

Echo Power Control Series

Type(s) Project Date Notes

GENERAL INFORMATION

The EchoDIN is a control-oriented power system for CE markets with today and tomorrow's lighting loads in mind. System components are DIN-rail mounted for ease of installation in existing electrical enclosures. Up to 48 circuits of true air-gap relay switching or phase adaptive dimming. Power-usage reporting and a wide variety of control inputs are also supported. Options also include Ethernet, 0-10V, and broadcast DALI dimming controls.

APPLICATIONS

- Theatres
- Town halls
- Conference centres
- Multi-purpose spaces
- Cruise ships

FEATURES

- Up to 12 power modules supported per system controller
- Power modules control can be daisy-chained up to 20 m in total via side connectors or ribbon cables
- Reports voltage, relay state, and connected load
- Dimmer
- Dimmer: 2x600 W; 23 0V input
 - Phase adaptive dimmer auto switches to forward or reverse mode based on load type: LED, tungsten, fluorescent; ELV-Neutral connects from input to output
- Relays
 - 90–250 V Universal input/output
 - Neutral connects from input to output
 - Senses presence of power input
- Local user interface provides:
 - Panel configuration
 - Preset and sequence programming and playback
 - Individual channel control, including manual override
- DMX and Ethernet (sACN) control for remote preset and sequence playback
- Built-in Ethernet port
- Available 0–10 V, contact input, and DALI control cards
- Ride-Thru Option keeps processor powered through short power outages

ORDERING INFORMATION

System Components

PART NO	DESCRIPTION
7123A1301	EchoDIN Power Control Processor (PCP-DIN)
7123A1303	EchoDIN 4x16 A Relay, Single Pole, Reporting
7123A1304	EchoDIN 2x32 A Relay, Single Pole, Reporting
7123A1305	EchoDIN 2x600 W Phase adaptive dimmer, Single Pole, Reporting

System Accessories

PART NO	DESCRIPTION
7123A1312	0–10 V Control module 24 (EchoDIN-LVD)*
7123A1315	Dry contact input module 24 (EchoDIN-CI)*
7123A1313	DALI control module (EchoDIN-DALI)*
7123K1017	Ride Thru option card (EchoDIN-RTO) (Provides power backup for brief power drop outs and outages)
7123A1316	EchoDIN Line Filter (Needed for installs with 7123A1305 dimmer modules)
7123B8100	Ribbon Cable for module to module connection
PS435	24 V Power supply module (EchoDIN-PS)

* A max. of two optional cards can be installed per processor

** Max system length for CANbus cable run is 20 metres.

SPECIFICATIONS

REGULATORY AND COMPLIANCE

- Approvals and certifications: CE compliant
- Complies with ANSI DMX512A standard
- Network option supports ANSI E1.31 Streaming ACN (sACN) protocols

MECHANICAL

- DIN-rail system power controller processor
 - Sixteen-gauge steel construction
 - Front panel opening:
- DIN-rail Power Modules
 - Black molded, fine-textured, ABS plastic
 - Front panel opening

USER INTERFACE

- Graphical display
- Button interface
 - 0-9 number entry
 - Up, down, back, arrow navigation with enter
 - Test shortcut for local activation of preset, sequence and set level overrides
- USB interface for uploads of setup and software updates

FUNCTIONAL

- Choice of relay control modes
 - Modify DMX on/off thresholds
 - Normal (priority and HTP-based activation), Latch-lock, Last-action
- Status feedback
 - Breaker state
 - Relay state
 - Current draw per circuit
 - Phase voltage
 - Energy usage per circuit
- Control configuration
 - 64 presets available per space with up to 16 discrete spaces
 - A 16-step sequence per space for power-up and power-down routines
 - Contact input for worklight or emergency lighting bypass
- Configurable data-loss behavior supports:
 - Play preset
 - Hold last look
 - Wait and fade

ENVIRONMENTAL

- Thermal 0°–40° C
 - 16 A circuit (20 A breaker) - 52.38 BTU/hr
 - 600 W circuit (with dimmer module) - 11.78 BTU/hr
- Humidity 5–95% non-condensing

