ETC

Unison Echo Relay Panel Feedthrough

Echo Power Control Series

GENERAL INFORMATION

The Echo Relay Panel Feedthrough is a control-oriented switching and power control built with today and tomorrow's lighting loads in mind. Echo Relay Panel adds ETC's latest Echo Control package with support for 0–10 V control to our trusted conventional switching system. With built-in station, sensor, DMX and TimeClock controls and Ethernet connectivity, plus optional 0–10 V dimming, DALI output and contact inputs, the Echo Relay Panel Feedthrough integration opportunities are limitless.

APPLICATIONS
- Houses of worship
- Ballrooms and convention centers
- Multi-purpose rooms
- Arenas and stadiums
- Entertainment facilities with DMX control
- Retrofits for lighting systems with existing breaker panels

FEATURES
- 120–277 V single-pole and 208 V or 480 V double-pole switching
- Up to 48 relays per panel
- Switches all relays at once or with configurable delay
- Mechanically latching relays fully rated to 20 A
- Manual ON/OFF override with position indication
- Relays support field installation and replacement
- Echo, sACN, DMX-512, TimeClock, or stand-alone control
- Built-in EchoConnect power supply for up to 6 Echo stations/ sensors and 5 output products
- Built-in network interface provides:
  - Advanced control of relays over streaming ACN (sACN)
  - Web UI for configuration
- Local control with Astronomical timeclock and manual override per circuit
- UL924 LISTED emergency control bypass contact input
  - Voltage barrier for normal/emergency mixed use panels
- cULus LISTED

ORDERING INFORMATION

Standard Model Numbers

MODEL	DESCRIPTION
ERP24-FT	Echo Relay Panel Feedthrough 24-way panel without relays
ERP24-FT12	Echo Relay Panel Feedthrough 24-way panel with 12 relays
ERP24-FT24	Echo Relay Panel Feedthrough 24-way panel with 24 relays
ERP48-FT	Echo Relay Panel Feedthrough 48-way panel without relays
ERP48-FT48	Echo Relay Panel Feedthrough 48-way panel with 48 – 20 A single pole Relays
ERP48-FT482P	Echo Relay Panel Feedthrough 48-way panel with 48 – 20 A 208 V double-pole relays

Note: Optional voltage divider available for use of both normal and emergency circuits in a single panel; where allowed by local code.

Custom Build Model Numbering

MODEL	QTY SINGLE POLE 120V/277V	/	QTY DOUBLE POLE 208V	/	QTY DOUBLE POLE 480V
ERP-FT	#1P	/	#2P	/	#480

Note: Panels support up to 24 or 48 relays. All relays utilize a single position, except 2P 480 V relays which utilize two positions

Examples:

ERP-FT-241P/242P – Twenty-four 20A single-pole 120/277 V relays and twenty-four 20 A double-pole 208 V relays and zero double-pole 480 V relays

ERP-FT-241P/122P/6480 – Twenty-four 20 A single-pole 120/277 V relays and twelve 20 A double-pole 208 V relays and six double-pole 480 V relays

Echo Power Requirements

EchoConnect:	1 Unit of Output Power
Auxiliary Power:	Not Required

Built-in EchoConnect Power Supply

EchoConnect:	Provides 6U of control power and an additional 5U of Output Power*
Auxiliary Power:	Not Provided

*Note: Built in power supply can be disabled.

Echo Presets

Supports 64 Echo Presets per space; up to 16 Echo spaces

For more information, download the Echo Quick Guide

SPECIFICATIONS

REGULATORY AND COMPLIANCE
- Underwriters Laboratories tested and listed to the following standards:
  - UL508 Listed (File: E92154)
  - UL924 Listed (File: E242514)
- Complies with ANSI E1.11 DMX512-A standard
- Complies with ANSI E1.31 streaming ACN standard

USER INTERFACE
- Graphical display with LED backlight
- Button interface with:
  - 0-9 number buttons
  - Up, down, back and enter navigation buttons
  - "Light bulb" test button for local activation of preset, sequence and set level overrides
- USB interface for upload of setup and software updates
- Onboard Web UI for simple configuration

