ZUMMESH-JBOX Series

ZŪM®

Zūm® Mesh Wireless J-Box Load Controllers

Zūm J-Box Load Controller (Right)
Shown with Optional Zūm Network Bridge (Left)

- *Zūm® wireless junction box-mounted lighting load controllers*
- *Pair and play wireless integration with Zūm keypads, occupancy sensors, vacancy sensors, and daylight sensors*
- *Zūm Mesh peer-to-peer RF communications for integration into a complete standalone or networked Zūm wireless lighting control solution*
- *Dimming control of 0-10V dimmable LED or fluorescent loads*
- *Dimmers rated 5 or 16A at 100-277VAC*
- *Zero cross switch control of 20A, 100-277V high inrush lighting loads*
- *Zero cross switch control of 20A, 100-250V plug loads*
- *Emergency lighting control meets UL® 924 standards*
- *Accommodation for a Zūm Network Bridge or Zūm Contact Closure Output device*
- *Flying lead wiring connections*
- *Knockout mount to a standard 4 in. square junction box*
- *UL 2043 listed for installation in an environmental air handling space*
- *Meets UL 916 standard for energy management equipment*
- *Meets CEC Title 24 and ASHRAE® 90.1 energy efficiency standards*
- *ICC® International Energy Conservation Code® compliant*

Crestron® Zūm® Mesh Wireless J-Box Load Controllers (ZUMMESH-JBOX Series) can provide 20A switching, 5A or 16A 0-10V dimming, and 20A plug load control. J-Box load controllers mount directly to a 4 in. square junction box. Zūm Mesh wireless technology affords easy pair and play integration as part of a complete Zūm commercial lighting system. Energy-saving options are available to enable daylighting, occupancy or vacancy sensing, HVAC system integration, and centralized monitoring and management.

Energy Efficiency

Occupancy sensor, vacancy sensor, and daylight sensor connectivity allow for significant energy savings. To reduce energy usage, lights will turn off automatically when the room is vacant and dim gradually according to the amount of natural daylight in the room.

Pair and Play Setup

Pair and play functionality in Zūm load controllers allows for installation in a room along with Zūm keypads, occupancy or vacancy sensors, and/or a daylight sensor. Set up the room with a few button taps and instantly control the room lights without any additional programming. Room setup can be accomplished via the Zūm app if the room is equipped with a Zūm Network Bridge (sold separately).

Optional Zūm Network Bridge

Snap a Zūm Network Bridge (ZUMMESH-NETBRIDGE, sold separately) onto a Zūm Wireless J-Box Load Controller for centralized lighting management via a Zūm Floor Hub and Zūm Net Wireless Gateway. The Zūm Network Bridge enables enhanced room setup using the Zūm app.

Optional Contact Closure Output

Snap a Zūm Contact Closure Output (ZUMMESH-CCO, sold separately) onto the Zūm Wireless J-Box Load Controller for integration with an HVAC system or other relay-controlled equipment.

Zūm Mesh Wireless Technology

Zūm Mesh wireless technology provides peer-to-peer RF communications within a commercial space without the need for physical control wiring, hubs, or gateways. Nearly every Zūm Mesh device acts as a routing node to relay wireless commands between Zūm Mesh devices without disruption.

Adding Zūm Mesh devices to a space increases the range and stability of the peer-to-peer mesh network by providing multiple redundant signal paths. Each Zūm Mesh device auto-negotiates its RF channel to provide robust communication and is protected through AES 128-bit encryption.

Emergency Load Control

The ZUMMESH-JBOX-16A-LV-EM provides load control to meet UL 924 standards. The device functions like a standard J-box dimmer in normal conditions, where it can bind to keypads, make scene modifications, follow sensor control states, and perform other standard ZUMMESH-JBOX actions.

If power to a lighting system is lost, the device enters Emergency Mode for ninety minutes or until system power is restored, whichever comes first. In Emergency Mode, all connected loads are fully illuminated to allow for safe exit from the space.

