

# CLC-1DIMFLV2EX-24V

## Wireless In-Ceiling 0-10V Dimmer, 24VDC

- > Compact 24VDC 2-channel 0-10 Volt dimmer designed for EMerge Alliance® compliant applications
- > Two independently-controlled zone outputs
- > Onboard inputs for photocell and occupancy sensor
- > Crestron® control of any EMerge Alliance registered fixture
- > No special wiring — installs inline at the fixture
- > Maximum 2.5 Amp switched load capacity per channel
- > Reliable wireless communication using infiNET EX® technology
- > Local controls for testing and maintenance
- > Built-in support for control via standard momentary or maintained switch
- > Setup via on-board button or connected switch
- > Compatible with Armstrong® DC FlexZone™ grid

The CLC-1DIMFLV2EX-24V is a two-channel 0-10 Volt dimmer capable of controlling two independent, 24 Volt DC lighting loads in an EMerge Alliance® application. Perfect for use with the Armstrong® DC FlexZone™ ceiling grid,<sup>[1]</sup> this module's ultra-slim design allows it to be installed in the ceiling, either on or near the lighting fixture. Powered by infiNET EX® technology, the CLC device communicates wirelessly with the Crestron® control system, making it perfect for both new and retrofit applications. Additionally, the dimmer includes inputs for a photocell, occupancy sensor, and standard toggle or momentary switch.

### EMerge Alliance Registered

The CLC-1DIMFLV2EX-24V is 100% EMerge compatible, designed to flawlessly work within a 24 Volts DC room-level power distribution system. The EMerge Alliance is a not-for-profit open industry association leading the rapid adoption of safe DC power distribution in commercial buildings through the development of EMerge Alliance standards.<sup>[2]</sup> Crestron is a proud member and supporter of the Alliance.

### Onboard Sensor Inputs

Each module comes equipped with onboard inputs for use with photocells and occupancy sensors. This unique feature not only reduces wiring costs, it also eliminates the need for extra hardware.

### Out-of-the-box Control via Standard Switch

The CLC-1DIMFLV2EX-24V uses either a momentary or a maintained switch to provide a closure, such as a standard lighting switch. A standard lighting switch, the kind carried in any hardware store, is a cost-effective solution for basic on and off functions. A momentary, pushbutton-type switch can be used when the application requires dimming the load. The momentary switch can be set up so that tapping the button turns the connected load on and off, while pressing and holding the button dims the load up or down.

### Complete Crestron Control

Because it's connected to the Crestron system, the CLC-1DIMFLV2EX-24V can also be controlled from any keypad, touch panel, remote, or mobile device. Tie in occupancy sensors and photocells together with Crestron Fusion EM® software for a complete solution to effectively manage energy.



### Simple Setup

Setup is simple, especially when using a connected maintained or a momentary switch. A specific series of button presses initiates the wireless device's acquire mode, so there's no need to climb a ladder to join the device to the infiNET EX network.

### infiNET EX

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 functions as an expander, passing command signals through to every other infiNET EX device within range (approximately 150 feet or 46 meters indoors), ensuring that every command reaches its intended destination without disruption.<sup>[3]</sup>

The CLC-1DIMFLV2EX-24V communicates with a Crestron® control system via an infiNET EX Wireless Gateway (model [CEN-RFGW-EX](#), [DIN-AP3MEX](#), or [MC3](#)<sup>[4]</sup>). 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.<sup>[3]</sup> Built-in Dynamic Frequency Allocation continuously monitors RF conditions, automatically selecting the clearest channel to prevent interference from neighboring networks, cordless phones, and microwaves.