MECHANICAL
- Panel consists of enclosure, covers with locking doors, and internal subpanels
- Enclosure constructed of 16-gauge steel finished in black, fine-textured, scratch-resistant powder coat paint
- Removable conduit panels on top, bottom and sides
- Full front access with no side clearance required
- Removable covers for access to Class 1 and Class 2 wiring
- Locking doors allow controlled access to manual override switch of each relay and Class 2 wiring only
- All low-voltage wiring is physically separated from AC by a mechanical barrier
- Removable subpanels containing the electronics and relays can ship separately – contact ETC

ELECTRICAL
- Discrete feed per circuit supports mixed voltage in a single panel
- Single panel for up to 48 relays, populated in any combination of single- or double-pole
- Separate wiring chambers for Class 1 and Class 2 terminations
- Optional voltage barriers install without tools between relays for separation of normal and emergency circuits

CONTROL ELECTRONICS
- Input: 120–277 V (+/-15%), 50/60 Hz, <16 A
- Multi-tap transformer terminals accept up to 12AWG wire
- Control wiring terminations accessible via flip down door
  - Control terminals accept maximum of 12AWG wire
  - Control wiring exiting the panel are Class 2
  - All control terminations utilize removable connectors
- Relay modes: Normal (priority/HTP), latch-lock or last-action
- Configurable DMX on/off threshold
- Built-in Echo control supports:
  - Up to sixteen spaces with 64 presets per space configurable via local UI or Echo Inspire control stations
    · Presets 1-16 can be configured remotely via Echo Access or integrated Web UI
  - One 16-step sequence per space
  - UL924 LISTED emergency control bypass
  - Time-of-day and astronomical timeclock with flick-warn and holiday overrides
- Configurable data-loss behavior supports:
  - Play preset; Hold last look; Wait and fade

SPECIFICATIONS

RELAY RATINGS
- 20 A 300 V General Purpose
- 20 A 300 V Ballast (HID)
- 20 A Tungsten
- Motor Loads:
  - 0.5 HP @ 120 V
  - 1.5 HP @ 240/277 V
- SCCR: 18,000 A @ 277 V (1P); 5,000 A @ 277 V (2P & 480)
- Inrush: 2000 A (1P only)
- Isolation: 2,500 V RMS
- State: Latching
- Relays are mechanically held
- Life: 60,000 cycles at full load
- Terminal: Accepts 14-10AWG copper wire

ENVIRONMENTAL
- Thermal: 0°–40° C operating temperature
  - 10 A relay - 20 BTU/hr (estimated)
  - 15 A relay - 40 BTU/hr (estimated)
  - 20 A relay - 60 BTU/hr (estimated)
- Humidity 10–90% (non-condensing)

ECHO RELAY PANEL ACCESSORIES

Echo Relay Panel Accessories

ERP-FT-1PRK	120–277 V Single-Pole, Single-Space Relay Kit
ERP-FT-2PRK	208 V / 240V Double-Pole, Single-Space Relay Kit
ERP-FT-2P480RK	480 V Double-Pole, Double-Space Relay Kit
ERP-FT-LVD	0–10 V Dimming Control Option
ERP-FT-DALI	DALI-Control Option
ERP-FT-CI	Contact-Input Option
ERP-FT-RTO	Ride-Thru Option
ERP-FT-VB	Voltage-Barrier Kit
ERP-FT-RMW	19" Rackmount Kit (15U)
ERP-FT-TPH	Tamper-proof Hardware Kit with tool

0-10 Dimming Option
- 24 outputs of 0–10 V sink dimming control rated for 400 mA per output

Contact Input Option
- 24 dry contact inputs which can be used to:
  - trigger presets and sequences, which will play at the priority configured for architectural sources, or;
  - directly control one or more outputs. The priority of these outputs is configurable. If nothing is configured, the last action takes precedence

DALI Control Option
- 24 control loops of broadcast DALI control
- Each loop supports up to 64 ballasts
- External DALI power supply required

