

**TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY**

Letter of Clarification No. 3

FOR

Invitation to Bid (ITB)

REL Construction of Aesthetic Lighting

ITB O-00320

Letter of Clarification No. 3 ~ ITB No. O-00320

Date of Letter of Clarification: 04/22/2020

To all prospective respondents:

The following responds to questions received on the solicitation reference above:

<p>Question 1:</p>	<p>Is it possible to have the Data Sheets uploaded for the following items listed below. I did not find them as part of the ITB Documents, but then again I may have overlooked them.</p> <ul style="list-style-type: none">• DMX Cable• Pharos Lighting Controller• Pathport 4-Port DMX/RDM Gateway #1014• Outdoor Link System (OLSFX7/OLSLX1/OLSST)
<p>Response 1:</p>	<p>See attached for the requested Pharos Controller, 4 port pathport gateway and outdoor link system.</p> <p>Note, this is for informational purposes only and final approval will be through the standard shop drawing submittal process. Other products may be acceptable for use for some components such as DMX512 cable.</p>
<p>Question 2:</p>	<p>During my take-off of the Lighting Conductors for Pay Item 715-1-13 I noted, for each circuit run in a single conduit, an Equipment Grounding Conductor was installed for each circuits. Typically only one Equipment Grounding Conductor is required when Multiple Circuits are installed within a common raceway; see NEC Article 250-122 (C) below. Is the installation of a single Equipment Grounding Conductor, sized to largest overcurrent device protecting conductors in the raceway, acceptable?</p> <p><i>250.122 (C) Multiple Circuits. Where a single equipment grounding conductor is run with multiple circuits in the same raceway, cable, or cable tray, it shall be sized for the largest overcurrent device protecting conductors in the raceway, cable, or cable tray. Equipment grounding conductors installed in cable trays shall meet the minimum requirements of 392.10(B)(1)(c).</i></p>

Response 2:	Sharing the largest grounding conductor for all circuits within a raceway is acceptable where circuits are being fed from the same source, however section 250.122(B) applies in that it must be proportionally upsized with the phase conductors where phase conductors have been upsized due to voltage drop.
Question 3:	It appears the EOR has already sized all EGC proportionally to the circuit conductors based on his VD calculations.
Response 3:	Correct
Question 4:	The Contract Plans depict the use of HDA-PR M10x100/20 undercut anchors to support the bridge mounted conduit inside the girders and to support the luminaire bracket arms. Undercut anchors are Ultimate-performance pre-set anchors typically used for dynamic loading situations. These undercut anchors are expensive and can cost up to \$100 for each anchor. We understand how these anchors might be required to support the luminaire bracket arms. However, it seems like overkill to use these high strength undercut anchors to support the 2" PVC Conduit at 5' O.C. spacing (per NEC and FDOT specs) inside the girders. Please confirm the requirement to utilize undercut anchors to support the bridge mounted conduit inside the girders, as depicted on plan sheet 54 of the Base Bid plan set.
Response 4:	Undercut anchors are intended for the dynamic loading on the bracket arms and on the "H" frame supports for the internal cabinets only. Conduit hangers may utilize standard concrete anchors.
Question 5:	What will be the extent of the Contractor's responsibility for the Pharos Lighting Playback Controller (LPC 4), Pay Item 684-9-1?
Response 5:	Contractor's responsibility will be to furnish the Pharos LPC unit and mount in the racks at the TMC and run the output cables to the existing THEA switch at the TMC. Engineer will provide all programming and software installation services.

Question 6:	Can THEA provide an overall Network splicing diagram starting from the TMC, which shows the DMX connection at the Controller, out to the Pathports? Also, is there a Lighting Management software already installed at THEA's TMC?
Response 6:	See attached diagrams.
Question 7:	Will THEA be updating the Bid Proposal Form, based on the changes issued by clarification letters, prior to bid proposal date?
Response 7:	Yes – updated bid proposal form and plans will be available in Addendum No. 5.

Bidders MUST acknowledge receipt of this Letter of Clarification by signing, dating and returning the completed Acknowledgement of Receipt of Letter of Clarification/Addendum form with Respondent's proposal.

All other items, conditions, and specifications in the procurement document not specifically changed by the Addendum remain unchanged.

Please send all questions to THEA's Procurement Manager, Man Le, via email at Man.Le@tampa-xway.com.

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM and/or LETTER OF CLARIFICATION

Were Addenda issued on this Solicitation?

Yes

No

Were Letter of Clarification issued on this Solicitation?

