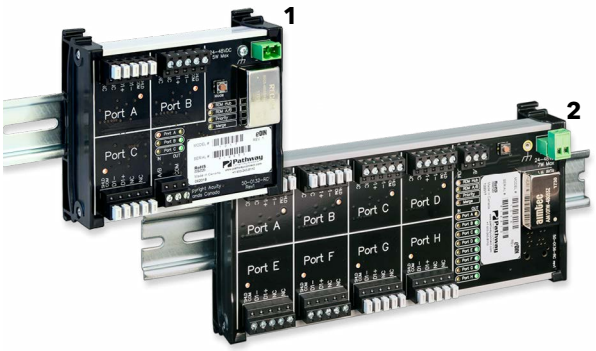
CATALOG NUMBER **PWREP DIN RDMHUB**

DATE

PROJECT

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[1]
- 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**
PWREP		**DIN**			**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

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

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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")

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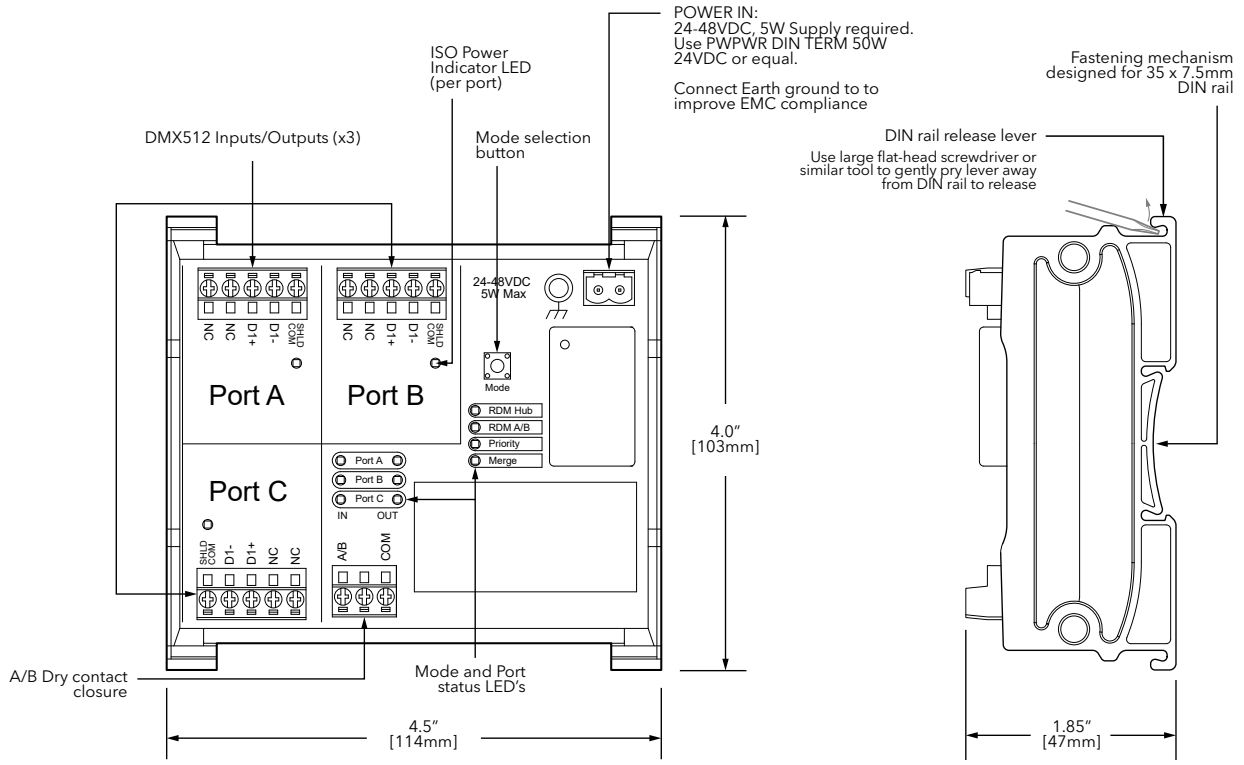
WIRING