Crestron Electronics Inc.
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

CRESTRON®

ZUMMESH-JBOX Series

ZŪM®

Zūm® Mesh Wireless J-Box Load Controllers

Specifications

Load Control - Switch (-SW) and Plug (-PLUG) Models

Switched Load Types	LED, fluorescent ballast, incandescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode, high-intensity discharge
Load Rating	ZUMMESH-JBOX-20A-SW: 20A, high inrush, zero cross switching ZUMMESH-JBOX-20A-PLUG: 20A (or 16A derated by 80%), high inrush, zero cross switching for receptacles

Load Control - Dimming (-LV) Models

Dimmable Load Types	0-10V LED drivers or fluorescent ballasts (4-wire), 60mA maximum current sink
Load Rating	ZUMMESH-JBOX-5A-LV: 5A ZUMMESH-JBOX-16A-LV: 16A

Load Control - Emergency (-EM) Model

Dimmable Load Types	0-10V LED drivers or fluorescent ballasts (4-wire), 60mA maximum current sink
Load Rating	16A
Emergency Mode	All loads in the zone fully illuminate for ninety minutes or until normal power is restored (whichever comes first); Keypads are disabled; Sensors are disabled; The TEST button toggles the connected load on and off when pressed; Exits emergency mode when normal power is restored or after ninety minutes have passed; System communications return when normal power is restored
Emergency Sequence	After normal power is lost, 200 ms (120V) or 750 ms (277V) must pass before the ZUMMESH-JBOX-16A-LV-EM is powered by an emergency power source.

Power Requirements

Line/Load Voltage	100-277VAC, 50/60 Hz
Line/Load Voltage (-PLUG model only)	125/250VAC, 50/60 Hz, UL rating per UL 498; 100-250VAC, 50/60 Hz, operating range
Dim Control Output (-LV models only)	0-10VDC, 60mA maximum sink or source
Idle Power Consumption	1 W

Wireless Communications

RF Transceiver	Zūm Mesh & Zūm Net 2-way RF, 2.4 GHz ISM Channels 15, 20, 25, or 26 (channel auto-selected), IEEE 802.15.4 compliant, AES-128 encryption
Zūm Mesh Range	50 ft (15 m) to nearest peer-to-peer mesh network device(s), subject to site-specific conditions and individual device capabilities[1]
Zūm Net Range	50 ft (15 m) to a Zūm Net wireless gateway or nearest Zūm Net mesh network device(s), requires the Zūm Network Bridge (model ZUMMESH-NETBRIDGE, sold separately), range between floors or ceilings is limited to one level, subject to site-specific conditions and individual device capabilities [1]

NOTE: A maximum of 32 Zūm Mesh wireless devices is permitted per room. Only one Network Bridge is permitted per room.

Controls and Indicators

SETUP	(1) Pushbutton and (1) red LED, used for room setup and factory reset
TEST	(1) Pushbutton and (1) green LED; Push to toggle the switched load output on and off; Press and hold to cycle the dimming level up and down; LED indicates that the load is turned on; LED lights and flashes during room setup and factory reset

Connections

Hot	(1) 14 AWG Class 1 flying lead; Black, line power input
Neutral	(1) 14 AWG Class 1 flying lead; White, neutral
0-10 V Dim +, 0-10 V Dim -, (-LV models only)	(2) 18 AWG Class 1 flying leads; Purple, 0-10VDC dimming control output, positive; Gray, 0-10VDC dimming control output, negative
Switched Load	(1) 14 AWG Class 1 flying lead; Red, switched load output
Expansion Port	Accessory port for expansion accessory: ZUMMESH-NETBRIDGE: Provides Zūm Net wireless communications (sold separately); ZUMMESH-CCO: Provides contact closure input (sold separately)

