

### 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 Pharos Cloud, a secure remote management service from SixEye. This allows direct control of your Controllers from anywhere in the world, letting you check all of your Controllers' statuses, inputs and outputs, firing triggers, scheduling events, uploading new projects and much more. All Pharos controllers also have their own Web Interface that can be accessed on a local area network that provides real-time statuses, access to the full log and the ability to fire triggers on the controller.

### 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 and HTTP 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

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

## Output

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

## Triggering & Integration

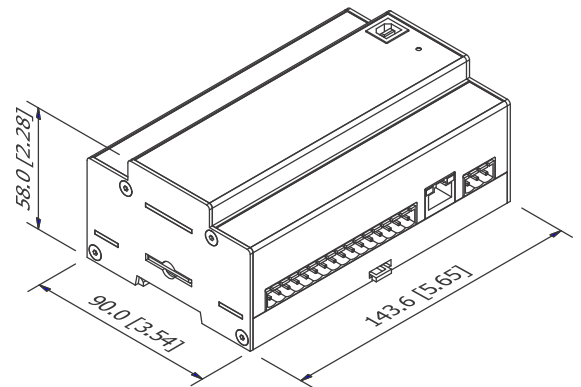
<b>Startup</b>	Commences programmed playback automatically on receiving power
<b>Contact Closures</b>	Connect an external volt-free switch between input and ground (internal 2.2k pull-up to 5V)
<b>Digital In</b>	Connect an external voltage source between input and ground (24V maximum; internal 2MΩ pull-down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

## Interfaces

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

## Specifications

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



## Order Code & Variants

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