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



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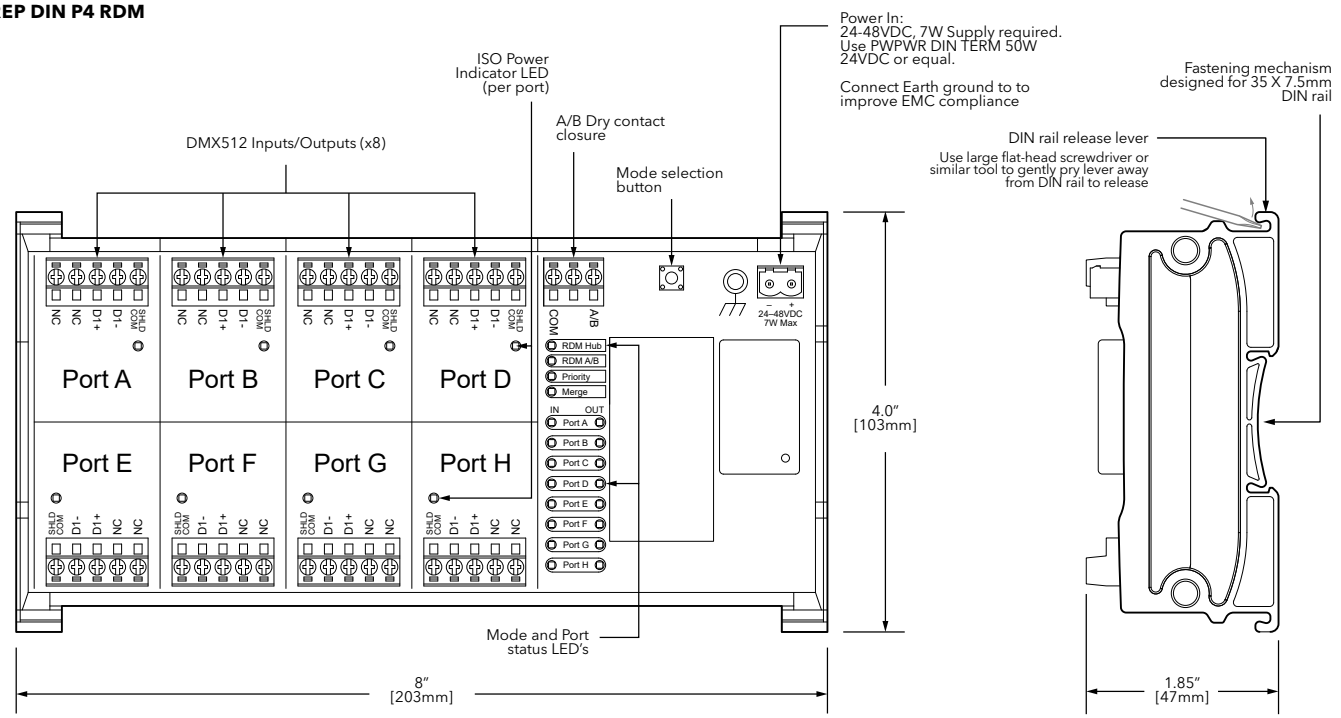
DIMENSIONS

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.

