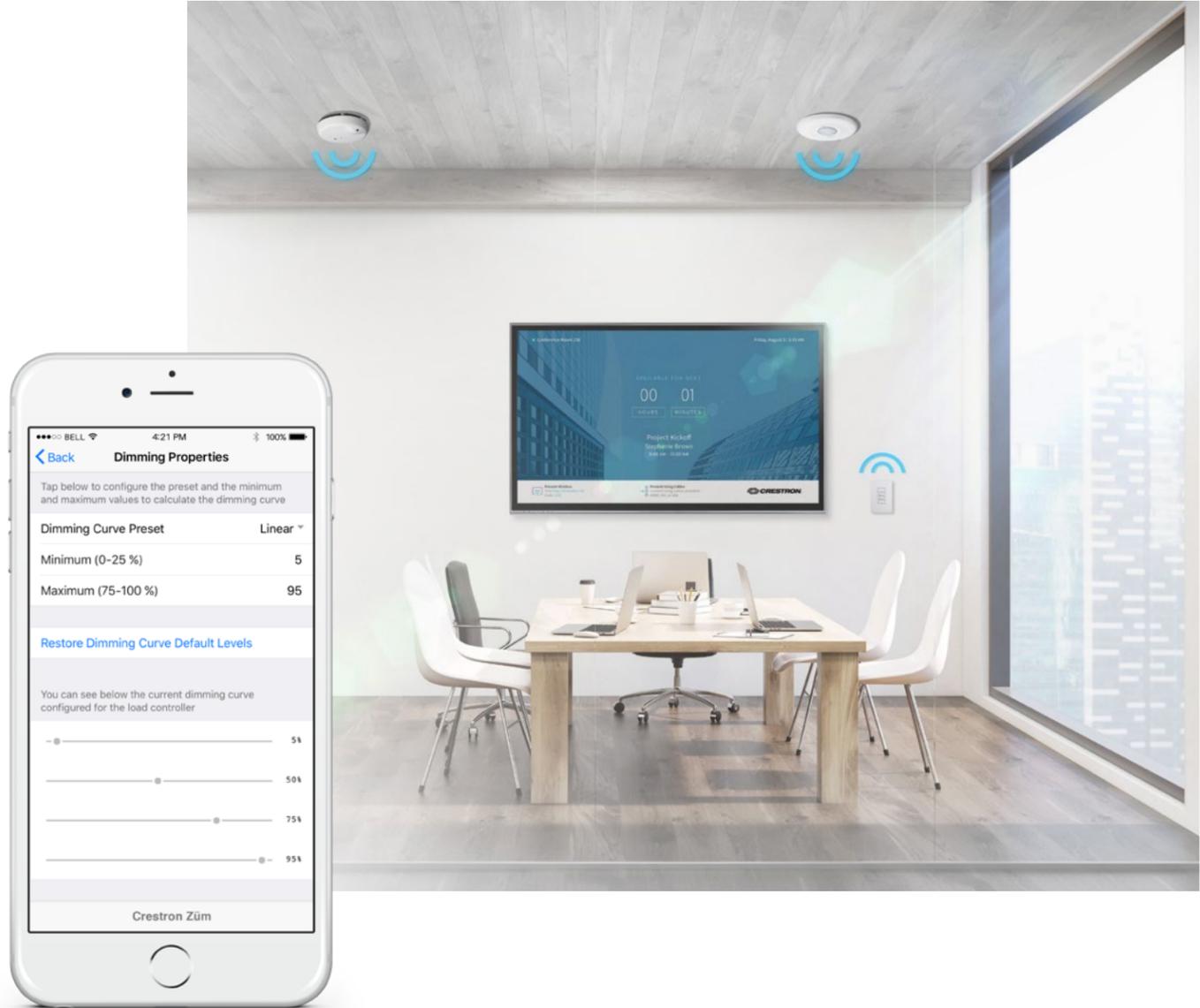# Crestron Zūm™
Technical Brochure

Featuring ASHRAE 90.1-2013, IECC 2015,
and Title 24 - 2015- compliant solutions

CRESTRON®

The Zūm Lighting Control

Crestron creates world-class commercial lighting control solutions that utilize leading-edge technology for scalable, reliable lighting control. Featuring simplified specification, installation, and setup, Crestron commercial lighting solutions offer the right products and systems that are designed to work for the individual needs of each space in a building.

These scalable lighting controls can then be easily networked and integrated for centralized monitoring, management, and control throughout the enterprise. With Crestron, you can expect to dramatically reduce the time required to complete each phase of a lighting control project, improve energy efficiency, and eliminate the over-specification and unnecessary programming inherent in most lighting control systems. Each space is configured with the optimal lighting controls, accessories, and nothing more.

Crestron Zūm Lighting Control

Lighting control made easy

Crestron Zūm is an innovative commercial lighting solution that features simple design, installation, and control. With unparalleled scalability, Zūm allows for lighting control in as many — or as few — spaces as required. A complete Zūm lighting system is specified in three steps:

1 First, in-room Zūm devices are connected to one another over Zūm Mesh, a reliable, peer-to-peer wireless communications topology. A single-room Zūm system exists entirely within the controlled space; low-profile in-room devices are installed and then paired together for self-sufficient, energy-efficient lighting control.

2 Each Zūm space can then be networked with the addition of a Zūm Network Bridge, which allows Zūm wireless spaces to talk back to the Zum Hub via a gateway.

Finally, Zūm Multi-Room Networking Devices expand the system from a single room or a series of single rooms to an enterprise-wide lighting control system via Zūm Net communications.

3 Easy to Manage – Building-wide lighting control is just as easy as in-room lighting control. Simply snap the Zūm Network Bridge into the Zūm Load Controller that's already installed in the room. Get centralized managment and control, and Zūm Cloud Services for every Zūm space.

① Start with a space

Crestron Zūm makes lighting control exceptionally simple to specify and set up. Zūm Zone Control devices intelligently "pair and play" with Zūm keypads, occupancy sensors, vacancy sensors, and daylight sensors. A few simple taps on each device sets up the lighting controls — no programming required! All the devices you need for energy-efficient lighting control are available in the Zūm Mesh lineup:

Zūm Mesh Controllers. A single-room Zone Controller is available in either a wallbox or in-ceiling form factor.

- J-Box Zone Controllers
- Wall Box-Mounted Zone Controllers
- Zūm Universal Phase Dimming Module

Zūm Mesh Components. Connect any of the following Zūm devices to the Zūm Mesh Controllers:

- AC-Powered Keypads
- Battery-Powered Keypads
- PIR Occupancy Sensor
- PIR Vacancy Sensor
- Open-Loop Daylight Sensor
- AV Bridge
- Contact Closure Output
- Power Supply
- Sensor Integration Module
- Partition Sensor

But how do all the Zūm Mesh devices connect?

- Mesh
- P2P
- Battery

AC powered Zūm Mesh devices

Battery powered Zūm Mesh devices

② Networking is a snap!

Add the network bridge and the space can be networked. Snap a Zūm Network Bridge onto a J-Box Zone Controller — one per space — to gain intelligent lighting control. The Network Bridge comes with a Setup App for configuring and controlling all the Zūm devices in the room from your mobile device. The Network Bridge is also the component that enables several spaces to be integrated over the Zūm Net wireless network.

