ETC

Unison ERn Mk2 Control Enclosure

Unison Control Series

Type(s)

Project

Date

Notes

GENERAL INFORMATION

The ERn Mk2 External Enclosure line offers a wall- or rack-mount cabinet for your P-ACP-E Mk2 processors. The ERn is offered in different enclosure sizes and mounting options to meet each projects specifications. ERns offer a range of accessories including RideThru, redundant power supplies, integrated network switch, and an integrated Paradigm P-TS7 touchscreen.

APPLICATIONS

- Houses of worship
- Hotels
- Resorts
- Convention centers
- Theaters
- Schools
- Restaurants
- Theme parks
- Cruise ships

FEATURES

- Offered in two different sizes to host either 1 or 2 P-ACP-E processors
- LinkConnect with optional Station Power Module (P-SPM-E) using Echelon® LonTalk® protocol, adding support for up to 63 stations
- Wall-mount, or rack-mount in a 19 in equipment rack
- Optional Paradigm P-TS7-E touchscreen mounted to the front panel on a single-processor ERn4
- Optional 5-port PoE Ethernet Switch accessory*
- Optional Redundant Rack Power Supply†

REGULATORY AND COMPLIANCE

- cULus Listed
- CE compliant

ORDERING INFORMATION

ERn Enclosure

MODEL	DESCRIPTION
ERn2-W-__[1] Mk2	(1) P-ACP Control Enclosure Mk2, Wall-Mount
ERn2-RM-__[1] Mk2	(1) P-ACP Control Enclosure Mk2, Rack-Mount
ERn4-W-__[1] Mk2	(2) P-ACP Control Enclosure Mk2, Wall-Mount
ERn4-RM-__[1] Mk2	(2) P-ACP Control Enclosure, Mk2 Rack-Mount
ERn4-W-__-S[1,2] Mk2	(1) P-ACP Control Enclosure, Mk2 Wall-Mount with a P-TS7 touchscreen opening

[1] Available for 100–120 V, 230 V and 240 V options. Enter the desired voltage in the blank space when ordering (for example ERn4-W-120). ERn4-RM is not available in 230 V variant.
[2] P-TS7 purchased separately

Modules

MODEL	DESCRIPTION
P-ACP-E Mk2*	Paradigm Processor Mk2 - Enclosure
P-SPM-E Mk2	Paradigm Station Power Module Mk2 - Enclosure
ERn-BM	ERn Blank Module

* One required per enclosure, the use of two are possible with ERn4 dual processor variant

Option Modules and Accessories

MODEL	DESCRIPTION
ERn-Net†‡	ERn Ethernet Switch with Power over Ethernet
ERn-RPS Mk2‡‖	ERn Mk2 Redundant Power Supply
URTO Mk2	Unison Mk2 RideThru Option
ERn_-_-Upg§	ERn Mk1 to Mk2 Upgrade Kit

† Compatible with wall-mount (W) ERn enclosures only
‡ Not compatible with the ERn4 single processor enclosure
‖ Not compatible with 230 V CE enclosures.
§ ERn upgrade kits are available for each rack size, type, and each voltage option. Specify upon ordering.

SPECIFICATIONS

GENERAL

- External processing enclosure designed for one or two Paradigm Mk2 control processors and accessories

MECHANICAL

- 18-gauge formed steel construction
- Fine-texture, scratch-resistant epoxy paint
- Wall-mount and 19 in rack-mount variants
- Rack-mount enclosure sizes:
  - ERn2: 5 rack units
  - ERn4: 8 rack units
- Convection-cooled
- Locking door with limited access to control processor
- Tool-free module removal and installation
- 19 in equipment-rack mount variant offers connectorized rear panel for all wiring connections
- Wall-mount variant offers front access wiring terminations
- Top, bottom, and side knockouts for conduit entry
- Optional variant with field installed touchscreen control station

ELECTRICAL

- External processing enclosure rated for 100 - 120 V, 230 V (CE), or 240 V (UL) single phase configurations
- Max power draw
  - ERn2: 2.3 A
  - ERn4: 4.1 A
- Supports the following wire terminations:
  - AC (single phase)
  - 24 VDC Aux Power (35–1.5 mm^2 [2–16 AWG])
  - LinkConnect
  - Two configurable DMX512–A ports
  - RS232 Bi-directional serial
  - Cat5/5e UTP Ethernet (compliant with IEEE 802.3i for 10/100/1000 BASE-T, Auto-MDI)
  - Contact I/O, 4in/4out (2.5–0.2 mm^2 [14–26 AWG])
  - Contact output rated 1 A at 30 VDC
- Contractor-supplied input and control wiring
- Factory-provided connectors for wiring terminations

