ETC Paradigm Architectural Control Processor

Unison Control Series

Type(s)

Project

Date

Notes

GENERAL INFORMATION

The Paradigm Architectural Control Processor is designed for easy interaction and rapid response. The Paradigm ACP's built-in memory and processing power works with vast amounts of lighting control data and is fast enough to process 1,024 simultaneous fades over any of its native protocols.

APPLICATIONS

- Houses of worship
- Schools
- Restaurants
- Hotels
- Museums
- Casinos
- Ballrooms

FEATURES

- Designed for use in Unison DRd and ERn enclosures
- Point of Control Interface: easy-to-read system display shows the user pertinent system information
- Supports Calculated Energy Reporting for configured loads when used in a Central Control Server System.
- LinkConnect: using Echelon® LonTalk® protocol with LinkPower, the two-wire topology-free system gives you the freedom to put stations where you need them
- NetConnect: Makes use of low-cost, easy-to-install Cat5/5e with PoE to connect touchscreen stations and other devices to a networked Paradigm System
- USBConnect: support for USB flashdrives for configuration upload and download
- QuickLoad: SD Media support for upload, and backup of configuration data
- LightDesigner Access: Web browser interface for easy modification, activation and monitoring of your system configuration and status
- LocalAccess: user control at the interface, including creation of timed events and editing of presets or sequences
- Secure-It Access Control: multiple levels of secure user access at the interface

REGULATORY AND COMPLIANCE

- cULus Listed
- CE Compliant

ORDERING INFORMATION

Paradigm Architectural Control Processor

MODEL	DESCRIPTION
P-ACP	Unison Paradigm Architectural Control Processor

Compatible Power and Control Enclosures

MODEL	DESCRIPTION
DRd	Unison Dimming Enclosure (12 and 24 circuits)
ERn	Unison External Control Enclosure

Unison Paradigm System Accessories

MODEL	DESCRIPTION
P-SPM-E	Unison Paradigm Station Power Module
P-NSPS-D	Unison Paradigm Network Station Power Supply

SPECIFICATIONS

MECHANICAL

- Designed for use in the Unison DRd Rack Enclosure Series and Unison ERn Control Enclosure Series
- Microprocessor-based, solid-state technology to provide multi-scene lighting and building controls
- Fully-contained plug-in module with no discrete wire connections
- Tool-free installation
- Front-panel user interface with backlit LCD and alphanumeric button panel
- Support of RJ-45 Ethernet, Secure Digital (SD) and Universal Serial Bus (USB) media on the front panel

ELECTRICAL

- No discrete wiring connections required for use in a dimming or control enclosure
- Echelon® LinkPower® communications with remote devices, including button stations, button/fader stations, touchscreen stations, sensors, and third party LonMARK compliant products
- Hot swapable
- System configuration and programming information stored in flash memory
- Support of ESTA BSR E1.17 Advanced Control Networks (ACN) and ESTA BSR E1.31 (sACN) Protocols
- Supports EIA-RS232 serial protocol for bi-directional command and communication with third-party equipment
- Compliant with IEEE 802.3i for 10BASE-T, 802.3u for 100BASE-TX and 802.3af for Power over Ethernet
- Two discrete ESTA DMX512A ports, configurable as input or output ports*
- Supports User Datagram Protocol (UDP) messaging input and output for control of Paradigm or external systems
- Four dry-contact closure inputs
- Four contact-closure outputs, rated 1 A at 30 VDC

