

# GLZUM System



The GLZUM SpaceBuilder™ system is an ideal wireless lighting control system for any space, new construction or retrofit. It provides dimming, switching, motion sensing, keypads, and plug load control. Each GLZUM space can support up to 32 Züm™ devices.

SpaceBuilder allows you to define your space and how it works at the time of design. Use this sheet to select your options and needs for the lighting control system. The GLZUM system is unique in that you can set up from the Crestron Züm app and operate from keypads, sensors or time clock control. All SpaceBuilder GLZUM solutions are wirelessly pre-paired at the factory! When it arrives on-site it is ready to go!

## System Components

### Dimmers and Switches

Wall box or Jbox dimmers and switching devices are available in Phase control, Universal phase, 0-10V and switching options. Any combination of these devices can be made and added to each GLZUM system.

### Occupancy or Vacancy Sensors

Up to 8 wireless PIR (passive infrared) battery-powered occupancy sensors can be added to each GLZUM space. Occupancy sensors count as part of the total wireless device count of 32 max per space. SIM and Steinel sensor options allow for even greater installation and coverage pattern flexibility.

### Daylight Sensor

Any GLZUM space can support one wireless dual technology daylight sensor with auto calibration. The Daylight sensor devices count as part of the total wireless device count of 32 max per space.

### Control

Any GLZUM space can be controlled from either line voltage or battery powered wireless keypads, as well as from sensors (automation) and time clock management (scheduling events via software/programming).

## Options

### Plug Load Control

Any GLZUM system can be expanded to include plug load control. Plug load control devices count as part of the total wireless device count of 32 max per space.

### HVAC Integration

Any GLZUM system can integrate with HVAC by using an optional ZUM-CC and providing a contact closure interface to the HVAC system in sync with the occupancy or vacancy sensors. The ZUM-CC counts as part of the total wireless device count of 32 max per space.

### AV Integration

A wireless AV bridge can be added to allow any AV system to control the lights via a serial RS-232 connection.

### Networking

Any Crestron SpaceBuilder system can be networked\* to provide centralized monitoring, management and master control. This includes integration of BMS and reporting, alerts, maintenance, and global time clock management.

\*Networking requires additional equipment.

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Date: \_\_\_\_\_ Project: \_\_\_\_\_  
 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

**PACKAGE WALLBOX ZONE CONTROLLERS**

GLZUM - SW - LV - DIM - DELV -

Note: You have selected \_\_\_\_\_ of the 32 devices maximum per space.

QUANTITY OF SW ..... WIRELESS WALLBOX (5A) SWITCH(ES)  
 QUANTITY OF LV ..... WIRELESS WALLBOX (5A) 0-10V DIMMER(S)  
 QUANTITY OF DIM ..... WIRELESS WALLBOX (5A) FORWARD PHASE DIMMER(S)  
 QUANTITY OF DELV ..... WIRELESS WALLBOX (5A) REVERSE PHASE DIMMER(S)

**ACCESSIBLE CEILING ZONE CONTROLLERS**

JBOX\_SW - JBOX\_LV5A - JBOX\_LV16A - DIMU - PL -

QUANTITY OF JBOX\_SW ..... WIRELESS JBOX (20A) SWITCH(ES)  
 QUANTITY OF JBOX\_LV5A ..... WIRELESS JBOX (5A) 0-10V DIMMER(S)  
 QUANTITY OF JBOX\_LV16A ..... WIRELESS JBOX (16A) 0-10V DIMMER(S)  
 QUANTITY OF DIMU ..... WIRELESS (16A) UNIVERSAL PHASE DIMMER(S)  
 QUANTITY OF PL ..... WIRELESS JBOX (20A) PLUG LOAD SWITCH(ES)