Every space can benefit from the Network Bridge — even those controlled by a Zūm Wall-Box Zone Controller! The Zūm Network Bridge Power Supply is available to provide power and junction-box mounting for the Network Bridge when J-Box zone controllers are not used.

Zūm Bridge Devices. Add the network bridge and the space can be networked.

Network Bridge

③ Manage multiple Zūm spaces

Building-wide lighting control is just as easy as in-room lighting control. With a Zūm Network Bridge installed in every room, all you need is a Zūm Hub and a Zūm Net Gateway to tie all of your rooms together. The Zūm Hub provides the control and the Zūm Net Gateway provides wireless communications for centrally managing, monitoring, and controlling every Zūm space.

Zūm Net Devices. Add Gateways to each floor and a single Hub for the building:

Zūm Hub

Ethernet

Zūm Net Gateway

Zūm Net Wireless

Zūm Mesh Wireless

Zūm Mesh Technology

Keypad

J-Box Zone Controller

Occupancy Sensor

J-Box Zone Controller

Daylight Sensor

- - - - - - - Peer-to-Peer Wireless Mesh
Communications within the space

Ultra-reliable Zūm Mesh wireless technology provides steadfast peer-to-peer RF communications within a commercial space without the need for physical control wiring, hubs, or gateways. Employing a Wi-Fi® friendly 2.4 GHz 802.15.4 peer-to-peer mesh network topology, all AC Powered Zūm Mesh device acts as an "expander," relaying wireless commands directly between Zūm Mesh devices to ensure that every command reaches its intended destination without disruption. Zūm Mesh is smart! Every Zūm Mesh device knows its purpose and just the right messages to communicate to other Zūm Mesh devices within the space.

Each Zūm Mesh device that is added to the space effectively 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. The wireless range between any two Zūm Mesh devices is typically up to 50 ft (15 m) indoors. Zūm provides affordable standalone solutions for extensive code compliant applications.

Up to 32 Zūm Mesh devices per space can connect without the use of hubs, gateways, or bridges.

Zūm™ J-Box Zone Controllers
(ZUMMESH-JBOX)

Marked by intelligent "pair and play" room lighting control with essential features for energy efficiency, each ZUMMESH-JBOX model wirelessly connects to Zūm daylight sensors, occupancy sensors, vacancy sensors, and keypads over the Zūm Mesh network. A complete Zūm system with sensors and Zone Controllers provides intelligent lighting control based on the amount of natural light and the presence of people in a space.

Choose from five options:

16A Switching | 5A 0-10V Dimming | 16A 0-10V Dimming | 20A Plug Load | DALI

Product Details

Zūm junction box-mounted lighting control

Wireless integration with Zūm keypads and occupancy, vacancy, and daylight sensors

4" x 4" junction box mounting via ½" conduit knockout

Universal 120 or 277 VAC input

Plenum-rated

Switched outputs utilize arc-less switching, ensuring 1 million cycle relay lifetime

Provides a plug-in port for connecting a Zūm Network Bridge

Crestron Zūm Expander DIMU Solution
(ZUMMESH-EXP-16A-DIMU)

The ZUMMESH-EXP-16A-DIMU is required to control large forward or reverse phase loads, such as chandeliers or track lighting in ballrooms or museums, or decorative lamps in large hotel foyers.

Product Details

Brings high power, universal phase control dimming to the Crestron Zūm product line

Standalone surface mounting

Same high-performance technology as CLX-2DIMU8 and GL-EXP-DIMU

Wireless integration with Zūm keypads and occupancy, vacancy, and daylight sensors

Universal 120 or 277 VAC input

Full 16A load rating

Plenum-rated
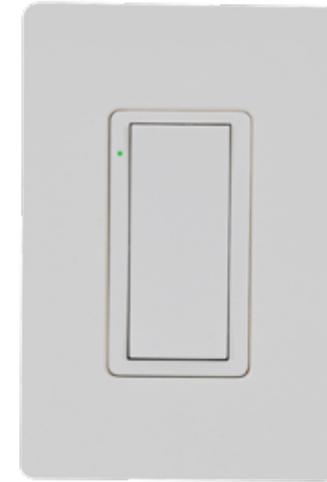
Zūm Wall-Box Zone Controllers
(ZUMMESH-5A-LV & ZUMMESH-5A-SW)

Zūm wireless wall-box zone controllers include a 5 Amp, 0-10V, ELV, and Forward Phase dimmer, and a 5 Amp switch. Available in five colors and configured with a "pair and play" rocker, the Wall-Box Zone Controllers are versatile and easy-to-use additions to the Zūm commercial lighting system. Powered via line voltage AC, their streamlined design and out-of-the-box functionality is advantageous in new or retrofit installations.

Choose from four options:
5A 0-10V Dimming | 5A Switching | 5A ELV Dimming | 5A FWD Phase Dimming
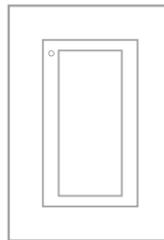

Product Details

Pair-and-play functionality with Zūm occupancy, vacancy, and daylight sensors

Lighting control via a rocker switch

Available in red, grey, black, white, and almond colors

Flying lead connectors for easy installation

Standard wall-box installation, trimmed with gangable decorator-style faceplates*

Universal 120 or 277 VAC inputs

*Sold separately
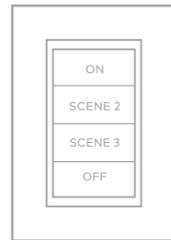
Zūm Wireless Keypad

(ZUMMESH-KP-X)

The AC-powered Zūm wireless wall-box keypad is available in five designer colors. Configured with either a rocker or a "pair and play" four-button layout, the keypad's streamlined design and out-of-the-box functionality is advantageous in new or retrofit installations.

Choose from two options:

Option A:

Rocker – Simple on/off, dim up/down control

Option B:

Four-Button Keypad – Two buttons for on and off control and two scene recall button control

Product Details

Zūm AC-powered wireless keypad

Pair-and-play functionality with a Zūm Zone Controller

Configurable with a rocker switch or a pre-programmed 4-button layout

Available in red, grey, black, white, and almond colors

Flying lead connectors for easy installation

Standard wall-box installation, trimmed with gangable decorator-style faceplates*

Universal 120 or 277 VAC inputs

*Sold separately

Zūm Battery-Powered Wireless Keypad

(ZUMMESH-KP-X-BATT)

The extremely slim battery-powered Zūm wireless keypad features flexible installation. Available in five designer colors and configured with either a rocker or in one of three "pair and play" button layouts, this keypad is powered by a battery and slim enough to mount to a wall or glass surface.