Ride Thru Option
- Short-term power backup of control electronics
- Automatically engages when power is lost
- Recharges during normal power operation

Tamper-proof Hardware Kit
- Special screw heads prevent access to panel interior

ECHO FAMILY OF PRODUCTS

EchoConnect Power Supplies

MODEL	DESCRIPTION
E-SPS	6 U Room Station Power Supply, Knockout Mount
E-SPS-DIN	16 U DIN rail Station Power Supply with 24 V Aux
E-SPM	16 U DRd Station Power Module
E-SPM-A	16 U DRd Station Power Module with 24 V Aux
E-SPM-RM	16 U Rack-Mount Station Power Module Aux
E-SPM-RM-A	16 U Rack-Mount Station Power Module 24 V Aux
E-SPM-WM	16 U Wall-Mount Station Power Module
E-SPM-WM-A	16 U Wall-Mount Station Power Module 24 V Aux
E-APS	24 V Aux Power Supply, Knockout Mount

EchoTouch

MODEL	DESCRIPTION
ETS	EchoTouch Controller

Echo Stations

MODEL	DESCRIPTION
E1001	Inspire One Button Station
E1002	Inspire Two Button Station
E1004	Inspire Four Button Station
E1006	Inspire Six Button Station
E1008	Inspire Eight Button Station
E1104	Inspire Four Button with Fader Station
EPS05	Echo Preset Station - 5 Button
EPS10	Echo Preset Station - 10 Button
EPSKS	Echo Keyswitch Station
E-ATC	Echo TimeClock

Echo Responsive Controls

MODEL	DESCRIPTION
ELS	Light Sensor
EOCC	Ceiling-Mount PIR Occupancy Sensor
EVAC	Ceiling-Mount PIR Vacancy Sensor
E-DOC-C	Ceiling-Mount Dual Tech Occupancy Sensor
E-DVAC-C	Ceiling-Mount Dual Tech Vacancy Sensor
E-DOC-W	Wall-Mount Dual Tech Occupancy Sensor
E-DVAC-W	Wall-Mount Dual Tech Vacancy Sensor
E-DOC-SM1	Switch-Mount Dual Tech Sensor - One Button
E-DOC-SM2	Switch-Mount Dual Tech Sensor - Two Button

Echo Interfaces

MODEL	DESCRIPTION
EACC	EchoAccess Interface
EEB	Echo Expansion Bridge
EDMXC	Echo DMX Scene Controller
EEI	Echo-Echoflex Interface
ECII	Echo Contact Input Interface
ECOI	Echo Contact Output Interface
EDRI	Echo Demand Response Interface
EBI	Echo BACnet Interface

Zone Controllers

MODEL	DESCRIPTION
ERC-G2	One Zone Relay Controller
EDRC-G2	Two Zone Relay Controller
ELD-G2	One Zone 0-10 V Controller
EDLD-G2	Two Zone 0-10 V Controller
ESSC-G2	One Zone SmartSpace Controller
EDSSC-G2	Two Zone SmartSpace Controller
ELVD-G2	600-Watt Phase Adaptive Dimmer
ELVD-277-G2	600-Watt Phase Adaptive Dimmer- 277 V

Room Controllers

MODEL	DESCRIPTION
ERMC4-G2	Four Zone Room Controller
ERMCT4-G2	Four Zone Room Controller with TimeClock
ERMC8-G2	Eight Zone Room Controller
ERMCT8-G2	Eight Zone Room Controller with TimeClock