SPECIFICATIONS

ELECTRICAL

- ICU: 6,000 A symmetrical

16A RELAY RATINGS

- 20 A Ballast (HID)
- 16 A Electronic Ballast
- 20 A Tungsten
- 20 FLA @ 230 V Motor Load
- Isolation: 4000 V RMS
- State: Latching
- Average lifetime:
 - 100,000 cycles at full resistive load
 - 30,000 cycles motor, inductive, or tungsten
- Current reporting accuracy: 5%

32A RELAY RATINGS

- 20 A Ballast (HID)
- 5000 W Tungsten
- Isolation: 4000 V RMS
- State: Latching
- Average lifetime:
 - 100,000 cycles at full resistive load
 - 30,000 cycles motor, inductive, or tungsten
- Current reporting accuracy: 5%

600W DIMMER RATINGS

- 230 V 50 Hz input
- Phase-adaptive, default reverse phase
- 600 W resistive or electronic load capacity
 - Magnetic loads are not supported

ACCESSORIES

0-10V control

- 24 outputs with 0–10 V sink control rated for 400 mA per output

Contact Input

- 24 dry contact inputs for direct control of relays

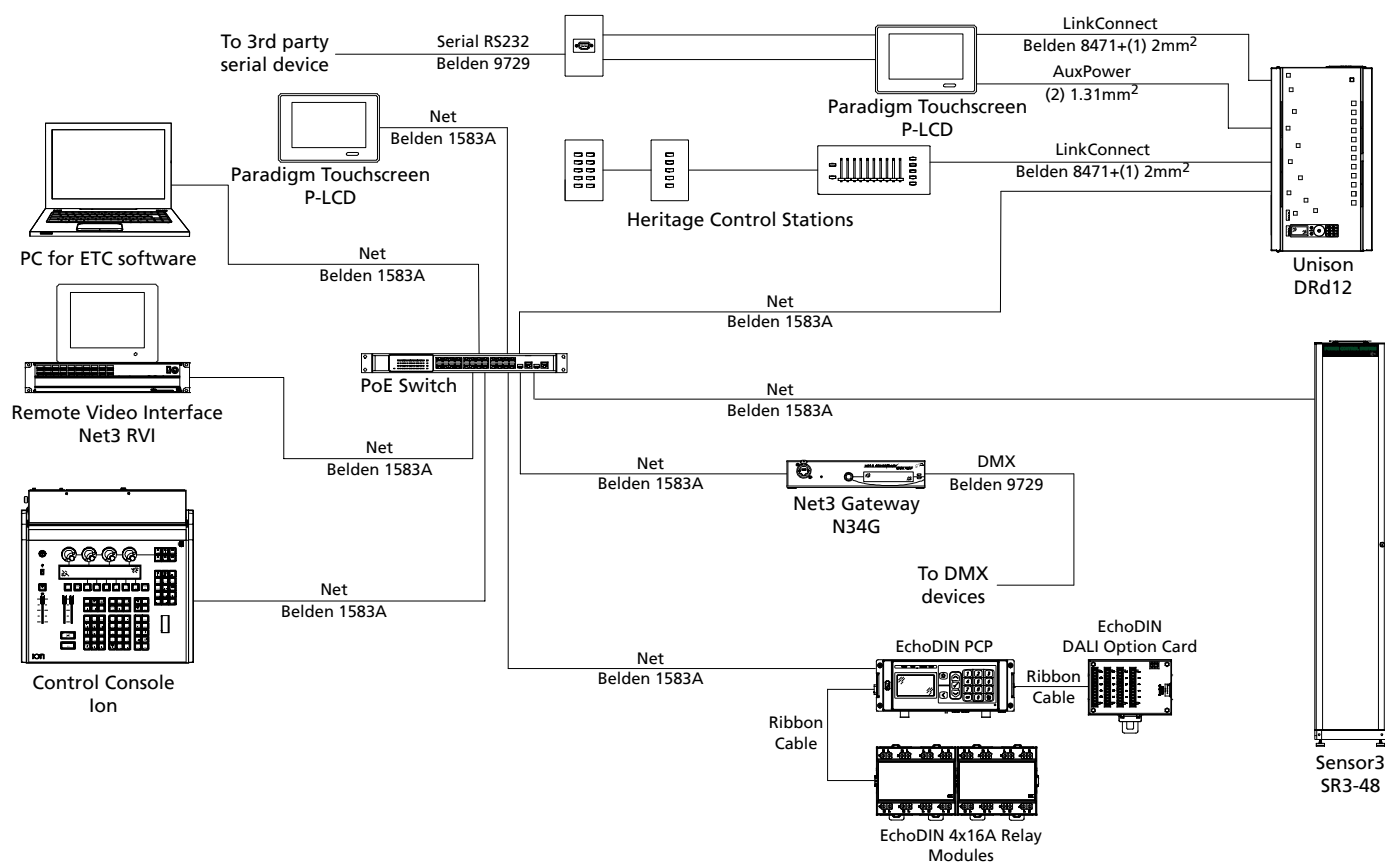
DALI control

- 24 control loops of broadcast DALI control
- Each loop controls 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

SAMPLE SYSTEM DIAGRAM



PHYSICAL

EchoDIN Module Dimensions

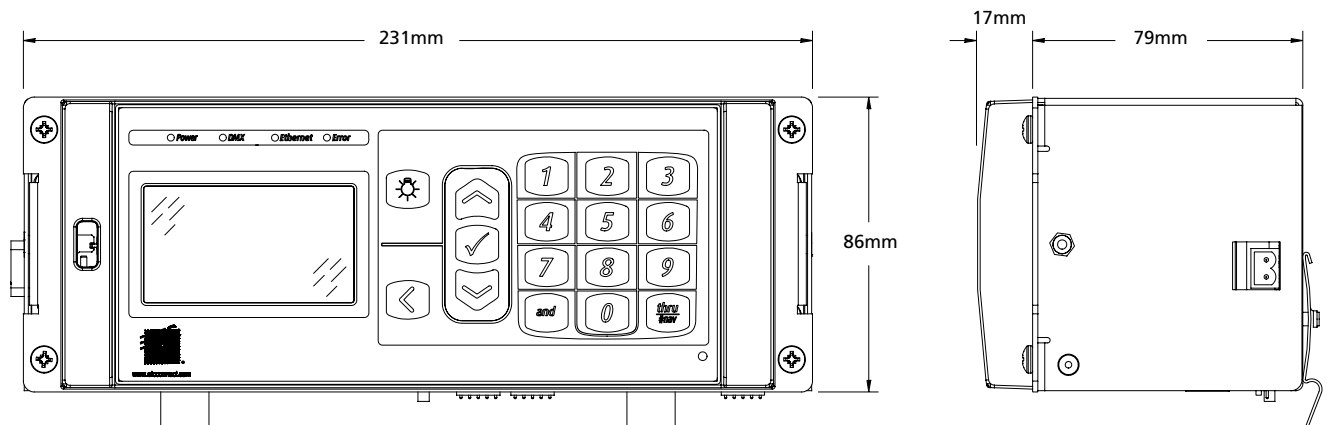
MODEL#	HEIGHT	WIDTH	DEPTH
	mm	mm	mm
PCP-DIN	231	86	96
EchoDIN-4x16 Relay	134	115	69
EchoDIN-2x23 Relay	134	115	69
EchoDIN-2x600 Dimmer	134	115	69
EchoDIN-CI	133	88	22
EchoDIN-LVD	133	88	22
EchoDIN-DALI	133	88	22
EchoDIN-RTO	178	152	76