Choose from four options:
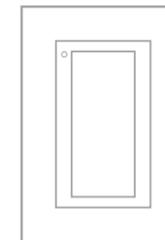
Option A:

Rocker – Simple on/off, dim up/down control
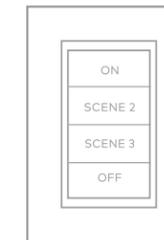
Option B:

Four-Button Keypad – Two buttons for on and off control and two scene recall button control
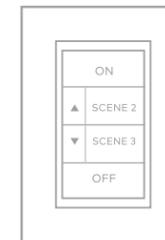
Option C:

Six Button Keypad – On and off control, dimming up and dimming down, and two scene recall buttons
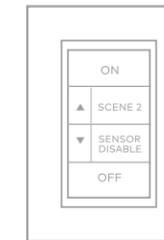
Option D:

Six Button Keypad (Sensor Control) On and off buttons, dimming up/down, scene recall, and one button for disabling motion sensors for one hour

Product Details

Zūm battery-powered wireless keypad

Pair-and-play functionality with a Zūm Zone Controller

Available in red, grey, black, white, and almond colors

Ultra-thin profile, — no thicker than a decorator-style faceplate*

Standard wall-box installation, trimmed with gangable decorator-style faceplates*

Powered via one CR2032 coin cell battery (included), 5 years of life

*Faceplates sold separately

Zūm Wireless Battery-Powered Occupancy Sensor, 500 sq ft

(ZUMMESH-PIR-OCCUPANCY-BATT)

This low-profile, battery-powered occupancy sensor is designed to detect when areas up to 500 sq ft are occupied and when they are vacant. The occupancy sensor utilizes a passive infrared (PIR) sensor to deliver a powerful and cost-effective solution for reducing energy consumption and enhancing the functionality of standalone and networked Zūm lighting systems.

Product Details

Zūm ceiling-mount occupancy sensor

Passive infrared motion detection

360 degrees, 500 sq ft of coverage

Lithium-ion 9-Volt battery powered, 10 years of life

Automatic ON, Automatic OFF

Zūm Wireless Battery-Powered Vacancy Sensor, 500 sq ft

(ZUMMESH-PIR-VACANCY-BATT)

This low-profile, battery-powered vacancy sensor is designed to work with a Zūm lighting system to turn lights off when an area up to 500 sq ft is vacant. The vacancy sensor utilizes a passive infrared (PIR) sensor to deliver a powerful and cost-effective solution for reducing energy consumption and enhancing the functionality of standalone and networked Zūm lighting systems.

Product Details

Zūm ceiling-mount vacancy sensor

Passive infrared motion detection

360 degrees, 500 sq ft of coverage

Lithium-ion 9-Volt battery powered, 10 years of life

Grace occupancy feature

Manual ON, Automatic OFF

Zūm Wireless Battery-Powered Daylight Sensor, Open-Loop
(ZUMMESH-OL-PHOTOCELL-BATT)

This battery-powered, wireless, open-loop (dual loop calibration) daylight sensor provides superior natural light sensing and indoor lighting control in daylight harvesting applications. An internal photocell for open-loop daylight sensing effectively cuts costs while providing exceptional daylight sensing in new construction or retrofit applications.

The dual-loop auto-calibration process discovers the optimal light settings in just a few minutes — one press of a button is all it takes to achieve reliable and energy-efficient daylight harvesting in any Zūm space!

Product Details

Zūm open-loop, battery-powered daylight sensor

Ceiling or surface mounting for both sidelight and toplight applications

Local button lets users commission and auto-calibrate the daylight harvesting system

Light sensitivity: 0-65, 535 lux

10-year battery life via two Lithium-ion AAA batteries

Sleek, compact design

Powered via 24Vdc or USB

Zūm Wireless Partition Sensor
(ZUMMESH-PART)

The Zūm Wireless Partition Sensor passes messages between two rooms that have Zūm RF devices when a partition is open. This allows for the two rooms to be treated as one for the purpose of occupancy sensors and keypads.

Product Details

Powered by 24V

Combines up to four Zūm rooms

Mounts to single gang wallbox

Zūm AV Bridge
(ZUMMESH-AVBRIDGE)

The Zūm AV Bridge is a wireless control integration module designed for use with Wireless Keypads, and occupancy and vacancy Sensors. It enables simple control of AV and other functions by connecting the keypads and sensors to a control system or computer.

A simple, brand-agnostic command set allows for integration with both Crestron and third-party systems via RS-232 or USB. The AV Bridge pairs wirelessly with up to eight keypads and eight sensors in a room without requiring a separate wireless gateway.

Product Details

Wireless pair-and-play in-space with Zūm Mesh lighting controls

Bi-directional RS-232 or USB communication AV system

Mounts inconspicuously at the AV equipment location

Powered via 24Vdc or USB

Zūm Contact Closure Output
(ZUMMESH-CCO)

The Zūm Contact Closure Output (CCO) is a small module that snaps onto a ZUMMESH-JBOX (Zūm J-Box Load Controller) or ZUMMESH-JBOX-PSU (Zūm J-Box Accessory Power Supply). This enables integration with a HVAC system or other equipment, allowing integration with a HVAC system or other equipment by via its low-voltage SPDT form-C contact closure to a Zūm commercial room system.

The CCO is controlled by the occupancy or vacancy sensors in the room. When the room is occupied, the relay engages. When the room is vacant, the relay disengages.

Product Details

Adds a contact closure output

Low-voltage SPDT form-C relay activates and deactivates on signal from room occupancy sensor

Rated 1 Amp @ 30 volts AC

Enables integration with HVAC equipment to save energy

Attaches to a Zūm J-Box Load Controller or Zūm J-Box Accessory Power Supply

Zūm Power Supply
(ZUMMESH-JBOX-PSU)

The Zūm J-Box-Mounted Power Supply delivers power to the Zūm Network Bridge for use in Zūm spaces controlled via a ZUMMESH-5A-LV (Wireless 0-10V Wall-Box Dimmers) or a ZUMMESH-5A-SW (Wireless Wall-Box Switches). Each Power Supply wirelessly connects to Zūm daylight sensors, occupancy sensors, vacancy sensors, keypads, and dimmers or switches over the Zūm Mesh network.

Zūm Zone Controllers furnish intelligent lighting control based on the amount of natural light and the presence of people in a space while the Zūm Network Bridge adds a Setup app and provides the capabilities to integrate several standalone Zūm spaces with the Zūm Hub for a centrally-managed lighting system.

Product Details

Zūm junction box-mounted power supply for the Zūm accessories, like the Zūm Network Bridge and the Zūm Contact Closure Output

Zūm Network Bridge integration for Zūm spaces controlled via Zūm dimmers or switches

Zūm Mesh peer-to-peer RF communications for easy integration into a complete standalone or networked Zūm wireless lighting control solution

Wireless integration with Zūm keypads, occupancy sensors, vacancy sensors, and daylight sensors

Zūm Wireless Sensor Integration Module
(ZUMMESH-JBOX-SIM)

Zūm J-Box Sensor Integration Module enables the use of hard-wired occupancy and daylight sensors with a Zūm commercial lighting system. It is ideal for applications that may not be conducive to using battery-powered wireless sensors. It also enables the use of ultrasonic and dual-technology type sensors, as well as specialized sensors for hallway, high-bay, wet location, outdoor, and other applications.