*More information on integrating the CLC-1DIMFLV2EX-24V in a 24VDC system can be found in the Commercial Lighting Design Guide: EMerge Alliance® Registered Products, 24 Volt DC Edition (Doc. 4558).*

## SPECIFICATIONS

### Load Ratings

Number of Channels: 2

Maximum Switched Load per Channel: 2.5 Amps at 24 Volts DC (60 Watts)

Dim Load Types: 0-10Volt fluorescent ballast or LED driver (4-wire); 65 mA max current sink per channel

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Switch Load Types: 24 Volts DC fluorescent ballast or LED driver

## Input Voltage

24 Volts DC, non-polarized

## Wireless

**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:** 30 m (100 ft) indoors, 55 m (175 ft) outdoors for device to device; 45 m (150 ft) indoors, 75 m (250 ft) outdoors for device to gateway;

All distances subject to site specific conditions

**Gateway:** Requires a CEN-RFGW-EX gateway or an MC3

## Connectors

**24V:** (2) Screw terminals for connecting to 24VDC rail via load device cable assembly;<sup>[5]</sup> Terminals are non-polarized

**+**: (1) Screw terminal, provides +24VDC to power sensors

**R:** (1) Screw terminal, connects to remote switch

**O:** (1) Screw terminal, connects to occupancy sensor

**P:** (1) Screw terminal, connects to photocell

**-:** (1) Screw terminal, connects common to sensors

**-1:** (1) Screw terminal, (-) 0-10V signal, channel 1

**+1:** (1) Screw terminal, (+) 0-10V signal, channel 1

**-2:** (1) Screw terminal, (-) 0-10V signal, channel 2

**+2:** (1) Screw terminal, (+) 0-10V signal, channel 2

**SW1 (full circle):** (1) Screw terminal, for common, channel 1

**SW1 (half circle):** (1) Screw terminal, for switched 24VDC, channel 1

**SW2 (full circle):** (1) Screw terminal, for common, channel 2

**SW2 (half circle):** (1) Screw terminal, for switched 24VDC, channel 2

## Controls & Indicators

**Setup:** (1) Miniature pushbutton, joins an infiNET EX network

**Chan. 1:** (1) Green LED, indicates load is switched on

**Chan. 2:** (1) Green LED, indicates load is switched on

## Enclosure

Plastic; UL 2043 approved, suitable for mounting in an environmental air-handling space

## Environmental

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

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

## Dimensions

**Height:** 7.00 in (178 mm)

**Width:** 2.13 in (55 mm)

**Depth:** 1.63 in (41 mm)

## Weight

7 oz (199 g)

## MODELS & ACCESSORIES

### Available Models

**CLC-1DIMFLV2EX-24V-W:** Wireless In-Ceiling 0-10V Dimmer, 24VDC

Notes:

1. For more information, refer to [www.armstrong.com/dcflexzone](http://www.armstrong.com/dcflexzone).
2. Information regarding the EMerge Alliance can be found at [www.emergealliance.org](http://www.emergealliance.org).
3. Any infiNET EX device that provides expander functionality will effectively extend the range of the wireless network beyond the initial range of the gateway. Battery-powered infiNET EX devices do not provide expander functionality.
4. Item(s) sold separately.
5. Load device cable assembly by others. Refer to [www.emergealliance.org/products](http://www.emergealliance.org/products) for more information.

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](http://www.crestron.com/salesreps) or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: [patents.crestron.com](http://patents.crestron.com).

