



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 0–10 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 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

- 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
- 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
- cULus 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 – 20 A single pole Relays |
| ERP48-FT482P | 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 120 V/277 V | / | QTY DOUBLE POLE 208 V | / | QTY DOUBLE POLE 480 V |
|--------|--------------------------------|---|--------------------------|---|--------------------------|
| 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 120/277V 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: 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 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

- 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)

RELAY PANEL ACCESSORIES

Relay Panel Accessories

| | |
|----------------|---|
| ERP-FT-1PRK | 120–277 V Single-Pole, Single-Space Relay Kit |
| ERP-FT-2PRK | 208 V 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 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 | 6 U Room Station Power Supply, Knockout Mount |
| E-SPS-DIN | 16 U DIN rail Station Power Supply with 24V Aux |
| E-APS | 24V Aux Power Supply, Knockout Mount |

ElahoTouch

| MODEL | DESCRIPTION |
|-------|---------------------------|
| ETS | ElahoTouch Controller Mk2 |

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 |
| EPSKS | Keyswitch 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 |
| EBl | BACnet Interface |
| EII | Integration 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 (120 V) |
| ELVD-277-G2 | 600-Watt Phase Adaptive Dimmer (277 V) |
| ELVD-G2-MLV | 600-Watt Forward Phase Dimmer (120 V) |
| ELVD-277-G2-MLV | 600-Watt Forward Phase Dimmer (277 V) |

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 | kg | lb | kg |
| ERP24-FT | 45 | 20.49 | 46 | 20.87 |
| ERP48-FT | 81 | 36.8 | 90 | 40.8 |