**KEYPADS**

AKP - BKP - AKP\_BATT - BKP\_BATT - CKP\_BATT - DKP\_BATT -

QUANTITY OF AKP ..... AC KEYPAD STYLE A  
 QUANTITY OF BKP ..... AC KEYPAD STYLE B  
 QUANTITY OF AKP\_BATT ..... BATTERY KEYPAD STYLE A  
 QUANTITY OF BKP\_BATT ..... BATTERY KEYPAD STYLE B  
 QUANTITY OF CKP\_BATT ..... BATTERY KEYPAD STYLE C  
 QUANTITY OF DKP\_BATT ..... BATTERY KEYPAD STYLE D

**MOTION SENSORS MOTION SENSOR TYPE DAYLIGHT SENSOR FACTORY PAIRED**

BLANK ..... NO MOTION SENSING  
 QTY PIR\_BATT ..... BATT. POWERED 500SQ-FT IR CEILING  
 QTY OS ..... 2000SQ-FT DT CEILING\*  
 QTY QUAD ..... 4000SQ-FT PIR CEILING\*  
 QTY WOS ..... DT WALL/CORNER\*  
 QTY HALL\_US1 ..... 33FT US HALL\*  
 QTY HALL\_US2 ..... 65FT US HALL\*  
 QTY EOS ..... EXTERIOR\*  
 QTY HOS ..... PIR HIGH BAY\*  
 Maximum 8 per space  
 \*SIM powered sensors. Requires AC power.

BLANK ..... VACANCY  
 OCC ..... OCCUPANCY

BLANK ..... NO SENSORS  
 1LDL ..... DUAL LOOP AUTO CALIBRATING BATTERY DAYLIGHT SENSOR

BLANK ..... NO PAIRING  
 PAIR ..... DEVICES FACTORY PAIRED

**HVAC INTEGRATION AV INTEGRATION INTERFACE COLOR NETWORKING POWER SUPPLY**

BLANK ..... NO HVAC  
 CC ..... DRY CONTACT CLOSURE

BLANK ..... NO AV  
 AV ..... RS-232 AV INTERFACE

BLANK ..... WHITE  
 BLK ..... BLACK  
 ALMD ..... ALMOND  
 GRY ..... GREY  
 RED ..... RED

BLANK ..... STAND-ALONE SPACE  
 NET ..... NETWORKED SPACE  
 Select NET for floor management or mobile device app access

