ZUM-FLOOR-HUB

Zūm™

Zūm™ Floor Hub

- *Centralized management and time clock for Zūm™ lighting systems*
- *Web-based user interface for easy configuration, control, monitoring, and scheduling*
- *Time clock for automation of room lighting and sensing behavior*
- *Supports up to 200 individual rooms equipped with Zūm systems*
- *Enables integration with non-Zūm Crestron lighting systems, control systems, touch screens, shading, HVAC, and more*
- *Gigabit Ethernet networking*
- *Enterprise-grade security*
- *Dedicated Control Subnet for up to 8 Zūm Net wireless gateways*
- *Single-space rack-mountable*
- *Universal 100-240V external power supply*
- *Meets UL® 916 standard for energy management equipment*
- *Meets CEC Title 24 energy efficiency standards [3]*
- *Meets ASHRAE® 90.1 energy efficiency standards [4]*
- *ICC® International Energy Conservation Code® compliant [5]*

The Crestron® Zūm™ Floor Hub (model ZUM-FLOOR-HUB) enables web-based management and time clock scheduling for up to 200 rooms equipped with Zūm lighting systems. Each room simply requires a Zūm Network Bridge (ZUMMESH-NETBRIDGE [1]), which enables the room's lighting system to communicate wirelessly with the Zūm Floor Hub via a Zūm Net Wireless Gateway (ZUMNET-GATEWAY [1]). Up to eight gateways can be networked with the Zūm Floor Hub via its Control Subnet port, enabling wireless access to every room on a single floor or throughout an entire building.

Web-Based Management

An easy-to-use web browser user interface provides everything needed to manage, monitor, and schedule all the individual room lighting systems on the network. Using a laptop computer, the wireless gateways and network bridges are quickly found, named, and configured to work with the Zūm Floor Hub, allowing the status of each room's lighting system to be viewed and controlled. User-friendly icons display the status of every device in each room, indicating active lighting scenes, individual lighting loads, daylight levels, occupancy detection, and scheduled time clock events. Any errors are also displayed to facilitate troubleshooting.

Time Clock

A built-in time clock enables lighting control to be automated based on the time of day. Using the time clock, each room gets assigned to a user-definable "Room Category" according to its typical function and usage, so all rooms of a common type can be scheduled as one to turns lights on or off or change automation behavior. Up to 20 different "Room States" can be defined to account for the varying room behaviors that are required at different times of the day or days of the week.

For instance, during the workday the office lights might be controlled automatically according to room occupancy and daylight detection, while after hours they can only be turned on manually and turned off automatically when the room is vacant. Hallway lighting might need to stay on continuously during the day but be automated according to occupancy after hours. Whatever the requirement, the time clock allows "Day Patterns" to be arranged for each Room Category, with up to 24 Room States scheduled over a 24 hour period. Different Day Patterns can be defined for weekdays, weekends, half-days, holidays, etc., and then assigned to the calendar. To get going quickly, the calendar comes pre-populated with typical day patterns and a selection of U.S. holidays in place.

Non-Zūm System Integration

In addition to managing rooms equipped with Zūm lighting control, the Zūm Floor Hub also enables integration with other Crestron systems over an Ethernet connection. Two methods of integration are available as follows:

- **External Rooms –** Crestron lighting control systems other than Zūm, such as a GLPP, GLPAC-DIMFLV, or DIN-AP3 series system, can be monitored, controlled, and scheduled alongside rooms with Zūm using the same web-based UI. Each non-Zūm system must be custom commissioned to provide the appropriate control logic required to communicate and operate as part of the Zūm network. Once integrated, each "external room" effectively becomes a part of the Zūm ecosystem.[2]
- **Mirrored Rooms –** Any Zūm lighting system in any room that's networked with the Zūm Floor Hub can be monitored and controlled from outside the Zūm network by integrating the Zūm Floor Hub with a separate Crestron control system. This allows for enhanced control of the room using a Crestron touch screen or handheld remote, as well as integration with shading, climate control, AV, and other equipment. The control system must be custom commissioned to provide the functionality desired.[2]

Please refer to the Zūm Lighting Control System Setup Guide (Doc # 7957) for additional information.

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Front and Rear Panels

SPECIFICATIONS

Device Support & Time Clock

Wireless Gateways: 8 maximum
Network Bridges & External Rooms: 200 maximum combined
External Rooms & Mirrored Rooms: Varies by control system based on hardware capabilities and program complexity [2]
Room Categories: 100 maximum
Room States: 20 maximum
Room States in a Day Pattern: 24 maximum per Room Category

Definitions:

Wireless Gateway – Zūm Net Wireless Gateway, model ZUMNET-GATEWAY [1]; enables wireless communication with rooms containing a Network Bridge

Network Bridge – Zūm Network Bridge, model ZUMMESH-NETBRIDGE [1]; enables a Zūm lighting system in a room to communicate with the Zūm Floor Hub via a Wireless Gateway