THERMAL

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

RACK OPTIONS AND ACCESSORIES

CONTROL PROCESSORS

- Paradigm Processor Mk2 - Enclosure (P-ACP-E)

STATION POWER MODULES

- Station Power Module Mk2 - Enclosure (P-SPM-E)
  - Provides Echelon® LinkPower for up to 63 stations
  - Provides 24 V auxiliary power for interface and touchscreen stations
  - Provides 500 m (1,640 ft) of station bus from the ERn enclosure

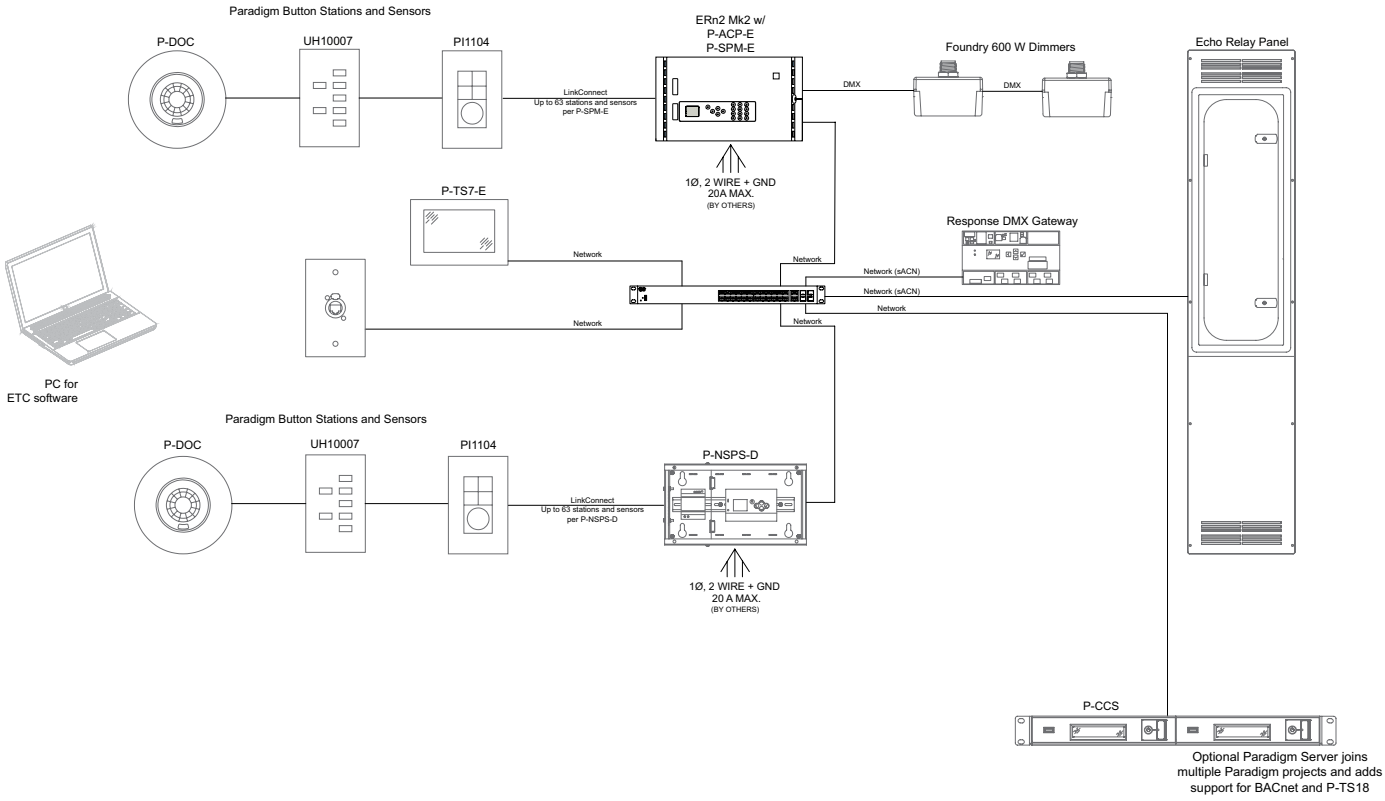
OPTION MODULES

- Ethernet Switch (ERn-NET)
  - Five-port Ethernet switch with four ports supplying Power over Ethernet (PoE)
  - 100BaseTX 802.3af PSE compliant
  - For use in wall-mount ERn only (not compatible with the ERn4 single processor enclosure)
- Redundant Power Supply Mk2 (ERn-RPS Mk2)
  - Seamless power for control processors upon failure or removal of the primary power supply
  - Front-panel indicator for RPS status
  - Not compatible with the ERn4 single processor enclosure
  - Not compatible with 230 V CE enclosures

