Ethernet Data Node

The Pharos EDN (Ethernet Data Node) is a convenient and scalable solution, providing cost-effective Ethernet-distributed DMX ports for large control projects. The EDN is an easily configurable networking node that is specifically designed to add physical DMX ports to Pharos Designer Controllers and integrates natively with the full Pharos Designer range. Extremely compact, it packs up to 20 DMX512 output ports into a 1U 19" form factor. For higher port count installations, nodes can be daisy-chained to provide as many physical DMX ports as you need. EDNs are discoverable through Pharos Designer software and associated to a Controller to be seamlessly configured as part of your patch. Ports can be flexibly assigned to any Designer Controller in your project providing an elegant data distribution solution over an Ethernet network with minimal setup required.

EDN Features

Isolation
The EDN offers up to 20 DMX512 output ports to control your fixtures. Each port is independently galvanically isolated up to 2kV, ensuring the control circuitry and each port of the EDN is protected against a multitude of electrical line faults, including earth potential rise and ground loops.

Protection
The EDN is equipped with "self-healing" DMX ports, giving your equipment added protection from incorrect setup and energy surges, such as short circuits, power induction and AC power faults. Should an energy surge occur, it will be contained by the EDN, preventing it from flowing into other components; once the external fault is cleared, the ports "self-heal", restoring DMX output automatically.

Integration
Built from the ground up on Pharos technology, the EDN natively interfaces with the rest of the Pharos product range including Pharos Designer software. Connecting it to your Designer lighting project is as simple as ensuring the EDN is on the same network as the Controllers. From there, Designer will detect it, giving you full control of your Ethernet network lighting solution with minimal effort.

Scalable
Up to 200 EDN units and other Remote Devices can be combined with one or more Pharos Designer Controllers on the same network to build the ideal system for your installation. Each Remote Device is easily addressed using a convenient thumb wheel. Whether one Controller or many, it's all easily programmed using the Designer software.

RDM Capable (LPC Family, Designer v2.8+)
When connected to a TPC, LPC and LPC X, the EDN supports the Remote Device Management protocol (ANSI E1.20), allowing fixtures connected to any of the DMX512 outputs to communicate back to their respectively assigned Controllers over an Ethernet network.

Network
Works with any Controller in the Pharos Designer range over an Ethernet network. A second network port is provided for daisy-chaining EDNs together. Our recommended limit of 8 daisy-chained EDNs is to ensure high performance; if that number is exceeded, some latency could become apparent.

SDI
Accessory for the EDN supporting serial data protocol outputs for controlling products such as addressable LED tape.

Reliable
Solid-state design for 24/7 operation and reliability.

Installer Friendly
Made for permanent installation, with installer-friendly connectors and easy 19" rack mounting.

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Specifications subject to change without notice.

Interfaces

Ethernet Two Neutrik etherCon (RJ45 compatible) for 100*/1000 Base-TX Ethernet with Link/Data LEDs; Static IP or DHCP

* From Designer v2.8. Note: LPC 1/2/4 & TPCs only support 10/100Base-TX

DMX Ten (EDN 10) / Twenty (EDN 20) DMX512 ports (USITT E1.11-2008), RDM Compatible**

** Install-friendly 0.200" (5.08mm) plug in rising clamp connectors (included)

Protocols

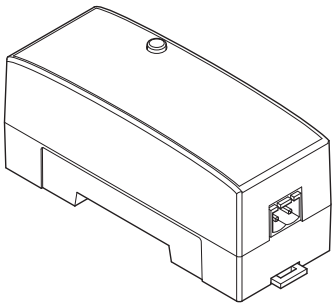
DMX DMX512 (512 channels each) in DMX mode
RDM Supports discovery and addressing via Designer Software. LPC Family Controllers only
UltraDMX MY94441 supported natively
SPI In SDI mode, supports serial data via the Pharos SDI

One output protocol per EDN

Accessories

The SDI is an accessory to the EDN. This enables any controller in the Pharos Designer range to output via the EDN + SDI a variety of serial protocols for controlling products such as addressable LED tape.

Both synchronous (SPI) and asynchronous serial lighting data are supported and these protocols allow for 1536 channels per port with supported cable lengths between the EDN and SDI of up to 200m for asynchronous data and 40m for synchronous data.



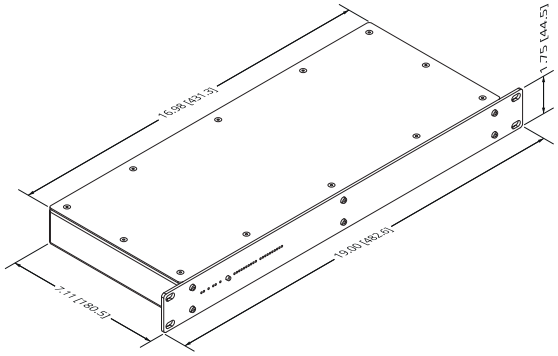
Specifications

Power 100-240VAC / 50-60HZ / 0.25-0.1A
25W typical (30W maximum)
IEC connector with switch *

* Power cable not supplied

Required Configuration Any Pharos Designer Controller
Pharos Designer 2.7 or later (EDN 20)
Pharos Designer 2.8 or later (EDN 10

Addressing By rotary selector switch
Temperature 0°C to 50°C (32°F to 122°F)
Humidity 10-50% relative, non-condensing
Ingress Protection IP40
Self-healing ports can withstand continuous AC votalge up to 277V
Isolation Ports independently galvanically isolated
Physical 1.6 kg (3.5 lbs)
Shipping 57 x 30 x 18 cm (22" x 12" x 7")
3.2 kg (7 lbs)
Recovery Hardware watchdog and recessed reset button



Order Code & Variants

EDN 10 Designer Ethernet Data Node 10 (1+1 Ethernet, 10 DMX/RDM)
EDN 20 Designer Ethernet Data Node 20 (1+1 Ethernet, 20 DMX/RDM)

Pharos Designer Controller required

Warranty & Certifications

Warranty 5 years
Certifications CE compliant, UKCA compliant, ETL/cETL listed.

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