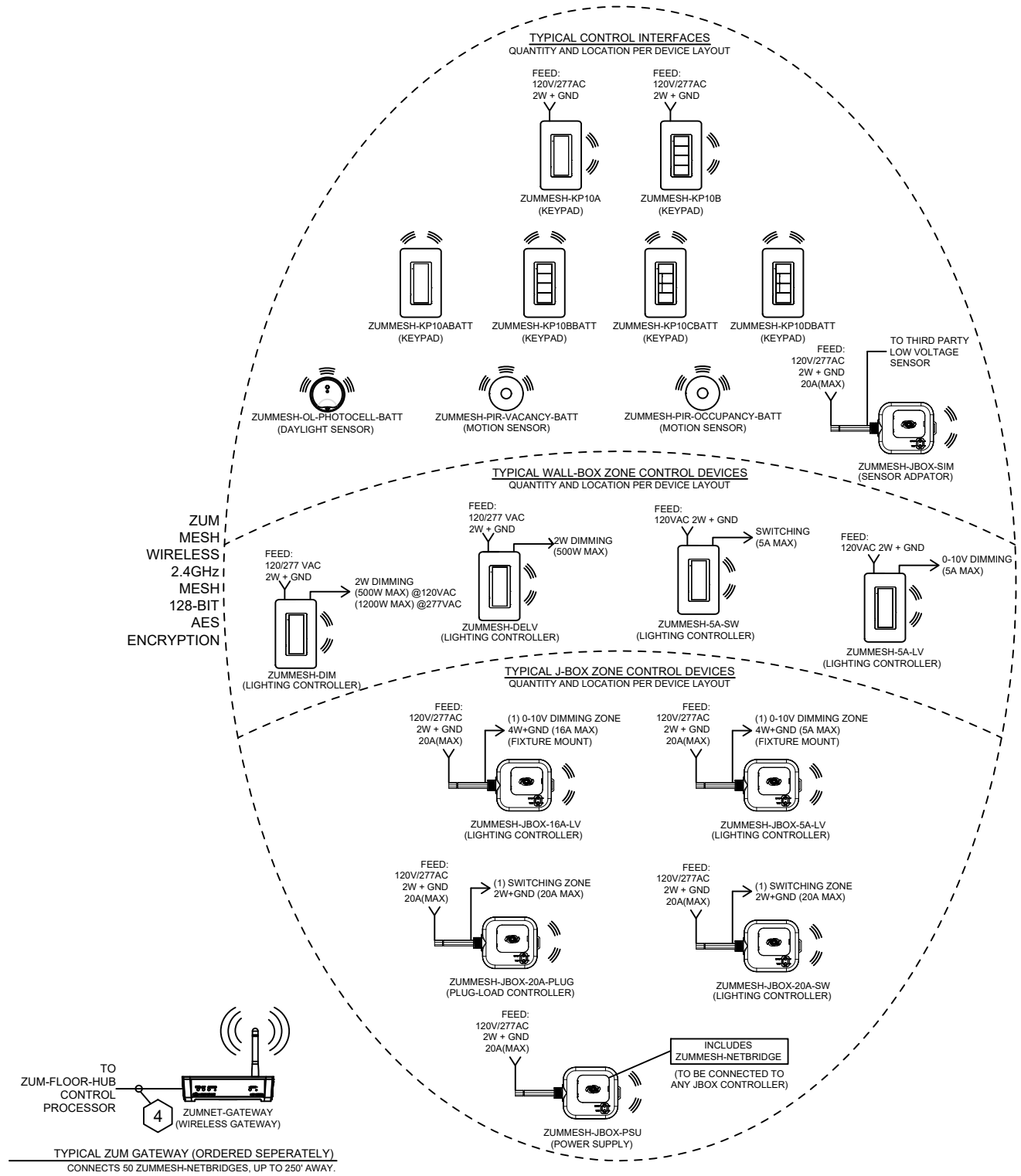
PS  
 QTY ..... JBOX POWER SUPPLY(IES)

Example: GLZUM - 3JBOX\_LV5A - 2BKP\_BATT - 2PIR\_BATT - 1LDL - PAIR - NET

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Date: \_\_\_\_\_ Project: \_\_\_\_\_  
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GLZUM SpaceBuilder Schematic Riser



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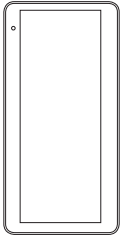
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 Quantity: \_\_\_\_\_ Space Name: \_\_\_\_\_  
 Space Number(s): \_\_\_\_\_

## GLZUM SpaceBuilder Sequence of Operations

### KEYPAD TYPE A

**Typical Applications**

Office, Restroom, Storage/Utility Room, Corridor, Basic Classroom



**Button 1 Functionality: ON**

- › Turn all lights on and enable daylight harvesting
- › If daylight sensor is not present, lights will turn on to 100%
- › Press and hold will raise all dimmable lighting

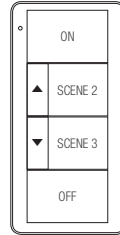
**Button 2 Functionality: OFF**

- › Turn all lights off to 0% and disable daylight harvesting
- › Press and hold will lower all dimmable lighting

### KEYPAD TYPE C

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- › Turn all lights on and enable daylight harvesting
- › If daylight sensor is not present, lights will turn on to 100%
- › Press and hold will raise all dimmable lighting