Yes

No

I (We) hereby acknowledge receipt of the following Addendum/Addenda issued in reference to this solicitation by listing the Addenda by number, date and signing the form:

Addendum _____ Date: _____

Addendum _____ Date: _____

Letter of Clarification _____ Date: _____

Letter of Clarification _____ Date: _____

BIDDER:

By: _____

Authorized Signature

Printed Name of Signer

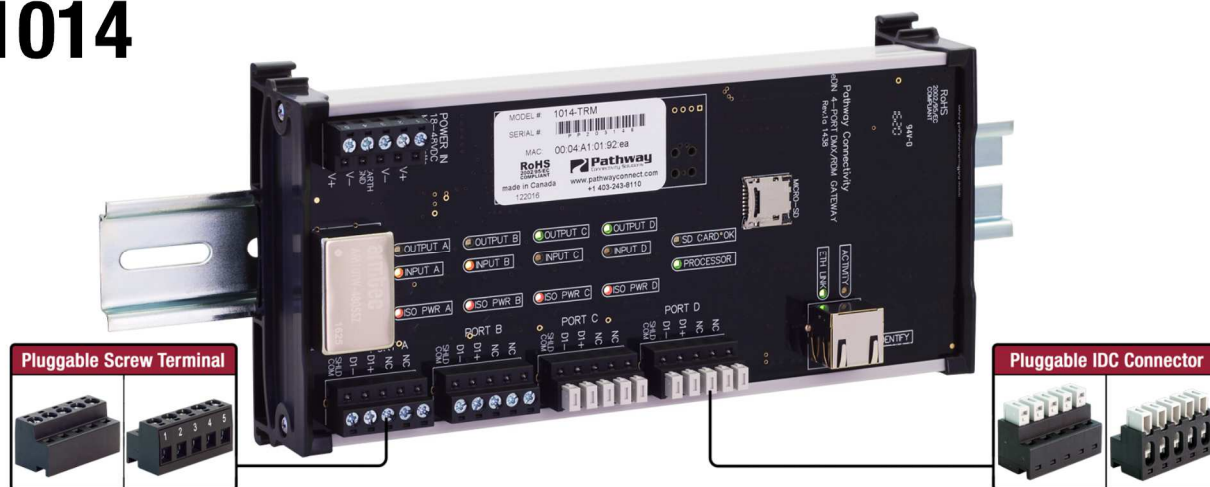
Title of Signer

Date Signed

[END OF ACKNOWLEDGMENT OF RECEIPT FORM]

PATHPORT 4-PORT DMX/RDM GATEWAY

#1014



PRODUCT OVERVIEW

Pathport 4-Port DMX/RDM gateway is a compact node for encoding, routing and decoding DMX512 data over a standard Ethernet network. In addition to DMX, the Pathport 4-Port supports RDM discovery and configuration data transport. DIN-rail mountable for fast installation in existing cabinets, or also available as part of a complete ETL-listed assembly.

FEATURES

- Four DMX512 ports - user configurable as input or output
- E1.11 DMX512A and E1.20 Remote Device Management (RDM) compliant
- LED indicators for port direction, power, Ethernet link activity and identify
- Operates on 802.3af Power-over-Ethernet or on an 18-48V wide-range DC input
- Pluggable screw terminal connector block for power IN and OUT
- Two sets of pluggable terminal blocks for all DMX512 connections to support both shielded twisted pair and CAT5/6
- Supports the following DMX/Ethernet protocols:
 - Art-Net
 - E1.31 streaming ACN (sACN)
 - Pathport Protocol
 - Strand Shownet
- Fully compatible with all Pathport nodes and eDIN interfaces
- Configuration is set using Pathport Manager, a free download @ www.pathwayconnect.com
- Soft patch allows mix-and-match of different protocols
- Route DMX according to universe or channel-by-channel
- Multiple sources may be merged and/or prioritized
- Fully customize DMX output universes
- MicroSD card allows configuration to be archived on a portable device

SPECIFICATIONS

- PoE-powered device Class 2
- Auxiliary input voltage 18-48VDC
- 6W power consumption
- 60V protection on each port
- 10Mb TCP/IP connection
- Operating conditions: -10° to 50°C (14° to 122°F); 5%-95% relative humidity, non-condensing

STANDARDS COMPLIANCE

- ANSI E1.11 DMX512-A(2008)/USITT DMX512(1990)
- ANSI E1.20 RDM(2010)- Remote Device Management
- CE/FCC
- RoHS 2002/95/EC
- Class 2 Low Voltage

