

DMX INTERFACE

16-CHANNEL DEMULTIPLEXER



Model shown: PWINF DIN D2A

WARRANTY

3-year limited warranty. Complete warranty terms located at: <https://www.acuitybrands.com/support/warranty>

NOTE

Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

OVERVIEW

Pathway DMX Interfaces provide a flexible way of creating custom solutions to DMX control challenges.

The 16-Channel Demultiplexer converts DMX512 to 16 channels of analog DC output voltage. User-configurable diode shunts allow switching between current sourcing applications (typically for legacy theatrical dimmers) or current sinking control (typically for LED fixture drivers or 4 wire electronic fluorescent ballast control).

Compact and DIN-rail mountable, the Pathway 16-Channel Demultiplexer is field configurable through its front panel, or through RDM.

FEATURES

- Convert DMX512 levels to analog DC voltage levels
- Standard DC output modes of 0-10V, 0-15V, 0-2.5V, or 0-5V
- Custom mode allows user-configurable minimum and maximum DC output levels up to 15V
- Maximum current rating per output of 10mA (sourcing mode) or 30mA (sinking mode)
- CCL "Panic Input" drivers all outputs to full
- DMX512 start address and operating mode configurable from front panel or remotely using RDM
- Indicator LEDs for Power, Processor, and DMX Input status
- Data and power easily daisy-chained to other DIN Interface units
- One DMX Input and one DMX Thru connection
- Switches per output to switch between sourcing (diode shunts on) and sinking (diode shunts off) modes

ORDERING INFORMATION

PWINF		EXAMPLE: PWINF DIN D2A	
Series	Form Factor	Control Type	
PWINF Pathway DMX Interface	DIN DIN-mount	D2A	16 Channel Demultiplexer (6.25")

Accessories	
PWPWR DIN TERM 50W 24VDC	Power Supply, DIN-mount, Compression Fit Terminal, 50 Watts, 24 Volts DC
PWENC SHELF HOR	DIN System Enclosure, 2-RU Shelf unit with 2x16.5", Horizontal Rails
PWENC SML VER	DIN System Enclosure, Small 10" x 13" x 4.5", Vertical Rails
PWENC MED VER	DIN System Enclosure, Medium 10" x 23" x 4.5", Vertical Rails
PWENC SML HOR	DIN System Enclosure, Small 10" x 13" x 4.5", Horizontal Rails
PWENC MED HOR	DIN System Enclosure, Medium 10" x 23" x 4.5", Horizontal Rails
PWCON SPARE IDC5 Q4	Connector, Spare, 5-Pin Insulation Displacement Contact Connector, (Qty 4)
PWCON SPARE CSC5 Q4	Connector, Spare, 5-Pin Compression Screw Connector, (Qty 4)

SPECIFICATIONS

Electrical

Input Ratings	9-30VDC power input 6W maximum power consumption
Output Ratings	10mA sourcing per channel 30mA sinking per channel
Isolation & Fault Protection	1500V isolation between DMX input and analog outputs 250V fault protection on DMX port
Regulatory Compliance	CE

Mechanical

Dimensions	6.25" W x 4" H x 1.85" D (159mm W x 103mm H x 47mm D)
Weight	0.7 lbs (0.32 kg)
Mounting Interface	35mm x 7.5mm DIN rail

Environmental

Operating Temperature	14°F to 113°F (-10°C to 45°C)
Relative Humidity	5-95%, non-condensing
Standard Compliance	RoHS 2011/65/EU + A1 2015/863

General

Compliance	ANSI E1.11 DMX512-A R2013 ANSI E1.20 RDM - Remote Device Management ANSI E1.3 - 2001 (R2021), Lighting Control Systems - 0 to10V Analog Control (diode shunts on) ANSI C82.11 Fluorescent Ballast Control (diode shunts off) ¹ Class 2 Low Voltage
Notes	1. Suitable for many LED drivers using pink and purple wires.