**Button 2 Functionality: SCENE 2**

- › Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 3**

- › Recalls scene 2 settings with feedback

**Button 4 Functionality: OFF**

- › Turn all lights off to 0% and disable daylight harvesting

**Button ▲ Functionality:**

- › Dim lights up

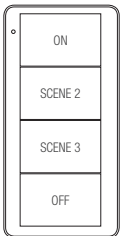
**Button ▼ Functionality:**

- › Dim lights down

### KEYPAD TYPE B

**Typical Applications**

Office, Conference Room, Classroom, Library



**Button 1 Functionality: ON**

- › Turn all lights on and enable daylight harvesting
- › If daylight sensor is not present, lights will turn on to 100%
- › Press and hold will raise all dimmable lighting

**Button 2 Functionality: SCENE 2**

- › Recalls scene 1 settings with feedback

**Button 3 Functionality: SCENE 3**

- › Recalls scene 2 settings with feedback

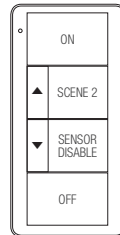
**Button 4 Functionality: OFF**

- › Turn all lights off to 0% and disable daylight harvesting
- › Press and hold will lower all dimmable lighting

### KEYPAD TYPE D

**Typical Applications**

Classroom



**Button 1 Functionality: ON**

- › Turn all lights on and enable daylight harvesting
- › If daylight sensor is not present, lights will turn on to 100%
- › Press and hold will raise all dimmable lighting

**Button 2 Functionality: SCENE 2**

- › Recalls scene 1 settings with feedback

**Button 3 Functionality: SENSOR DISABLE**

- › Disables motion sensors for 2 hours

**Button 4 Functionality: OFF**

- › Turn all lights off to 0% and disable daylight harvesting

**Button ▲ Functionality:**

- › Dim lights up

**Button ▼ Functionality:**

- › Dim lights down

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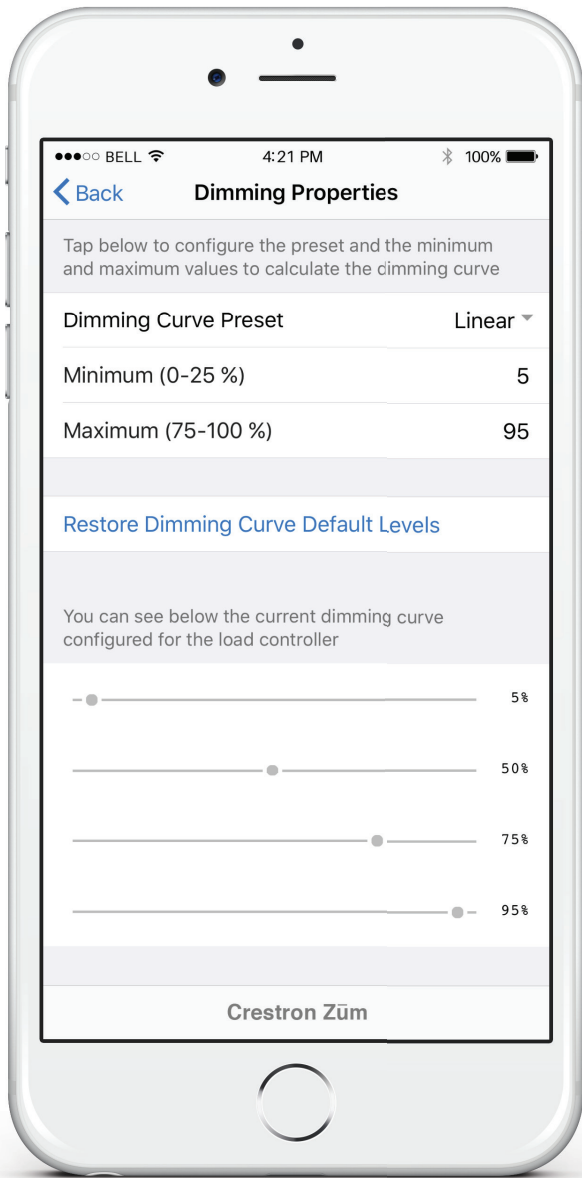
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## Zūm App

Adding a ZUMMESH-NETBRIDGE to a Zūm MESH space gives you BLE (Bluetooth<sup>®</sup> Low Energy) connectivity to the Zūm App. The Zūm App allows for super fast access to the parameters of the zones, keypads, and sensors within the Zūm MESH space. And because it's wireless, there's no need to remove a ceiling tile or get on a ladder.

