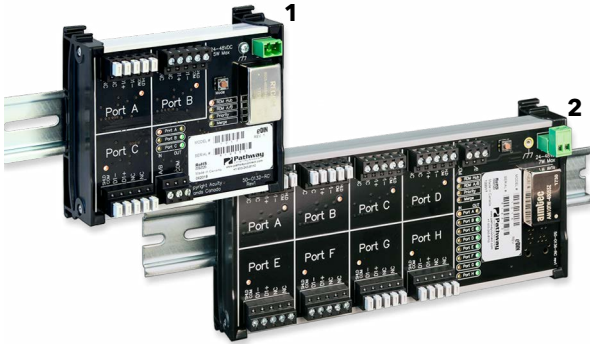


# REPEATER DIN-MOUNT DMX/RDM MERGER / HUB



Models shown: 1. PWREP DIN P3 RDMHUB  
2. PWREP DIN P8 RDMHUB

## 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

The Pathway DMX Repeater series of opto-splitters are an essential component of DMX distribution systems, permitting star-wiring configurations while isolating and protecting equipment from electrical faults.

The 3 and 8-Port Merger & Hub bring flexibility to single-universe DMX512 distribution systems. Through the use of automatic signal sensing across four operating modes, any port may detect incoming DMX signals and act as an input; two inputs may be merged; the user may manually select between two inputs; or a priority scheme may be invoked.

In Hub and A/B modes, E1.20 Remote Device Management (RDM) is supported.

The Pathway 3 and 8-port DIN-mount DMX Mergers / Hubs provide advanced signal routing capabilities for single-universe DMX systems in a convenient, compact, DIN-mountable form factor intended for permanent installs.

## FEATURES

- 3 or 8 bi-directional DMX512/RDM ports
- Four operating modes
- Automatically locates incoming DMX signal and routes according to current mode
  - Hub mode: Sense any active control source on any port and output to all other ports
  - A/B mode: External A/B switch for user selection of input
  - Priority mode: Automatically switch to Input A on active DMX signal, fall back to Input B
  - Merge mode: Merge Input A and B with highest level per slot output
- Multi-level cascade of modules permitted
- User-configurable DMX output speed and signal loss behavior<sup>1</sup>
- LED Indicators for Port Direction, Power, and Mode
- Mounts to standard 35mm DIN rail
- Includes both compression-screw and Insulation Displacement Contact (IDC) terminal block connectors
- Also available in Rack-mount form factor (PWREP RM [xxxx] RDMHUB)

## Notes

1. By RDM

## ORDERING INFORMATION

PWREP		EXAMPLE: PWREP DIN P8 RDMHUB	
Series	Form Factor	Port Quantity	Model
PWREP Pathway DMX Repeater	DIN DIN-mount	P3 3 DMX Ports (4.5") P8 8 DMX Ports (8")	RDMHUB Merge, Priority, HTP and Hub, E1.20 RDM Compliant

## Accessories

<b>PWPWR DIN TERM 50W 24VDC</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		

## SPECIFICATIONS

### Electrical

**Input Ratings** **PWREP DIN P3 RDMHUB**  
 24-48VDC power input  
 5W maximum power consumption

**PWREP DIN P8 RDMHUB**  
 24-48VDC power input  
 7W maximum power consumption

**Isolation & Fault Protection** 3000V isolation between DMX data links  
 (1500V isolation from any DMX port and DC Input)  
 60V fault protection on DMX ports

