

# Cameo® Express Wireless In-Wall ELV Dimmer, 230V



- > Single-gang in-wall lighting dimmer
- > Configurable standalone functionality
- > Crestron® system integration via infiNET EX® wireless technology
- > Crestron Pyng® system compatible
- > Reverse phase dimming technology
- > Supports dimmable electronic low-voltage, LED, incandescent, and 2-wire fluorescent lighting loads
- > Rated 500 VA/Watts at 230 Volts AC[1]
- > Built-in air gap switch
- > Fully configurable button layout
- > Single rocker switch or up to four pushbuttons
- > Custom button engraving available [3]
- > Stores up to three scene presets
- > Customizable button functionality [2]
- > Green LED feedback indicators
- > Flying lead wiring connections
- > US-type 3-1/2 inch (89 mm) deep electrical box installation
- > Available in smooth white, almond, and black finishes
- > Matching decorator-style faceplates available [3]

The Cameo® Express CLW-DELVEX-230-E is an in-wall lighting dimmer designed to control a range of dimmable lighting load types including electronic low-voltage, LED, incandescent, tungsten-halogen, electronic CFL, and 2-wire fluorescent ballasts. It mounts in a US-type 3-1/2 inch (89 mm) deep electrical box (not included). Its buttons are configurable, engravable, and field-replaceable to allow for a variety of layouts and custom functionality. A choice of white, almond, and black smooth finishes is offered.

The CLW-DELVEX-230-E can be operated standalone or integrated with a Crestron® control system or Crestron Pyng® system. Ultra-reliable infiNET EX® wireless communications simplifies installation and wiring for both new and retrofit applications. The CLW-DELVEX-230-E is rated for 500 VA/Watts maximum at 230 Volts AC, 50/60 Hz.[1]

Note: For applications requiring multipoint control, white LEDs, or a wider selection of finish colors, please see model CLW-DELVEX-230-P.

# **Reverse Phase Dimming**

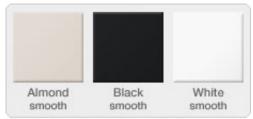
The CLW-DELVEX-230-E employs reverse phase (trailing edge) dimming technology to handle electronic low-voltage (ELV) transformers feeding halogen or LED lighting fixtures. It is also capable of controlling incandescent, tungsten-halogen, dimmable screw-base type CFL and LED bulbs, and 2-wire dimmable fluorescent ballasts.

## **Customizable Buttons**

Each Cameo Express dimmer features the ability to configure its buttons in a variety of layouts to adapt its functionality to the application. Simple up/down dimming and on/off switching can be achieved using a single rocker switch or individual buttons. More sophisticated functionality is afforded using up to four buttons, allowing up to three dimming presets to be stored and recalled at will. Through integration with a control system, buttons may even be assigned to control a second lighting zone, select a wholeroom lighting scene composed of several dimmers, turn on a ceiling fan, or adjust the audio system volume.<sup>[2]</sup>

The CLW-DELVEX-230-E is furnished with a complete set of button caps to accommodate any desired button layout. Button caps may also be ordered with custom engraving <sup>[3]</sup>, allowing each button to be labeled according to its function. The buttons are field configurable and replaceable, allowing changes to be made at any time.

Green LED indicators are included to provide feedback when a button is pressed or a preset is selected. They also function as a bargraph to display the dimming level as the dimmer is adjusted. When the load is turned off, the top LED glows dimly, allowing the dimmer to be located easily in a dark room.



Due to differences in monitors, actual colors may vary from colors as they appear onscreen.



# CLW-DELVEX-230-E Cameo® Express Wireless In-Wall ELV Dimmer, 230V

# infiNET EX® Wireless Technology

Wireless integration with a Crestron control system enables the CLW-DELVEX-230-E to be controlled from any Crestron keypad, touch screen, handheld remote, or mobile device app. It can also enable intelligent automation as part of a complete Crestron energy management solution.<sup>[2]</sup>

Ultra-reliable infiNET EX wireless technology provides steadfast two-way RF communications throughout a residential or commercial structure without the need for physical control wiring. Employing a 2.4 GHz mesh network topology, each infiNET EX device (including the CLW-DELVEX-230-E) functions as an expander (routing node), relaying command signals through to every other infiNET EX device within range (typically 15 meters or 50 feet), ensuring that every command reaches its intended destination without disruption. [4]

The CLW-DELVEX-230-E communicates with a Crestron control system via an infiNET EX Wireless Gateway (model CEN-GWEXER, CENI-GWEXER, MC3, or DIN-AP3MEX [3]). Up to 100 infiNET EX devices may coexist on a single wireless network, and every device that is added to the network effectively increases the range and stability of the entire network by providing multiple redundant signal paths. [4]

# **SPECIFICATIONS**

## **Load Control**

**Dimmer Channels: 1** 

**Dimmable Load Types:** Electronic low-voltage, LED, incandescent, tungsten-halogen, electronic CFL, 2-wire fluorescent ballast

Line/Load Voltage: 230 Volts AC, 50/60 Hz, dedicated neutral wire required

Load Rating: 500 VA/Watts maximum [1]

Minimum Load: 10 Watts

## Controls & Indicators

Buttons: Configurable with one 2-position rocker or up to four singleaction pushbuttons, refer to the Operations & Installation Guide for all possible configurations and functions