External Room – Any room that uses a Crestron lighting control system other than Zūm, such as a GLPP, GLPAC-DIMFLV, or DIN-AP3, which can be added to the Zūm network as a virtual room allowing it to be monitored, controlled, and scheduled alongside rooms with Zūm [1,2]

Mirrored Room – Any room equipped with a Zūm system that is configured to be monitored and controlled by an external Crestron control system [2]

Room Category – Defines the type of room to which each individual room is assigned, such as "office," "conference room," or "hallway"; allows multiple rooms with common attributes to be scheduled as a group

Room State – Defines the behavior of the lighting system in a room according to its status at a given time, such as "occupancy" (auto on/off, manual adjust), "vacancy" (manual on/adjust, auto off), "manual" (manual or scheduled on, manual off/adjust), or "lockout" (scheduled on/off only)

Day Pattern – Defines the time clock schedule for a type of day, such as "weekday," "weekend," "holiday," "half day," or "late start," which is definable per Room Category and assigned to days on the calendar; up to 24 Room States can be scheduled within the Day Pattern for each Room Category

Communications

Ethernet: 10/100/1000 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, industry-standard TCP/IP stack, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1X, SNMP, IPv4 or IPv6, Active Directory® authentication, IIS v.6.0 web server
Control Subnet: 10/100/1000 Mbps Ethernet, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP server, DNS Server, port forwarding, isolation mode
USB: Supports computer console via front panel USB 2.0 device port

Connectors & Card Slots

MEMORY: (1) SD memory card slot;
Accepts one SD or SDHC card up to 32 GB to enable logging for troubleshooting purposes

USB: (1) USB Type A connector, female;
USB 2.0 host port (not used)

LAN: (1) 8-pin RJ45 connector, female;
10Base-T/100Base-TX/1000Base-T Ethernet port;
Connects to the customer's LAN

CONTROL SUBNET: (1) 8-pin RJ45 connector, female;
10Base-T/100Base-TX/1000Base-T Ethernet port;
Provides a dedicated local network for Zūm Net wireless gateways

NET: (1) 4-pin 3.5 mm detachable terminal block;
Not used

24VDC 2.0A: (1) 2.1 x 5.5 mm DC power connector;
24 Volt DC power input;
PW-2420RU power pack included;
Passes through to NET port

G: (1) 6-32 screw;
Chassis ground lug

COMPUTER (front): (1) USB Type B connector, female;
USB 2.0 device port for configuration via computer console (cable included)

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Controls & Indicators

PWR: (1) Green LED, indicates operating power supplied from the included power pack
NET: (1) Amber LED, not used
MSG: (1) Red LED, indicates the Zūm Floor Hub has generated an error message
HW-R: (1) Recessed pushbutton for hardware reset
SW-R: (1) Recessed pushbutton for software reset
LAN (rear): (2) Bi-color green/amber LEDs, left LED indicates Ethernet link status and connection speed, right LED indicates Ethernet activity
CONTROL SUBNET (rear): (2) Bi-color green/amber LEDs, left LED indicates Ethernet link status and connection speed, right LED indicates Ethernet activity

Power

Power Pack (included): Input: 100-240 Volts AC, 50/60 Hz
Output: 2.5 Amps @ 24 Volts DC
Model: PW-2420RU

Power Consumption: 15 Watts

Environmental

Temperature: 41° to 113° F (5° to 45° C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 50 BTU/hr

Enclosure

Chassis: Metal, black finish
Faceplate: Extruded metal, black finish, polycarbonate label overlay
Mounting: Freestanding or 1 RU 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 1.70 in (44 mm) without feet
Width: 17.32 in (440 mm), 19.00 in (483 mm) with rack ears
Depth: 6.56 in (167 mm)

Weight

3.1 lb (1.42 kg)

Compliance

UL Listed for US & Canada, IC, CE, FCC Part 15 Class B digital device, UL 916, CEC Title 24 [3], ASHRAE 90.1 [4], IECC [5]

MODELS & ACCESSORIES

Available Models

ZUM-FLOOR-HUB: Zūm™ Floor Hub

Included Accessories

PW-2420RU: 24 Volt DC Power Pack, Universal

Available Accessories

ZUMNET-GATEWAY: Zūm Net Wireless Gateway

Notes:

1. Item(s) sold separately. Refer to each product's spec sheet for more information.
2. SIMPL+ software modules are provided for use in commissioning a Crestron control system to work with the Zūm Floor Hub. The software modules run within the control system program and provide virtual connections for all the necessary intersystem control signals. A separate dedicated module is required for each external room and each mirrored room. Control systems are limited in the number of modules supported, ranging from 0 to 200 depending on model. For further assistance, please contact Crestron Commercial Lighting Support via email at clclighting@crestron.com or by calling 855-644-7643.
3. This product is part of a California Energy Commission Title 24 compliant solution. Refer to http://www.energy.ca.gov/title24/ to learn more about designing a fully compliant solution. Additional resources can be accessed via the Crestron Commercial Lighting Consultants Partner Portal at http://www.crestron.com/about/partner-info/commercial-lighting-consultants.
4. This product is part of an ASHRAE 90.1 compliant solution. Refer to https://www.ashrae.org/ to learn more about designing a fully compliant solution. Additional resources can be accessed via the Crestron Commercial Lighting Consultants Partner Portal at http://www.crestron.com/about/partner-info/commercial-lighting-consultants.
5. This product is part of an International Energy Conservation Code compliant solution. Refer to https://www.iccsafe.org/iecc/ to learn more about designing a fully compliant solution. Additional resources can be accessed via the Crestron Commercial Lighting Consultants Partner Portal at http://www.crestron.com/about/partner-info/commercial-lighting-consultants.

