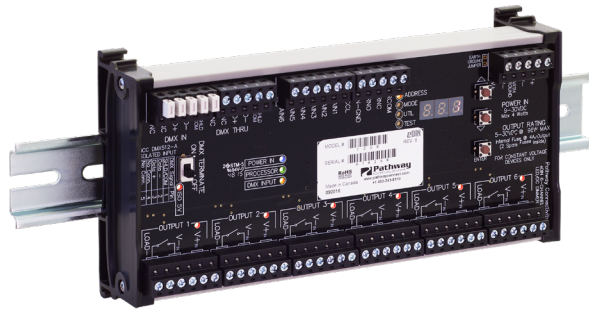


# DMX INTERFACE

## 6-CHANNEL PWM DC DIMMER



Model shown: PWINF DIN PWM4A

### 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 6-Channel PWM DC Dimmer provides direct pulse-width modulation (PWM) control of common anode, constant voltage LED fixtures and other DC loads.

Multiple modes, including 16-bit resolutions, ensure a smooth dimming curve. The unit provides efficient switching control of DC devices such as solid-state relays and solenoids.

Compact and DIN-rail mountable, the Pathway 6-Channel PWM DC Dimmer is field configurable through its front panel, or through RDM.

## FEATURES

- Convert DMX512 levels to PWM (Pulse-Width Modulation) signal
- Control constant voltage LED fixtures rated between 5 to 30VDC<sup>1</sup>
- Six PWM outputs, individually fused at either 4A or 6A; spare fuses included
- Inputs for six auxiliary source 0-10VDC control signals are HTP-merged with DMX input
- DMX-present relay for external triggering of relays or control signals (normally-open or normally-closed)
- Contact Closure "panic" input drives all outputs to full
- DMX512 start address and operating mode configurable from front panel or remotely using RDM
- Indicator LEDs for Power, Processor, DMX Input, Active Output
- User-configurable smoothing algorithm
- User-configurable minimum and maximum output levels
- Multiple loss-of-signal options
- Diagnostics and test modes
- DMX line termination switch
- Data and power easily daisy-chained to other DIN Interface units
- One DMX Input, and one DMX Thru connection

## ORDERING INFORMATION

PWINF		EXAMPLE: PWINF DIN PWM4A	
Series	Form Factor	Control Type	
PWINF	Pathway DMX Interface	DIN	DIN-mount
		PWM4A	6 Channel Pulse Width Modulation 4 Amps DC Dimmer (8.0")
		PWM6A	6 Channel Pulse Width Modulation 6 Amps DC Dimmer (8.0")

### Accessories

<b>PWPWR DIN TERM 50W 24VDC<sup>1</sup></b>	Power Supply, DIN-mount, Compression Fit Terminal, 50 Watts, 24 Volts DC	<b>PWENC MED HOR</b>	DIN System Enclosure, Medium 10" x 23" x 4.5", Horizontal Rails
<b>PWENC SHELF HOR</b>	DIN System Enclosure, 2-RU Shelf unit with 2x16.5", Horizontal Rails	<b>PWENC LRG VER</b>	DIN System Enclosure, Large 18.5" x 31.5" x 6.25", Vertical Rails
<b>PWENC SML VER</b>	DIN System Enclosure, Small 10" x 13" x 4.5", Vertical Rails	<b>PWCON SPARE IDC5 Q4</b>	Connector, Spare, 5-Pin Insulation Displacement Contact Connector, (Qty 4)
<b>PWENC MED VER</b>	DIN System Enclosure, Medium 10" x 23" x 4.5", Vertical Rails	<b>PWCON SPARE CSC5 Q4</b>	Connector, Spare, 5-Pin Compression Screw Connector, (Qty 4)
<b>PWENC SML HOR</b>	DIN System Enclosure, Small 10" x 13" x 4.5", Horizontal Rails		

### Notes

1. External power supply appropriate to the loads is required.

## SPECIFICATIONS

<b>Electrical</b>	<b>Input Ratings</b>	9-30VDC power input (DO NOT USE main device supply also for LED loads; use separate power supply) 5W maximum power consumption
	<b>Output Options</b>	4A or 6A switched output (must use external power source appropriate for loads)
	<b>Isolation &amp; Fault Protection</b>	1500V isolation between DMX output and analog/contact inputs 250V fault protection on DMX port

<b>Mechanical</b>	<b>Dimensions</b>	8.0" W x 4" H x 1.85" D (203mm W x 103mm H x 47mm D)
	<b>Weight</b>	0.7 lbs (0.32 kg)
	<b>Mounting Interface</b>	35mm x 7.5mm DIN rail

<b>Environmental</b>	<b>Operating Temperature</b>	14°F to 113°F (-10°C to 45°C)
	<b>Relative Humidity</b>	5-95%, non-condensing

