



115/120V 230V 277V

Power Series



GENERAL INFORMATION

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

- 120V-277V single-pole and 208 or 480V double-pole switching
- Up to 48 relays per panel
- Switches all relays at once or with configurable delay
- Mechanically latching relays fully rated to 20A
- Manual ON/OFF override with position indication
- Relays support field installation and replacement
- Elaho, sACN, DMX-512, TimeClock, or stand-alone control
- Built-in power supply for up to 6 Elaho 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
- UL and cUL LISTED

ORDERING INFORMATION

Standard Model Numbers

MODEL	DESCRIPTION
ERP24-FT	Relay Panel Feedthrough 24-way panel without relays
ERP24-FT12	Relay Panel Feedthrough 24-way panel with 12 relays
ERP24-FT24	Relay Panel Feedthrough 24-way panel with 24 relays
ERP48-FT	Relay Panel Feedthrough 48-way panel without relays
ERP48-FT48	Relay Panel Feedthrough 48-way panel with 48 – 20A single pole Relays
ERP48-FT482P	Relay Panel Feedthrough 48-way panel with 48 – 20A 208V 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 480V relays which utilize two positions

Examples:

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

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

Power Requirements

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

Built-in Power Supply

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

*Note: Built in power supply can be disabled when used with external 16U Power Supply or when multiple relay panels are used in a single system

Presets

Supports 64 Presets

SPECIFICATIONS

APPROVALS AND CERTIFICATIONS

- 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: 120V-277V (+/-15%), 50/60Hz, <16 amps
- 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 Elaho control supports:
 - Up to eight spaces with 16 presets per space
 - 16 zones per space
 - 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

- 20A 300V General Purpose
- 20A 300V Ballast (HID)
- 20A Tungsten
- Motor Loads:
 - 0.5 HP @ 120V
 - 1.5 HP @ 240/277V
- SCCR: 18,000A @ 277V (1P); 5,000A @ 277V (2P & 480)
- Inrush: 2000A (1P only)
- Isolation: 2,500V 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
 - 10A relay - 20 BTU/hr (estimated)
 - 15A relay - 40 BTU/hr (estimated)
 - 20A relay - 60 BTU/hr (estimated)
- Humidity 10-90% (non-condensing)

RELAY PANEL ACCESSORIES

Relay Panel Accessories

ERP-FT-1PRK	120-277V Single-Pole, Single-Space Relay Kit
ERP-FT-2PRK	208V Double-Pole, Single-Space Relay Kit
ERP-FT-2P480RK	480V Double-Pole, Double-Space Relay Kit
ERP-FT-LVD	0-10V 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 0-10V sink dimming control rated for 400mA per output

Contact Input Option

- 24 dry contact inputs for direct control of relays

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

ELAHO FAMILY PRODUCTS

Bus Power Supplies

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

ElahoTouch

MODEL	DESCRIPTION
ETS	ElahoTouch Controller

Elaho 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	Preset Station - 5 Button
EPS10	Preset Station - 10 Button
EPSLO	Lockout Station
E-ATC	TimeClock

Elaho 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

Elaho Interfaces

MODEL	DESCRIPTION
EACC	ElahoAccess Interface
EEB	Expansion Bridge
EDMXC	DMX Scene Controller
EEL	Elaho-Echoflex Interface
ECII	Contact Input Interface
ECOI	Contact Output Interface
EDRI	Demand Response Interface
EBI	BACnet Interface

Zone Controllers

MODEL	DESCRIPTION
ERC-G2	One Zone Relay Controller
EDRC-G2	Two Zone Relay Controller
ELD-G2	One Zone 0-10V Controller
EDLD-G2	Two Zone 0-10V 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- 277V

Room Controllers

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

Panel Products

MODEL	DESCRIPTION
ERP	Elaho Relay Panel Mains Feed
ERP-FT	Elaho Relay Panel Feed Through

PHYSICAL

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

Relay Panel Weights

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