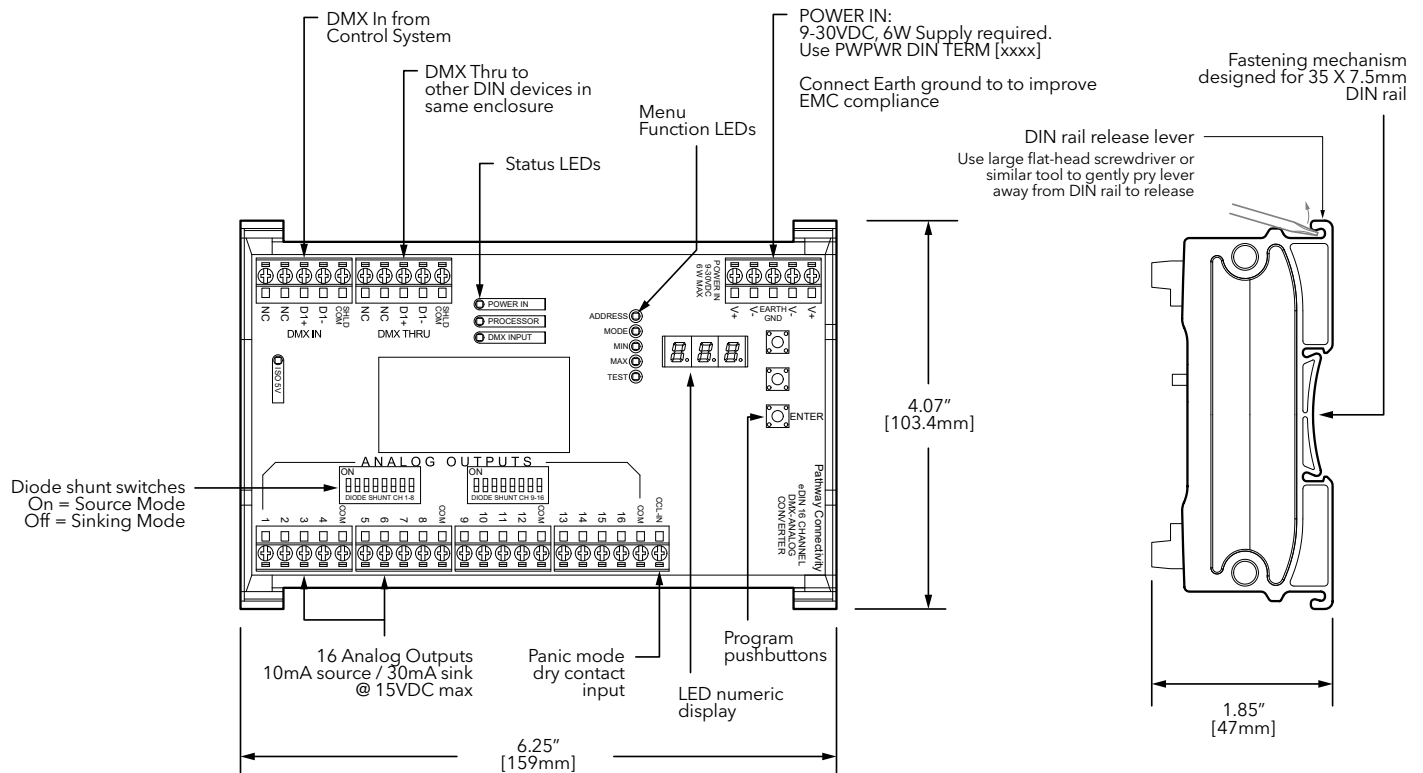
PART NUMBER CROSS-REFERENCE

PREVIOUS		NEW
Part Number	Catalog Number	Description
1004	PWINF DIN D2A	DMX Interface, DIN-mount, 16 Channel Demultiplexer (6.25")

WIRING

DMX512 / RDM PINOUT		
Purpose	XLR / Terminal Block Pin #	RJ45 PIN # and Wire Color
Shield / Common	1	7 - White / Brown
Data - (complement)	2	2 - Orange
Data + (true)	3	1 - White / Orange
Not Used	4	6 - Green
Not Used	5	3 - White / Green
Not Used - Do Not Connect	N/A	4 - Blue
Not Used - Do Not Connect	N/A	5 - White / Blue
Not Used - Do Not Connect	N/A	8 - Brown

