

Echo Power Control Series



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 20m in total via side connectors or ribbon cables
- Reports voltage, relay state, and connected load
- Dimmer
- Dimmer: 2x600W; 230V input
 - Phase adaptive dimmer auto switches to forward or reverse mode based on load type: LED, tungsten, fluorescent; ELV; MLV-Neutral connects from input to output
- Relays
 - 90-250V Universal input/output
 - Neutral connects from input to output
 - Senses presence of power input
- DMX512A or stand-alone control
 - Advanced DMX control of relays
- Manual override per circuit
- Ethernet Interface Module
 - Advanced control of relays over streaming ACN (sACN)
- Control options: Add 0-10V or DALI Control module for control of LED or four-wire fluorescent loads
- Ride-Thru Option keeps processor powered through short power outages
- Sequencer; Presets and sequences can be built for automated system power-up of downstream lighting and audio

ORDERING INFORMATION

System Components

PART NO	DESCRIPTION
7123A1301	EchoDIN Power Control Processor (PCP-DIN)
7123A1303	EchoDIN 4x16A Relay, Single Pole, Reporting
7123A1304	EchoDIN 2x32A Relay, Single Pole, Reporting
7123A1305	EchoDIN 2x600W Phase adaptive dimmer, Single Pole, Reporting

System Accessories

PART NO	DESCRIPTION
7123A1311	Ethernet interface module (EchoDIN-NET)
7123A1312	0-10V 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	24V 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.

Related Accessories (See specific datasheets for details)

MODEL	DESCRIPTION
E1101 to 1108	Echo Inspire Control Stations
EPS05 to 10	Echo Preset Recall Stations
ELS and EOCC	Light Sensor and Occupancy/Vacancy Sensor



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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
- Built-in Echo control supports
 - 16 presets available per space with up to eight discrete spaces
 - A 16-step sequence per space for power-up and power-down routines
 - Contact input for worklight or emergency lighting 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

ENVIRONMENTAL

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

SPECIFICATIONS

ELECTRICAL

- ICU: 6,000A symmetrical

16A RELAY RATINGS

- 20A Ballast (HID)
- 16A Electronic Ballast
- 20A Tungsten
- 20FLA @ 230V Motor Load
- Isolation: 4000V 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

- 20A Ballast (HID)
- 5000W Tungsten
- Isolation: 4000V 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

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

ACCESSORIES

Ethernet Interface

- Advanced control of relays over streaming ACN (sACN)
- Transmits measured energy usage per branch circuit

