



dmXLAN node3 User Manual

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The ELC dmXLAN node3 has 3 bi-directional DMX ports to convert from or to sACN, Art-Net or Shownet. An internal switch provides a second Ethernet port for a local lighting desk or additional Ethernet switches or nodes. The node3 can be outfitted with fully isolated DMX ports and Power over Ethernet.

The ELC dmXLAN node3 is available in the following variations:

DLN3T	truss mount
DLN3T_FI	truss mount – fully isolated
DLN3TPOE	truss mount Power over Ethernet
DLN3TPOE_FI	truss mount Power over Ethernet – fully isolated
DLN3S	surface mount
DLN3S_FI	surface mount – fully isolated
DLN3W	recessed wall mount
DLN3W_FI	recessed wall mount – fully isolated
DLN3DIN	DIN version
DLN3DIN_FI	DIN version – fully isolated

Features

- 3 Bi-directional DMX ports on the rear panel, XLR, RDM compatible
- Supports sACN, Art-Net & Shownet
- 2 Ethernet ports (Neutrik Ethercon) 10/100MBit with integral Ethernet switch
- Remote programming and monitoring, with remote fixture parameter override
- DMX Input normal or backup
- DMX Output normal, HTP, priority merging, softpatch (channel by channel), programmable merging with DMX channel control
- Local control via backlit display, rotary encoder/selector pushbutton
- Support for WYSIWYG, ESP, Capture

Versions

Truss Mount (DLN3T / DLN3T_FI)

The Truss Mount version of the node3 has a built-in power supply and is equipped with 3 DMX ports and 2 Ethernet ports (both with Neutrik Ethercon) located on the back of the device. The DMX ports are bi-directional so they can function as input or output. The unit has an M10 nut on the bottom and a safety eye. The DLN3T is also available in a fully isolated version (DLN3T_FI). All node3 Truss Mount versions can be mounted in a 19" rack using the ELC Rack Mount Kit (ELC-RMKIT).

Truss Mount Power over Ethernet (DLN3TPOE / DLN3TPOE_FI)

The Truss Mount Power over Ethernet version of the node3 has specifications identical to the regular node3 Truss Mount, except for the power supply. This version is powered by PoE instead of a built-in power supply. The PoE version of the node3 Truss Mount is also available in a fully isolated version (DLN3TPOE_FI).

Surface Mount (DLN3S / DLN3S_FI)

The Surface Mount version of the node3 can be mounted onto a wall. The Surface Mount unit has 3 bi-directional DMX ports located on the front of the device. The DMX ports can be ordered in male or female version (any combination is possible), as well as a version with fully isolated DMX ports (DLN3T_FI). There is also one Ethernet connection (Neutrik Ethercon) on the front of the node3 SM. Another – internal – Ethernet connection (RJ45) is located on the back of the device. This is the main Ethernet input and requires a PoE switch as its power supply. To gain access to the internal Ethernet connection, a technician must open the housing of the node3 by removing the four screws located along the sides of the front panel.

Wall Mount (DLN3W / DLN3W_FI)

The Wall Mount version features the same hardware and specifications as the Surface Mount version, but the housing is designed for recessed wall mounting.

DIN Version (DLN3DIN / DLN3DIN_FI)

This DIN-rail mounted Power over Ethernet version connects 3 bi-directional DMX ports to an Ethernet network, and an internal switch provides a second Ethernet port for a local lighting desk or a PC running ELC dmXLAN control/management freeware or additional Ethernet switches or nodes.

The DIN version of the node3 is also available in a fully isolated version (DLN3DIN_FI).

Connections

Network 10/100 Mbit Ethernet (on Neutrik Ethercon or RJ-45)

The network connection uses a standard UTP network connection.

DMX port pin out

<i>Pin</i>	<i>Description</i>
1	Ground/screen
2	Data –
3	Data +
4	–
5	–

All DMX ports are bi-directional (can act as input or output) with RDM preparation and can optionally be supplied in a fully isolated (FI) version.

The ports also have internal 120 Ohm terminator resistors and line biasing for RDM.

This product may only be used for
controlling dimmers and moving lights.
Using the product outside of these specifications
will remove all responsibility from the supplier.

Operation

The dmXLAN node3 can be operated in 2 ways; either through the front panel or the dmXLAN control software. The software can be downloaded from the ELC website at www.elclighting.com. The front panel control options will be explained below.

Main display



Encoder +/- Change the view on the display to see the device ID, IP address, status, software version, etc.