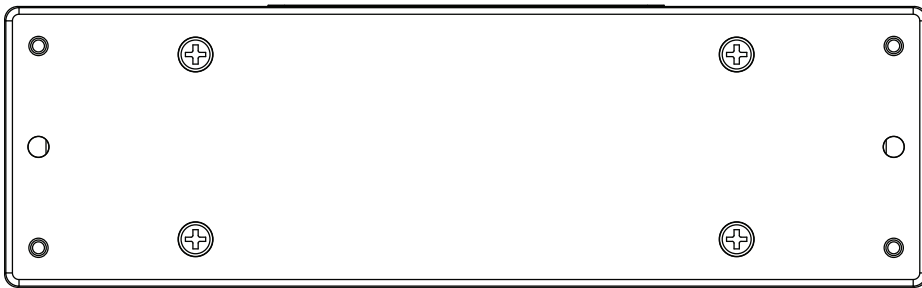
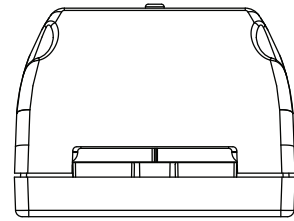
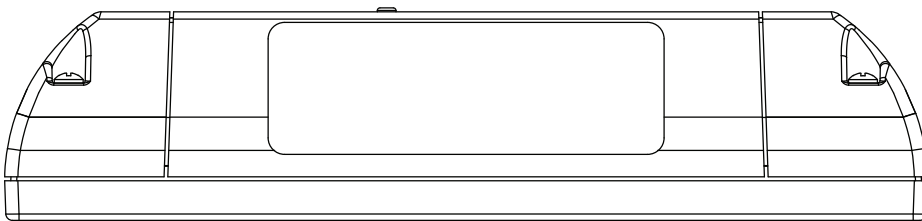
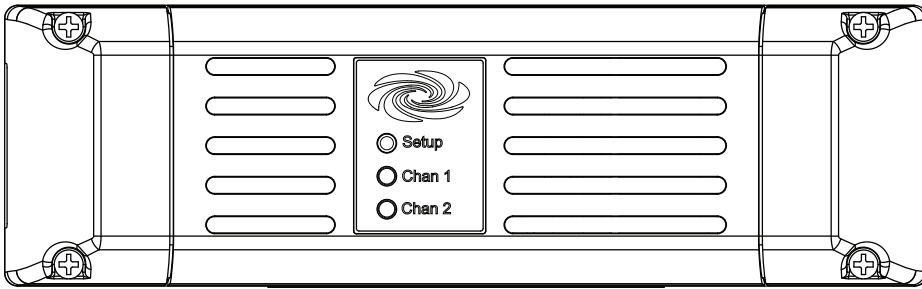
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# CLC-1DIMFLV2EX-24V

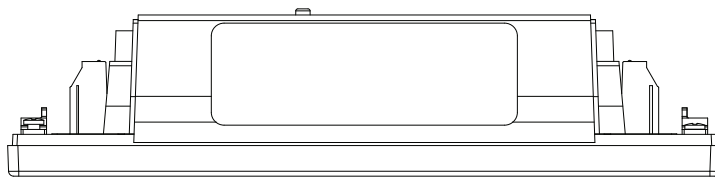
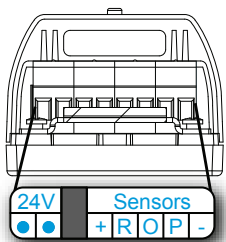
# Wireless In-Ceiling 0-10V Dimmer, 24VDC

## CAD DRAWING



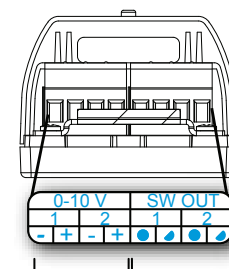
## CONNECTOR DETAIL

### Input Side



- Sensor Ground
- Photo Sensor Input
- Occupancy Sensor Input
- Remote Switch Input
- Sensor/Switch Power Feed
- Unpolarized Power Input (from Armstrong® DC FlexZone™ grid)