Product Details

Junction box mounted using ½" knockout

Motion sensors require DC high-logic signal >8 VDC

Supports a single 24 VDC powered open-loop photocell

Supplies 250mA @ 24 VDC

Pairs with our Steinel sensors

Powered from 120-277V

Zūm Net Technology

Ultra-reliable Zūm Net wireless technology provides steadfast 2-way RF communications throughout a commercial structure without the need for physical control wiring. Employing a Wi-Fi® friendly 2.4 GHz mesh network topology, every Zūm Netbridge device acts as an "expander," relaying wireless commands between the Zūm Gateway and all the other Zūm Netbridges to ensure that every command reaches its intended destination without disruption. Each Zūm Netbridge that is added to the network effectively increases the range and stability of the entire network by providing multiple redundant signal paths. The wireless range between any two Zūm Netbridges is typically up to 150 ft. indoors.

Device Specifications:

Maximum number of **Zūm Mesh Devices** per space = **32**

> Maximum number of **battery devices** per space = **6 per high-voltage device**
>
> Maximum number of **battery-powered keypads** per space = **8**
>
> Maximum number of **battery-powered occupancy/vacancy sensors** per space = **8**
>
> Maximum number of **DL sensors** per space = **1**

Maximum number of **Zūm Network Bridges** per space = **1**

Maximum number of **Zūm Network Bridges** per **Zūm Gateway = 50**

Maximum number of **Zūm Gateways** per **Zūm Hub = 30**

Maximum number of **Zūm Network Bridges** per **Zūm Hub = 1000**

Maximum distance between **Zūm Network Bridges** and **Zūm Net** devices = **150 ft**

Recommended coverage area for a single **Zūm Gateway** = **250ft radius (196,000 sq ft)**

Zūm Net Wireless Mesh Networking

Peer-to-Peer Wireless Mesh Communications within the space

CONFERENCE ROOM   CONFERENCE ROOM

Zūm Network Bridge
(ZUMMESH-NETBRIDGE)

The Zūm Network Bridge enables Zūm device setup from a mobile app and integrates a standalone Zūm lighting control system with the Zūm Hub for a centrally managed, enterprise-wide lighting control system. Turning Zūm single-room lighting controls into a smart system is a snap with the Zūm Network Bridge!

Snap the Network Bridge on to the Zūm J-Box Zone Controller to use the mobile app to set up the Zūm devices in the room. Adding the Zūm Hub to the system enables all of the Network Bridges to communicate, providing centralized monitoring, management, and control of the lighting systems throughout an entire building. With easy installation and simple setup, the Zūm Network Bridge affords scalable lighting control and flexible device configuration within spaces to ensure that every space has exactly what it needs and nothing more.

Product Details

Converts standalone Zūm lighting control system for a single room into a centrally managed, networked system

Provides access to Zūm Setup App for room configuration, built-in Bluetooth beacon

Zūm Net mesh communications technology for a complete networked Zūm wireless lighting control solution

Mounts to Zūm J-Box Zone Controller, Zūm Network Bridge Power Supply, or Zūm J-Box SIM
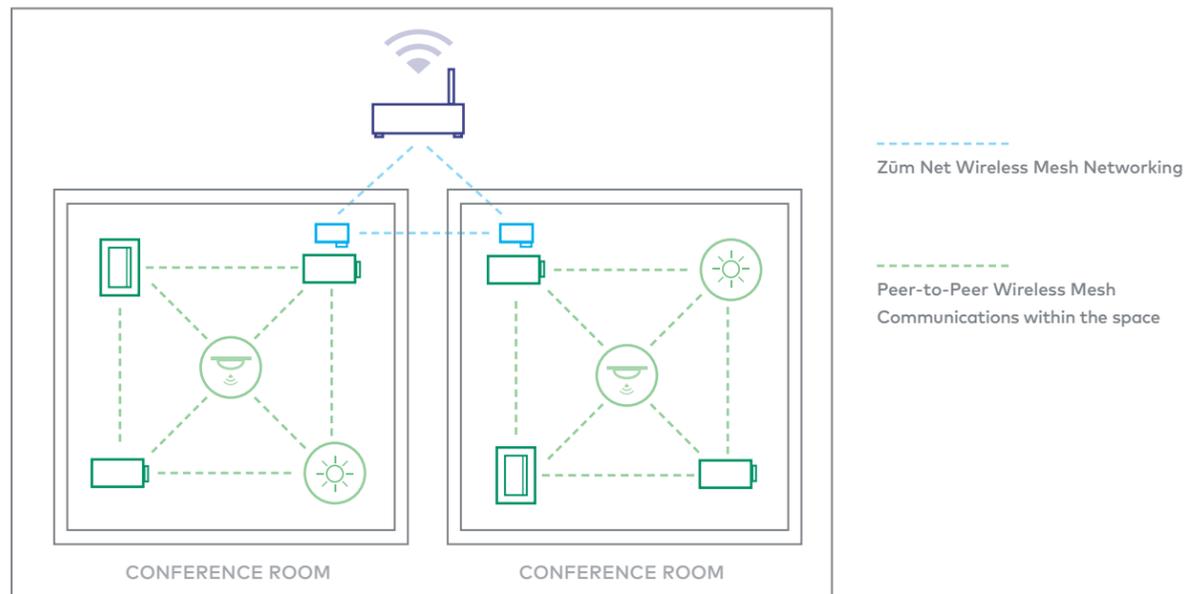
Zūm Net Gateway
(ZUMNET-GATEWAY)

This 2-way RF wireless gateway is designed for use with Crestron Zūm wireless devices. A single gateway auto-acquires all Zūm Network Bridges within range, enabling an entire multi-room Zūm Net wireless communications network for commercial lighting control. The Zūm Gateway connects to the Zūm Hub to provide central monitoring, management, reporting, and control of lighting systems throughout the enterprise.

Product Details

2-way RF wireless gateway for Zūm Mesh devices

Simple networked communications – auto-acquires Zūm wireless devices

Ultra-dependable Zūm Net mesh network technology

Automatic discovery for fast, easy setup

"Wi-Fi friendly" channel selection for trouble-free operation

Built-in RF network diagnostics

Range of up to 250 feet (76.2 meters) to nearest Zūm Network Bridge

Compact, stackable "IFE small" form factor

Surface or DIN rail mountable using bracket provided

Available rack mount and pole mount options

Powered via IEEE 802.3at Type 1 (802.3af compatible) Class 1 (3.84 W) PoE

Plenum-rated case

Up to 30 gateways can be connected to each Zūm HUB

Zūm Hub
(ZUM-HUB)

This Hub auto-discovers up to 1000 Zūm rooms and legacy Crestron wired product, providing a single point of control for the commercial lighting system. The Hub features an astronomical time clock for scheduling lighting events, centralized management and control for each space or across all the spaces at once, and real-time room status updates. The Zūm Hub forms the core of any modern networked commercial lighting installation, monitoring and managing the entire lighting system throughout your facility to make life easier, greener, more productive, and more enjoyable. The Zūm Hub also provides simple one-button selection to integrate to the building automation system via BACnet® over IP and demand response.