0-10V control

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

Contact Input

- 24 dry contact inputs for direct control of relays

DALI control

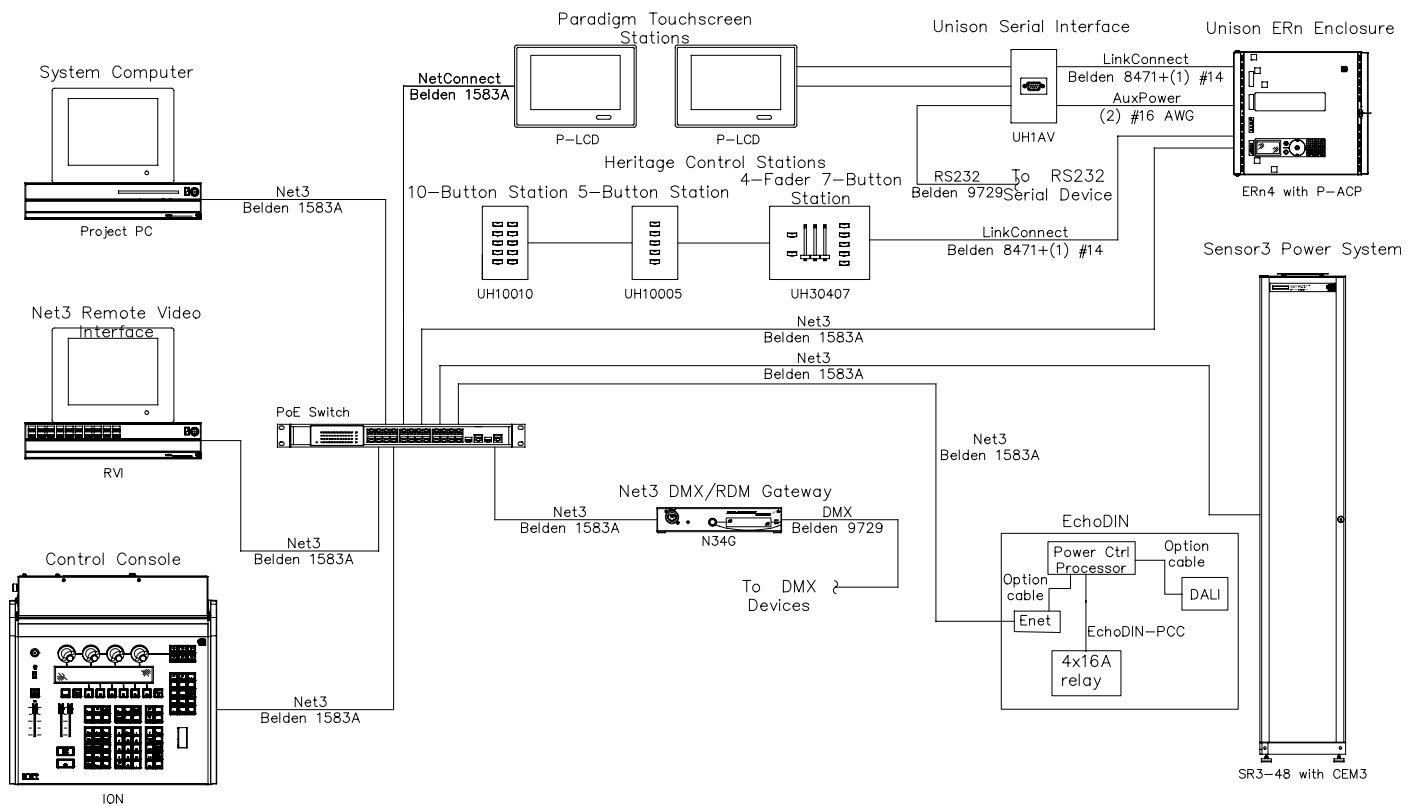
- 24 control loops of broadcast DALI control
- Each loop controls up to 64 ballasts
- External DALI power supply required

Ride Thru Option

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

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SAMPLE SYSTEM DIAGRAM



PHYSICAL

EchoDIN Module Dimensions

MODEL#	HEIGHT	WIDTH	DEPTH
	mm	mm	mm
PCP-DIN	231	86	96
EchoDIN-4iRelay	134	115	69
EchoDIN-2iRelay	134	115	69
EchoDIN-RPC Dimmer	134	115	69
EchoDIN-Ethernet	125	47	22
EchoDIN-CI	133	88	22
EchoDIN-LVD	133	88	22
EchoDIN-DALI	133	88	22
EchoDIN-RTO	178	152	76