<b>General</b>	<b>Compliance</b>	ANSI E1.11 DMX512-A R2013 ANSI E1.20 RDM - Remote Device Management Class 2 Low Voltage
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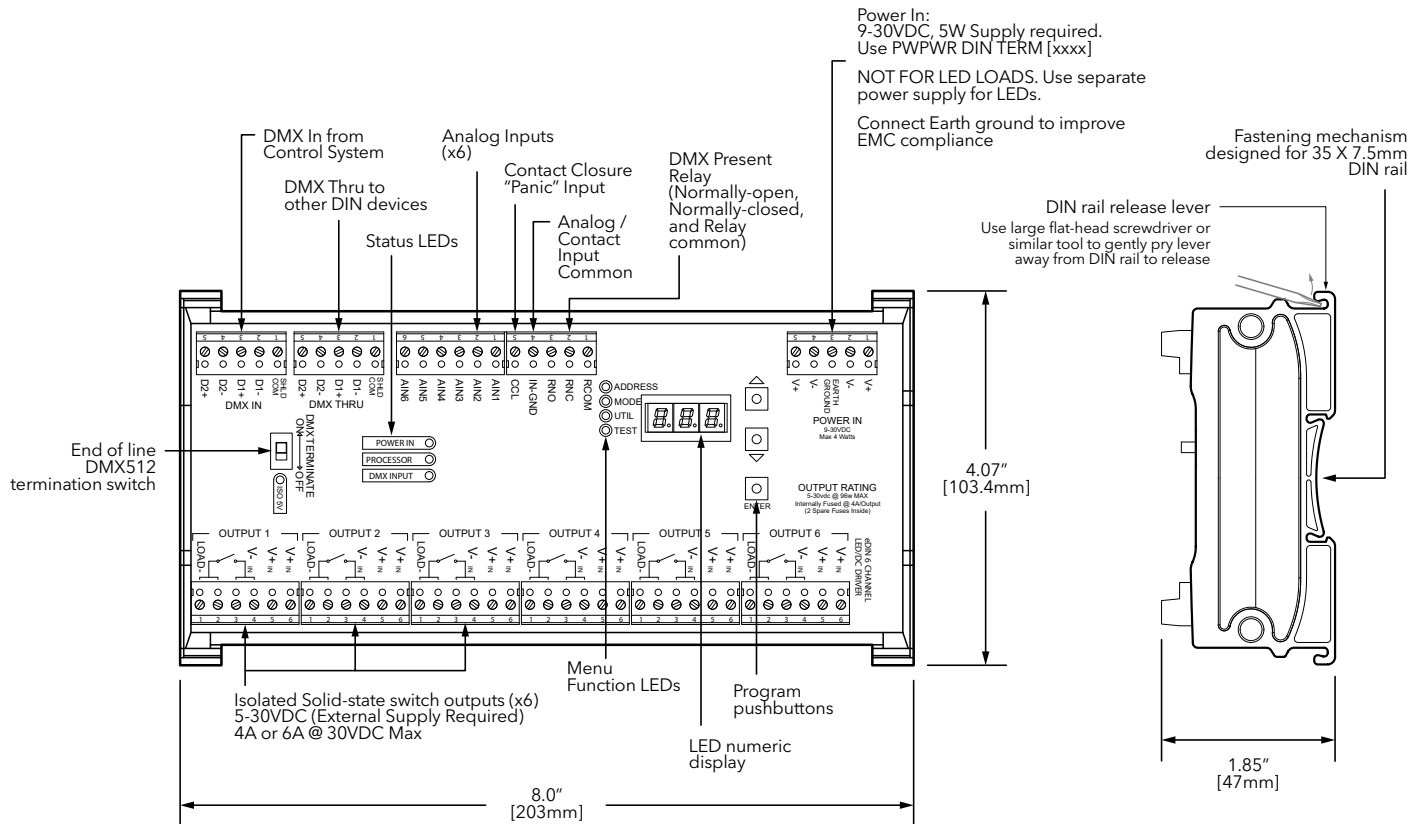
## PART NUMBER CROSS-REFERENCE

PREVIOUS	NEW	
Part Number	Catalog Number	Description
1008	PWINF DIN PWM4A	DMX Interface, DIN-mount, 6 Channel Pulse Width Modulation 4 Amps DC Dimmer (8")
1008-6A	PWINF DIN PWM6A	DMX Interface, DIN-mount, 6 Channel Pulse Width Modulation 6 Amps DC Dimmer (8")

## 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 </tr <tr> <td>Not Used - Do Not Connect</td> <td>N/A</td> <td>8 - Brown</td> </tr>	Not Used - Do Not Connect	N/A	8 - Brown
Not Used - Do Not Connect	N/A	8 - Brown		