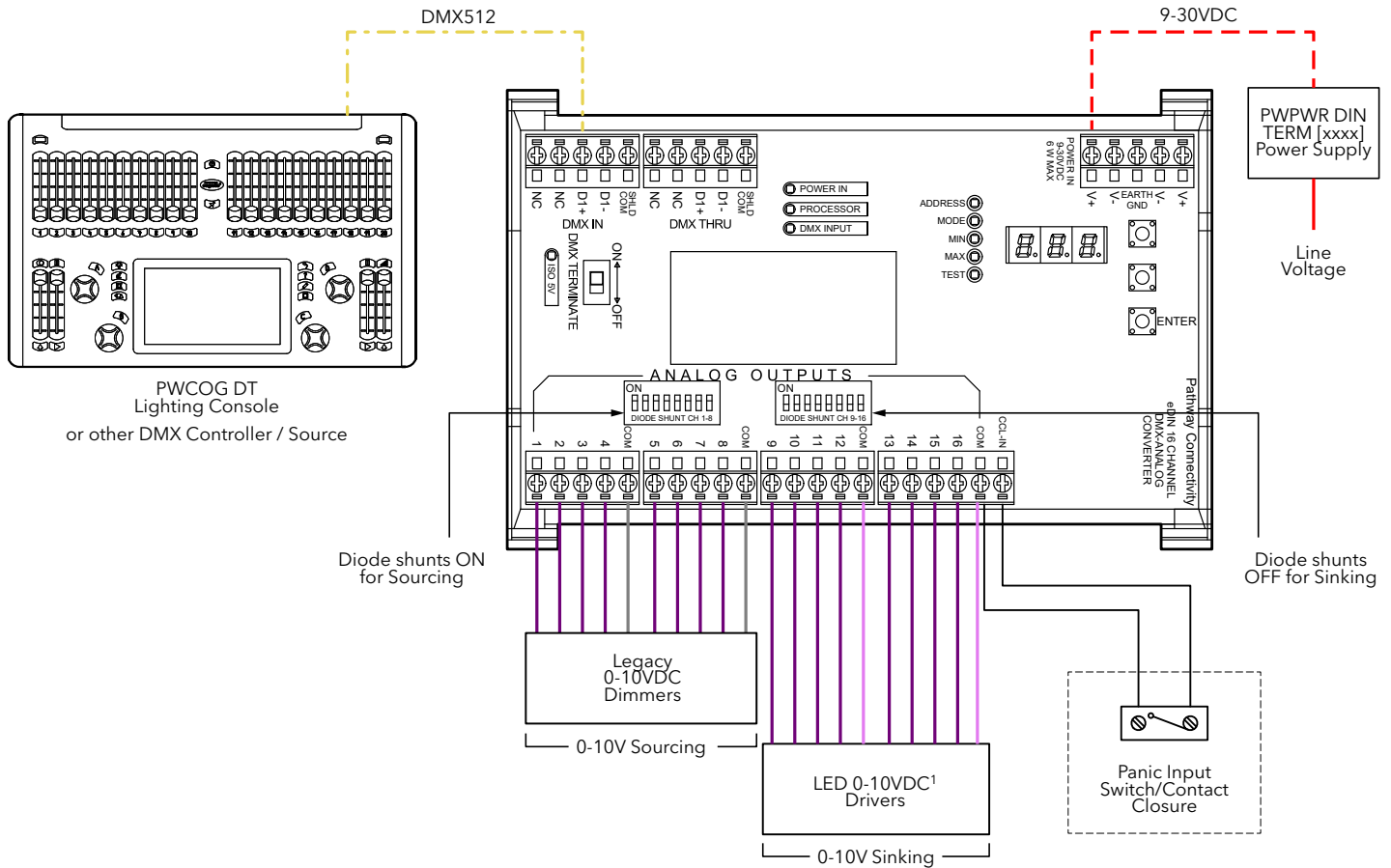
DIMENSIONS



OPERATING MODES

Mode 1: 0-10VDC Output	DMX level of 0% equates to 0VDC output, DMX level of 100% equates to 10VDC output.
Mode 2: 0-5VDC Output	DMX level of 0% equates to 0VDC output, DMX level of 100% equates to 5VDC output.
Mode 3: 0-15VDC Output	DMX level of 0% equates to 0VDC output, DMX level of 100% equates to 15VDC output.
Mode 4: 0-2.5VDC Output	DMX level percentage of 0% equates to 0VDC output, DMX level percentage of 100% equates to 2.5VDC output.
Mode 5: Custom Output	<p>The user may set both a minimum and maximum output voltage. Valid DC voltage output range is 0VDC to 15VDC. Values are set as an 8-bit integer (0-255). Valid minimum levels are between 0 and 254. Valid maximum levels are between 1 and 255.</p> <p>For example, a value of 158 is equal to an output of 10VDC. Custom values are not maintained in other operating modes, and do not apply to modes 6, 7, and 8.</p>
Mode 6: Electronic fluorescent ballast / LED driver control, 10% threshold	DC Outputs are paired (1 and 9, 2 and 10, 3 and 11, etc.) for unified control of up to 8 circuits of LED fixture drivers or Mark VII-type fluorescent ballast controllers. A single DMX slot controls the 0-10V of the lower output, while causing the higher output to provide on/off control of a solid-state relay as the DMX value increases or decreases through the threshold. A 12VDC power supply is required.
Mode 7: Non-Dim	Provides on/off control of solid-state relays. At a DMX value of 0%, a DC output will produce 10VDC. When the DMX value crosses 50%, the output drops to 0VDC. Blocking diodes must be shunted (switches in the off position).
Mode 8: Electronic fluorescent ballast / LED driver control, 1% threshold	DC Outputs are paired (1 and 9, 2 and 10, 3 and 11, etc.) for unified control of up to 8 circuits of LED fixture drivers or Mark VII-type fluorescent ballast controllers. A single DMX slot controls the 0-10V of the lower output, while causing the higher output to provide on/off control of a solid-state relay as the DMX value increases or decreases through the threshold. A 12VDC power supply is required.

APPLICATION RISER



Notes

1. A 0-10V dimmable LED driver includes a power supply circuit that produces approximately 10VDC for the signal wires and sources an amount of current in order to maintain that voltage. Accordingly, the driver is called the "source". Typically, the dimming signal input to the driver will consist of a purple wire (+10VDC) and a pink wire (signal common).

When the purple and pink wires are open (not touching each other or connected to anything else) the dimming signal will be 10VDC and the output of the driver will be 100%. When the purple and pink wires are shorted together (touching each other) the dimming signal will be 0VDC the output of the driver will be set to the minimum dimming level or the driver will drop in to "sleep mode" and turn off the LEDs completely. When the signal wires of multiple 0-10VDC drivers are connected together - with proper polarity maintained - they all "see" the same voltage on their dimming signal inputs and set their outputs to the same level.