*When used in a Dimming Enclosure, the second DMX port is always an output

THERMAL

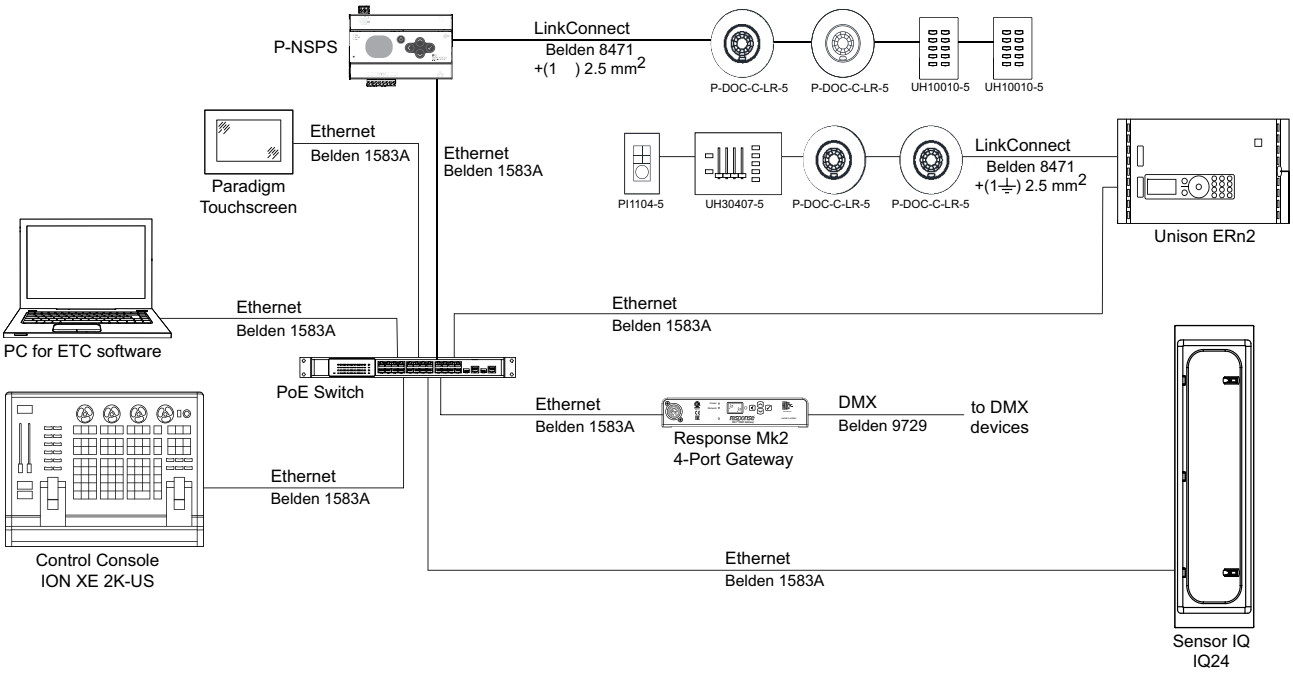
- Ambient room temperature: 0°C to 40°C (32°F to 104°F)
- Ambient humidity: 10%–90%, non-condensing