**Regulatory Compliance** CE

### Mechanical

**Dimensions** **PWREP DIN P3 RDMHUB**  
 4.5" W x 4" H x 1.85" D (114mm W x 103mm H x 47mm D)

**PWREP DIN P8 RDMHUB**  
 8" W x 4" H x 1.85" D (203mm W x 103mm H x 47mm D)

**Weight** **PWREP DIN P3 RDMHUB** 0.3 lbs (0.12 kg)  
**PWREP DIN P8 RDMHUB** 0.7 lbs (0.32 kg)

### 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

## PART NUMBER CROSS-REFERENCE

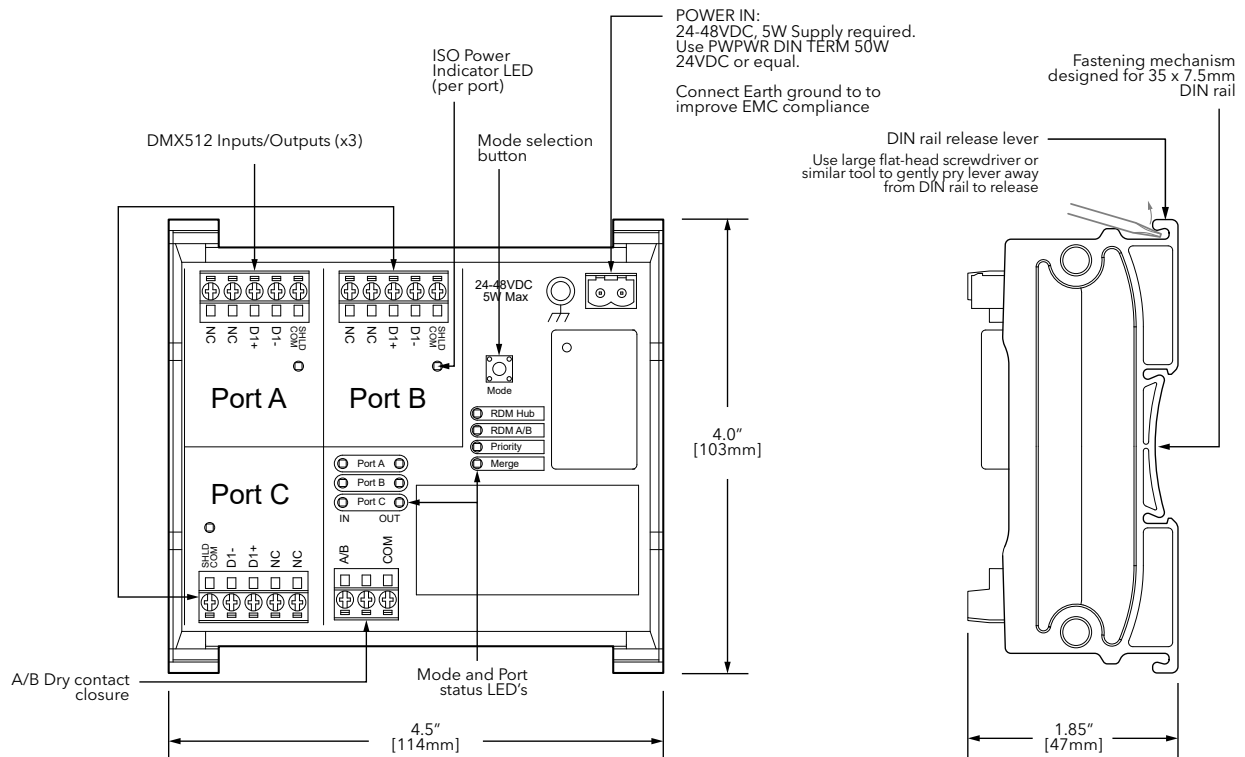
PREVIOUS	NEW	
Part Number	Catalog Number	Description
1016	PWREP DIN P8 RDMHUB	DMX Repeater DIN-mount 8-Ports Merge, Priority, HTP and Hub, RDM Compliant (4.5")
1017	PWREP DIN P3 RDMHUB	DMX Repeater DIN-mount 3-Ports Merge, Priority, HTP and Hub, RDM Compliant (8.0")