## DIMENSIONS



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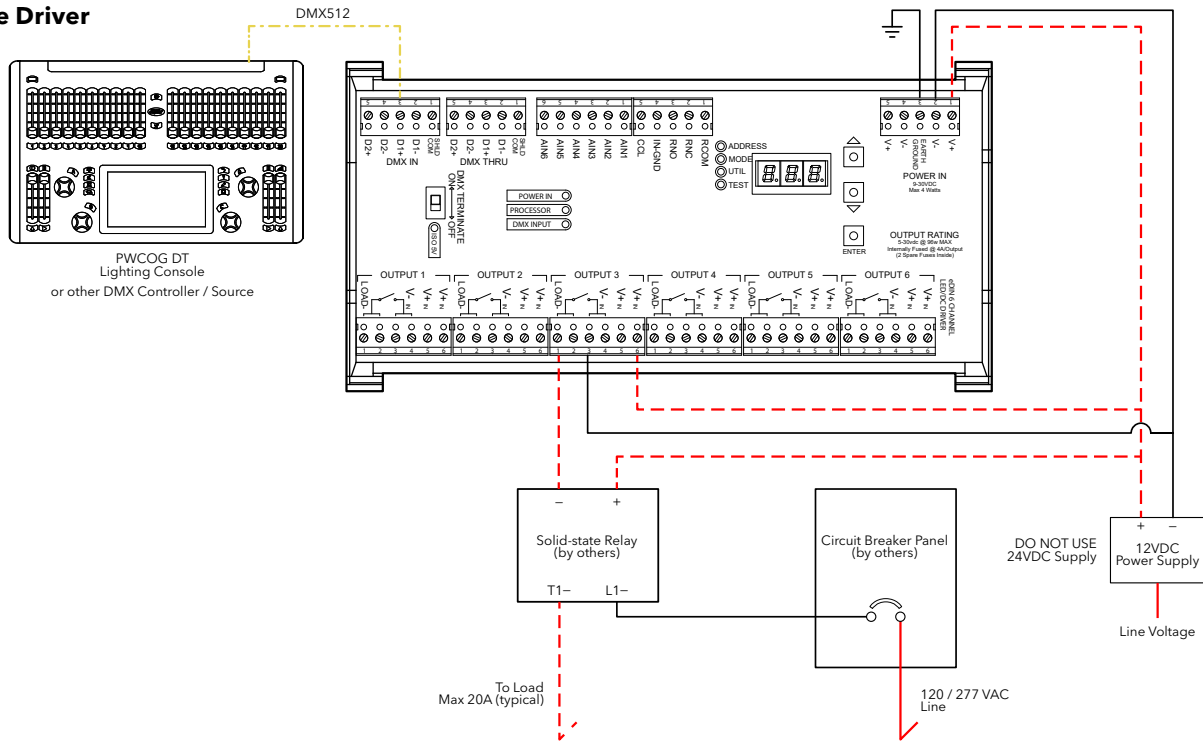
## OPERATING MODES