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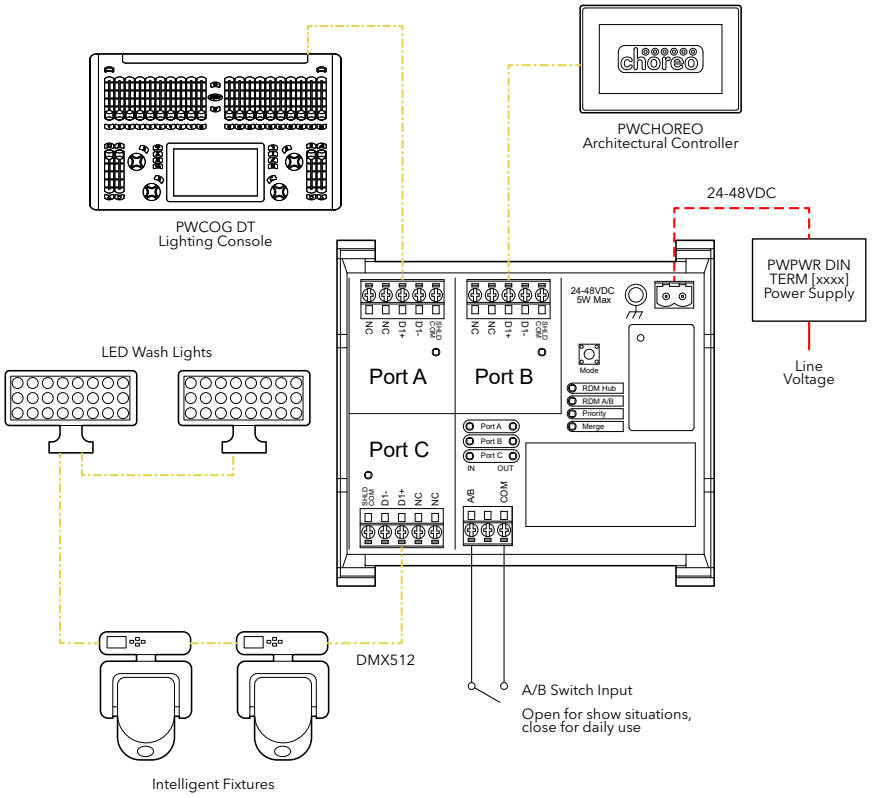
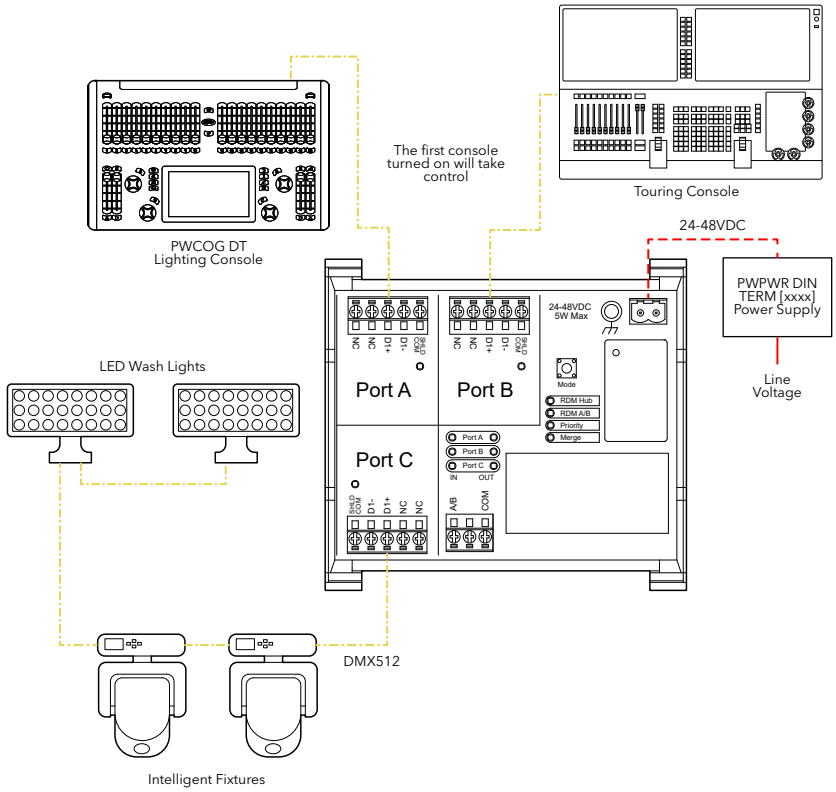
APPLICATION RISER