### Features include:

- › Naming the Zūm MESH space and giving it a unique PIN number
- › Checking battery life on all batteries
- › Setting scenes with the use of zone controlled sliders in real-time
- › Adjusting dimming curves for each zone including high and low end trim
- › Daylight and motion sensor adjustment



The Zūm App is available on both iOS<sup>®</sup> and Android<sup>™</sup>

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# Zūm Floor Hub

The Crestron ZUM-FLOOR-HUB networks up to 200 Zūm rooms or spaces, 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.

## Across the Enterprise

Zūm achieves cutting-edge wireless commercial lighting control and tremendous energy efficiency for every intelligent enterprise. An installer simply connects a single Zūm Wireless Gateway to the Zūm Hub's Control Subnet port to gain control of all Zūm Network Bridges within 150 feet. Each Zūm Network Bridge provides a single point of control for every Zūm occupancy sensor, vacancy sensor, photosensor, keypad, and dimmer or switch within a room or space. Up to 32 devices can connect to a Network Bridge, and up to 200 Network Bridges can connect to a Zūm Hub. A Zūm Hub and a Zūm Gateway synergistically deliver enterprise-wide lighting system central monitoring, management, reporting, and control. With a simple installation and setup process for every device and little to no programming required, Zūm is a revolutionary, easy-to-use commercial lighting control system for the intelligent enterprise that values centralized lighting management, scalability, and flexibility in either new or retrofit applications.

## Scalable Lighting Control

The IP-based Zūm platform is engineered from the ground up to deliver a network-grade server appliance capable of faithfully handling everything from daylight harvesting and occupancy sensing in a single room to lighting control and management throughout an entire building. Zūm embodies a distinctively robust, dynamic, and secure platform to elevate your lighting system designs to higher levels of performance and reliability. Zūm provides astonishing processing power and speed with ample memory, rock solid networking and IP control, and a unique modular architecture.

## Modular Architecture

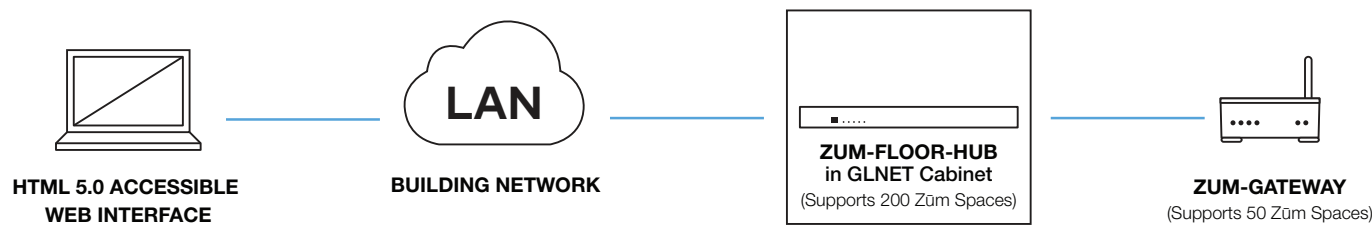
Designed for unparalleled scalability, the Zūm Hub affords high-speed, real-time multi-tasking to seamlessly run multiple programs simultaneously. This exclusive modular architecture lets programmers independently develop and run device-specific lighting programs to optimize energy efficiency and allow for changes to be made to one space without affecting the whole system. Even as your system grows, processing resources can easily be shifted from one Zūm Hub to another without rewriting any code. The end benefit is dramatically simplified upgradability with minimal downtime, whether implementing changes on site or remotely via the network.

## Dedicated Control Subnet

A separate LAN port on the Zūm Hub provides a single-point connection to the customer's LAN, requiring just one IP address for the complete control system. The LAN port allows full interconnectivity between devices on the local subnet with other devices, systems, servers, and WAN/Internet connections outside the local subnet.

