

Zūm™ J-Box Sensor Integration Module

- > Zūm™ wireless junction box-mounted sensor integration module
- > Enables hard-wired occupancy and daylight sensors to be used with a Zūm commercial lighting system
- > Supports occupancy or vacancy sensing plus daylighting
- > Compatible with Crestron GLS-ODT-C-NS and GLS-OIR-C-NS occupancy sensors
- > Compatible with the Crestron GLS-LOL open-loop daylight sensor
- > Compatible with STEINEL occupancy sensors and presence detectors
- > Pair and play wireless integration with Zūm dimmers, switches, and load controllers
- > Zūm Mesh peer-to-peer RF communications
- > Easy setup and calibration with the press of a button
- > Accommodates a Zūm Network Bridge or Zūm Contact Closure Output device^[1]
- > Knockout mount to a standard 4-inch square junction box
- > 100-277 Volt AC line powered
- > External terminal block low-voltage sensor connections
- > Supplies 24 Volts DC to power the sensors
- > UL® 2043 listed for installation in an environmental air handling space

The Zūm™ J-Box Sensor Integration Module (ZUMMESH-JBOX-SIM) 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.

One or more motion-detecting sensors can be connected to a single ZUMMESH-JBOX-SIM and configured to operate in either occupancy or vacancy-only mode. A single open-loop daylight sensor, photosensor, or photocell can also be connected to support daylight harvesting. The ZUMMESH-JBOX-SIM appears as a native Zūm Mesh wireless device in the room, with all the same functionality and easy pair-and-play setup of a Zūm wireless occupancy, vacancy, or daylight sensor.

The ZUMMESH-JBOX-SIM mounts directly to a 4-inch square junction box. It communicates wirelessly with one or more Zūm dimmers, switches, and load controllers, allowing lights to turn on and off automatically based on room occupancy and vacancy, and dim automatically according to the amount of natural daylight in the room. It can also serve as a host for a Zūm Network Bridge (ZUMMESH-NETBRIDGE^[1]) or Zūm Contact Closure Output (ZUMMESH-CCO^[1]).

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



SPECIFICATIONS

Device Support

Occupancy/Vacancy Sensors:

- Supports one or more 24 VDC powered motion detection type sensors wired in parallel;
- Requires a maintained DC high logic signal >8 VDC, 24 VDC maximum when detecting occupancy (motion);
- Operates in either occupancy or vacancy mode depending on connection used (do not connect both);
- Compatible Crestron models: [GLS-ODT-C-NS](#), [GLS-OIR-C-NS](#), [GLA-IR-QUATTRO-HD-COM1-24](#), [GLA-IR-QUATTRO-HD-COM2-24](#), [GLA-US-HALLWAY-COM1-24](#)

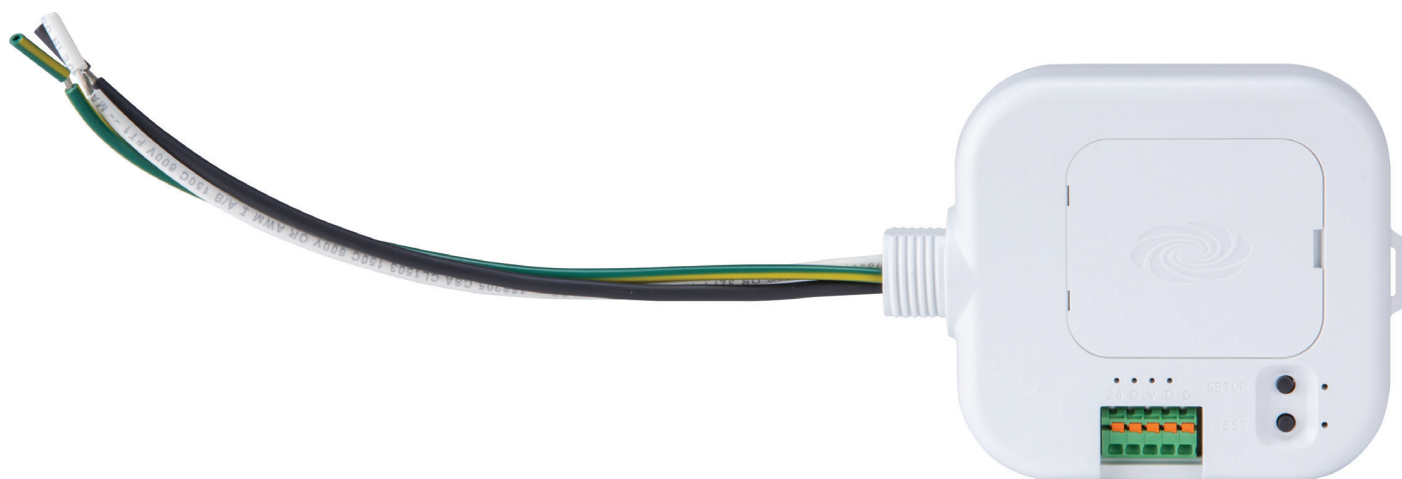
Daylight Sensors:

- Supports a single 24 VDC powered open-loop photosensor (photocell) type sensor;
- Requires a 0-10 VDC analog control signal to indicate the natural daylight level;
- Compatible Crestron models: [GLS-LOL](#)

Note: Supplies a maximum of 250 mA @ 24 VDC to power all connected sensors. An external power supply may be used to power greater loads. Only one daylight sensor is permitted per room (do not connect a wired daylight sensor to this module if the room is already equipped with a Zūm wireless daylight sensor).