PWREP DIN P3 RDMHUB
A/B Select Mode



PWREP DIN P3 RDMHUB
Hub Mode



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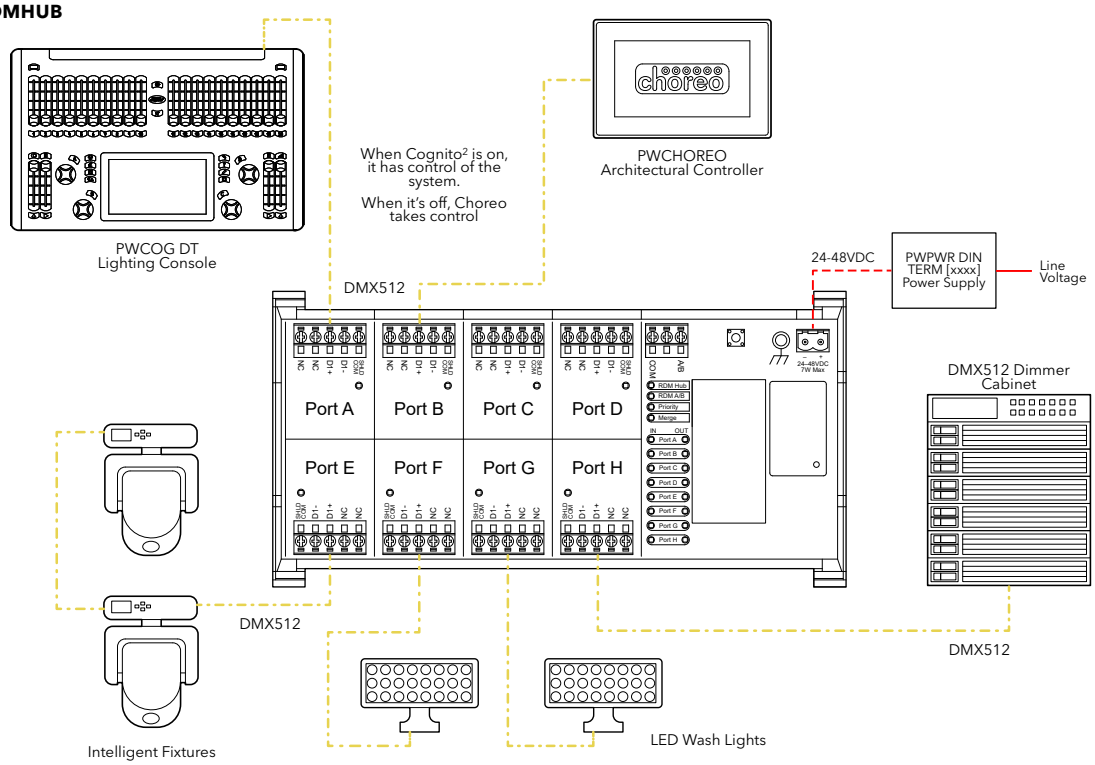
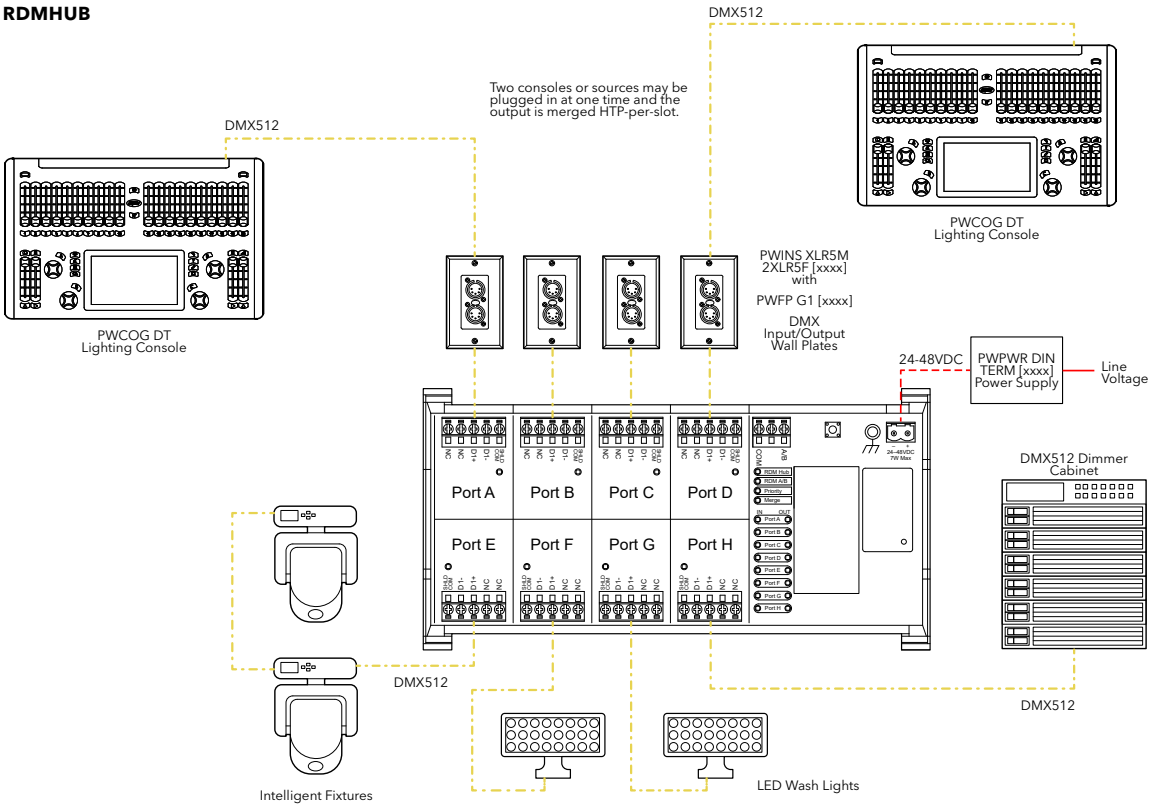
APPLICATION RISER

PWREP DIN P8 RDMHUB
Priority Mode



PWREP DIN P8 RDMHUB
Merge Mode



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