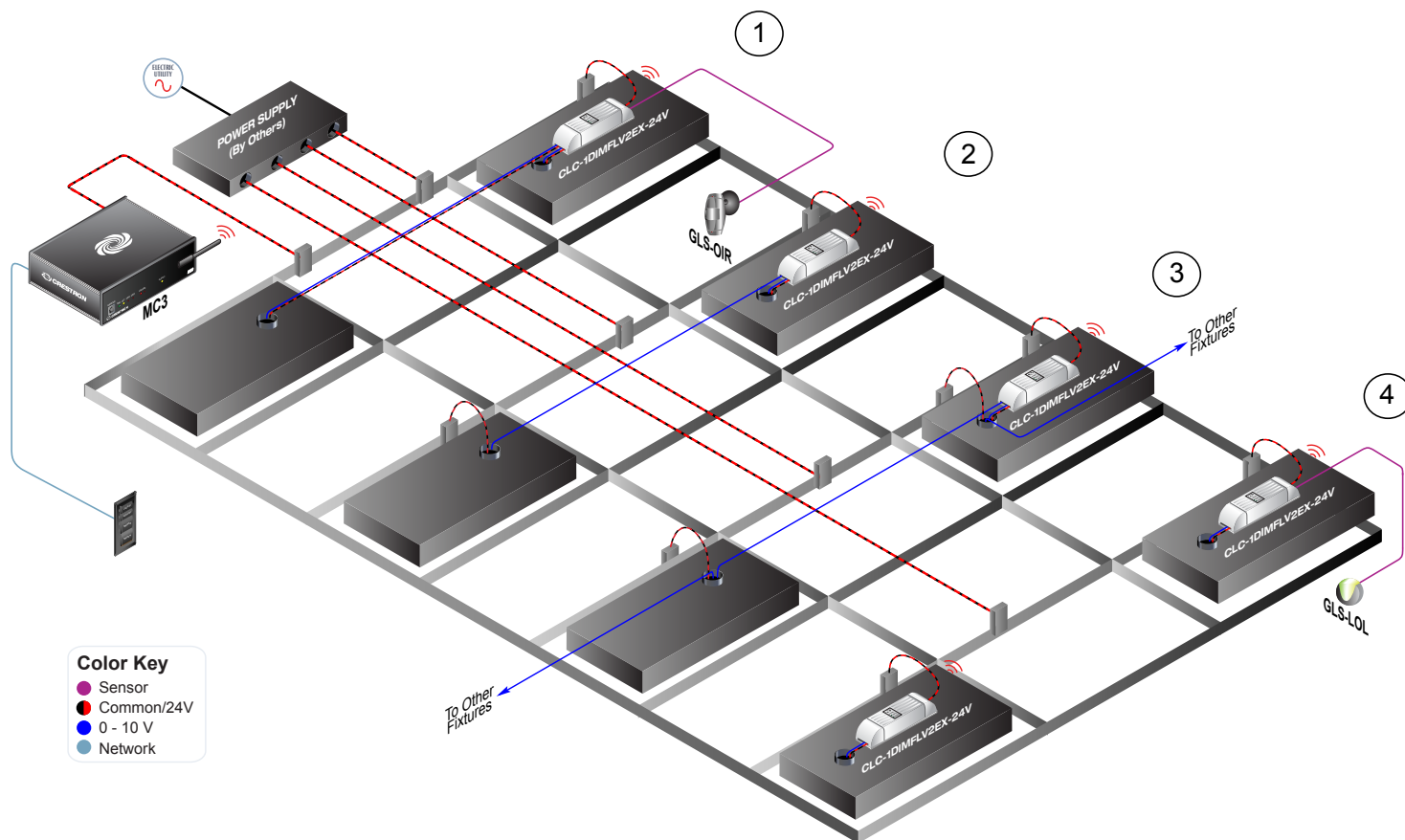
### Output Side



- 0-10V Output
- \*Switched Output
- \*Half moon indicates the switched leg*

# CLC-1DIMFLV2EX-24V Wireless In-Ceiling 0-10V Dimmer, 24VDC

## EXAMPLE APPLICATION



This diagram illustrates multiple ways of applying the CLC-1DIMFLV2EX-24V. Each row of lighting, identified by its number, is configured differently. Each method has value in certain applications.

1. A single CLC is powered by the Armstrong DC FlexZone grid. The CLC then passes 0-10V dimming as well as 24VDC power to each lighting fixture.
2. A single CLC is powered by the Armstrong DC FlexZone grid. The CLC then passes 0-10V dimming to each fixture, but only passes 24VDC to one fixture. The second fixture is independently powered directly by the grid.
3. Each lighting fixture and the CLC are independently powered directly from the grid. The CLC passes 0-10V dimming to each attached fixture. This 0-10V signal can be daisy-chained across multiple fixtures.
4. Each fixture is independently powered and controlled by a single CLC.

Note that in a typical system, photocells and occupancy sensors can be connected to the nearest CLC-1DIMFLV2EX-24V.