Product Details

Astronomical time clock and programmable event scheduling capabilities for Zūm commercial lighting systems, centralized management and control

Real-time room status updates, modular architecture

1-space rack-mountable

Industry-standard Ethernet wired communications, web-based control and setup, native BACnet/IP support, full Unicode (multi-language) support

Control Subnet — provides a dedicated local network for Zūm devices

TLS, SSL, SSH, and SFTP network security protocols

FIPS 140-2 compliant encryption, IPv6 ready

BACnet over IP built-in

Demand response input trigger

Supports up to 30 Zūm gateways

Zūm Hub Monitoring & Management

Main View

View and Configure Room:

- Status
- Settings
- Schedule
- Users
- BACnet

Help

System Alerts

Demand Response Status

Indicates that Demand Response is Enabled or Disabled
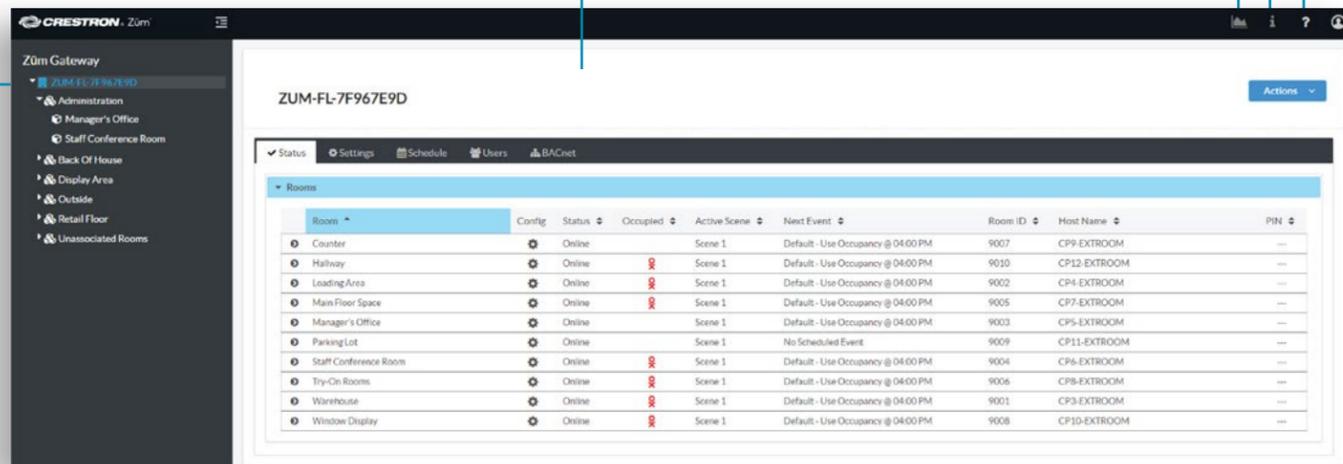
Room Category Tree

Lists all Room Names grouped by Room Category.

- Add/Rename Room Categories and Rooms
- Unassociate Room from Room Category
- Delete Room
- Turn Rooms On and Off
- Set Bluetooth PIN
- Set Demand Response Level
- Search for Room Name

Actions

- Configure Holidays
- Configure States
- Demand Response Mode
- Discover
- Reboot

Zūm Hub Schedule
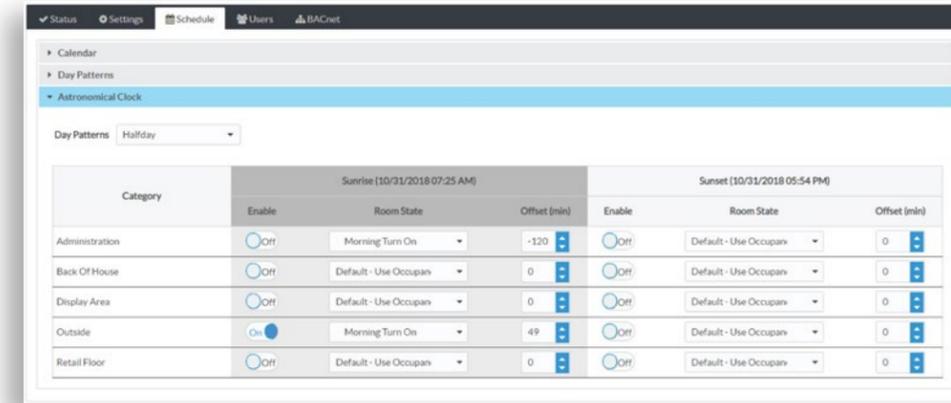
Overview

- See entire system in tree hierarchy
- Manage room status, battery life, and more
- Manage room types and groupings
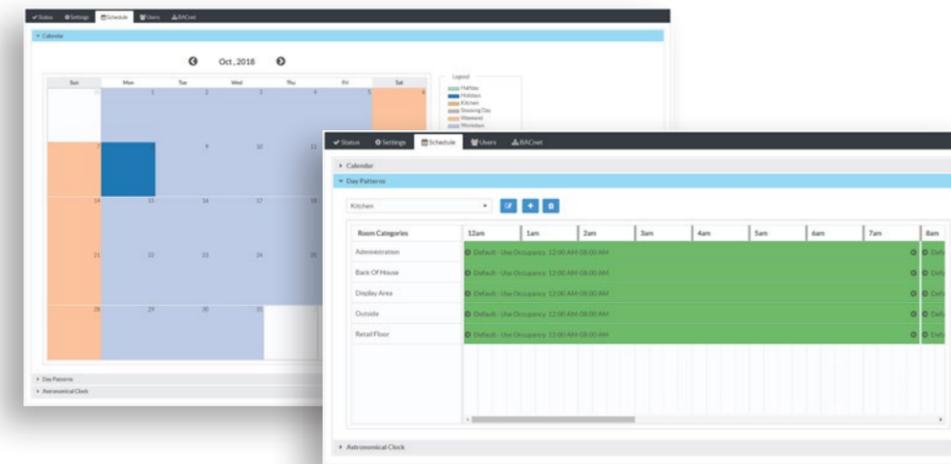
Schedule

- Simple calendar view allows to create schedules
- Apply or modify daily schedules as needed
- User can change as needed in real time

Zūm BACnet
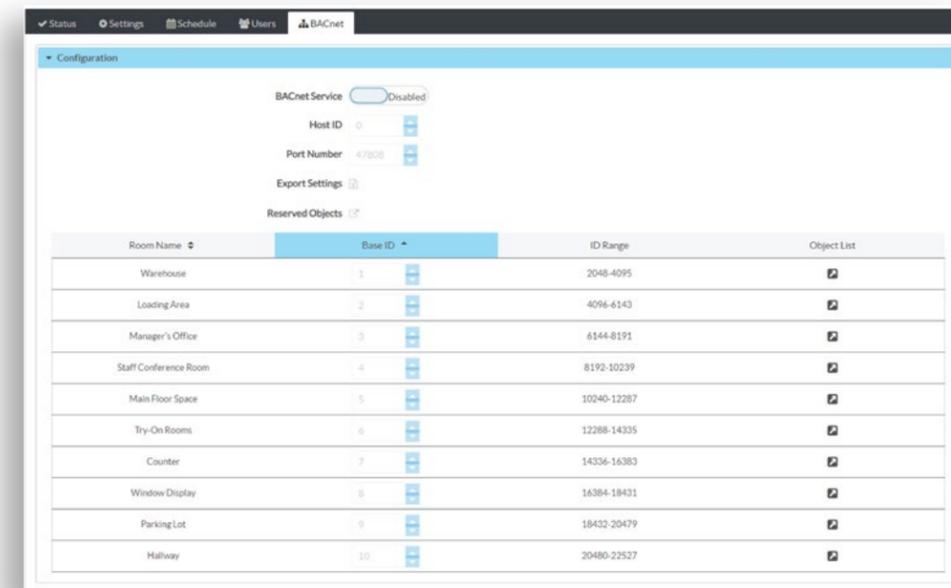
BACnet®

- Complete BACnet over IP interface built-in
- Send all or select points to BAS/BMS systems
- Single button to integrate BAS/BMS systems