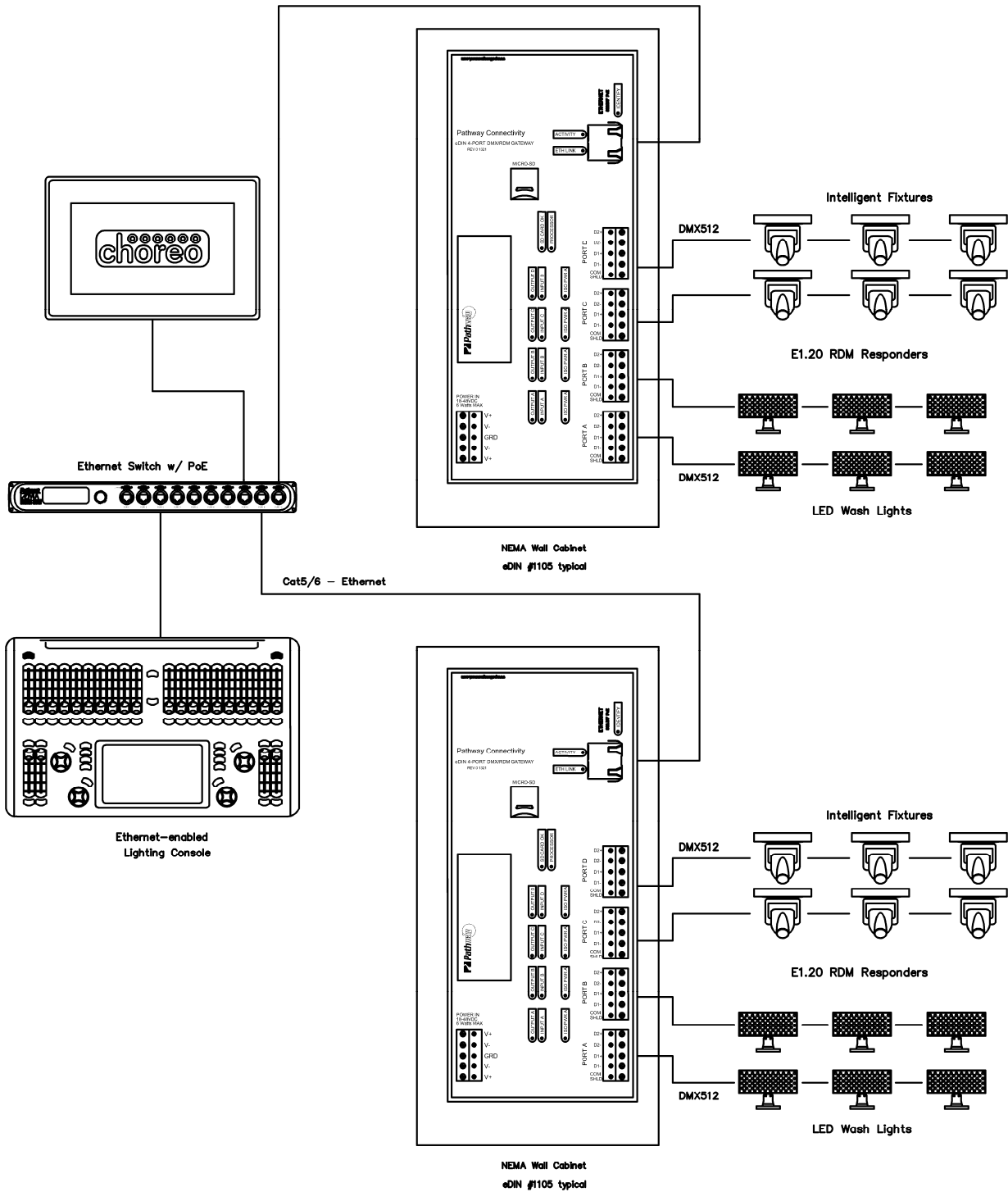
WEIGHTS AND DIMENSIONS

- 0.40 lbs (0.180 kg)
- 3.6"W x 8.0"L x 1.5"H (91mm x 115mm x 38mm)