Crestron Electronics Inc.
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

CRESTRON

ZUMMESH-JBOX Series

ZŪM®

Zūm® Mesh Wireless J-Box Load Controllers

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (noncondensing)

Construction

Housing	Plastic, white, UL 94 5VA flame rated
Mounting	Mounts to the side of a 4 in. square junction box via a 1/2 in. conduit knockout; Meets the requirements of UL 2043 for installation in an environmental air-handling (plenum) space; To meet Chicago plenum requirements, install the J-box in a ZUMMESH-JBOX-FMKT-CP enclosure

Dimensions

Height	3.25 in. (83 mm)
Width	4.17 in. (106 mm); Projects 3.66 in. (93 mm) from the junction box when installed
Depth	1.32 in. (34 mm))

Weight

7 oz (199 g)

Compliance

UL® Listed for US & Canada, IC, FCC Part 15 Class A digital device, UL 916, UL 924 (-EM model only), UL 2043, UL 94 5VA

Model

ZUMMESH-JBOX-5A-LV
Zūm® Mesh Wireless J-Box Load Controller, 0-10 V Dimmer, 5 A, 100-277 V

ZUMMESH-JBOX-16A-LV
Zūm® Mesh Wireless J-Box Load Controller, 0-10 V Dimmer, 16 A, 100-277 V

ZUMMESH-JBOX-16A-LV-EM
Zūm® Mesh Wireless J-Box Emergency Load Controller, 0-10 V Dimmer, 16 A, 100-277 V

ZUMMESH-JBOX-20A-SW
Zūm® Mesh Wireless J-Box Load Controller, High Inrush Switch, 20 A, 100-277 V

ZUMMESH-JBOX-20A-PLUG
Zūm® Mesh Wireless J-Box Load Controller, Plug Load Switch, 20 A, 100-250 V

Available Accessories

For a list of available accessories, visit the ZUMMESH-JBOX-5A-LV, ZUMMESH-JBOX-16A-LV, ZUMMESH-JBOX-16A-LV-EM, ZUMMESH-JBOX-20A-SW, and ZUMMESH-JBOX-20A-PLUG product pages.

Notes:

1. "Zūm Mesh" refers to the peer-to-peer wireless mesh network within a room composed of dimmers, switches, load controllers, keypads, and sensors. "Zūm Net" refers to the wireless mesh network that connects one or more rooms with a Zūm Floor Hub, and consists of a Zūm Net Wireless Gateway and one or more Zūm Network Bridges. AC-powered Zūm Mesh or Zūm Net devices function as routing nodes, which effectively extend the range of a Zūm Mesh or Zūm Net wireless network. Battery-powered devices only function as leaf nodes and do not extend range. A Zūm Mesh network composed predominantly of battery-powered devices may require additional AC-powered devices, such as the ZUMMESH-JBOX-PSU, to serve as supplemental routing nodes to fill any gaps in coverage. Refer to the "Installation and Setup of Crestron RF Products, Best Practices" guide (Doc #6689) for additional guidelines.
2. Not for use with ZUMMESH-JBOX-20A-PLUG.
3. For use with ZUMMESH-JBOX-5A-LV and ZUMMESH-JBOX-16A-LV only.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

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.