Zūm Space Design and Best Practices

Questions to ask when creating a Zūm space:

1. What loads types do I have in the space?

2. Should the load controller be wall box-mounted or junction box-mounted?

3. Do I need wall box-mounted keypads with line power or battery-powered keypads that can be mounted to any surface?

4. Do I need the lights to automatically turn on and off based on occupancy or to only turn off when someone leaves the space?

5. Do I need a sensor for daylight harvesting?

6. Will the spaces need to be networked for enterprise-wide control and management?

Want an even quicker deploy? Learn more about our GLZUM SpaceBuilder system for an easy Zūm Wireless deployment.

Zone Name	Type	Wattage

Step 1

Write down the energy code your project must comply with and include solutions below to match.

Step 2

- What is the type (switching, 0-10V, ELV, FWD Phase) and wattage of your lighting zones?

- Add 3x4 table with row headings: 'Zone Name,' 'Type,' and 'Wattage.'

- Select the zone controllers to match the type and wattage of the lighting zones. (Create a list of the zone controllers.)

Step 3

Add motion sensors, (ZUMMESH-PIR-OCCUPANCY-BATT, ZUMMESH-PIR-VACANCY-BATT, ZUMMESH-JBOX-SIM). Choose occupancy (auto-on) or vacancy (manual-on) based on your energy code. Typically occupancy is good for common space like corridors and bathrooms. Use vacancy for everything else. (Don't mix occupancy and vacancy sensors in the same room.)

Step 4

Add 1 photocell (ZUMMESH-OL-PHOTOCELL) for the space. Remember that multiple unique daylight zones only require 1 photocell per space.

Step 5

Add required accessories like the Contact Closure Output (ZUMMESH-CCO) or the AV Bridge (ZUM-AV-BRIDGE).

Step 6

Answer these questions:

- Do you want to configure with the Zūm App? (Recommended)

- Do you want to network multiple spaces together?

- Do you need time clock control?

- Do you need global control (i.e. load shedding) or maintenance?

If you answered yes to any of these questions, then add one ZUMMESH-NET-BRIDGE to the space.

Zūm Installation and Setup

A Zūm system can be setup and commissioned by a contractor with less than 1 day of training

Crestron Zūm solutions are designed for easy installation and fast startup. Each device on a Zūm Mesh network automatically communicates with other Zūm Mesh devices in the space for true out-of-the-box operation. Zūm Junction Box Zone Controllers mount above the ceiling using a standard ½" conduit knockout. Zūm Wall-Box Zone Controllers and Zūm keypads can be ganged together and mounted using standard back boxes and decorator-style faceplates. Battery operated daylight sensors and motion sensors mount quickly to the ceiling and can be easily relocated for sensor coverage adjustment.

After the Zūm solution has been installed, a simple series of button presses on the Zūm devices pair, calibrate, and tune the space – or, when a using a Zūm Network Bridge, everything can be done via the Zūm App for Android™ or iOS®. Zūm Mesh networking can be configured without even opening your laptop!

Pairing

The Zūm Mesh pairing process can be started from any AC-Powered Zūm device. Once in Pairing mode, each device in the space is added to the Zūm Mesh network. After pairing, all bound devices remember their network, even in the event of a power outage or during battery replacement. Remember, Zūm Mesh auto-negotiates its RF channel for reliable operation even when the RF environment changes. **Pairing can also be done by the factory when choosing the SpaceBuilder option.**

Calibrating

The Zūm Daylight Sensor is auto-calibrating. During the daytime, simply press the calibrate button, leave the room, and let Zūm do the rest! Using dual-loop technology and through a series of zone control ON/OFF/DIM UP/DIM DOWN commands, within minutes Zūm determines the proper amount of daylight to harvest.

Tuning

Adjust the scenes to your liking and save them as preset recalls via the keypads.

Crestron SPACEBUILDER®

Crestron SpaceBuilder systems are the fastest way to design, install, and start up commercial lighting controls for any size building or system. Space Based packaging allows for quick project material sorting, and optional Pre-Paired option from the factory – which saves time in the field.

GLZUM SpaceBuilder System

As part of a SpaceBuilder solution, Crestron can produce factory paired devices for easily deployable rooms that are immediately ready for occupancy. All SpaceBuilder Zūm systems are packaged and shipped by space type.

Classroom Installation

Key

────	Line Voltage Power
----	0-10V Dimming
Zūm Mesh Wireless	
Zūm Net Wireless	

Daylight Zone

	Qty	Model	Description
0-10V	2	ZUMMESH-JBOX-5A-LV	Junction Box Zone Controller, 0-10V Dimming, 5A
PLUG	1	ZUMMESH-JBOX-20A-PLUG	Junction Box Zone Controller, Plug-Load, 20A
	2	ZUMMESH-KP10DBATT	6-Button Battery-Powered Keypad with 1 Hour Sensor Disable
	2	ZUMMESH-PIR-VACANCY-BATT	PIR Vacancy Sensor (Manual-ON, Auto-OFF)
	1	ZUMMESH-OL-PHOTOCELL-BATT	Open-Loop Daylight Sensor
	1	ZUMMESH-NETBRIDGE	Zūm Network Bridge (Optional)

The Sensor Disable button disables motion sensors for one hour for situations in which the room is occupied but there is little motion to detect, such as during exam periods.

Load Types

0-10V, PL

Code Compliance

IECC-2015, ASHRAE 90.1-2013, TITLE 24-2015

Operations

- Lights turn ON when entry keypad is pressed

- Daylight is harvested automatically using daylight sensor

- Occupant may select a scene or dim the lights up and down using the entry or teacher keypads

- Switched receptacles turn ON while the space is occupied

- Lights and switched receptacles turn OFF 15 minutes after space becomes vacant

Notes:

Conference Room Installation

Key

———	Line Voltage Power
- - - -	0-10V Dimming
🛜	Zūm Mesh Wireless
🌈	Zūm Net Wireless

Daylight Zone

Occupant may select a scene or dim the lights up and down using the keypad.