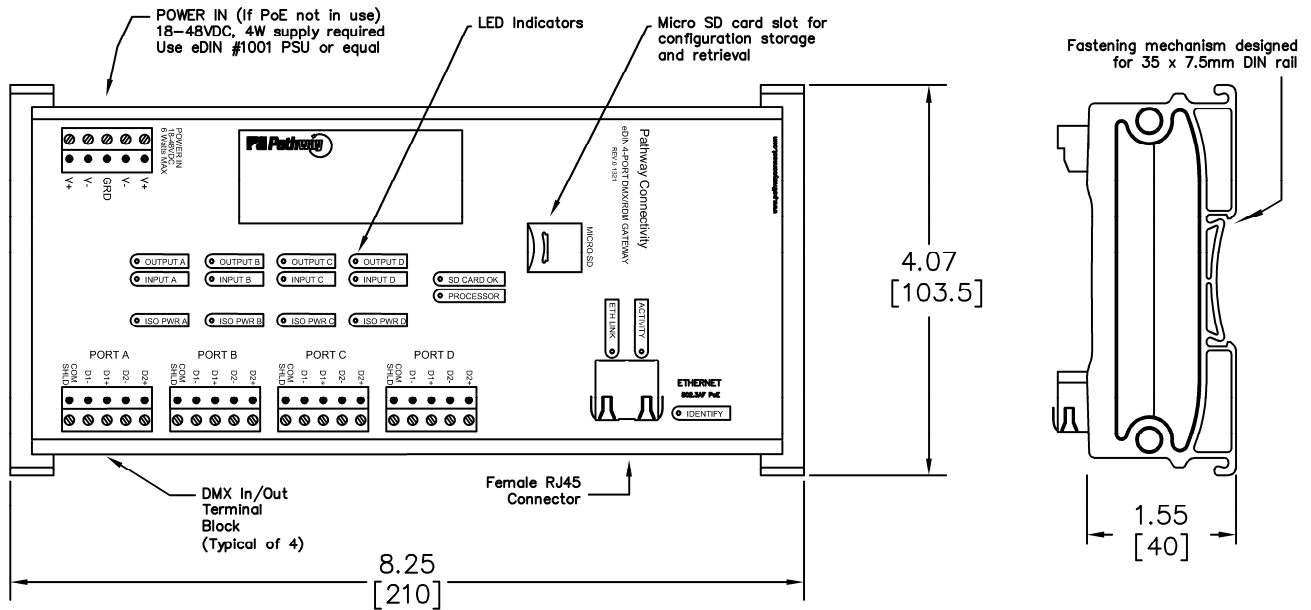
INCLUDED FURNISHINGS

- DIN tray (housing) with end caps
- 12" (300mm) x 35mm DIN rail
- Installation/Operations manual

APPLICATION RISER



DIMENSIONS



	XLR PIN #	PURPOSE
DMX512/RDM PINOUT : FOR SHIELDED TWISTED PAIR	1	Shield
	2	Data - (complement)
	3	Data + (true)
	4	Data - (pair 2 complement)
	5	Data + (pair 2 true)

	XLR PIN #	Cat5/6 Color and Pin #	PURPOSE
DMX512/RDM PINOUT : FOR CAT 5/6	3	1 - White/Orange	Data 1 + (true)
	2	2 - Orange	Data 1 - (complement)
	5	3 - White Green	Data 2 + (true)
	4	6 - Green	Data 2 - (complement)
	-	4 - Blue	Not used - do not connect
	-	5 - White Blue	Not used - do not connect
	1	7 - White/Brown	Shield/COM
	1	8 - Brown	Shield/Com

ORDERING INFORMATION

PART #	DESCRIPTION
1014	Pathport 4-Port DMX/RDM Gateway Node with terminal block connectors for DMX ports, DIN-mountable
ACCESSORIES	
1001-30	24VDC - 30W DIN-mountable power supply
1103	Rack-mount panel Kit (2RU) with two 16.5" (420mm) sections of DIN rail
1105	Small eDIN System Enclosure (NEMA1) with 9.5" (240mm) of vertical DIN rail
1106	Large eDIN System Enclosure (NEMA1) with 19.5" (495mm) of vertical DIN rail
1107	Large eDIN System Enclosure (NEMA1) with three horizontal 9.5" (240mm) horizontal DIN rail
1108	Small eDIN System Enclosure (NEMA1) with two horizontal 9.5" (240mm) DIN rail
1109	Expanded eDIN System Enclosure (NEMA1) with three vertical 24"(610mm) DIN rail



Product: [9729](#)

RS-232/422 Low Cap, #24-2pr, FPO, Individ. Foil, PVC Jkt, CM, 100Ω

Product Description

Computer EIA RS-232/422, Digital Audio Cable, 24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, twisted pairs, individually Beldfoil® shielded (100% coverage), 24 AWG stranded tinned copper drain wire, PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
24	7x32	TC - Tinned Copper	0.024 in	2

Conductor Count: 4

Insulation

Material	Material Trade Name	Nominal Wall Thickness
PE - Polyethylene (Foam)	Datalene®	0.019 in

Color Chart

Number	Color
1	Black & Red
2	Black & White

Color Chart 2

Number
16

Inner Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Alum / Poly	Beldfoil® (Z-Fold®)	100 %	TC - Tinned Copper	24	7x32

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.266 in	0.048 in

Construction and Dimensions

Stranding

Lay Direction	Twists
Left Hand	6.9 twist/ft

Electrical Characteristics

Conductor DCR

Individual Pair Nominal Shield DCR	Nominal Conductor DCR
15 Ohm/1000ft	24 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
12.5 pF/ft	23.2 pF/ft

