

eDIN Model 1011 Pathport Node Installation

OVERVIEW

The Pathport® eDIN one-port node provides the full functionality of other Pathport nodes, in a compact, DIN-rail mountable format. System integrators can now easily put a fully customized universe of DMX where it's needed. Ideal for use in NEMA enclosures. Fully compatible with other eDIN modules.

CONNECTIONS

The Pathport eDIN features terminal strips that can be removed from the card to facilitate easy wiring for auxiliary power and DMX. DMX can also be wired to an RJ45 jack, while a second RJ45 jack is used for Ethernet connection. Make the following connections, **WITH THE POWER TURNED OFF:**

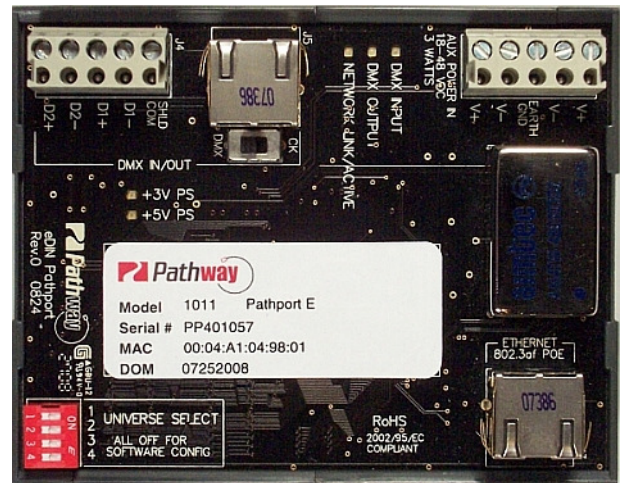
Power

The Pathport eDIN is designed to run on either Power-over-Ethernet (PoE), or on an auxiliary power supply providing between 18 and 48 volts DC. The node will draw 3 watts.

If an auxiliary supply is used, observe the polarity when connecting V+ and V-. A second set of terminals are provided so power may be daisy-chained to other cards. These terminals are not energized when the node is run on PoE. The EARTH GROUND terminal must be connected to the enclosure's chassis or electrical ground terminal to ensure EMC compliance.

DMX - Terminal Strip

DMX connections consist of a shield and a data pair. An optional second auxiliary data pair is also occasionally employed. Connect DATA+ and DATA-, to D1+ and D1-. Observe the same polarity convention throughout the system. Connect the cable shield or common to the SHLD COM terminal.



DMX - RJ45 Connection

Refer to the chart below for wiring pinouts for the RJ45 connector. The RJ45 is manually switchable between an ESTA standard DMX pinout and a pinout suitable for Philips Solid-State Lighting (Color Kinetics) products using RJ45 connectors for DMX input.

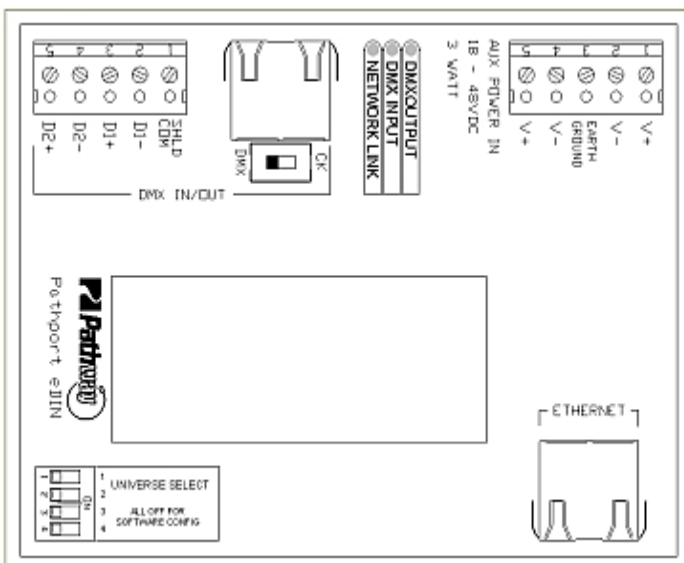
E1.27-2 Cat5/6 Pinout for DMX 512A		
DMX Signal	Cat5/6 Wire Color & #	XLR Pin #
Data 1 +	1 - White/Orange	3
Data 1 -	2 - Orange	2
Data 2 +	3 - White/Green	5
Data 2 -	6 - Green	4
not used	4 - Blue	
not used	5 - White/Blue	
Shield/COM	7 - White/Brown	1
Shield/COM	8 - Brown	1

Cat5/6 Pinout for Color Kinetics		
DMX Signal	Cat5/6 Wire Color & #	XLR Pin #
Data 1 -	1 - White/Orange	2
Data 1 +	2 - Orange	3
Shield/COM	3 - White/Green	1
not used	6 - Green	
not used	4 - Blue	
not used	5 - White/Blue	
not used	7 - White/Brown	
not used	8 - Brown	

ETHERNET

All network wiring should follow standard Ethernet rules and be installed by a qualified person. As part of the installation, all wiring should be certified under the TIA/EIA-568 standard.