EchoDIN Module Weights

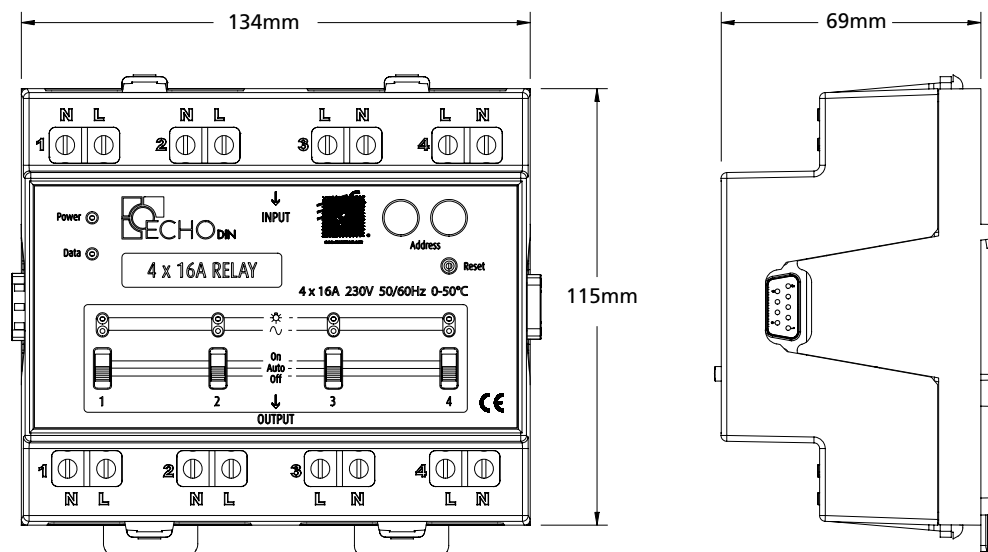
MODEL	WEIGHT	SHIPPING WEIGHT
	kg	kg
PCP-DIN	1.13	1.24
EchoDIN-4x16 Relay	0.64	0.75
EchoDIN-2x23 Relay	0.64	0.75
EchoDIN-2x600 Dimmer	0.54	0.65
EchoDIN-CI	0.18	0.30
EchoDIN-LVD	0.32	0.43
EchoDIN-DALI	0.32	0.43
EchoDIN-RTO	0.32	0.43
EchoDIN-RTO	0.042	0.21

