5 output connectors. All in- and outputs conform to the DMX512-A standard. This allows half-duplex data transport, such as RDM, on a normal single pair DMX connection. The hub is also compatible with DMX512 and DMX512 (1990).

All outputs can receive data as well and retransmit it. In this way RDM data (and other bidirectional data) will be send on all outputs and input.

Specification

Model: DMX512-A 1.5 HUB

Manufacturer: LUMINEX Lighting Control Equipment

• **Dimensions**

222 x 146 x 55 (mm)

8.7" x 5.7" x 2.2"

Package: 300 x 220 x 80 (mm)

• **Weight**

1 kg

• **Electrical**

Voltages: 90 – 260 VAC

Frequency: 47 – 63 Hz

Rated power: 10 W

Fuses: 125V, 500mA, Slow blow only (5mm x 20mm)

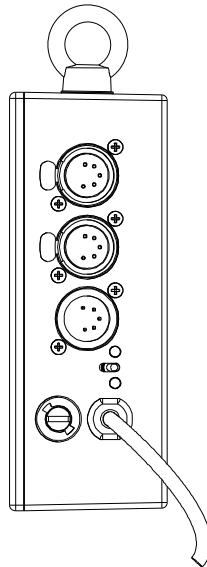
250V, 315mA, Slow blow only (5mm x 20mm)

• **Environmental**

Operating temperature: 0 ~ 60°C (32 ~ 140°F)

Connectivity

Right side



- **Mains**

The device operates with an AC voltage between 90V and 260V within a frequency range of 47Hz and 63Hz.

A fixed power lead with loose cable end is directly connected to the device (no plug/connector). Please use an authorized plug and connect the cores in the mains lead in accordance with the following scheme:

Green / Yellow: Earth

Blue: Neutral

Brown: Live

!!! This equipment must be earthed !!!

- **DMX input and through**

A Neutrik 5 pin gold plated male connector is provided as input.

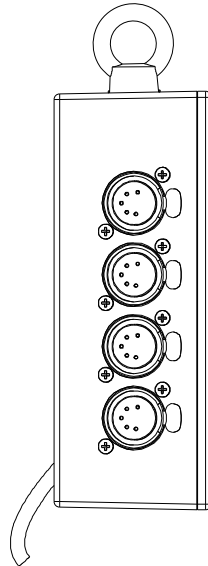
Connector	Function
Pin 1	Signal common (0 volt)
Pin 2	Data complement (-)
Pin 3	Data true (+)
Pin 4	Not used
Pin 5	Not used

The input is separately optical and galvanic isolated from the outputs. The Through connector is hard wired to the input connector.

A small switch at the input is provided to disable the bidirectional functionality for the complete unit. This allows you to use the device as a real legacy DMX512 (1990) device.

A green LED indicates if the device is powered and a blue LED is used to indicate the data activity on the DMX line.

Left side



- **DMX output**

5 Neutrik 5 pin gold plated female connectors are provided as output (1 is located on the left side of the unit).

Connector	Function
Pin 1	Signal common (0 volt)
Pin 2	Data complement (-)
Pin 3	Data true (+)
Pin 4	Not used
Pin 5	Not used

All outputs are compliant with the DMX512-A specification and are terminated and rebiased. The outputs are separately optical and galvanic isolated from the input and from each other.

Features

Isolation

- **Individual outlet protection**

All 5 outputs feature individual isolation and protection. This means that if a fault occurs on a piece of equipment connected to one output, fixtures on the other outputs are totally protected. In addition the input connector has its own protection, this gives a double barrier between fixtures and the console and protects the console against a fault on the mains supply to the buffer itself (i.e. if the buffer unit was inadvertently connected across two phases).

- **1000 Volts optical isolation barrier**

Each outlet has an optical isolator that is capable of withstanding voltages of up to 1000V. Each isolator has its own power supply eliminating any direct electrical connection between outputs.

Self-healing technology makes sure that the outlets can resist up to 530V over its data pairs. This means that after such a fault the outlet works fine again with normal DMX signals.

- **Short circuit protection**

Each outlet is protected against short circuits, or incorrectly wired connectors.

- **Modular isolation**

All the components that provide the opto-isolation are built into a single plug-in module for each channel making servicing ultra-simple. In addition each module is completely interchangeable with other channels including the input module.

- **Line voltage protection**

Not only does the Hub protect your various pieces of equipment from inadvertent DMX-to-mains connection it also protects itself. Each individual output is protected so that no damage will occur to the buffer even if they are connected directly to 230V by mistake.

Bidirectional and RDM

Bidirectional means that the splitter can work in Half-duplex over data pin 2 and 3.

All outlets are able to receive data. When an outlet receives data, then this data will be retransmitted on all remaining outlets. So all output and input connectors will get all data send on that line.

This allows bidirectional manufacturer dependent data to be transmitted between fixtures and controllers. The Hub is protocol independent and supports in this way communication from different manufacturers such as High End Systems, Martin Professional, Coemar,...

RDM or Remote Device Management is also supported this way. The change over time in data direction is conform to the RDM and DMX512-A specification. The Hub is a non proxy RDM device with no built in RDM management controlling logic. This allows us to assure a maximum data delay between incoming data and outgoing data of 1 micro second.