## BACnet™/IP

Native support for the BACnet/IP communication protocol provides a direct interface to third-party building management systems over Ethernet, simplifying integration with other systems such as HVAC. Using BACnet/IP, each system runs independently with the ability to communicate together on one platform for a truly smart building.



GLZUM-\_\_SW-\_\_LV-\_\_DIM-\_\_DELV-\_\_JBOX\_SW-\_\_JBOX\_LV5A-\_\_JBOX\_LV16A-\_\_DIMU-\_\_PL-\_\_AKP-\_\_BKP-\_\_AKP\_BATT-  
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Date: \_\_\_\_\_ Project: \_\_\_\_\_  
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 Space Number(s): \_\_\_\_\_

## GLZUM Specifications

### ENVIRONMENTAL

**Temperature:**

41° to 113°F (5° to 45°C)

**Humidity:**

10% to 90% rh (non-condensing)

### BATTERIES

**Keypads:**

CR2032 Lithium Ion (5 years normal use)

**ZUMMESH-OL-PHOTOCELL-BATT:**

(2) AAA Lithium Ion (10 years normal use)

**ZUMMESH-PIR-XXX-BATT:**

9V Lithium Ion (10 years normal use)

### DEVICES RATED FOR AIR HANDLING (PLENUM) SPACES UL 2043

- > ZUMMESH-JBOX
- > ZUMMESH-NETBRIDGE

### ZUMMESH WIRELESS

- > Peer-to-peer mesh network within spaces
- > 2.4Ghz IEEE 802.15.4 (Wi-Fi® friendly)
- > 50 Ft (15 m) range between devices
- > AC powered devices repeat all signals
- > 128-Bit AES encryption
- > Auto-RF channel negotiation
- > 32 Devices per ZUMMESH space

### ZUMNET WIRELESS

- > Mesh network connecting spaces
- > 2.4Ghz IEEE 802.15.4 (Wi-Fi friendly)
- > 150 Ft (46 m) range between devices
- > All ZUMNET devices are AC powered and repeat all signals
- > 50 spaces per bridge

### ENERGY CODE COMPLIANT SOLUTIONS

ASHRAE 90.1

IECC

TITLE 24

### STANDARDS & CERTIFICATIONS

UL Listed, CE



### Products in this system can include:

**ZUMMESH-KPBATT:** Züm Battery-Powered Wireless Keypad

**ZUMMESH-KP:** Züm AC-Powered Wireless Keypad

**ZUMMESH-OL-PHOTOCELL-BATT:** Open Loop Daylight Sensor

**ZUMMESH-PIR-OCCUPANCY-BATT:** PIR Occupancy Sensor (AUTO-ON, AUTO-OFF)

**ZUMMESH-PIR-VACANCY-BATT:** PIR Vacancy Sensor (MANUAL-ON, AUTO-OFF)

**ZUMMESH-JBOX:** Züm J-Box Load Controller

**ZUMMESH-5A-SW:** Wall-Box Switch, 5A White

**ZUMMESH-5A-LV:** Wall-Box 0-10V Dimmer, 5A White

**ZUMMESH-NETBRIDGE:** Züm Network Bridge

**ZUM-FLOOR-HUB:** Züm Floor Hub

**ZUMMESH-AVBRIDGE:** Züm RS-232/USB AV Bridge

**ZUMNET-GATEWAY:** Züm Gateway

**ZUMMESH-CCO:** Züm Contact Closure Output

**ZUMMESH-JBOX-PSU:** Junction Box Network Bridge Power Supply

For technical specifications on all other products in this system, please visit [www.crestron.com/zum](http://www.crestron.com/zum)

For more information or to access digital specification forms for all Crestron SpaceBuilder systems, visit [www.crestronspacebuilder.com](http://www.crestronspacebuilder.com) or call 855-644-7643

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