0-10V	2	ZUMMESH-JBOX-5A-LV	Junction Box Zone Controller, 0-10V Dimming, 5A
PLUG	1	ZUMMESH-JBOX-20A-PLUG	Junction Box Zone Controller, Plug-Load, 20A
	1	ZUMMESH-KP10CBATT	6-Button Battery-Powered Keypad
	1	ZUMMESH-PIR-VACANCY-BATT	PIR Vacancy Sensor (Manual-ON, Auto-OFF)
	1	ZUMMESH-OL-PHOTOCELL-BATT	Open-Loop Daylight Sensor
	1	ZUMMESH-NETBRIDGE	Zūm Network Bridge (Optional)

Load Types

0-10V, PL

Code Compliance

IECC-2015, ASHRAE 90.1-2013, TITLE 24-2015

Operations

- Lights turn ON when entry keypad is pressed

- Daylight is harvested automatically using daylight sensor

- Switched receptacles turn ON while the space is occupied

- Lights and switched receptacles turn OFF 15 minutes after space becomes vacant

Notes:

Open Office Installation

Key

————	Line Voltage Power
------	0-10V Dimming
🔊	Zūm Mesh Wireless
🌈	Zūm Net Wireless

0-10V	3	ZUMMESH-JBOX-5A-LV	Junction Box Zone Controller, 0-10V Dimming, 5A
PLUG	1	ZUMMESH-JBOX-20A-PLUG	Junction Box Zone Controller, Plug-Load, 20A
	1	ZUMMESH-KP10CBATT	6-Button Battery-Powered Keypad
	2	ZUMMESH-PIR-OCCUPANCY-BATT	PIR Occupancy Sensor (Auto-ON, Auto-OFF)
	1	ZUMMESH-OL-PHOTOCELL-BATT	Open-Loop Daylight Sensor
	1	ZUMMESH-NETBRIDGE	Zūm Network Bridge (Optional)

Occupant may select a scene or dim the lights up and down using the keypad.

Load Types

0-10V, PL

Code Compliance

IECC-2015, ASHRAE 90.1-2013, TITLE 24-2015

Operations

- Lights turn ON automatically to 50% when occupants enter space

- Daylight is harvested automatically using daylight sensor

- Switched receptacles turn ON while the space is occupied

- Lights and switched receptacles turn OFF 15 minutes after space becomes vacant

Notes:

Private Office Installation

Key

——	Line Voltage Power
- - -	0-10V Dimming
))))	Zūm Mesh Wireless
◠◠	Zūm Net Wireless

Occupant may turn the lights on and off, or dim the lights up and down using the Wall-Box Zone Controller.

Load Types

0-10V, PL

Code Compliance

IECC-2015, ASHRAE 90.1-2013, TITLE 24-2015

Operations

- Lights turn ON when the entry dimmer is pressed

- Daylight is harvested automatically using daylight sensor

- Switched receptacles turn ON while the space is occupied

- Lights and switched receptacles turn OFF 15 minutes after space becomes vacant

PLUG	1	ZUMMESH-JBOX-20A-PLUG	Junction Box Zone Controller, Plug-Load, 20A
▯	1	ZUMMESH-5A-LV	Wall-Box Zone Controller, 0-10V Dimming, 5A
⏚	1	ZUMMESH-PIR-VACANCY-BATT	PIR Vacancy Sensor (Manual-ON, Auto-OFF)
☀	1	ZUMMESH-OL-PHOTOCELL-BATT	Open-Loop Daylight Sensor
▭	1	ZUMMESH-NETBRIDGE	Zūm Network Bridge (Optional)

Notes:

Lounge Installation

Key

——————	Line Voltage Power
- - - - -	0-10V Dimming
📶	Zūm Mesh Wireless
🌈	Zūm Net Wireless

Occupant may turn the lights on and off, or dim the lights up and down using the Wall-Box Zone Controller.

PLUG	1	ZUMMESH-JBOX-20A-PLUG	Junction Box Zone Controller, Plug-Load, 20A
▢	1	ZUMMESH-5A-LV	Wall-Box Zone Controller, 0-10V Dimming, 5A
◉	1	ZUMMESH-PIR-VACANCY-BATT	PIR Vacancy Sensor (Manual-ON, Auto-OFF)
▭	1	ZUMMESH-NETBRIDGE	Zūm Network Bridge (Optional)

Load Types

0-10V, PL

Code Compliance

IECC-2015, ASHRAE 90.1-2013, TITLE 24-2015

Operations

- Lights turn ON when the entry dimmer is pressed
- Switched receptacles turn ON while the space is occupied
- Lights and switched receptacles turn OFF 15 minutes after space becomes vacant

Notes:

Restroom Installation

Key

——————	Line Voltage Power
- - - - - -	0-10V Dimming
🛜	Zūm Mesh Wireless
🌈	Zūm Net Wireless

Occupant may turn the lights on and off, or dim the lights up and down using the rocker keypad.

0-10V	1	ZUMMESH-JBOX-5A-LV	Junction Box Zone Controller, 0-10V Dimming, 5A
▯	1	ZUMMESH-KP10ABATT	Rocker-Style Battery-Powered Keypad
⊙	1	ZUMMESH-JBOX-SIM	Motion sensor
⊙	1	Steinel GLA-US-QUATTRO COM1-24	Motion Sensor
▭	1	ZUMMESH-NETBRIDGE	Zūm Network Bridge (Optional)

Load Types

0-10V

Code Compliance

IECC-2015, ASHRAE 90.1-2013, TITLE 24-2015

Operations

- Lights turn ON automatically when the occupant enters

- Lights turn OFF 15 minutes after space becomes vacant

Notes:

Zūm Platform

Building LAN
BMS Integration, AV Integration

ZUMMESH-DALI

Touch Screen

GLNET-ZUM-CN
with ZUM HUB
(Mounted in Electrical Room)

GLPAC
(SpaceBuilder Space)

SpaceBuilder panel

Key

——— Ethernet

- - - - Cresnet

- - - - Zūm Net Wireless

With the Zūm platform you can select the lighting control solution that is best for your application and never have to worry about compatibility. Zūm is compatible with **ALL** Crestron commercial lighting solutions. Classic SpaceBuilder solutions, touch screens and conventional panels are auto-discoverable by the ZUM HUB.

Learn More

Zūm Website

http://www.crestron.com/zum

Lighting Control Specification Tools

https://support.crestron.com/app/answers/detail/a_id/5709/kw/5709

Or give us a call:

Lighting Support Hotline – 855-644-7643

Lighting Consultant Hotline – 888-330-1502

Zūm Integration
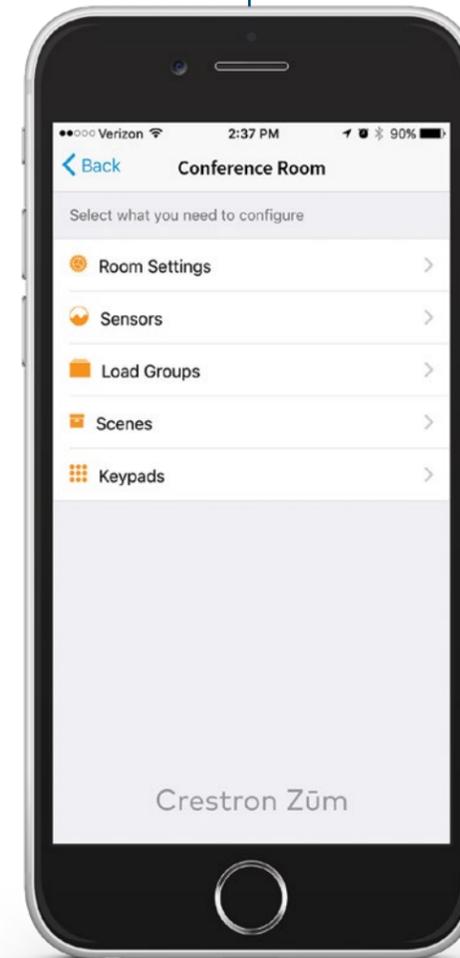
Apps for Zūm

Zūm Setup App

The Zūm Network Bridge takes single-room Zūm lighting control to the next level. It comes with a corresponding setup app that enables installers to customize the room's lighting controls.