Inductance

Nominal Inductance
0.23 μ H/ft

Impedance

Nominal Characteristic Impedance
100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.384 MHz	0.74 dB/100m
0.7056 MHz	0.87 dB/100m
0.768 MHz	0.88 dB/100m
1.024 MHz	0.94 dB/100m
1.4112 MHz	1.01 dB/100m
1.536 MHz	1.03 dB/100m
2.048 MHz	1.13 dB/100m
2.8224 MHz	1.29 dB/100m
3.072 MHz	1.35 dB/100m
4.096 MHz	1.57 dB/100m
5.6448 MHz	1.78 dB/100m
6.144 MHz	1.84 dB/100m
8.192 MHz	2.13 dB/100m
11.2896 MHz	2.45 dB/100ft
12.288 MHz	2.57 dB/100ft
24.576 MHz	3.57 dB/100ft

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
76 ns/100m	76 %

High Freq

Frequency [MHz]
0.384 MHz
0.7056 MHz
0.768 MHz
1.024 MHz
1.4112 MHz
1.536 MHz
2.048 MHz
2.8224 MHz
3.072 MHz
4.096 MHz
5.6448 MHz
6.144 MHz
8.192 MHz
11.2896 MHz
12.288 MHz
24.576 MHz

Current

Max. Recommended Current [A]
Per conductor @ 25°C: 1 A

Current Table Note: 10C Temperature Rise

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes: Attenuation @ 1 MHz: 0.94 dB/100 ft nom

Temperature Range

UL Temp Rating:	80°C (UL AWM Style 2919)
Operating Temp Range:	-20°C To +80°C

Mechanical Characteristics

Bulk Cable Weight:	35 lbs/1000ft
Max Recommended Pulling Tension:	22 lbs
Min Bend Radius/Minor Axis:	2.75 in

Standards

NEC Articles:	800
NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
UL AWM Style:	2919 (30 V 80°C)
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Hazardous Locations:	Yes
Suitability - Indoor:	Yes
Suitability - Outdoor:	No

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL 1685 (UL Loading)
CSA Flammability:	FT1
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	89729, 82729

Part Number

Variants

Item #	Color	UPC	Length	Footnote
9729.001100	Chrome		1,100 m	
9729.002000	Chrome		2,000 m	
9729.0030	Chrome		30 m	
9729.00305	Chrome		305 m	
9729.00500	Chrome		500 m	
9729.01152	Chrome		152 m	
9729 060100	Chrome	612825257530	100 ft	
9729 0601000	Chrome	612825257547	1,000 ft	C
9729 06010000	Chrome	612825257554	10,000 ft	C Y
9729 060500	Chrome	612825257561	500 ft	C
9729 0605000	Chrome	612825257578	5,000 ft	C
9729.K0305	Chrome		305 m	

Footnote:	C - CRATE REEL PUT-UP.
Footnote:	Y - FINAL PUT-UP LENGTH MAY VAR -10% TO +20% FROM LENGTH SHOWN. MAY CONTAIN 2 PIECES. MINIMUM LENGTH OF ANY ONE PIECE IS 1500'.

Product Notes

Notes:	Datalene« insulation features include low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.
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History

Update and Revision:	Revision Number: 0.331 Revision Date: 04-08-2020
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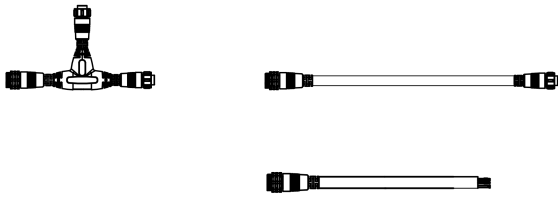
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Client:

Project:

Type:

Order Code:

Quantity:

The **Outdoor Link System** is an IP67 rated solution for linking Acclaim fixtures in series. It provides a quick and easy way to inter-connect fixtures while eliminating excess hardware for a project.

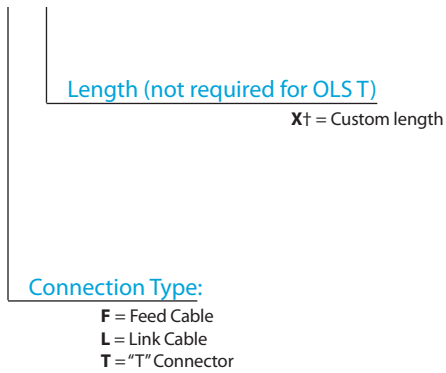
SPECIFICATIONS

Connection options	"T" Junction (OLS T), Link Cable (OLS L), Feed Cable (OLS F)
Lengths	Specify per 0.5M (1.64')
AC Conductors	3 x 16AWG
DMX Conductors	4 x 20AWG + shield
Maximum Input Voltage	300VAC
Maximum Total Line Amperage	15A
Maximum Total Line Wattage	120VAC: 1.8 kW, 277VAC: 4.155 kW
Surge Voltage	1000V
Flame Resistance	UL94-V0
Finish	Black
IP Rating	IP67, Wet Location
Ambient Operating Temperature	-40° F to 221° F (-40° C to 105° C)
Connectors	7 pin push lock connectors with IP67 rubber seal
Warranty	5 Years Limited
Weight	OLS T: 0.3 lbs (136 g), OLS L & F: Various, length dependant
Dimensions	Connector: ø 1.18" (30mm) x L: 2.45" (62.3mm) Cable: ø 0.676" (17.17mm) x spec'd length
Certifications	