For further information, refer to the Pathport System Design and Layout Guide.



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INSTALLATION

Disconnect all power before proceeding with installation.

Pathport eDINs can be set permanently to a specific DMX universe, 1 through 4, by use of a dip switch block on the lower left hand corner of the circuit board. Only one universe may be specified via the dip switches.

If the system designer has not given specific instructions about this setting, all switches should be left in the OFF position, allowing the universe to be set remotely using software installed on a computer. Dip switch settings override the ability to set the DMX universe via software.

Each Pathport eDIN ships with additional serial number stickers. Do not lose these stickers. Because Pathport eDINs are intended for installation within enclosures, maintaining a log of serial numbers and their locations is necessary to configure the system. Losing track of this information will add considerable time to commissioning.

As each node is installed, remove one of the additional stickers and place it on the Installation Record Sheet included with each Pathport eDIN. Write down the location, jumper settings and any other relevant comments.

A second serial number sticker may be placed on the exterior cover of the enclosure as a further identifying aid during commissioning. This sticker can easily be removed and discarded when no longer needed.

Securely mount DIN rail (if not already installed in the enclosure). Hook the upper slots on the back of the plastic extrusion to the DIN rail and then gently but firmly press on the bottom front corners of the extrusion to snap the module onto the rail. Do NOT press directly on the PCB card itself.

Attach the DMX wiring either to the terminal strip or the RJ45 jack. Do not use both simultaneously.

If the Pathport eDIN is using an auxiliary power supply, connect the terminal strip, after checking that polarity is being observed. The card will boot up.

Attach the network cable to the RJ45 connector marked Ethernet. Because good wiring practice requires building wire to terminate with a female connector, typically a short (12"/30cm) male-to-male jumper is used. If PoE is being used, the card will boot up. Both auxiliary power and PoE can be connected simultaneously without damaging the Pathport eDIN.

The system is now ready for testing.

STATUS INDICATORS

+3V PS	Blue. Steady glow indicates 3V power supply is OK. Off indicates no power.
+5 PS	Blue. Steady glow indicates 5V power supply is OK. Off indicates no power.
DMX Output	Amber. Steady glow indicates node is actively outputting DMX. Off indicates no DMX output.
DMX Input	Green. Steady glow indicates node is receiving active DMX. Off indicates no incoming DMX signal.
Network Link	Green. Flickering glow means active Ethernet network link. Off indicates no network link.

DEFAULT SETTINGS

The Pathport eDIN ships as an DMX output node with the following Ethernet receive protocols enabled: Pathport, Strand Shownet, ETC Net2, streaming ACN and ArtNet. Channel information in DMX universe 1, placed on the network using any of these protocols, will cause the eDIN node to actively output DMX.

FURTHER CONFIGURATION

A large number of values and parameters may be customized for the Pathport eDIN, including port direction, output channel patch, input universe number, the transmit and receive protocols, and DMX speed. Network values such as IP address and subnet mask are also customizable by the user.

Detailed node configuration and overall network system management are done using Pathport Manager software, which is freely available from our website, www.pathwayconnect.com

WARNING REGARDING RJ45 CONNECTORS

The use of RJ45 connectors for DMX equipment should be restricted to patch bays in access-controlled rooms or to enclosure-mounted interfaces. The connection of DMX equipment to non-DMX equipment may result in serious equipment damage, fire hazard and/or personal injury. To help prevent this possibility, when using Cat 5/6 wire for DMX transmission, wires 4 and 5 should be turned back and capped rather than connected.

SPECIFICATIONS

POWER SUPPLY:	18 -- 48 VDC, 3 watts or 802.3af PoE
DATA SIGNAL:	ANSI E1.11 DMX512-A, ANSI E1.20 RDM
ETHERNET	802.3 10baseT



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