Press Encoder Enter the setup menu

Setup menu

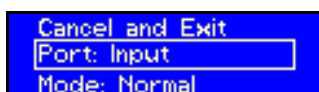


Encoder +/- Select one of the setup items:

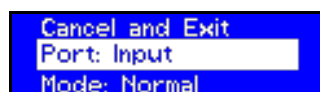
- Exit Setup
- DMX port 1
- DMX port 2
- DMX port 3
- Set ID
- Network Options

Press Encoder Activate the selected option

DMX port menu



Select mode



Edit mode

In select mode:

Encoder +/- Select different item
Press Encoder Go to Edit mode

In Edit mode:

Encoder +/- Change the value of the item
Press Encoder Go to Select mode

DMX port as output

When a port is set up as a DMX output it can operate in the following modes;

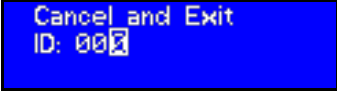
- Disabled → the DMX output is disabled
- Outzero → the DMX sends out a DMX test signal with all channels at 0%
- Single → the output sends out the DMX values of the selected (primary) Art-Net, sACN or Shownet universe. The DMX output is enabled the first time it detects the DMX universe on the network (or internal DMX inputs). If the universe on the network fails, the DMX output will go into DMX hold.
- HTP → like single, but merges up to three DMX universes (primary, secondary and tertiary) in highest takes precedence.
- Priority → Will output the Universe assigned to the primary if primary is not present or available the universe assigned to secondary will be output
- FlexPatch → Can output a complex merge of three universes with a different merge or patch per channel. This can be set up in the dmXLAN software

DMX port as input

When a port is set up as a DMX input it can operate in the following modes;

- Disabled → the DMX input does nothing
- Normal → any valid DMX is sent onto the network (and internal use) using the selected universe (Art-Net)
- Backup → the DMX input will not send data if the selected universe is present on the network. If the selected universe is not present on the network for several seconds and the input has valid DMX, then it will send DMX data. If another sender starts sending the same universe, the input will go back into backup mode.

Set ID




Cancel and Exit
ID: 000

If the node3 is being controlled by the dmXLAN software, an ID can be assigned to the unit. The ID can be useful for preprogramming of the network.

Use the encoder in “Select” and “Edit” mode to change the 3 digits of the ID. The digits are in hexadecimal format (16 possibilities 0-9, A-F). This means you can have up to 4095 different ID’s in the system (ID 000 means that the ID is not used ---).

Network options



Cancel and Exit
IP: 2.0.0.5
Mask: 255.0.0.0

Use the “Select” and “Edit” modes to change the values of the IP address and the netmask. For normal Art-Net operation, the netmask should be set to 255.0.0.0 and the IP address should be between 2.0.0.1 and 2.254.254.254.

Technical specifications

node3 Truss Mount

Power: 100-240 VAC 47-440 Hz 10VA max
Dimensions: 200 x 160 x 45 mm
Weight: 1.2 kg

node3 Surface Mount

Power: Power over Ethernet required on the internal connection
Dimensions: 140 x 85 x 50 mm
Weight: 0.6 kg

node3 Wall Mount

Power: Power over Ethernet required on the internal connection
Dimensions: 165 x 115 x 40 mm
Weight: 0.3 kg

node3 DIN

Dimensions: 105 x 90 x 60 mm
Weight: 0.2 kg

General safety instructions

Read all instructions - especially the safety requirements - in the user manual before use. Save these instructions - the safety and operating instructions should be retained for future reference. Carefully follow all instructions.

Cleaning

Disconnect all connected supply and signal cables before cleaning the unit. Clean with a dry cloth. Do not use any liquids or aerosols on the unit.

Usage

Do not use the unit near water or moisture. - Do not block any ventilation openings, they are necessary for the essential airflow within the unit and protect it against overheating. - Install in accordance with the manufacturer's instructions. - Do not insert any objects through the ventilation slots of the unit, as these could come in contact with live parts or could cause short circuits. This could cause electric shock and/or fire. - Do not install near any heat sources such as radiators, stoves or other apparatus (including amplifiers) that produce heat. - Unplug this apparatus during lightning storms or when unused for long periods of time. Do not place the unit on unstable surfaces. – Do not place any objects on the power cord. Protect it from being walked on or pinched particularly at the plugs and the point where they exit from the device. If the power cord or the mains plug is damaged, let a qualified technician replace it immediately. - Do not defeat the safety purpose of the grounding plug. A grounding plug has two blades and a third grounding connection. The third grounding connection is provided for your safety. If the provided plug does not fit in your outlet, consult an electrician for replacement of the obsolete outlet.

Servicing

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way such as; damage to the power supply cord or plug, spillage of liquids, objects falling into the apparatus, exposure to rain or moisture, abnormal operation or falling damage. In all of the previous conditions, disconnect the main plug immediately and call your distributor or technical support!

Cautionary instructions

Maintenance and service of the device may only be carried out by qualified service personnel, as when opening and /or removing coverings of the device live parts may be exposed causing the risk of an electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

WARNING

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE**

Declaration of Conformity

We,

Manufacturers name: ELC lighting b.v.

Manufacturers address: Weerijis 8
5422 WV Gemert
the Netherlands

Herewith take the full responsibility to confirm that the product

Product Category: Lighting control equipment

Name of product: ELC-DLN3T / ELC-DLN3T_FI

Which refer to this declaration are manufactured in the Netherlands and complies with the following product specifications and harmonized standards:

Safety: LVD (Low Voltage Directive) 2014/35/EU, EN62368-1

EMC: 2014/30/EG, EN55032

ROHS (II): 2011/65/EU

With the presumption that the equipment is used and connected according to the manual, supplied with the equipment. All signal input- and output connections must be shielded and the shielding must be connected to the ground of the corresponding plug.

Gemert, February 16, 2018

ing. Joost van Eenbergen