ORDER CODE

ORDER CODES

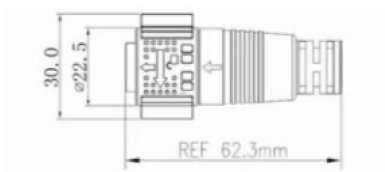
OLS #



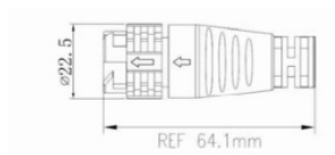
†: When ordering custom lengths, please specify number of 0.5M (1.64') sections required after X
Example order code: **OLS F X10 = 500mm x 10 / 5m (16.4') Feed Cable**

DIMENSIONS

Input Connector (Male)



Output Connector (Female)



Overview

The Pharos LPC (Lighting Playback Controller) is an award-winning, all-in-one control solution for themed entertainment and LED lighting installations. It features individually controllable and independently running timelines and scenes, letting you build dynamic, precise, fully customisable pre-programmed lighting effects with the freedom of real-time manual overrides and the versatility of powerful show control and integration features.



Features



Pharos Engine

The intelligent Pharos Engine gives you complete control of your installation. Based on individually controllable and independently running timelines and scenes, it lets you build dynamic, precise, fully customisable pre-programmed lighting displays, all while giving you the freedom of real-time manual overrides, flexible multi-zone control, prioritisation and more.



Pharos Mapping

Design the big picture; control every pixel. Create a map of your fixtures within the Designer software, then use Pharos Mapping to create visually striking effects or play video across the entire array. Powerful controls allow you to build maps fast with pixel-precise adjustment. Multiple maps can be created to support different zones or for modelling different views of your installation.



Pharos Trigger

Timing is everything. Whatever the stimulus, Pharos Trigger can handle it. You can control your lighting with responsive, reactive programming. Pharos Trigger is a rules engine that uses conditional logic and a broad range of interfaces and protocols. Send and receive any command, to and from any system. Conditional logic is supported, along with a powerful built-in scripting language for unlimited flexibility.

Scalable

The right fit for every installation. Multiple Pharos Controllers can be seamlessly linked together to work as one via a standard Ethernet network giving impressive scalability. For additional integration options simply add Remote Devices to further extend the network. Whether one Controller or many, it's all easily programmed using our Designer software.

Flexible

Be limited by your design brief, not your control system. Our products support a vast range of different fixture types and can output multiple DMX-over-Ethernet (eDMX) lighting protocols at the same time. No other system gives you this level of flexibility and control over your project.

Remote Management

The control you need in your browser – from anywhere. Pharos Controllers can be connected to a network, making it possible for you to remotely manage your installation. The built-in web server lets you check the Controller's status, inputs and outputs, trigger timelines, view a full history log and much more.

Custom Interfaces

Create a custom web interface for your installation that gives your users the control they need and the look they expect. Our built-in web server supports an extensive JavaScript API and access control with multiple user levels.

Pharos Designer

Programmed and configured using the free Pharos Designer software – available for Windows or Mac OS X – with upload over Ethernet.

Reliable

Hardware and firmware are self-sufficient, so no PC needs to be left on site. Rugged, compact unit designed for 24/7 operation and reliability.

Installer Friendly

Made for permanent installation, with installer-friendly connectors and easy DIN rail mounting.

5 Year Warranty

Designed and manufactured in the UK, with quality and reliability our top priority.

Certifications

CE compliant, ETL/cETL listed, and California Title 20/24 compliant.



Supported Fixtures

LEDs	LEDs in any colour configuration (RGB, RGBW, 8-bit, 16-bit, tuneable white)
Automated	Moving heads, yokes or scanners
Generic	Downlights, spotlights, uplights, etc. via controllable dimmers, relays or ballasts
Fountain Jets	Fountain jets for fountain animation or other animatronics
Fixture Library	Pharos offers a cloud library with over 13,000 fixture profiles, for easy download of your luminaires

Output

DMX512	2 ports (max 512 channels each) USITT E1.11-2008
RDM	Supports discovery and addressing via Designer software
sACN	USITT E1.31 (with per fixture priority) standard
Art-Net	ArtNet, ArtNet II and ArtNet III (configurable broadcast override)
KiNET	KiNET V1 (DMX out) and V2 (Port out); PDS/Data Enabler discovery
Pathport	Pathway Connectivity protocol
DALI	Via RIO D (supplied separately)
Scalable	Synchronises with up to 40 Pharos Controllers over network
Simultaneous	Multiple protocols can be in operation simultaneously. Limited by patched channels, not universes used