ACCESSORIES

- Unison RideThru Option (URTO Mk2)
  - Short-term power backup of control electronics for at least 12 seconds during short power outages
  - Automatically engages when power is lost
  - Prevents P-ACP-E from rebooting after a brownout once power is restored
  - Recharges during normal power operation

TYPICAL SYSTEM RISER – PARADIGM CONTROL



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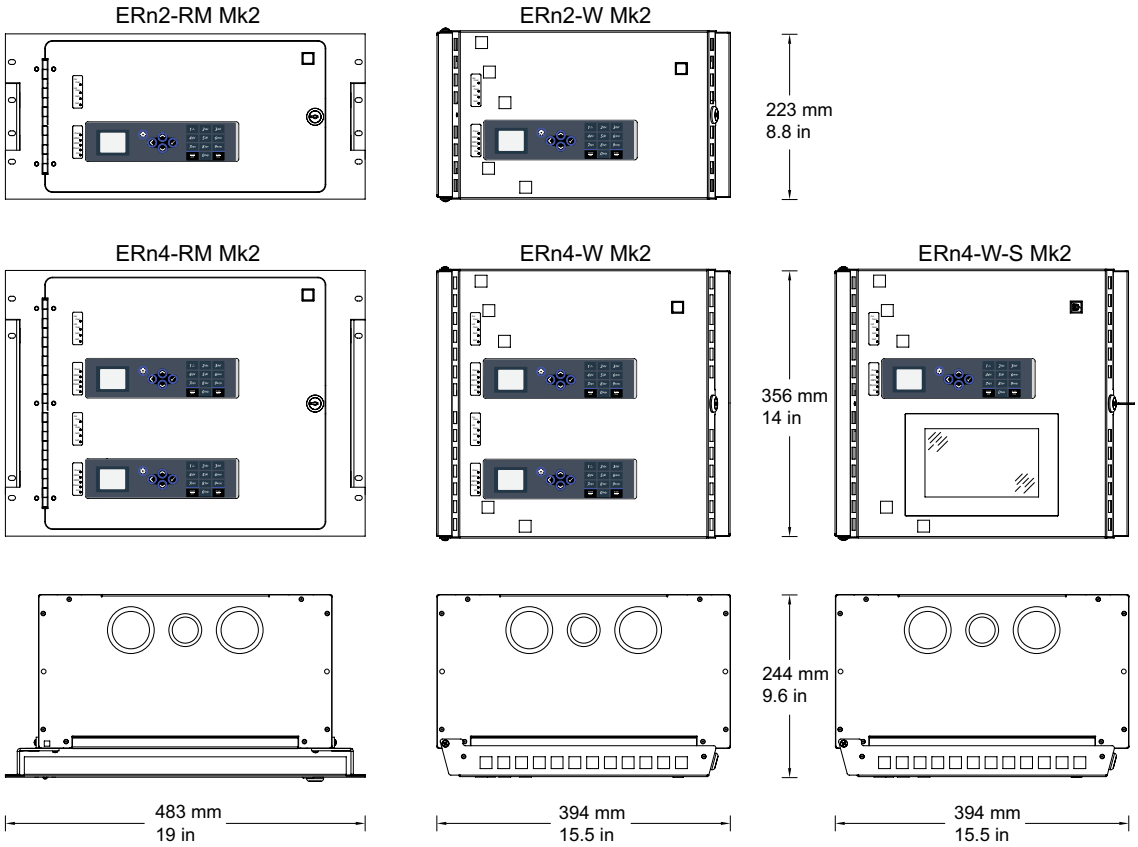
PHYSICAL



ERn Dimensions†

MODEL	HEIGHT		WIDTH		DEPTH	
	mm	in	mm	in	mm	in
ERn2-W Mk2	223	8.8	394	15.5	244	9.6
ERn2-RM Mk2	223	8.8	483	19.0	244	9.6
ERn4-W/W-S Mk2	356	14.0	394	15.5	244	9.6
ERn4-RM Mk2	356	14.0	483	19.0	244	9.6

ERn Weights†

MODEL	WEIGHT		SHIPPING WEIGHT	
	kg	lb	kg	lb
ERn2-W Mk2	6.8	15	9.1	20
ERn2-RM Mk2	9.1	20	9.6	21
ERn4-W/W-S Mk2	9.1	20	11.4	25
ERn4-RM Mk2	11.4	25	13.2	29

†Weights are typical without modules or accessories. Dimensions are typical.

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