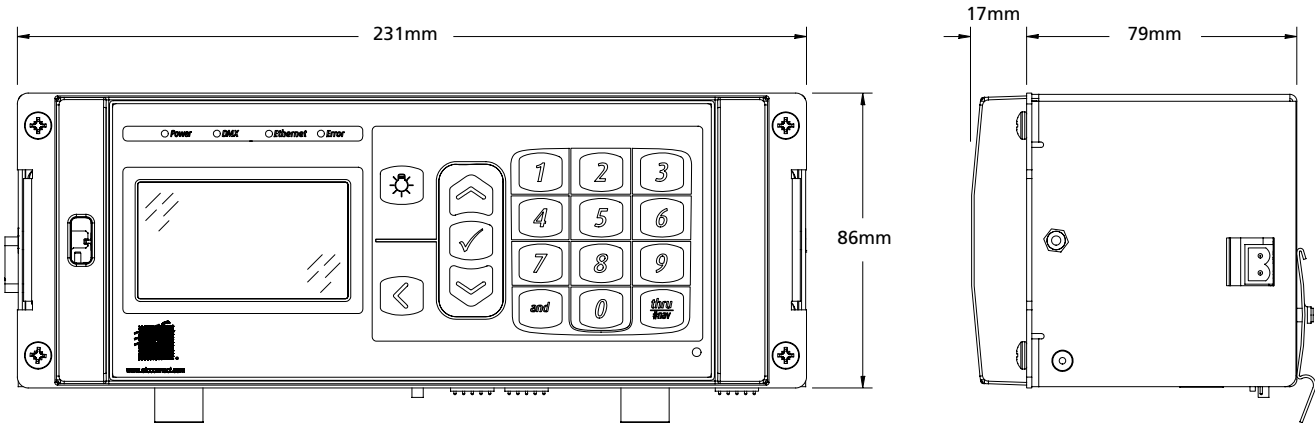
EchoDIN Module Weights

MODEL	WEIGHT	SHIPPING WEIGHT
	kg	kg
PCP-DIN	1.13	1.24
EchoDIN-4iRelay	0.64	0.75
EchoDIN-2iRelay	0.64	0.75
EchoDIN-RPC Dimmer	0.54	0.65
EchoDIN-Ethernet	0.18	0.30
EchoDIN-CI	0.32	0.43
EchoDIN-LVD	0.32	0.43
EchoDIN-DALI	0.32	0.43
EchoDIN-RTO	0.042	0.21

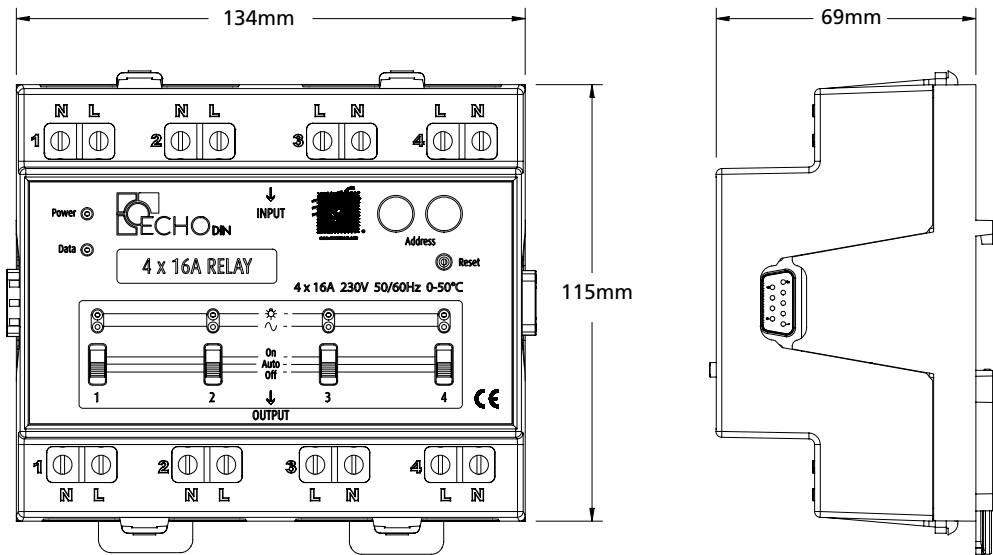
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PHYSICAL