Triggering & Integration

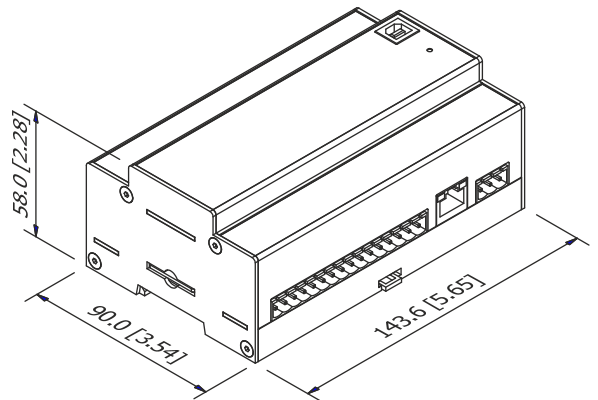
Startup	Commences programmed playback automatically on receiving power
Contact Closures	Connect an external volt-free switch between input and ground (internal 2.2k pull-up to 5V)
Digital In	Connect an external voltage source between input and ground (24V maximum; internal 2MΩ pull-down to 0V); software-configurable low/high threshold
Analog In	Connect an external voltage source between input and ground (24V maximum); software-configurable range
Clock	Battery-backed real-time clock for calendar and time-based triggers
Astronomical	Sunrise/Sunset/Twilight and Lunar phases
Ethernet	UDP, TCP, Multicast; send/receive any Ethernet message
Serial Data	RS232, RS485; configurable port; send/receive free syntax in ASCII, HEX or decimal
MIDI	MIDI Notes, SysEx or Timecode
Timecode	Linear Timecode via RIO A (SMPTE, Film, EBU, NTSC)
Audio Level	Stereo 30-band spectrum analysis via RIO A
DMX	Trigger on changes within a range or entering a range
eDMX	sACN or Art-Net (option to pass-thru on local DMX output)
DALI	Trigger on any message, via RIO D
Web Interface	Built-in or custom designed
Wall Stations	Integrate with BPS or TPC
Conditions	Full conditional logic support
Scripting	Lua scripting for total flexibility
Scalable	Supports Pharos Remote Devices

Interfaces

Ethernet	RJ45 socket for 10/100Base-TX Ethernet with Link/Data LEDs; Static IP or DHCP; Dual IP address for eDMX
DMX512	Two isolated DMX ports, RDM compatible *
Serial	RS232 / RS485 / DMX in *
Inputs	Eight inputs, individually selectable operating mode for contact closure, digital or analogue input *
MIDI In & Out	MIDI via 5-pin DIN 41524 socket
USB-B socket	USB 1.1 for connection to PC

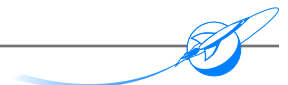
Specifications

Certifications	CE compliant, ETL/cETL listed
Power	9V to 48V DC * or PoE (IEEE802.3af, Class 2) 4W typical
Data Storage	Removable SD Card (supplied)
Temperature	0°C to 50°C (32°F to 122°F)
Humidity	10-50% relative, non-condensing
Ingress	IP40
Physical	8 unit wide DIN rail mounting enclosure (DIN43880 / EN60715 (35/7.5 rail)) 0.5 kg (1.1 lbs)
Shipping	20 x 15 x 12 cm (8" x 6" x 5") 0.8 kg (1.8 lbs)
Recovery	Hardware watchdog and recessed reset button
Warranty	5 years * Install-friendly 0.200" (5.08mm) plug in rising clamp connectors (included)



Order Code & Variants

LPC 1	Lighting Playback Controller 1 (512 channels DMX/eDMX)
LPC 2	Lighting Playback Controller 2 (1,024 channels DMX/eDMX)
LPC 4	Lighting Playback Controller 4 (2,048 channels eDMX incl 1,024 ch DMX)



