Zūm™ Wireless Battery-Powered Vacancy Sensor, 500 sq ft

> *Zūm™ ceiling-mount vacancy sensor*

> *Passive infrared motion detection*

> *360 degrees, 500 sq ft (46.5 m²) of coverage*

> *Half mask and perforated mask included*

> *10-year battery life using included 9 Volt lithium battery*

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

> *Grace occupancy feature*

> *Meets CEC Title 24 energy efficiency standards [2]*

> *Meets ASHRAE 90.1 energy efficiency standards [3]*

> *Meets UL 916 standard for energy management equipment*

> *ICC International Energy Conservation Code compliant [4]*

Zūm™ sensors deliver a powerful and cost-effective solution for reducing energy costs and enhancing the functionality of a Zūm lighting system. The ZUMMESH-PIR-VACANCY-BATT is a low-profile, battery-powered, passive infrared vacancy sensor designed to detect when an area up to 500 square feet (46.5 square meters) is vacant. Up to eight vacancy sensors may be employed for increased coverage.

Passive Infrared Sensing

PIR sensors utilize a highly sensitive specialized lens to divide the field-of-view into sensor zones. When a person passes into or out of a zone, the sensor detects the motion and registers the room as occupied. When the sensor no longer detects any motion, the sensor perceives the room is vacant and the Zūm system automatically turns off the lights. PIR sensing achieves dependable motion detection and provides superior immunity to false triggering from vibrations, inanimate objects, or movement in an adjacent corridor. Sensitivity is adjustable for optimal performance.

Grace Occupancy Feature

When the lights are automatically turned off in a room, a 15-second grace period starts during which the room lights can be turned on again by simply waving a hand to trigger the sensor.

Zūm Mesh Wireless Technology

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 peer-to-peer mesh network topology, nearly every 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.[1]

Versatile Installation

The ZUMMESH-PIR-VACANCY-BATT offers a discreet, nearly hidden appearance when installed on a typical drywall or drop-tile ceiling. Hardware is included for fast and simple mounting to a flat ceiling surface.

SPECIFICATIONS

Performance

Sensor Technology: Passive infrared
Coverage Area: 500 square feet (46.5 square meters)
Coverage Pattern: 360 degrees (half mask and perforated mask included)
Major Motion Area: 150 to 500 square feet
Minor Motion Area: 0 to 150 square feet

Note: A maximum of eight vacancy sensors are permitted per room; do not combine vacancy sensors with occupancy sensors in the same room.

Power Requirements

Battery: (1) Ultralife® U9VL-J-P 9 Volt 1200 mAh lithium disposable battery (included)
Battery Life: 10 years under normal operating conditions

Wireless Communications

RF Transceiver: 2-way RF, 2.4 GHz ISM Channels 15, 20, 25, or 26 (channel auto-selected), IEEE 802.15.4 compliant
Zūm Mesh Range (Typical): 50 ft (15 m) indoor to nearest peer-to-peer mesh network device(s); Subject to site-specific conditions and individual device capabilities [1]

Note: A maximum of 32 Zūm Mesh wireless devices is permitted per room.

Controls & Indicators

Sensitivity: (1) Knob (behind cover), adjusts PIR sensitivity from low to high (scales linearly)

Timeout: (1) Knob (behind cover), adjusts timeout from 30 seconds to 30 minutes

Test: (1) Pushbutton (behind cover) for test mode, room setup, and factory reset

Status: (1) Red and (1) green LEDs for test mode, room setup, factory reset, and low battery indication

Environmental

Temperature: 32° to 104° F (0° to 40° C)
Humidity: 0% to 95% RH (non-condensing)

Construction

Housing: Plastic, removable cover, white finish
Mounting: Ceiling surface mount

Dimensions

Height: 1.19 in (31 mm)
Diameter: 4.38 in (112 mm)

Weight

Without Battery: 3.5 oz (98 g)
With Included Battery: 4.8 oz (135 g)

Standards & Certifications

CEC Title 24 2013 [2], ASHRAE 90.1-2016 [3], IECC-2015 [4], UL 916, FCC, UL Listed, CE, IC

MODELS & ACCESSORIES

Available Models

ZUMMESH-PIR-VACANCY-BATT: Zūm Wireless Battery-Powered Vacancy Sensor, 500 sq ft

Available Accessories

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

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

ZUMMESH-JBOX-20A-SW: Zūm J-Box Load Controller, High Inrush Switch, 16A, 100-277V

ZUMMESH-JBOX-20A-PLUG: Zūm J-Box Load Controller, Plug Load Switch, 20A, 100-277V

ZUMMESH-5A-LV: Zūm Wireless 0-10V Wall-Box Dimmer, 5A, 100-277V

ZUMMESH-5A-SW: Zūm Wireless Wall-Box Switch, 5A, 100-277V

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. AC-powered Zūm Mesh devices function as wireless "expanders," which effectively extend the range of the wireless network within the room. Battery-powered devices, including the ZUMMESH-PIR-VACANCY-BATT, do not provide expander functionality. Networks composed predominantly of battery-powered devices may require additional AC-powered devices, such as the ZUMMESH-JBOX-PSU, to function as expanders to fill any gaps in coverage.
2. This product is part of Crestron T24-2013 compliant solutions. Reference the T24-2013 design guide for additional devices required for fully compliant solutions.
3. This product is part of Crestron ASHRAE 90.1-2013 compliant solutions. Reference the ASHRAE 90.1-2013 design guide for additional devices required for fully compliant solutions.
4. This product is part of Crestron IECC-2015 compliant solutions. Reference the IECC-2015 design guide for additional devices required for fully compliant solutions.

All design guides can be accessed via the Consultant Partner Portal at http://www.crestron.com/about/partner-info/consultants-uplink.

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 www.crestron.com/salesreps or by calling 800-237-2041.

For assistance with incorporating this product into a design or specification, please contact the Commercial Lighting Consultant Hotline at clcdesign@crestron.com or by calling 888-330-1502.

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

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

ø4.38 in
ø112 mm

1.19 in
31 mm

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