# **ETC**<sup>®</sup>

# **Unison Echo® Contact Interfaces**

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# **Echo Interface Series**



# GENERAL INFORMATION

Distributed system integration - Echo Contact Interfaces are available with 4-Input, Demand Response or 4-Output versions that provide simple and seamless integration with other control systems. The Echo Contact Input Interface (ECII) and Demand Response Interface (EDRI) accept wet or dry contacts and uses the closure to execute lighting actions in your Echo system. The Demand Response Interface allows a utility company to trigger a reduction of load within Echo Control System Spaces. The Echo Contact Output Interface (ECOI) provides triggers to control external devices. Additionally, the output interface can send Echo system control status updates/messages/information, enhancing communications with building management systems.

#### APPLICATIONS

- Small theaters
- Hospitality
- Healthcare facilities
- Conference and meeting rooms
- Lobby spaces
- Retail
- Houses of worship

#### FEATURES

- Available with 4-inputs, Demand Response or 4-outputs
- Input and Demand Response interface support wet or dry contacts
- Inputs a support momentary or maintained closures (per input)
- Demand Reponse supports maintained closures
- Outputs provides triggers for third-party systems
- Outputs support normally open or normally closed operation (per output)
- Programmable through EchoAccess mobile app
- EchoConnect<sup>®</sup>: two-wire topology-free system gives you the freedom to easily place stations wherever they are needed
- DIN rail mounted for simple installation

#### COMPLIANCE

- UL and cUL LISTED
- CE Marked
- California Title 24 compliant

# ORDERING INFORMATION

#### Product

MODEL	DESCRIPTION
ECII	Echo Contact Input Interface
EDRI	Echo Demand Response Interface
ECOI	Echo Contact Output Interface

#### **Mounting Accessories**

MODEL	DESCRIPTION
ECHO-DIN	Echo Low-Voltage DIN-Rail Cover Kit

#### ECHO POWER REQUIREMENTS

#### Echo Contact Input Interface

EchoConnect:	1 Unit of Control Power
Auxiliary Power:	40mA

#### Echo Demand Response Interface

EchoConnect:	1 Unit of Control Power
Auxiliary Power	40mA

#### Echo Contact Output Interface

EchoConnect:	1 Unit of Output Power
Auxiliary Power:	40mA

# Echo Presets (ECOI Only)

Supports 16 Echo Presets



#### SPECIFIC ATIONS

#### FUNCTIONAL

- Integrates with all Echo System products
- Input Interface provides four contacts in to trigger Echo presets, zones, space combine, etc.
- One input per contact input interface can be used to trigger space occupancy
- Demand Response Interface provides trigger of Demand Response in Echo Spaces, one space per input
- Output Interface opens and closes relays based on zone, preset, occupancy, or other control status

#### MECHANICAL

- Constructed of injection-molded black ABS plastic
- DIN rail mounting complies with DIN43880 (35/7.5 rail)
- Four integrated contact input terminals or four integrated contact output terminals
- Toggle switch for Basic and Custom and Config Mode
- Contact Status and power indicators
  - Green status indicator
  - Blue power indicator

#### ELECTRICAL

- Connects via two-wire EchoConnect control network through low-voltage Class 2 wiring + 24Vdc auxiliary power
  - Topology-free wiring over Belden 8471 or equivalent and one #14 ESD drain wire
  - Two #16 AWG wires for 24VDC auxiliary power
  - Max draw 40mA at 24VDC
  - Supports optional use of Belden 1583A or equivalent Ethernet control wire when used with Cat5 termination accessories
  - Wiring may be bus, loop, homerun or any combination of these
  - Supports up to 500 meters (1,640 feet) of control wiring
  - Up to 1,000 feet using Cat5
- MicroSD card slot for firmware maintenance
- Wire connections made using rising clamp screw terminals with support for 12-25 AWG (0.2mm<sup>2</sup>-4mm<sup>2</sup>) wire
- UL and cUL Listed, CE Marked

#### CONTACT AND DEMAND RESPONSE INPUTS

- Four pairs of terminal connectors support In and V-Out per input
- Wet or dry contact closure per input
- Momentary or Maintained input supported per contact (Input Interface)
- Maintained input supports per contact (Demand Response)
- Each input supports up to 2000 feet of 18 AWG wire (1000' to a switch, 1000' back to device), when device is fed with 24VDC input
- LED status indicator per inout indicates current input state

#### CONTACT OUTPUTS

- Four sets of terminal connectors for relay outputs
  - Normally open "N.O.", normally closed "N.C.", and common "COM" connectors
  - Each output is rated for 2A @ 30VDC/VAC
- LED status indicator per inout indicates current output state

#### THERMAL

- Ambient room temperature: 0-40°C / 32-104°F
- Ambient humidity: Maximum 90% non-condensing

