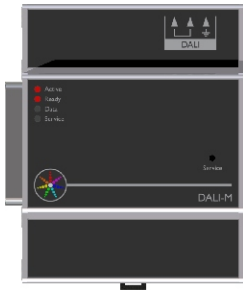## OVERVIEW

The Pharos control solution incorporates a variety of LPC Expansion Modules that add support for other protocols and interfaces as required. Up to two Expansion Modules can be added to a single Lighting Playback Controller.

Our current range of modules is listed here and we are constantly developing solutions to support other protocols or proprietary systems:
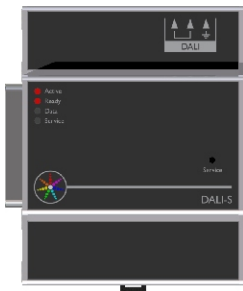
DALI MASTER

DALI is a popular architectural lighting control protocol and the Pharos DALI Master Expansion Module allows a single LPC to control up to 128 DALI ballasts:

- DALI Master, complies with EN60929.
- Control up to 64 ballasts per module.
- Interrogate ballasts remotely via LPC web server.
- 3-pin 5.08mm plug-in rising clamp terminal. *
- 4 unit wide DIN enclosure.
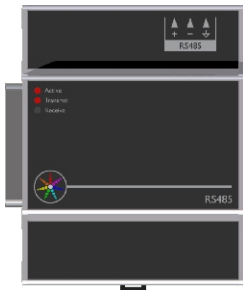- **CE** compliant and **ETL/cETL** listed.

Part Number: EXP DALI-M

DALI SLAVE

DALI is a popular architectural lighting control protocol and the Pharos DALI Slave Expansion Module allows one or more LPCs to be triggered by a DALI controller:

- DALI Slave or Ballast, complies with EN60929.
- Trigger LPC(s) from DALI controller or wall/touch panel.
- Interrogate LPC(s) for maintenance via DALI controller.
- Augment an existing DALI installation with LED and automated lights.
- 3-pin 5.08mm plug-in rising clamp terminal. *
- 4 unit wide DIN enclosure.
- **CE** compliant and **ETL/cETL** listed.

Part Number: EXP DALI-S

RS485

The Pharos RS485 Expansion Module allows the LPC to receive and generate RS485 serial command strings to facilitate interfacing to show control and user interface (wall station, touch panel) devices:

- Trigger one or more LPCs in response to command strings from RS485 devices.
- Generate command strings to control RS485 devices.
- Optically isolated transceiver suitable for harsh, industrial control environments.
- Half-duplex operation up to 500K baud.
- 3-pin 5.08mm plug-in rising clamp terminal. *
- 4 unit wide DIN enclosure.
- **CE** compliant and **ETL/cETL** listed.
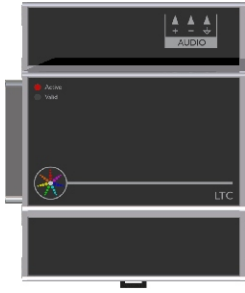
Part Number: EXP RS485

DMX INPUT

The Pharos DMX Input Expansion Module allows one or more LPCs to be controlled by any USITT DMX512 compatible system:

- Configure one or more DMX channels as triggers or realtime variables for intensity or colour control.
- Augment an existing DMX installation with LED and automated lights.
- Optically isolated DMX512 transceiver, RDM compatible.
- 3-pin 5.08mm plug-in rising clamp terminal. *
- 4 unit wide DIN enclosure.
- **CE** compliant and **ETL/cETL** listed.
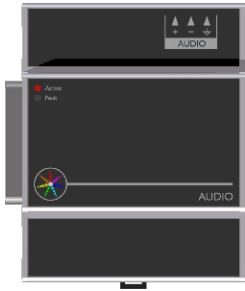
Part Number: EXP DMX-IN

TIMECODE

The Pharos Timecode Expansion Module reads all Linear Time Code (LTC) formats allowing a presentation to be synchronised with audio-visual or show control equipment:

• 24fps (film), 25fps (PAL/EBU), 29.97fps (NTSC) & 30fps (SMPTE).
• Balanced line level audio input for improved noise immunity.
• Jumps, slow- and fast-code support in either play direction.
• Software "fly-wheel" and error correction routines.
• 3-pin 5.08mm plug-in rising clamp terminal. *
• 4 unit wide DIN enclosure.
• **CE** compliant and **ETL/cETL** listed.

Part Number: EXP LTC

AUDIO

Realise the power and flexibility of the LPC's playback engine with the Audio Expansion Module which allows realtime manipulation of intensity, colour and timeline playback to create sophisticated sound-to-light or "light organ" effects:

• 5-band spectrum analysis: 63Hz, 250Hz, 1KHz, 3.5KHz & 12KHz.
• Balanced line level audio input, software adjustable gain.
• Use two modules for stereo applications.
• 3-pin 5.08mm plug-in rising clamp terminal. *
• 4 unit wide DIN enclosure.
• **CE** compliant and **ETL/cETL** listed.

Part Number: EXP AUDIO

* Camden Electronics CTB9208/3 (supplied).

INTERFACING SUPPORT

While the Pharos Controller and Expansion Module range covers a wide variety of open-architecture communication protocols and established triggering standards it is envisaged that particular installations may require additional interfacing solutions or additional programming support.

Some examples are given below, please enquire regarding your specific requirements:

• Proprietary protocols (with agreement).
• Environmental monitoring, for example barometric pressure or wind speed.
• Telemetry solutions, for example SMS Text or GPRS.

For digital and analog inputs, contact closure outputs and additional RS232 or RS485 serial ports please also refer to the Pharos Remote Devices.

71.5mm
(4 UNITS)

90.0mm

58.0mm