

## OVERVIEW

The Pathway eDIN Analog-to-DMX Interface provides the ability to convert standard analog 0-10 volt control signals to DMX512 protocol. The analog inputs can also be used as dry contact closure inputs. The Interface is equipped with a DMX input which can be merged with the analog inputs. As a bonus, these modules have the ability to store and recall up to 24 presets. The DIN form factor makes installation in your own enclosures or cabinets fast and easy.

## CONNECTIONS

eDIN Analog-to-DMX Interfaces feature two-part terminal strips that can be removed from the eDIN module to facilitate installation. Make the following connections, WITH THE POWER TURNED OFF:

### POWER

This interface is designed to run on a wide range of available voltages from 9-30 volts, AC or DC. Whatever the supply voltage, the power supply should be able to deliver 500mA. If the supply is DC, make sure you observe the correct polarity when connecting to V+ and V-. AC connections can be made to the same terminals without regard to polarity. A second set of terminals is provided on the same connector to loop, or daisy-chain, the power supply to other installed eDIN modules. A grounding terminal is provided for optional connection to Earth Ground. Although not mandatory, this connection can be used to eliminate possible DMX issues arising from a noisy EMI environment.

### DMX512

DMX connections consist of a shield and one or two data pairs. The second data pair, if present in the DMX cabling, should be connected to the terminals although it is optional and provides no additional functionality. DMX OUT is the processed output of the Interface. DMX IN is optional, and usually comes from a control console, architectural controller or the output of another eDIN A-to-D module. This DMX input will be merged with the analog inputs, or used as a source of levels to record presets.. DMX THRU provides a means to daisy-chain DMX IN to

other eDIN modules in a cabinet, or to other DMX equipment. Connect DATA+ and DATA-, to D1+ and D1- observing the same polarity convention throughout the system. Connect the cable shield or common to the SHLD COM terminal.

### ANALOG / CONTACT CLOSURE INPUTS

The Analog-to-DMX Interface supports up to 24 discrete input ports that can function as either analog or contact closure inputs. The COM (common) terminal must be used as a reference connection in either case. Analog inputs must be 0 to +10 volts DC with respect to COM. Contact inputs are simply maintained or momentary closures between COM and the input terminal(s).

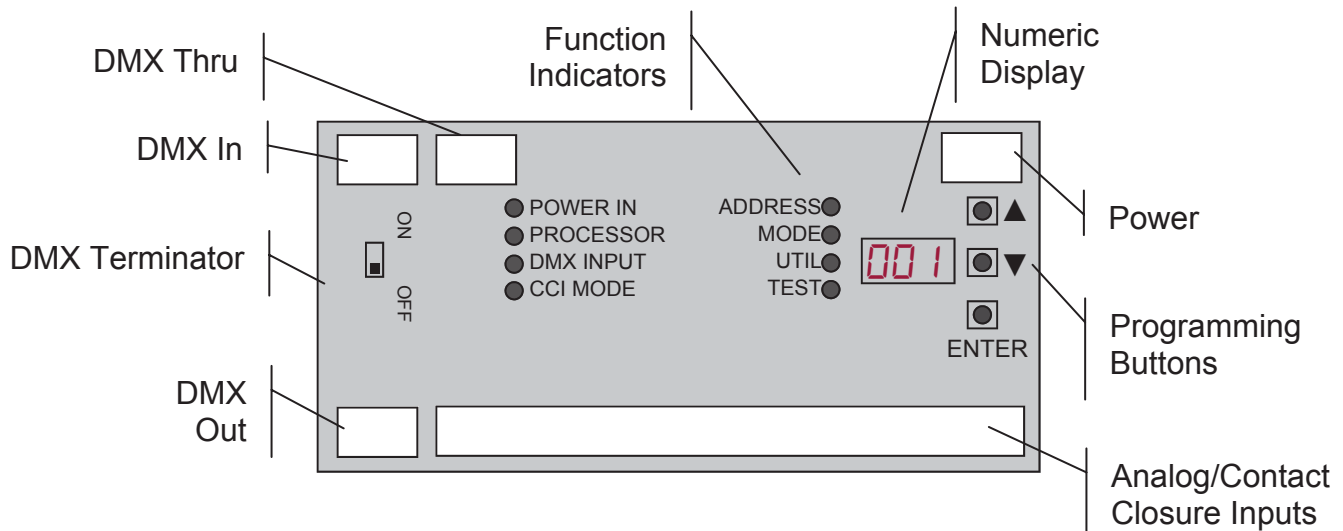
## CONFIGURATION

The eDIN user interface has 2 operating modes: Function and Edit. In the function mode, hitting the ▲ or ▼ buttons will cycle the unit through the available functions, as indicated by the menu LED's (ADDRESS, MODE, UTIL, and TEST). Once the desired function is selected, pressing and holding the ENTER button for at least 2 seconds puts the unit into Edit mode. When in Edit mode, a dot LED at the bottom right of the numeric display is illuminated. Pressing the Function ▲ or ▼ buttons changes the parameter being edited. In the ADDRESS function, the DMX start address for analog input #1 is edited; in the MODE function the unit's operating mode is changed; in UTIL diagnostic modes are selected; and in TEST, each input channel of the unit is selected so that its value in volts DC can be seen on the numeric display. To complete the editing of a parameter and store the new value, press ENTER. The unit is now ready for operation.