POWER CONTROL PROCESSOR

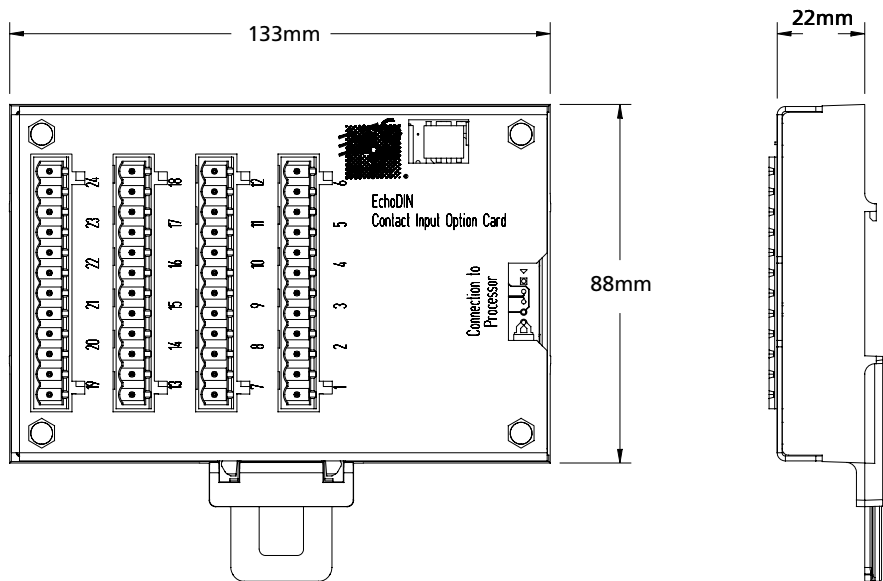


4X16A RELAY

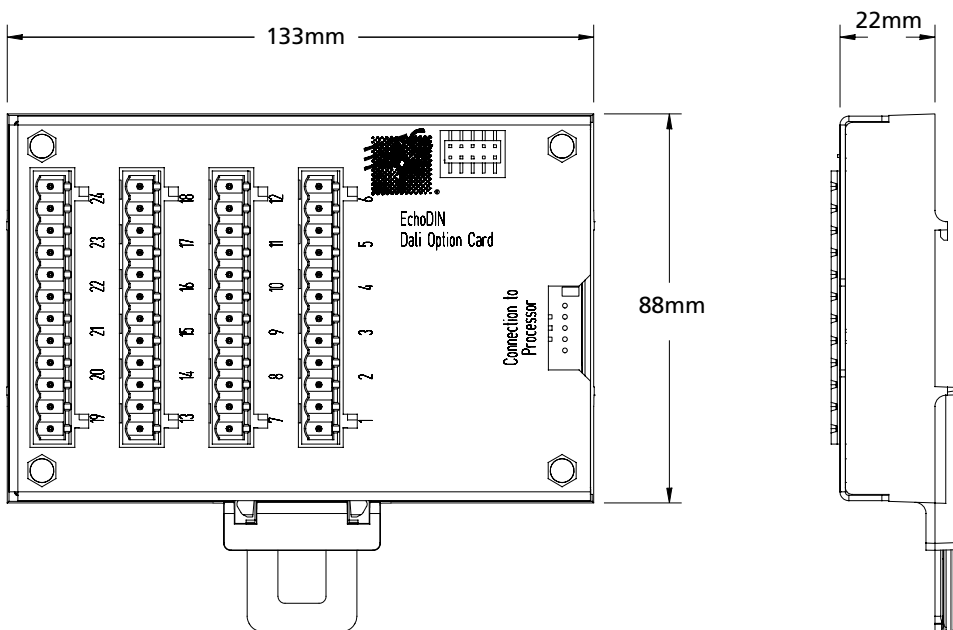


PHYSICAL

CONTACT INPUT OPTION CARD

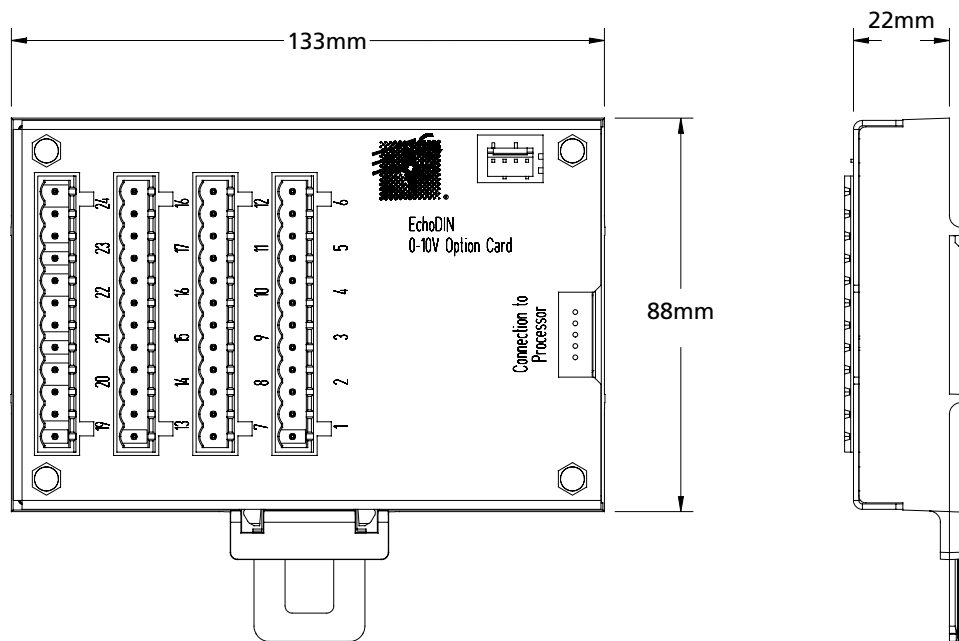


DALI OPTION CARD



PHYSICAL

0-10V OPTION CARD



ETHERNET OPTION CARD