SPECIFICATIONS

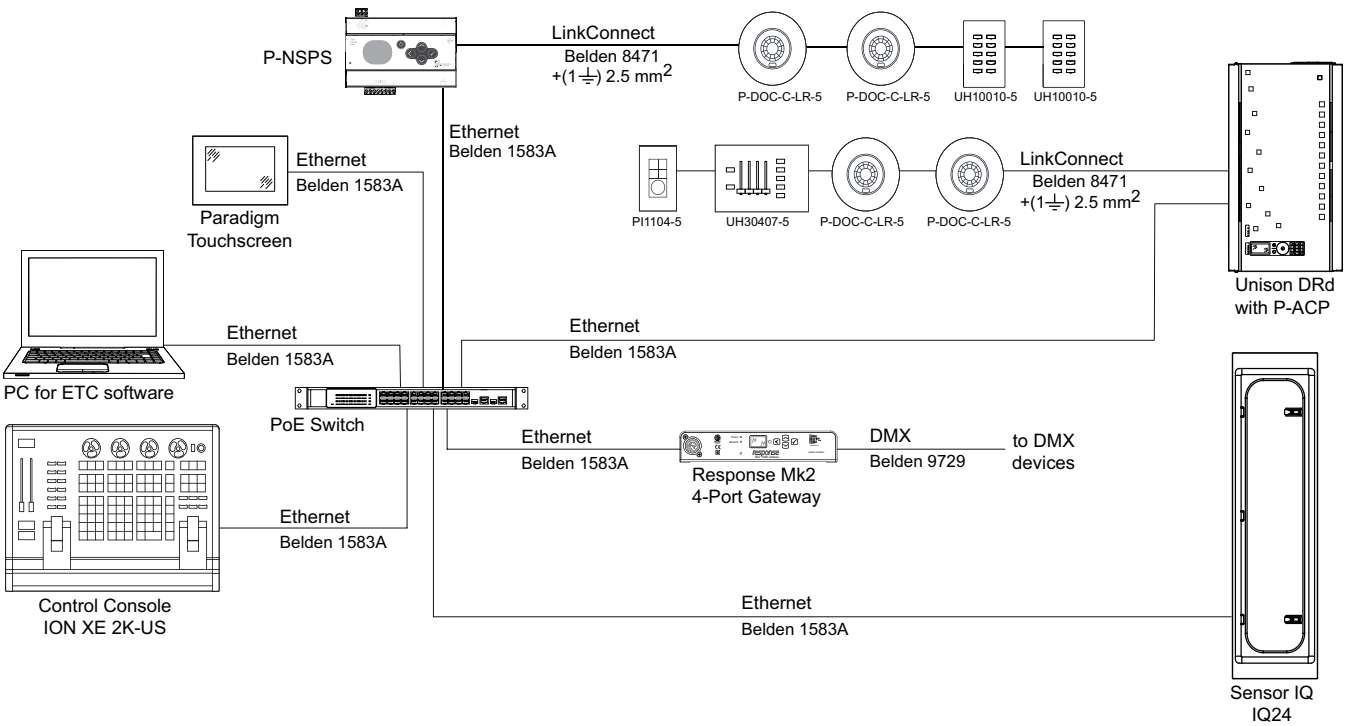
FUNCTIONAL

- Capacity
  - Supports 1,024 channels of control per control processor
  - Supports up to 128 stations per control processor
    - Each P-SPM-E can support 63 stations
    - Each P-NSPS-D can support 63 stations
    - Maximum (1) P-SPM-E and (5) P-NSPS-D per control processor for a total of 128 stations
- System
  - Net3 system interoperability including sACN
  - Network Time Protocol for real-time clock synchronization supporting real and astronomical events
  - Supports two physical DMX ports, each configurable as an input or output
  - Provides configuration of DRd dimming operations
  - Up to 12 control processors per system
  - Addition of processors to a system proportionately increases the overall capacities
- Serial Input/Output
  - Eight-bit word length, parity selection and one or two stop bits
  - Fully customizable input and output messages
  - Bi-directional
- Configuration Data
  - Remote upload from a connected PC running LightDesigner or another connected Paradigm ACP
  - Stored in removable solid-state memory for easy transfer to another Paradigm ACP
- Local User Interface
  - Control functionality for control channels, zones, fixtures, groups, presets, macros, walls and sequences
  - Ability to schedule timed events (add/edit/delete)
  - Transfer of configuration using removable media
  - Transfer of configuration to and from touchscreen stations using removable media
- User Access Controls
  - Two user accounts – Administrator and User, local to each processor
- Web User Interface
  - Internal web server accessible via Ethernet port
  - Activate and deactivate presets
  - Schedule timed events (add/edit/delete)
  - Displays status information and log files
  - Configuration of processor settings
  - Supports configurable user login security options
- Diagnostics
  - Standard and Critical Event logging
- Stations
  - Connected to a Paradigm processor via topology-free LinkConnect, or star-topology NetConnect
  - Discovery and binding accomplished from the local user interface or LightDesigner
- Operation
  - Configurable DMX output refresh rate
  - Support for 16-bit DMX attributes
  - User configurable arbitration for multiple internal and external source data