**Tip:** You can press and hold the ▲ or ▼ buttons to speed through values.

## SET DMX ADDRESS

Press the ▲ or ▼ button until the Address LED is illuminated. Press ENTER to put the unit in EDIT mode. Press ▲ or ▼ to change the start address to the desired value. Press ENTER to save the address. The DMX address is the starting DMX channel number (range 1 to 512) where the analog/contact input channels will be inserted.



## SET OPERATING MODE

Operating modes can be edited in the same way as the DMX address. The eDIN Analog-to-DMX Interface has several operating modes.

**Mode 1: HTP (Highest Takes Precedence)** between Analog and DMX Inputs

The highest level present on the analog input or the DMX input for a given control channel is the level that will be present on the DMX output.

**Mode 2: Analog Takes Precedence (Analog Priority)**  
If a given analog input's level is 4% or greater, the DMX output for that channel will be the analog input level and the corresponding DMX input value will be ignored. If the analog input's level is below 4%, the DMX input's level will determine the output level for that channel.

**Mode 3: DMX Takes Precedence (DMX Priority)**  
When a DMX input data stream is present, the DMX input levels will determine the DMX output levels and all analog input levels will be ignored.

**Mode 4: Contact Input Mode**  
When a given contact input is closed (input channel shorted to COM), the corresponding DMX output channel level will be 100% (hex FF, decimal 255). When the contact input is open, the corresponding DMX output channel level will be determined by the DMX input level, if present.

**Mode 5: Preset Recall Mode**  
When a given contact input is closed momentarily (input channel shorted to COM), the corresponding stored preset will be activated at a fade rate of 5 seconds. All 512 possible DMX channel values can be stored for each preset. The highest level present on the stored preset or the DMX input for a given control channel is the level that will be present on the DMX output.

**Mode 6: DMX Takes Precedence Over Presets**  
When a DMX input data stream is present, the DMX input levels will determine the DMX output levels and all stored preset levels will be ignored.

**UTIL Function:**  
The display will indicate the active preset when in Preset Recall mode.

**TEST Function**  
The test function will test the correct operation of the analog/contact inputs. In analog input mode, changing the value (range 1 to 24), then pressing ENTER, will display the selected input's present control level (range 0 to 100%). In contact input mode, the display will show the state of the selected input (0 or 100). The TEST function is Operating Mode dependent and will "ignore" DMX control while in edit mode.

**RECORD Mode**  
To record presets, press the ▲ or ▼ button until REC is displayed, then press ENTER. Press the ▲ or ▼ button to select the desired preset number. Verify that the

incoming DMX stream is what you want saved, then press ENTER to record the look. Repeat the process for each additional preset to be stored.

## STATUS INDICATORS

**POWER IN** **Blue.** Glowing steadily indicates power supply OK; off indicates no power.

**PROCESSOR** **Green.** Glowing steadily indicates processor is OK; off when POWER IN is lit indicates processor failure.

**DMX INPUT** **Amber.** Glowing steadily indicates data signal received; off indicates no signal present.

**CCI MODE** **Red.** Glowing steadily indicates contact closure input mode is in effect.

**MENU FUNCTION** **Amber.** Indicates the function associated with the numeric display, e.g. ADDRESS.

## DMX TERMINATE

DMX rules require that devices terminate the DMX line unless daisy-chained. If there is no connection to the DMX THRU terminals, the DMX Terminate switch should be ON. If there are other devices connected to the DMX THRU terminals, the DMX Terminate switch should be OFF on all devices except the last device in the daisy chain, which should have its terminate switch ON.

## RDM SUPPORT

This eDIN Interface supports ESTA 1.27 RDM (Remote Device Management) via the DMX INPUT port on the module. RDM functionality allows the user to remotely "discover" the module and set its DMX address and operating modes, as well as to upload newer firmware versions. Refer to the Pathway website for detailed, up-to-date information on RDM support for eDIN products.

## SPECIFICATIONS

POWER SUPPLY:	9-30V, AC or DC, 500mA
INPUT SIGNAL:	USITT DMX512A, RDM
OUTPUT SIGNAL:	USITT DMX512A
ANALOG INPUTS:	24 normally open or normally closed, isolated contacts
CONTACT INPUTS:	Dry contact closure between COM and Input terminal(s). <b>DO NOT CONNECT VOLTAGE SOURCES TO CONTACT INPUTS!</b>
<b>EXCEEDING THESE RATINGS MAY RESULT IN PERSONAL INJURY OR DAMAGE TO THIS AND OTHER CONNECTED DEVICES.</b>	
CONNECTIONS:	Two piece compression screw terminals, accepts AWG 24 to 14