#### FUNCTIONALITY

#### **BASIC MODE FUNCTIONALITY**

# Contact Input Interface

- Basic Mode
  - Inputs control Presets 1-4 (momentary)
  - Close / Open event: Toggle Preset
  - Contact held closed: Space Raise
  - Contact closed in rapid succession: Quick Toggle Preset
- Custom Mode without EchoAccess Configuration
  - Inputs control Presets 1-4 (maintained)
  - Close/ Open event: Toggle Preset

#### **Demand Response Interface**

• Inputs trigger Demand Response in Spaces 1-4 (Default) Contact Output Interface

#### Basic Mode

- Relays outputs are controlled by Zones 1-4
- Zone at 0: Contact Open
- Zone above 0: Contact Closed
- Custom Mode without EchoAccess Configuration
  - Relay outputs are controlled by the status of Presets 1-4
  - When the status of an assigned Preset is active, the corresponding relay output will be closed
  - When the status of an assigned preset is inactive, the corresponding relay will be open

#### FUNCTIONALITY

#### CUSTOM MODE FUNCTIONALITY

(Requires Programing with EchoAccess® Mobile App and additional Echo hardware)

#### **Contact Input Interface (Momentary)**

- **Push:** No Function, Preset Toggle, Preset Activate, Zone Toggle, Zone Lower, Zone Raise, Zone Set to Level, Space Off, Space Toggle, Space Lower, Space Raise, Space Set to Level, Space Combine Toggle, Space Combine, Space Uncombine, Space Lockout Toggle, Space Lockout Enable, Space Lockout Disable, Sequence Toggle, Sequence Activate, Zone Set to Color, Zone Set to Color Temp, Space Set to Color, Space Set to Color Temp, Timeclock Hold Toggle, Timeclock Hold Enable, Timeclock Hold Disable
- **Double Tap:** No Function, Preset Toggle, Preset Activate, Zone Toggle, Zone Set to Level, Space Off, Space Toggle, Space Set to Level, Zone Set to Color, Zone Set to Color Temp, Space Set to Color, Space Set to Color Temp, Timeclock Hold Toggle, Timeclock Hold Enable, Timeclock Hold Disable
- Hold: No Function, Zone Lower, Zone Raise, Space Lower, Space Raise

#### **Contact Input Interface (Maintained)**

- Maintained Open: No Function, Preset Activate, Zone Set to Level, Space Off, Space Set to Level, Space Combine, Space Uncombine, Space Lockout Enable, Space Lockout Disable, Sequence Activate, Zone Set to Color, Zone Set to Color Temp, Space Set to Color, Space Set to Color Temp, Timeclock Hold Enable, Timeclock Hold Disable
- Maintained Closed: No Function, Preset Activate, Zone Set to Level, Space Off, Space Set to Level, Space Combine, Space Uncombine, Space Lockout Enable, Space Lockout Disable, Sequence Activate, Zone Set to Color, Zone Set to Color Temp, Space Set to Color, Space Set to Color Temp, Timeclock Hold Enable, Timeclock Hold Disable

#### Contact Input Interface (Occupancy) - One per interface

- Occupancy: No Function, Preset Activate, Zone Set to Level, Space Set to Level
- Vacancy: No Function, Preset Activate, Zone Set to Level, Space Off, Space Set to Level

#### **Demand Response Interface**

- Each contact can be assigned to trigger Demand Response in any Space or collection of Spaces
- A Space can only be assigned to a single contact

#### **Contact Output Interface**

- Zone Status: If value is non-zero the output will be closed
- Preset Status: If Preset is active the output will be closed
- Space Combine Status: If combined output will be closed
- Space Occupancy Status: If Occupied contact will be closed
- Space Off: If Space is off contact will be closed

# ECHO FAMILY OF PRODUCTS

#### **EchoConnect 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

#### **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
EPSLO	Echo Lockout 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

#### **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
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
SensorlQ	Sensor IQ Intelligent Breaker System
SR3	Sensor3 Power Control System
DRd	Unison DRd with Echo Control

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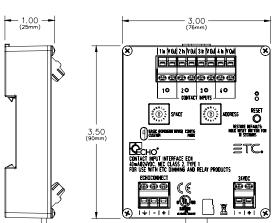
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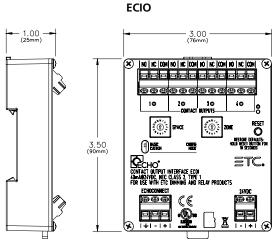
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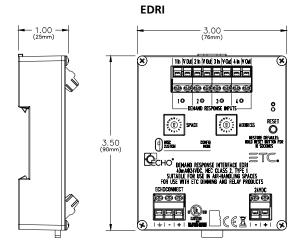
#### **Product Dimensions**

MODEL	HEIGHT		WIDTH		DEPTH		WEIGHT	
	in	mm	in	mm	in	mm	lb	kg
ECII	3.5	90	3.0	76	1.0	25	0.22	0.10
EDRI	3.5	90	3.0	76	1.0	25	0.22	0.10
ECOI	3.5	90	3.0	76	1.0	25	0.22	0.10









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