With the app, installers can set scenes and set up sensors. No programming is required when the controls are literally in hand!

Download now!

Recommended Code Compliant Solutions

			ASHRAE 90.1-2013	Classrooms	Conference	Private Offices	Open Office Plan (>250 sq ft)	Public Spaces	Stairwells	Restrooms
ON/OFF Control	9.4.1.1.a	Local controls (i.e. keypad)	There shall be one or more readily accessible manual lighting controls in each space	x	x	x	x	x	x	x
	4.4.1.1.b	Manual ON / partial auto ON "Vacancy Sensing Mode"	The general lighting shall either be manually turned ON or automatically turned on to no more than 50%	x	x	x	x			
	9.4.1.1	Automatic full ON "Occupancy Sensing Mode"	Lighting is permitted to automatically turn to full ON					x	x	x
	9.4.1.1.h	Automatic Full OFF	All lighting must be shut off within 20 minutes of vacancy	x	x	x	x or x	x* or x	x* or x	x
	9.4.1.1.i	Scheduled shutoff (i.e. programmable timeclock)	All lighting shall be automatically shut off during periods when space is scheduled to be unoccupied using a programmable timeclock or signal from another control device (i.e. security system)							
Light Level Control	9.4.1.1.d	Bi-level control (i.e. 0-10V dimming)	General lighting shall have at least one intermediate step between 30 - 70% power, or continuous dimming, in addition to full ON and full OFF	x	x	x	x		x	
	9.4.1.1.e	Automatic daylight controls (i.e. photocontrols)	In primary side daylight, general lighting zones with greater than 150W (or greater than 300V within the primary or secondary daylit zones), daylight must be harvested using photocontrols. In top, daylight general lighting zones with greater than 150W, daylight must be harvested using photocontrols	x	x	x	x	x	x	x
Plug Load Control	8.4.2	Automatic receptacle control	50% of all receptacles and 25% of modular furniture feeders must be turned OFF 20 minutes after vacancy	x	x	x				
Primary Solutions			Zūm Wireless	x	x	x	x	x	x	x
			GLPP	x		x		x	x	x
			GLPAC		x		x	x	x	
			PYNG							
			DALI® Control							
			CENTRALIZED					x	x	

*9.4.1.1.g permits automatic partial OFF such that lighting can be automatically reduced by at least 50% ("night light" mode) Full off is also acceptable.

Ordering Guide

Zūm Mesh In-Room Devices		
Zūm Keypads (Battery Powered)		
	ZUMMESH-KP10ABATT-X-S*	1-Button Battery-Powered Keypad *Available in White, Black, Almond, Red, Grey*
	ZUMMESH-KP10BBATT-X-S*	4-Button Battery-Powered Keypad *Available in White, Black, Almond, Red, Grey*
	ZUMMESH-KP10CBATT-X-S*	6-Button Battery-Powered Keypad *Available in White, Black, Almond, Red, Grey*
	ZUMMESH-KP10DBATT-X-S*	6-Button Battery-Powered Keypad with 1HR Sensor Override *Available in White, Black, Almond, Red, Grey*
Zūm Keypads (AC Powered)		
	ZUMMESH-KP10A-X-S*	1-Button AC-Powered Keypad *Available in White, Black, Almond, Red, Grey*
	ZUMMESH-KP10B-X-S*	4-Button AC-Powered Keypad, White *Available in White, Black, Almond, Red, Grey*
Zūm Sensors		
	ZUMMESH-OL-PHOTOCELL-BATT	Battery-powered Open Loop Daylight Sensor
	ZUMMESH-PIR-OCCUPANCY-BATT	Battery-powered PIR Occupancy Sensor (AUTO-ON, AUTO-OFF)
	ZUMMESH-PIR-VACANCY-BATT	Battery-powered PIR Vacancy Sensor (MANUAL-ON, AUTO-OFF)
	ZUMMESH-PART	Zūm Partition Sensor
	ZUMMESH-JBOX-SIM	Zūm J-Box Motion Sensor Integration Module
Zūm Junction Box Zone Controllers		
	ZUMMESH-JBOX-5A-LV	Junction Box Zone Controller, 0-10V Dimming, 5A
	ZUMMESH-JBOX-16A-LV	Junction Box Zone Controller, 0-10V Dimming, 16A
	ZUMMESH-JBOX-20A-SW	Junction Box Zone Controller, Switching, 16A
	ZUMMESH-JBOX-20A-PLUG	Junction Box Zone Controller, Plug Load, 20A
	ZUMMESH-EXP-16A-DIMU	Crestron Zūm Expander DIMU Solution

Zūm Mesh In-Room Devices		
Zūm Wall-Box Zone Controllers		
	ZUMMESH-5A-SW-X-S*	Wall-Box Switch, 5A or Wall-Box 0-10V Dimmer, 5A *Available in White, Black, Almond, Red, Grey*
	ZUMMESH-5A-LV-X-S	5A 0-10V Dimmer
	ZUMMESH-DIM-X-S	500W Forward Phase Dimmer (Incandescent / Magnetic Low Voltage)
	ZUMMESH-DELV-X-S	500W Reverse Phase Dimmer (Electronic Low Voltage / LED)
Zūm Net Multi-Room Networking Devices		
	ZUMMESH-NETBRIDGE	Zūm Network Bridge
	GLNET-ZUM	Zūm Floor Hub in a DIN-EN-3X18
	ZUMNET-GATEWAY	Zūm Net Gateway
	Packaged Solution	ZUMMESH-HUB and ZUMNET-GATEWAY
	ZUMMESH-AVBRIDGE	Zūm AV Bridge
Zūm Accessories		
	ZUMMESH-CCO	Zūm Contact Closure Output
	ZUMMESH-JBOX-PSU	Junction Box Network Bridge Power Supply
Faceplates		
	FP-G1-X-S*	1-Gang Decorator-Style Faceplate *Available in White, Black, Almond, Red, Grey*
	FP-G2-X-S*	2-Gang Decorator-Style Faceplate *Available in White, Black, Almond, Red, Grey*
	FP-G3-X-S*	3-Gang Decorator-Style Faceplate *Available in White, Black, Almond, Red, Grey*
	FP-G4-X-S*	4-Gang Decorator-Style Faceplate *Available in White, Black, Almond, Red, Grey*

Crestron is lighting control

See what Crestron can do for you.

Contact us anytime at 888-330-1502 • clcdesign@crestron.com

CRESTRON®