This product may be purchased from an authorized Crestron dealer or distributor. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at http://www.crestron.com/salesreps or by calling 800-237-2041.

Additional resources can be accessed via the Crestron Commercial Lighting Consultants Partner Portal at http://www.crestron.com/about/partner-info/commercial-lighting-consultants. For assistance with incorporating this product into a design or specification, please contact the Commercial Lighting Consultant Hotline via email at clcdesign@crestron.com or by calling 888-330-1502.

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

Certain Crestron products contain open source software. For specific information, visit http://www.crestron.com/opensource.

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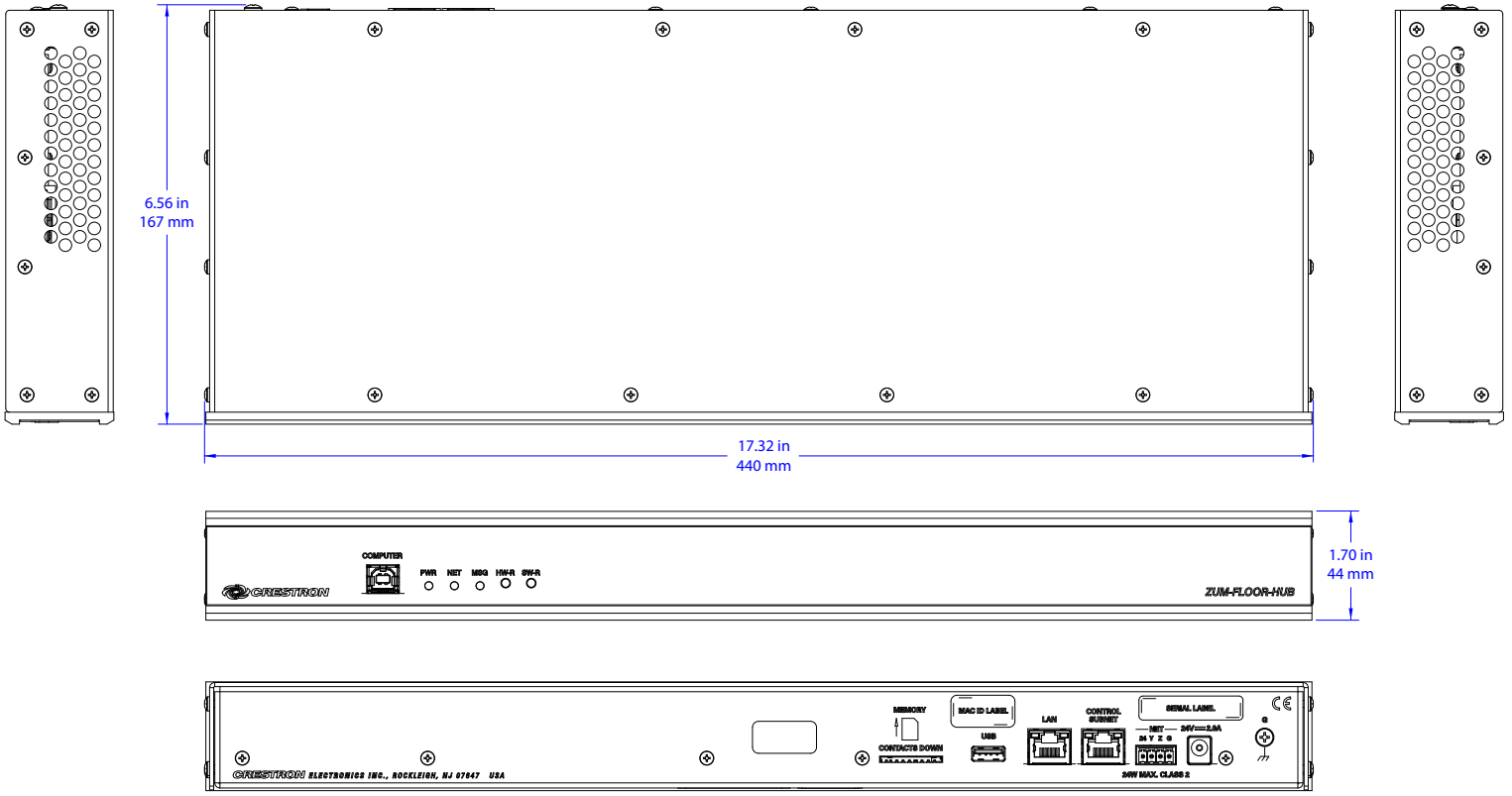

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