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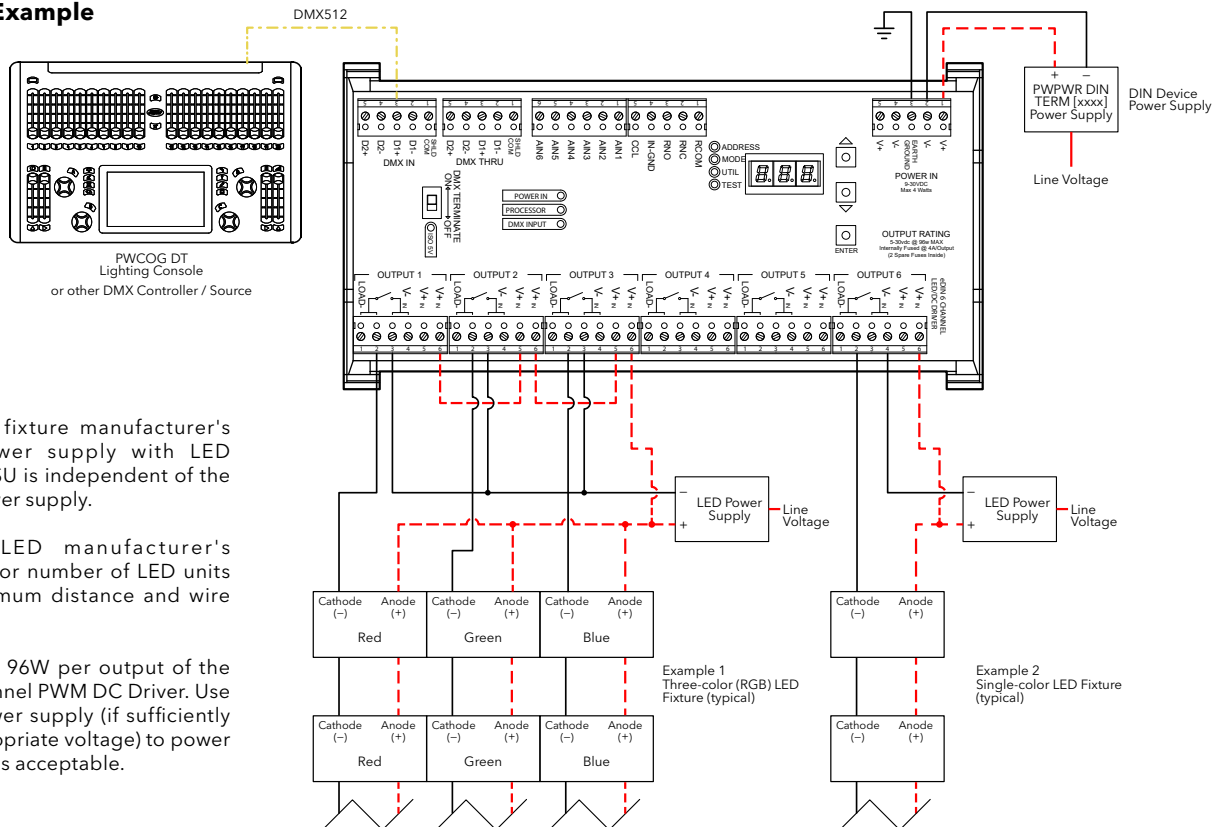
<b>Mode 1: Default LED Control (6 Channel)</b>	Incoming DMX slot value is interpolated to create an internal 16-bit value. A weighted fade curve is applied to the output to compensate for LED response, producing an apparently linear fade to the human eye.
<b>Mode 2: DMX Double Precision Mode with Curve (12 Channel)</b>	Two DMX control slots from the controller (coarse/fine) are used to produce a 16-bit value for each output. A weighted fade curve is applied to the output to produce an apparently linear fade to the human eye.
<b>Mode 3: DMX Double Precision Mode without Curve (12 Channel)</b>	Two DMX control slots are used to produce a 16-bit value for each output. No compensating curve is applied. Output follows the DMX values linearly.
<b>Mode 4: Non-Dim Mode</b>	When the value of the corresponding DMX slot is below 50%, the associated output will be off. When the DMX slot is above 50%, the associated output will be on (full). A hysteresis zone of about 1% occurs at the 50% level, where the output's state is undetermined. Use this mode to drive non-dim loads such as solid-state relays and solenoid coils.
<b>Mode 5: Single Channel Control (1 Channel)</b>	One DMX slot (the start address) controls all six outputs simultaneously. A weighted fade curve is applied to the output to produce an apparently linear fade to the human eye.
<b>Mode 6: Three Channel Mirror with Curve (3 Channel)</b>	Outputs are paired (1 and 4, 2 and 5, 3 and 6). Paired outputs are driven by the same DMX control slot. The DMX value is interpolated to create a 16-bit value. A weighted fade curve is applied to the output to produce an apparently linear fade to the human eye.
<b>Mode 7: Three Channel Mirror without Curve (3 Channel)</b>	Outputs are paired (1 and 4, 2 and 5, 3 and 6). Paired outputs are driven by the same DMX control slot. The DMX value is interpolated to create a 16-bit value. No compensating curve is applied. Output follows the DMX value linearly.
<b>Util Mode Options</b>	<p><b>A:</b> Adjusts the smoothing algorithm between 1 (very smooth) and 100 (no smoothing). Default is 64.</p> <p><b>B:</b> Adjusts a Grand Master maximum output level between 0 (off) and 256 (full—default).</p> <p><b>C:</b> Sets a minimum output level between 0 (default) and 255, that the card will always maintain, even in the absence of DMX.</p> <p><b>D:</b> Sets loss-of-DMX behavior. Options, as shown on the seven-segment LCD screen, are "0" - zero seconds; "0.5" - thirty seconds; "1" - one minute; and "--" - forever (default).</p>

## APPLICATION RISER

### DC Device Driver



### LED Wiring Example



### Important

Only use LED fixture manufacturer's approved power supply with LED fixtures. This PSU is independent of the DIN device power supply.

Follow the LED manufacturer's specifications for number of LED units per PSU, maximum distance and wire gauge.

Do not exceed 96W per output of the Pathway 6-Channel PWM DC Driver. Use of the LED power supply (if sufficiently sized and appropriate voltage) to power the DIN device is acceptable.