Button Caps: Includes (1) rocker, (2) large, and (4) small button caps; all button caps are blank, custom engraved button caps are available separately

Button Modes: Local (default functionality, no control system required), Remote (custom functionality via a control system)

**Feedback LEDs:** (7) Green LEDs, indicate the current button press or active preset, displays the dimming level as a 7-segment bargraph

Air-Gap Switch: (1) Latching switch, opens the air-gap to de-energize the load output

**Program Button:** (1) Pushbutton, used to store presets and change the button configuration

**Dimming Ramp Rate:** 5 seconds (default), software adjustable 0.01 to 10 seconds

**Preset Fade Time:** 2 seconds (default), software adjustable 0.01 to 120 seconds

## Wireless Communications

RF Transceiver: infiNET EX 2-way RF, 2.4 GHz ISM Channels 11-26 (2400 to 2483.5 MHz), default channel 15; IEEE 802.15.4 compliant Range (typical): 15 m (50 ft) to gateway or nearest mesh network device(s), subject to site-specific conditions and individual device capabilities, range between floors or ceilings is limited to one level [4] Gateway: Requires an infiNET EX gateway or Crestron Pyng control hub [3]

## Connections

Hot: (1) 1.5 mm<sup>2</sup> (16 AWG) Class 1 flying lead, brown, line power input Load: (1) 1.5 mm<sup>2</sup> (16 AWG) Class 1 flying lead, red, dimmed load output Neutral: (1) 1.5 mm<sup>2</sup> (16 AWG) Class 1 flying leads, blue, neutral Ground: (1) 1.5 mm<sup>2</sup> (16 AWG) Class 1 flying lead, green/yellow, ground

#### **Environmental**

Temperature: 0° to 40° C (32° to 104° F) Humidity: 10% to 90% RH (non-condensing)

## Construction

Composition: Plastic housing and front face with metal bracket Mounting: Mounts in a US-type 1-gang (or larger) 3-1/2 inch (89 mm) deep electrical box (not included)

Faceplate: Requires a decorator-style faceplate (sold separately)

# **Dimensions**

Height: 105 mm (4.13 in) Width: 45 mm (1.75 in) Depth: 46 mm (1.80 in)

## Weight

142 g (5 oz)

## Compliance

CE, C-Tick



# CLW-DELVEX-230-E Cameo® Express Wireless In-Wall ELV Dimmer, 230V

# **MODELS & ACCESSORIES**

## **Available Models**

CLW-DELVEX-230-E-A-S: Cameo® Express Wireless In-Wall Dimmer, ELV, 230V, Almond Smooth

CLW-DELVEX-230-E-B-S: Cameo® Express Wireless In-Wall Dimmer, ELV, 230V, Black Smooth

CLW-DELVEX-230-E-W-S: Cameo® Express Wireless In-Wall Dimmer, ELV, 230V, White Smooth

## **Available Accessories**

CLW-BTN-SM: Small Engravable Button Cap for Cameo® In-Wall Dimmers CLW-BTN-LG: Large Engravable Button Cap for Cameo® In-Wall Dimmers & Switches

CLW-BTN-RKR: Rocker Engravable Button Cap for Cameo® In-Wall

**Dimmers & Switches** 

FP-G Series: Decorator-Style Faceplates

CEN-GWEXER: infiNET EX® & ER Wireless Gateway

CENI-GWEXER: infiNET EX® & ER Wireless Gateway – International Version MC3: 3-Series Control System® w/infiNET EX® & ER Wireless Gateway DIN-AP3MEX: DIN Rail 3-Series® Automation Processor w/infiNET EX® & **ER Wireless Gateway** 

GLA-EXPEX: Crestron Green Light® Wireless Expander for infiNET EX®

Networks

#### Notes:

- 1. Load capacity is derated when installed with other devices in a multi-gang electrical box. Derating is as follows: 400W if installed adjacent to another device, 250W if installed between
- 2. Control of a second lighting zone or whole-room lighting scene, control of audio equipment, fan motors, and other equipment, or remote control and automation from a control system, requires the purchase and installation of additional hardware and custom programming services. Contact a Crestron representative for additional information.
- 3. Item(s) sold separately.
- 4. The CLW-DELVEX-230-E and other AC-powered infiNET EX devices function as "routing nodes," which effectively extend the range of the wireless network beyond the initial range of the gateway. A maximum of six "hops" across routing nodes is allowed, although a maximum of three is recommended. Battery-powered infiNET EX devices only operate as leaf nodes and do not extend range. If needed, up to five dedicated infiNET EX expanders (model GLA-EXPEX, sold separately) may be deployed to serve as supplemental routing nodes to fill any gaps in coverage. Up to 100 infiNET EX devices are permitted per gateway, although best practices suggest a limit of 50. Refer to the "Installation and Setup of Crestron RF Products, Best Practices" guide (Doc #6689) for additional guidelines.

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, visit www.crestron.com/opensource.

Crestron, the Crestron logo, 3-Series, 3-Series Control System, Cameo, Crestron Green Light, Crestron Pyng, and infiNET EX are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. Other trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. Specifications are subject to change without notice. ©2017 Crestron Electronics, Inc.