## 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

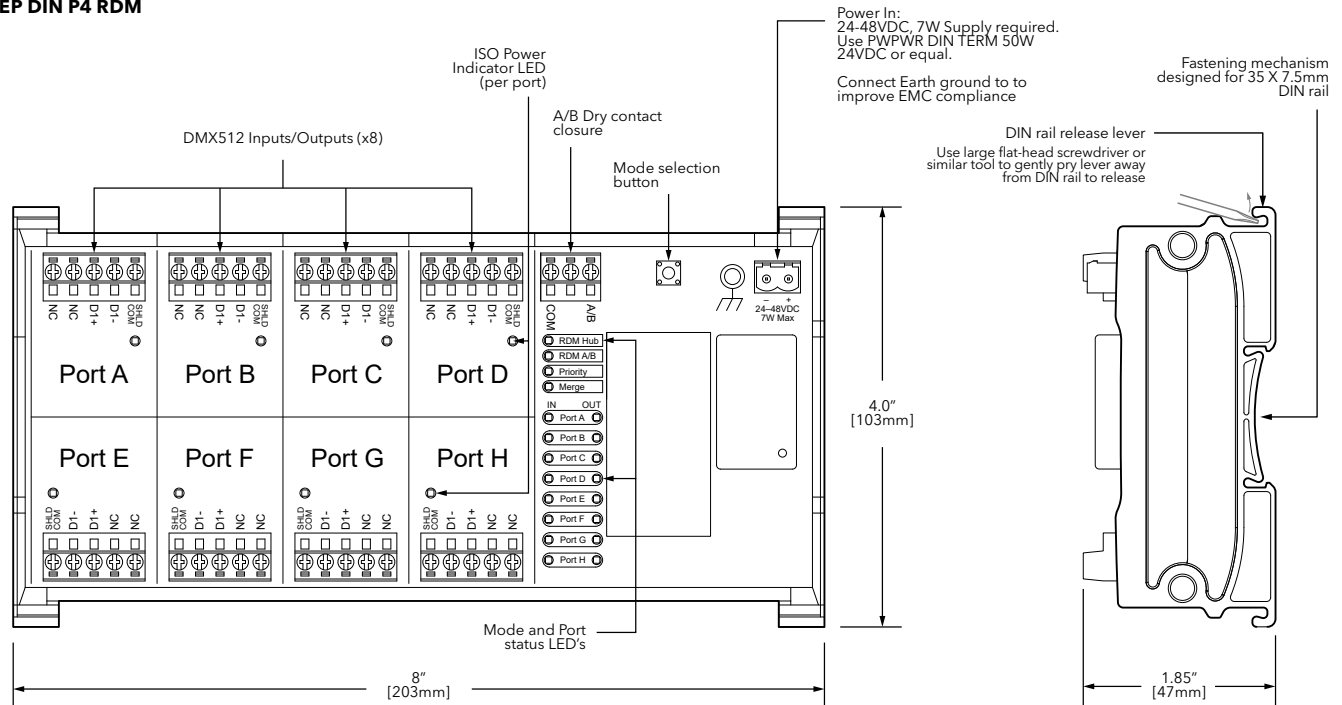
## DIMENSIONS

### PWREP DIN P3 RDMHUB



## DIMENSIONS

### PWREP DIN P4 RDM



## OPERATING MODES

### Mode 1: RDM Hub

Module detects and latches to a DMX input applied to any port. It automatically routes DMX signal to the other remaining ports. If a second source is applied, that source is ignored until the initial source stops. The device acts as RDM responder and splitter. Any downstream RDM responder may be discovered and configured using an RDM-enabled console or controller.

### Mode 2: RDM A/B Select

Allows user selection, through use of dry contact closure, of input signal arriving on Port B to be selected and routed to the output(s), over signal arriving as input on Port A. When dry contact is open, the signal arriving on Port A will be routed to the output(s). Ideal for switching between architectural controller and stage console. The device acts as an RDM responder and splitter. Any downstream RDM responder may be discovered and configured using an RDM-enabled console or controller.