SAMPLE SYSTEM RISER – ERn WITH PARADIGM CONTROL



SAMPLE SYSTEM RISER – DRd WITH PARADIGM CONTROL



ETC Paradigm Architectural Control Processor*

Unison Control Series

PHYSICAL

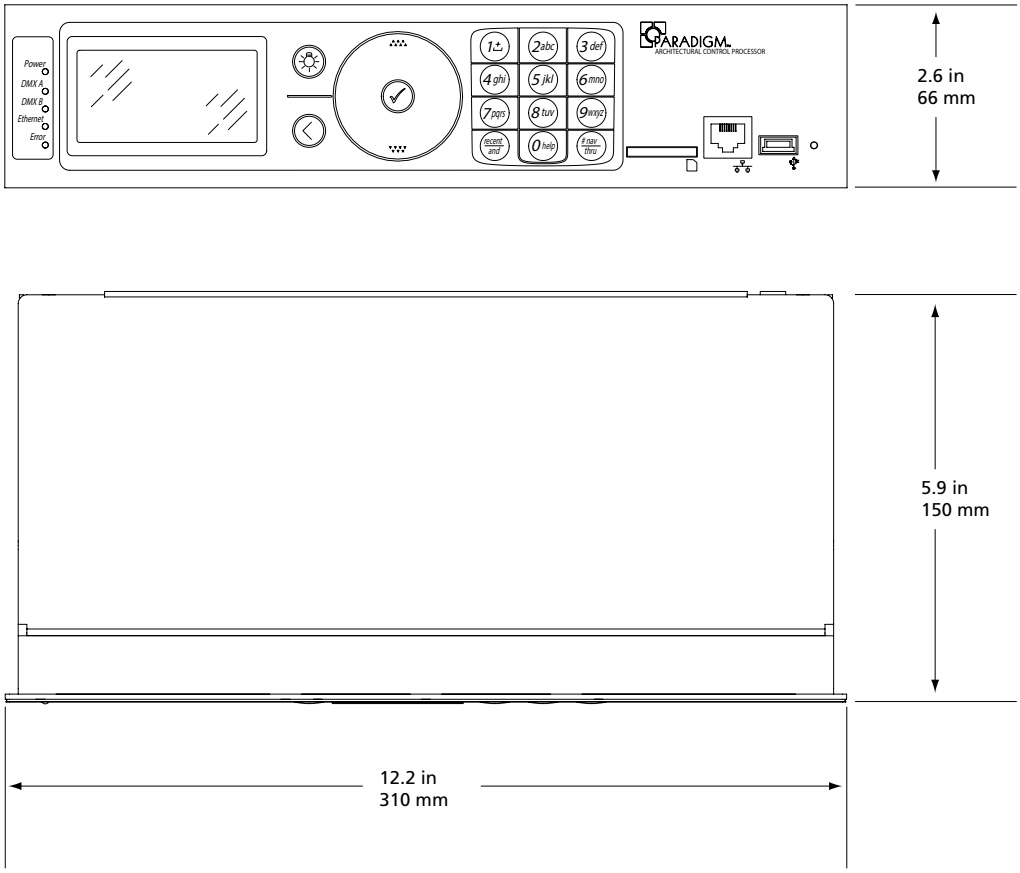
P-ACP Dimensions†

MODEL	HEIGHT		WIDTH		DEPTH	
	mm	in	mm	in	mm	in
P-ACP	66	2.6	310	12.2	150	6.0

P-ACP Weights†

MODEL	WEIGHT		SHIPPING WEIGHT	
	kg	lb	kg	lb
P-ACP	1.8	3.8	2.2	4.8

†Weights and dimensions typical



Corporate Headquarters ▪ Middleton, WI USA
Global Offices ▪ London, UK ▪ Rome, IT ▪ Holzkirchen, DE ▪ Paris, FR ▪ Hong Kong
Dubai, UAE ▪ Singapore ▪ New York, NY ▪ Orlando, FL ▪ Los Angeles, CA ▪ Austin, TX

etcconnect.com