Panel Products

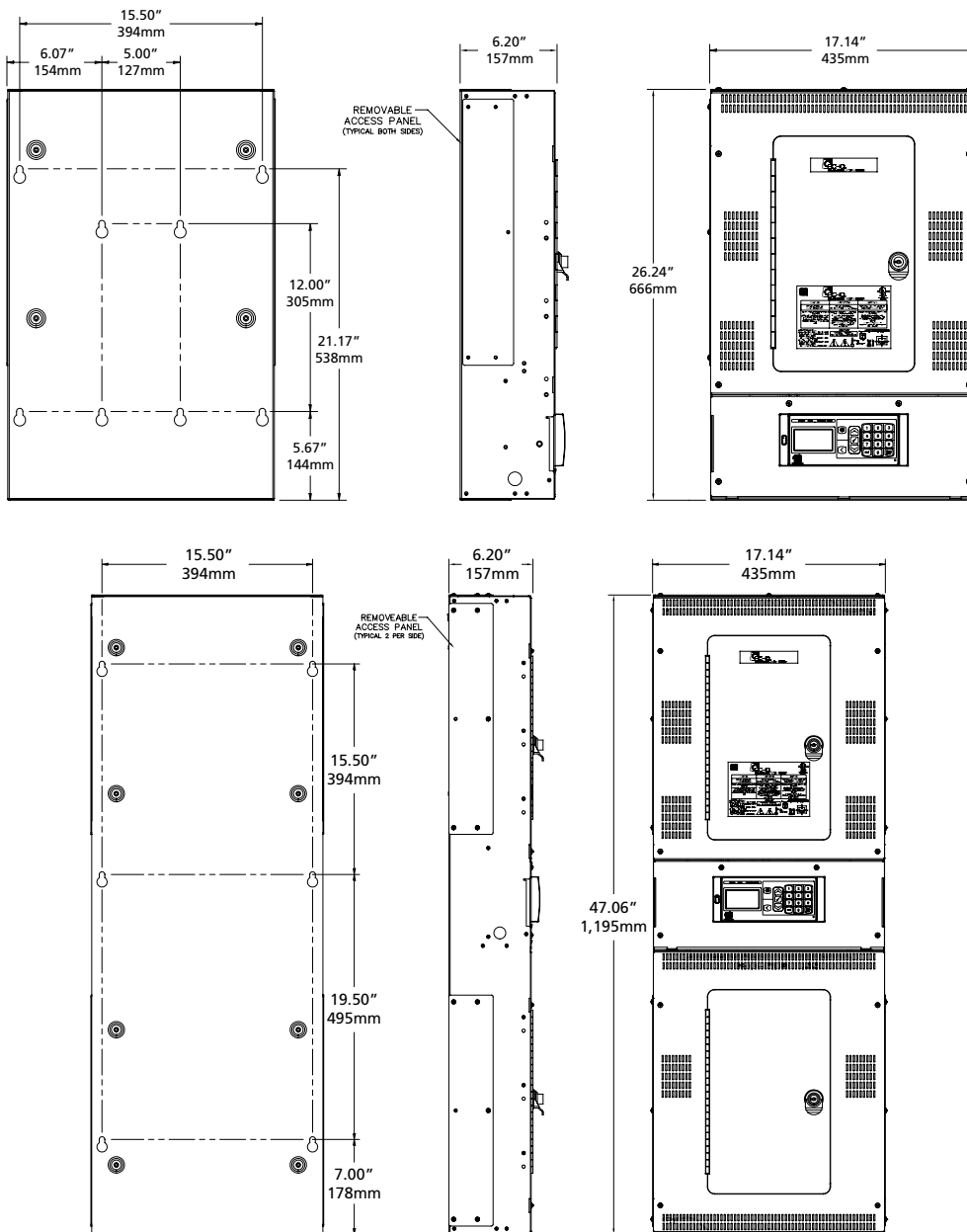| MODEL	DESCRIPTION
ERP	Echo Relay Panel Mains Feed
ERP-FT	Echo Relay Panel Feed Through
SensorIQ	Sensor IQ Intelligent Breaker System
SR3	Sensor3 Power Control System
DRd	Unison DRd with Echo Control

PHYSICAL

ERP-FT Relay Panel Dimensions

MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
ERP24-FT	26.24	666	17.14	435	6.20	157
ERP48-FT	47.06	1,195	17.14	435	6.20	157

ERP-FT Relay Panel Weights

MODEL	WEIGHT		SHIPPING WEIGHT	
	lb	kg	lb	kg
ERP24-FT	45	20.49	46	20.87
ERP48-FT	81	36.8	90	40.8

etcconnect.com