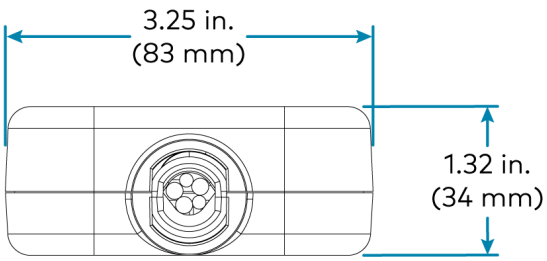
Rev 09/21/21

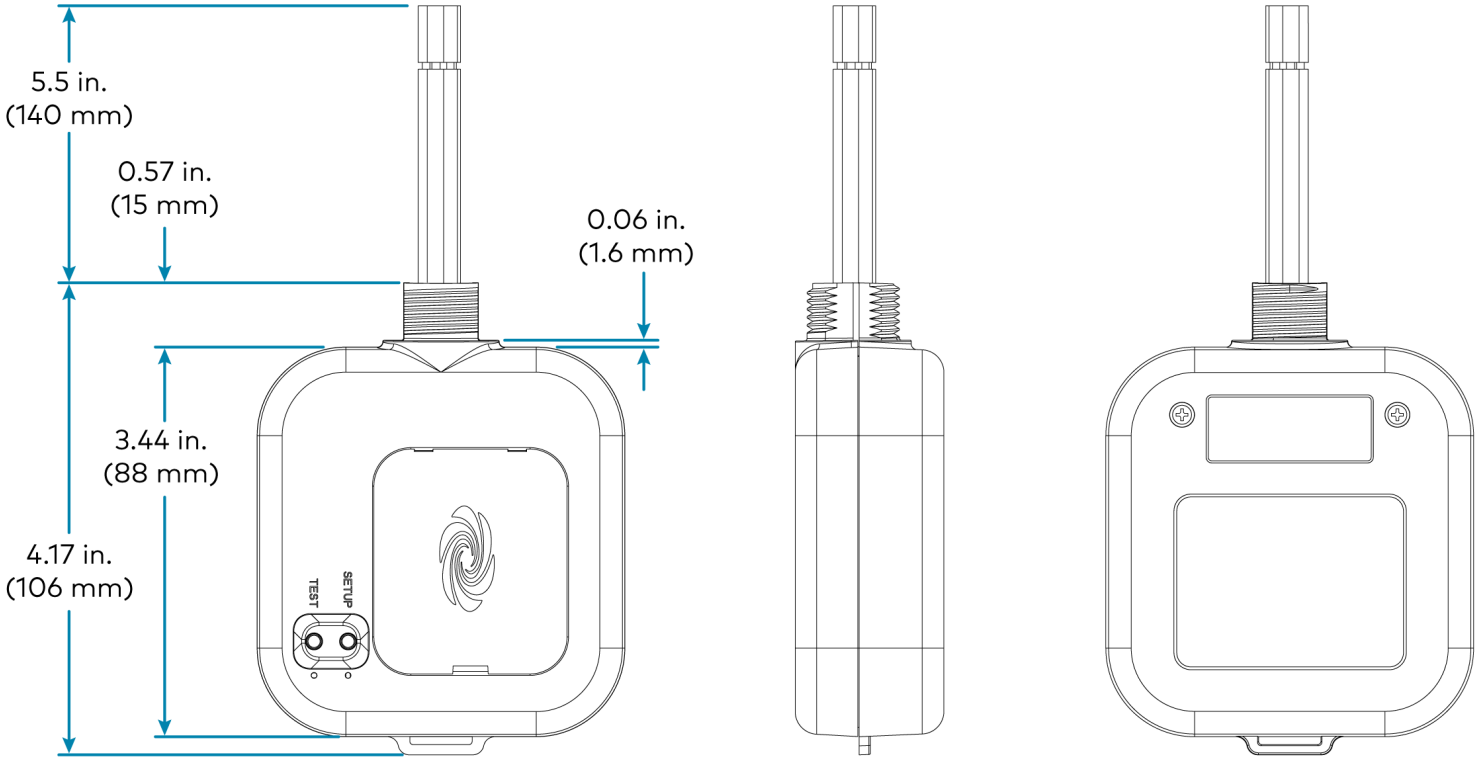
Crestron Electronics Inc.
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041

CRESTRON®

ZUMMESH-JBOX Series

Zūm® Mesh Wireless J-Box Load Controllers





Crestron Electronics Inc.
15 Volvo Drive | Rockleigh, NJ 07647
www.crestron.com | 800.237.2041