PHYSICAL

POWER CONTROL PROCESSOR

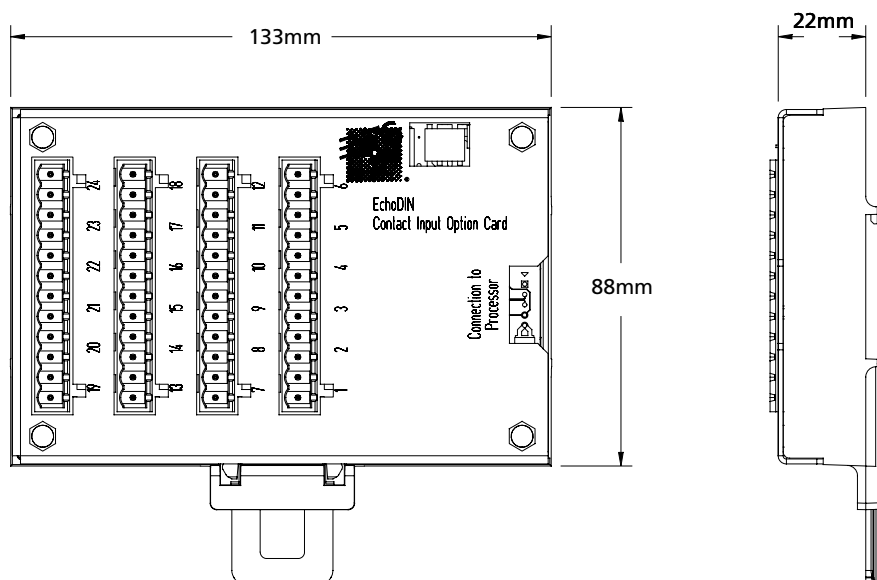


4X16A RELAY

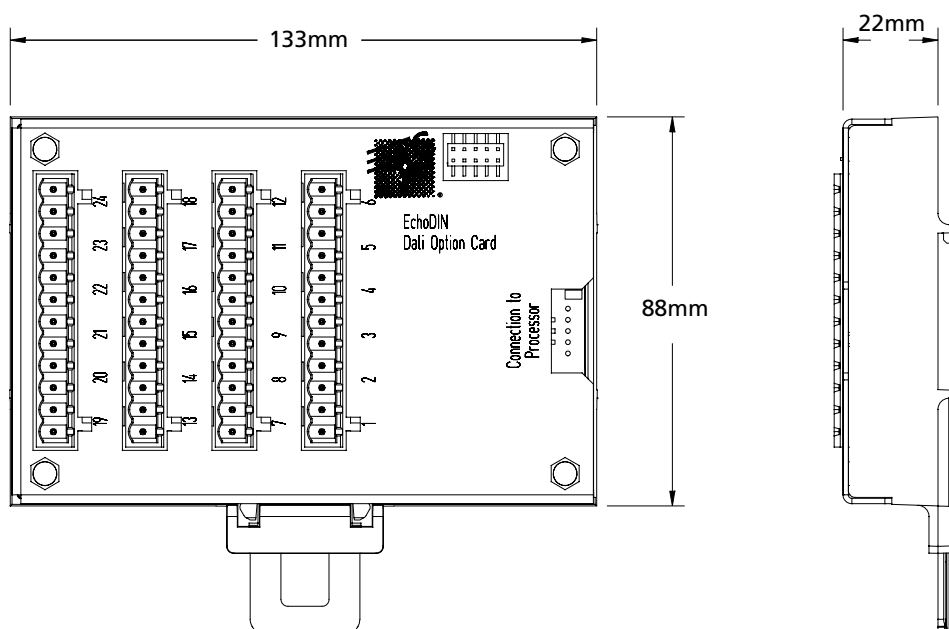


PHYSICAL

CONTACT INPUT OPTION CARD

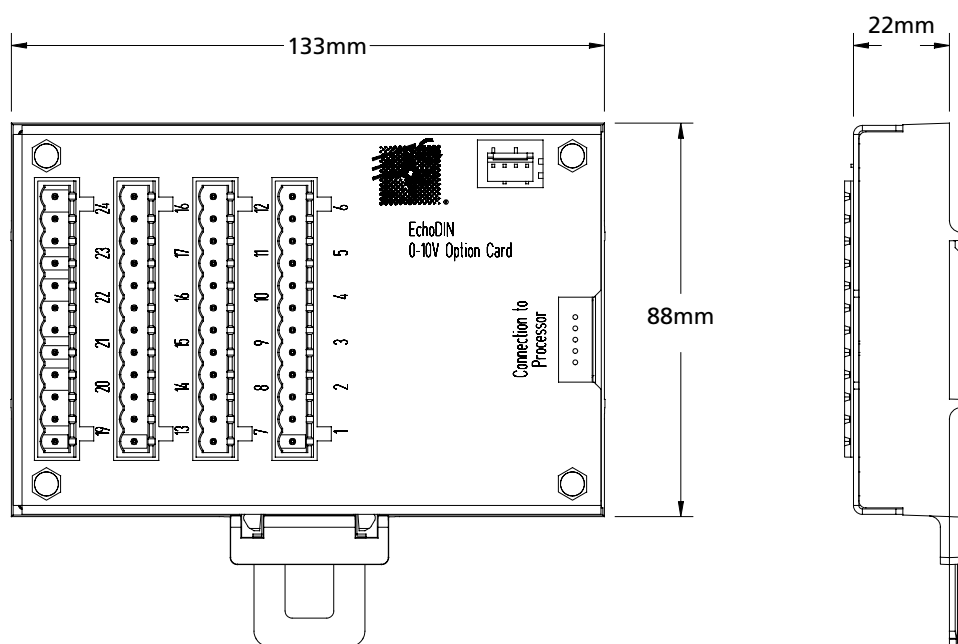


DALI OPTION CARD



PHYSICAL

0-10V OPTION CARD



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