

CLX-1DIMU4-HP

4 Channel Universal Dimmer Module, High Power, 1 Feed, 120V

- > Four-channel universal dimmer module for residential lighting applications
- > Installs in a Crestron® CAEN or CAEN-MLO enclosure
- > Supports dimmable LED, incandescent, electronic low-voltage, magnetic low-voltage, and 2-wire fluorescent lighting loads
- > Rated 16 Amps at 120 Volts AC, 10 A max per channel
- > Auto load type detection
- > Forward and reverse phase modes
- > Customizable dimming curves via software
- > Patented Constant Power dimming technology
- > Zero-cross filter technology
- > Extreme stability under noisy power line conditions
- > Dramatically reduced lamp flicker
- > Over-current, over-voltage, and over-temperature protection
- > Built-in air gap relay per channel
- > Convection cooled for silent operation
- > Closure-activated override mode
- > UL® 924 and CSA® C22.2 No. 141-15 listed for emergency lighting control
- > Crestron system integration via Cresnet®
- > Easy termination using a CLT-1DIMU4 terminal block (sold separately)
- > CEC Title 24 2013 compliant

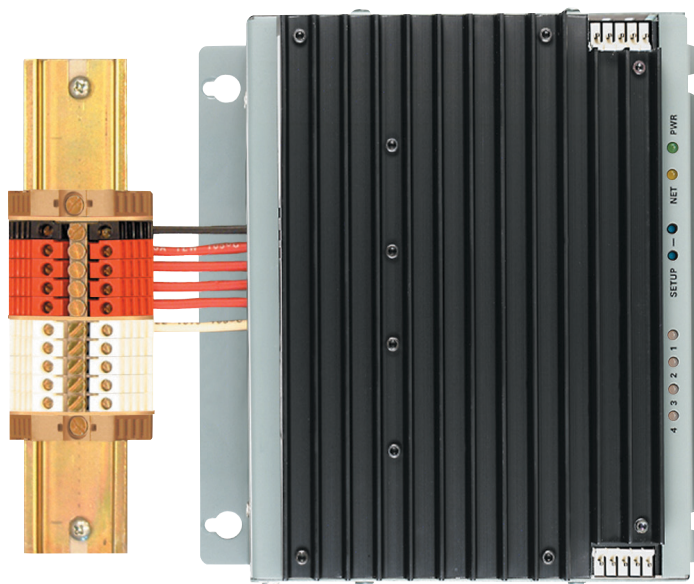
The Crestron® CLX-1DIMU4-HP is a high-power, four-channel, single-feed universal dimmer module designed for 120V lighting system applications. It installs in a [CAEN](#) or [CAEN-MLO](#) enclosure and provides control of a wide range of dimmable lighting load types including electronic and magnetic low-voltage, LED, incandescent, and 2-wire fluorescent. It may also be used to switch non-dimmable lighting loads. Each output channel is rated for 1,200 Watts (10 Amps), with a total module rating of 1,920 Watts (16 Amps) when fed from a 20 Amp feed.

Auto-Detecting Universal Dimming

Under normal operation, the CLX-1DIMU4-HP detects the connected load type on each channel and selects the appropriate operating mode for each channel automatically. Reverse phase (trailing edge) mode supports incandescent and electronic low-voltage load types, while forward phase (leading edge) mode handles magnetic low-voltage, neon, and other inductive load types. The operating mode may also be selected manually via local buttons or programmatically via the control system.

Ultra-Reliable Performance

The CLX-1DIMU4-HP is a technologically advanced universal dimmer that delivers unparalleled reliability and optimal dimming performance, even in noisy electrical environments. Patented “Constant Power” technology dramatically reduces lamp flicker and maximizes stability under noisy power conditions. This cutting-edge technology quickly adjusts the dimmer’s on-time response to changes in input voltage so that power is



Shown with CLT-1DIMU4 terminal block (sold separately)

constantly and consistently delivered to the load. Voltage sag and peak overshoot no longer cause changes in load output, ensuring reliable lighting performance and a comfortable working environment.

To further reduce lamp flicker, the CLX-1DIMU4-HP features proprietary zero-cross filter technology which compensates for line voltage and frequency fluctuations for superior immunity to noise on the power line. Built-in protection against over-current, over-voltage, and over-temperature conditions helps to prevent failure due to temporary wiring faults and other abnormalities. An air-gap relay on each channel output allows individual circuits to be serviced without disabling the entire module. Low-maintenance convection cooling with over-sized heatsinks affords silent operation with no mechanical components to wear out.

Centralized Lighting Cabinet Installation

Crestron CLX series lighting control modules are designed to be installed in a CAEN or CAEN-MLO wall mount enclosure. Available in a variety of sizes, CAEN and CAEN-MLO enclosures provide a scalable, high-density centralized lighting control solution for any-sized residence. A selection of CLX module types is offered to accommodate a wide range of load types and system configurations.