### Mode 3: Priority

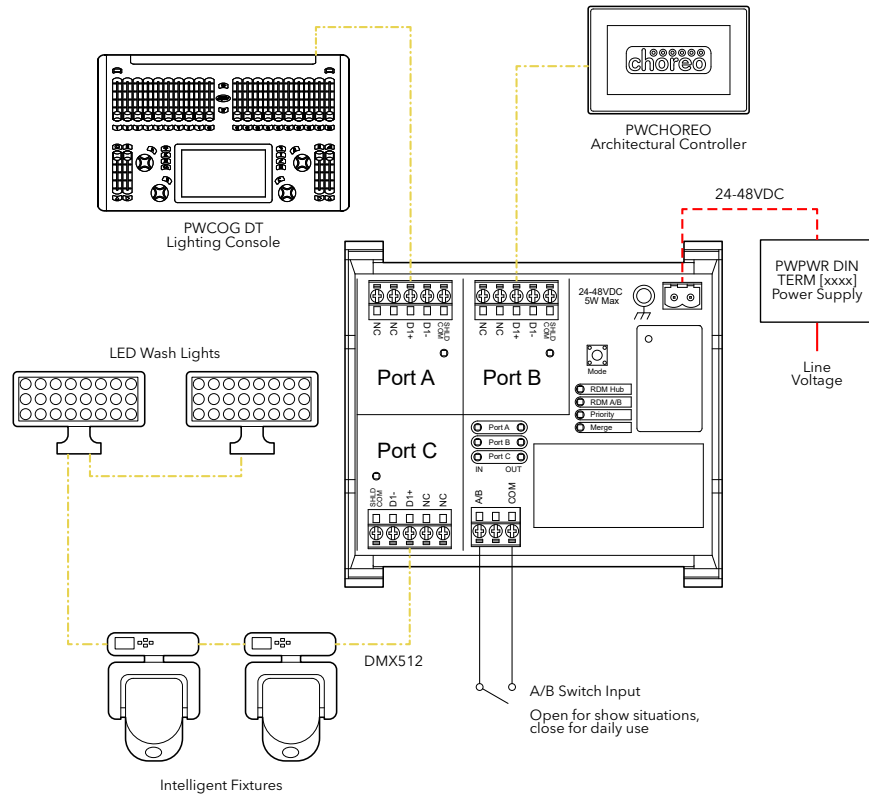
Provides predictable signal priority arrangements of DMX sources. Port A is given priority over Port B, and so on. The device acts as an RDM responder. However, all RDM communication with downstream devices is disabled. Any connected downstream RDM devices will not be discovered and cannot be configured via RDM.

### Mode 4: Merge

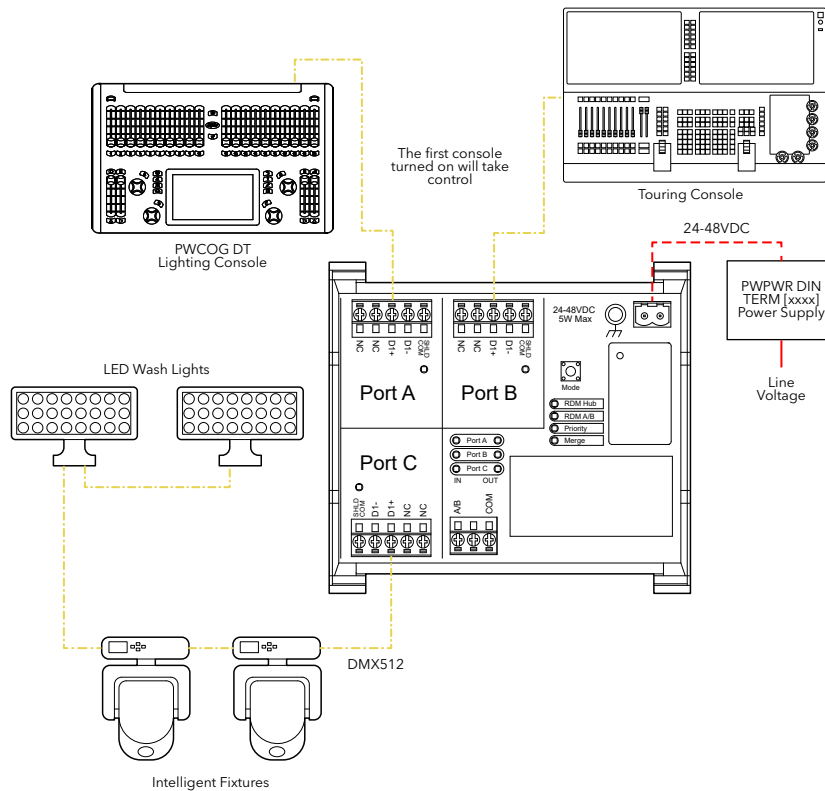
Provides HTP (highest-takes-precedence) merging of the left-most (A thru H) two ports with DMX sources found, and routed to the remaining ports as outputs. The device acts as an RDM responder. However, all RDM communication with downstream devices is disabled. Any connected downstream RDM devices will not be discovered and cannot be configured via RDM.