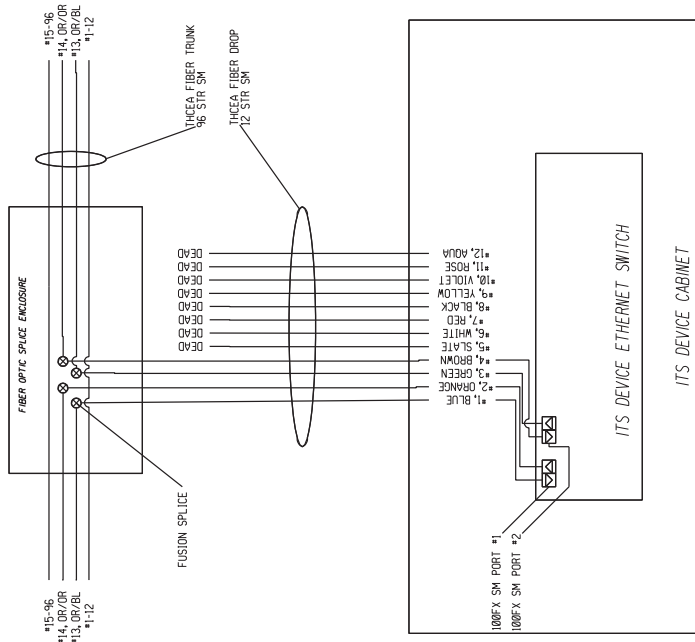
FIBER OPTIC DROP ALLOCATION TABLE
FOR ALCM CABINETS

# OF FIBERS	ALLOCATED USE
1-4	6GIGABIT ETHERNET
5-8	FIELD DEVICE CIRCUITS 100FX ETHERNET
9-12	FUTURE

FIBER OPTIC DROP ALLOCATION TABLE
FOR ITS DEVICE LOCATIONS

# OF FIBERS	ALLOCATED USE
1-4	FIELD DEVICE CIRCUITS 100FX ETHERNET
5-8	FUTURE
9-12	FUTURE

TYPICAL FIBER SPLICE - COMMUNICATION CABINET



DATE	BY	DESCRIPTION

PRINTEC PROJECTS ENGINEERS PLANNERS
THE WETS COMPANIES
2100 EISENHOWER BLVD., SUITE 250 TAMPA, FL 33624
CIVIL ENGINEERS
ENGINEER OF RECORD GORDON D. ZECINA, P.E., IND. 33770

TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY	
ROAD NO. S.R. 618	FINANCIAL PROJECT ID 53-41.01
COUNTY HILLSBOROUGH	

TYPICAL DETAILS
DROP FIBER ALLOCATION
AND ITS DEVICE SPLICE

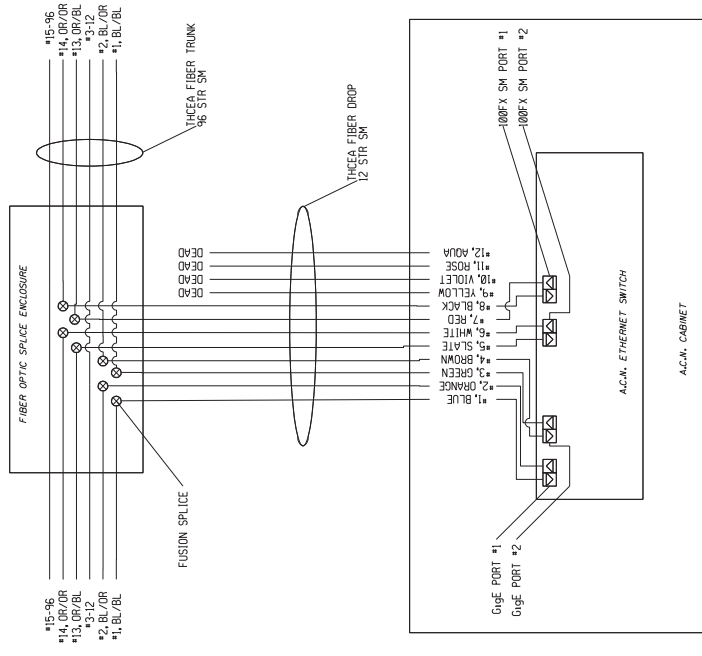
SHEET
NO.

D-10

TYPICAL FIBER SPLICE - A.C.N. CABINET

FIBER OPTIC TRUNK ALLOCATION TABLE

LOOSE TUBE/ # OF FIBERS	ALLOCATED USE
BLUE 1-12	GIGABIT ETHERNET
ORANGE 13-24	FIELD DEVICE CIRCUITS 100FX ETHERNET
GREEN 25-36	FUTURE
BROWN 37-48	FUTURE
SLATE 49-60	FUTURE
WHITE 61-72	FUTURE
RED 73-84	FUTURE
BLACK 85-96	FUTURE



TYPICAL DETAILS		SHEET NO.
TRUNK FIBER ALLOCATION AND ACN SPLICE		D-11
TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY		3/15/2004
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
S.R. 618	HILLSBOROUGH	53-41.01
 PINTI PROJECTS ENGINEERS PLANNERS THE PINTI COMPANIES 1100 EISENHOWER BLVD., SUITE 250 TAMPA, FL 33624 (813) 973-8888 ENGINEER OF RECORD, GORUM D. ZECINA, P.E., IND. 33770		
REVISIONS	DESCRIPTION	
DATE	BY	

city documents & maps fiber trunk fiber plans VJL/ghp