Termination of high-voltage wiring to the CLX-1DIMU4-HP module is facilitated using a [CLT-1DIMU4](#) terminal block (sold separately) to enable termination of the wiring prior to installing the module. This terminal block mounts beside the module within the enclosure. Low-voltage control signals are bussed between each of the modules within an enclosure via a simple 5-wire link (interconnect jumpers included), which terminates to a single terminal block (model [CAEN-BLOCK](#), sold separately) at the bottom of the enclosure.

CLX-1DIMU4-HP 4 Channel Universal Dimmer Module

Cresnet® Communications

The CLX-1DIMU4-HP interfaces with a Crestron [control system](#) (a.k.a., control processor or automation processor) via Cresnet cable. Cresnet is a simple 4-wire network bus that provides the communications backbone for a system of Crestron lighting dimmers, switches, keypads, shades, thermostats, and other devices.

Emergency Lighting Control

The CLX-1DIMU4-HP is UL® 924 and CSA® C22.2 No. 141-15 listed for use in controlling emergency lighting loads. In the event of a power failure, a contact closure from a power loss sensor (Crestron [GLS-PLS-120/277](#), sold separately) activates the override mode in the CLX-1DIMU4-HP to turn on each designated lighting load if it is off (assuming line power is supplied by a backup power source). The override dimming level can be preset to any value when commissioning the lighting system, so even if the load is already on prior to a power failure, it will change to the preset level when override mode is activated.

SPECIFICATIONS

Load Control

Dimmer Channels: 4

Dimmable Load Types: LED, incandescent, electronic low voltage, magnetic low voltage^[1], 2-wire fluorescent

Switched Load Types: Non-dimmable lighting^[1]

Per Channel Load Rating: 10 Amps (1,200 Watts)

Module Total Load Rating: 16 Amps (1,920 Watts)^[2]

Minimum Load: 0 Watts

Line/Load Voltage: 120 Volts AC, 60 Hz; requires one single-phase feed

Connections

Via Terminal Block (sold separately):

LINE: (1) Screw terminal, black, line power feed input

DIM 1 – 4: (4) Screw terminals, red, load outputs (per channel)

N IN: (1) Screw terminal, white, line power feed neutral

N OUT 1 – 4: (4) Screw terminals, white, load neutrals (per channel)

Note: Each terminal accepts one 14-10 AWG wire.

Module Interconnect: (2) 5-pin 0.156 inch headers;

Cresnet/Override interconnect ports;

Each connects to the adjacent module using the interconnect jumper provided; connects to a [CAEN-BLOCK](#) (sold separately) when installed in the lowest position within the enclosure

Controls & Indicators

PWR: (1) Green LED, indicates line power is applied to the LINE terminal
NET: (1) Yellow LED, indicates Cresnet communication with the control system

MODE (not labeled): (1) Pushbutton, selects the dimming mode when in Local mode

SETUP: (1) Pushbutton, used to enter Local mode and test each channel
1 – 4: (4) Tri-color LEDs, (1) per channel, indicates that the load is on/off, dimming mode, or error condition for the corresponding channel

Environmental

Temperature: 32° to 104° F (0° to 40° C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 8.5 BTU/hr + (7.03 BTU/hr x Load Current in Amps);
121 BTU/hr at maximum load

Enclosure

Enclosure: Gray metal with black heat sink, surface mount module with (2) integral mounting flanges;

Mounting: Occupies 1 module space in a [CAEN](#) or [CAEN-MLO](#) enclosure

Dimensions

Height: 7.63 in (194 mm)

Width: 6.92 in (176 mm)

Depth: 3.43 in (87 mm)

Weight

3.0 lbs (1.36 kg)

Compliance

UL Listed for US & Canada, IC, UL 508, UL 924, CSA C22.2 No. 14, CSA C22.2 No. 141-15, CEC Title 24 2013, FCC Part 15 Class B digital device

MODELS & ACCESSORIES

Available Models

CLX-1DIMU4-HP: 4 Channel Universal Dimmer Module, High Power, 1 Feed, 120V

Available Accessories

CLT-1DIMU4: Terminal Block for CLX-1DIMU4

CAEN: Automation Enclosures

CAEN-MLO: Automation Enclosures with Integrated Breaker Panel

CLX-1DIMU4-HP 4 Channel Universal Dimmer Module

Notes:

1. Do not use to dim or switch large magnetic transformers greater than 300 VA. Do not connect more than eight magnetic transformers per channel regardless of lamp wattage.
2. When connecting to a third-party arc fault breaker, the total load should not exceed 1,000 Watts.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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