Accessory Modules: Supports one [ZUMMESH-NETBRIDGE](#) or one [ZUMMESH-CCO](#) module

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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 Zūm Mesh peer-to-peer mesh network device(s), subject to site-specific conditions and individual device capabilities^[2]

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^{\[1\]}](#)), range between floors or ceilings is limited to one level, subject to site-specific conditions and individual device capabilities^[2]

Note: A maximum of 32 Zūm Mesh wireless devices is permitted per room. Only one Network Bridge is permitted per room. Only one daylight sensor (wired or wireless) is permitted per room.

Controls & Indicators

SETUP: (1) Pushbutton and (1) red LED, used for sensor calibration, test mode, room setup, and factory reset

TEST: (1) Pushbutton and (1) green LED, used for installation test, room setup, and factory reset

Connections

Hot: (1) Class 1 flying lead, black, line power input

Neutral: (1) Class 1 flying lead, white, neutral

Ground: (1) Class 1 flying lead, green, ground

24: (1) Stab terminal, 24 Volt DC sensor power output

0: (1) Stab terminal, occupancy sensor input, detection threshold >8 Volts DC, 24 Volts DC maximum

V: (1) Stab terminal, vacancy sensor input, detection threshold >8 Volts DC, 24 Volts DC maximum

D: (1) Stab terminal, daylight sensor input, sensing range 0-10 Volts DC, 24 Volts DC maximum

G: (1) Stab terminal, ground/common connection for sensors

Expansion Port: Accessory port for optional Zūm Network Bridge or Zūm Contact Closure Output (model [ZUMMESH-NETBRIDGE](#) or [ZUMMESH-CCO^{\[1\]}](#))

Note: Stab terminals support 22-16 AWG (0.5-1.5 mm²) wire size; maximum wire distances are 250 ft (76 m) for occupancy or vacancy sensors and 50 ft (15 m) for daylight sensors

Power

Line Power: 100-277 Volts AC, 50/60 Hz

Idle Power Consumption: <1 Watt

Output Power: 250 mA @ 24 Volts DC

Environmental

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

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

Construction

Housing: Plastic, white, UL 94 5VA flame rated

Mounting: Mounts to the side of a 4-inch square junction box via a 1/2 inch conduit knockout, meets the requirements of UL 2043 for installation in an environmental air-handling (plenum) space

Dimensions

Height: 3.25 in (83 mm)

Width: 4.17 in (106 mm)

Depth: 1.32 in (34 mm)

Note: Projects 3.66 inches (93 mm) from the junction box when installed.

Weight

7 oz (180 g)

Compliance

UL Listed for US & Canada, IC, FCC Part 15 Class B digital device, UL 2043, UL 94 5VA

ZUMMESH-JBOX-SIM Züm™ J-Box Sensor Integration Module

MODELS & ACCESSORIES

Available Models

ZUMMESH-JBOX-SIM: Züm J-Box Sensor Integration Module

Available Accessories

GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor

GLS-OIR-C-NS: Passive Infrared Ceiling Mount Occupancy Sensor

GLS-LOL: Crestron Green Light® Photosensor, Open-Loop

GLA-IR-QUATTRO-HD-COM1-24: STEINEL IR Quattro HD COM1-24 Presence Detector

GLA-IR-QUATTRO-HD-COM2-24: STEINEL IR Quattro HD COM2-24 Presence Detector

GLA-US-HALLWAY-COM1-24: STEINEL US Hallway COM1-24 Occupancy Sensor

ZUMMESH-NETBRIDGE: Züm Network Bridge

ZUMMESH-CCO: Züm Contact Closure Output

Notes:

1. Item(s) sold separately. Refer to each product's spec sheet for more information.
2. "Züm Mesh" refers to the peer-to-peer wireless mesh network within each room composed of dimmers, switches, load controllers, keypads, and sensors (including sensor integration

modules). "Züm Net" refers to the wireless mesh network that connects one or more rooms with a Züm Floor Hub, and consists of a Züm Net Wireless Gateway and one or more Züm Network Bridges. AC-powered Züm Mesh or Züm Net devices function as routing nodes, which effectively extend the range of a Züm Mesh or Züm Net wireless network. Battery-powered devices only function as leaf nodes and do not extend range. Refer to the "Installation and Setup of Crestron RF Products, Best Practices" guide (Doc #6689) for additional guidelines.

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 <https://www.crestron.com/How-To-Buy/Find-a-Representative> or by calling 855-263-8754.

Additional resources can be accessed via the Crestron Commercial Lighting Consultants Partner Portal at <https://www.crestron.com/Partners/Partnership-Programs/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.

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