## APPLICATION RISER

### PWREP DIN P3 RDMHUB A/B Select Mode

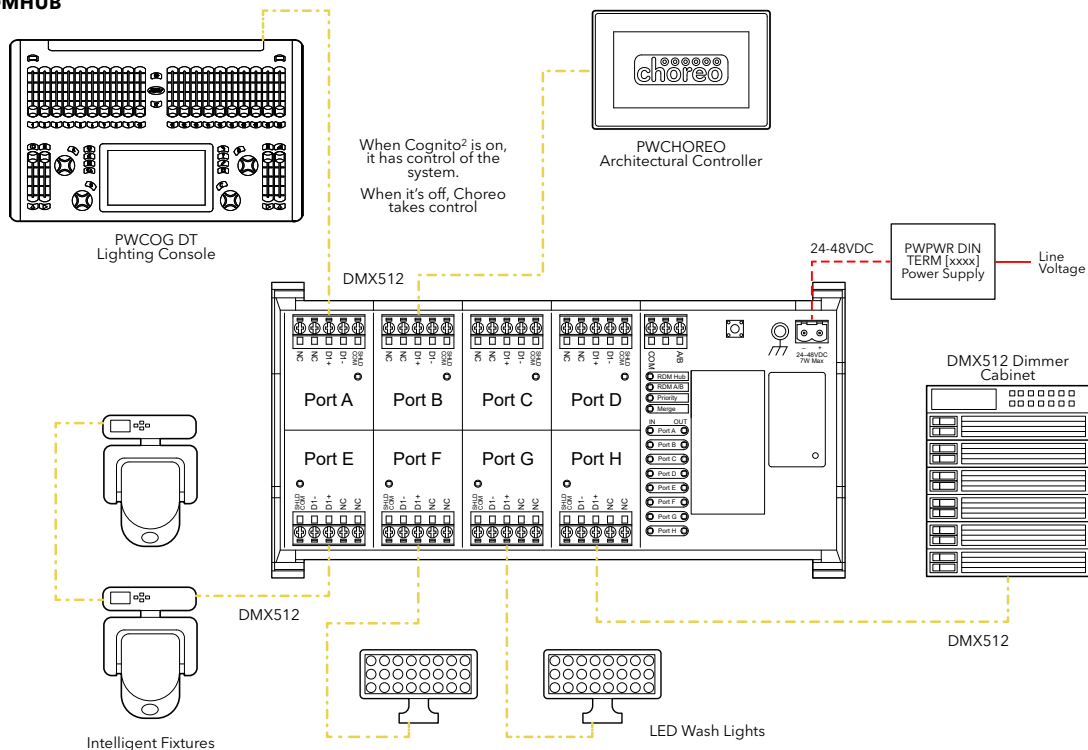


### PWREP DIN P3 RDMHUB Hub Mode



## APPLICATION RISER

### PWREP DIN P8 RDMHUB Priority Mode



### PWREP DIN P8 RDMHUB Merge Mode

