Resense™ Move

Overview

Resense Move is an AI-powered multi-sensor enhancing energy efficiency, air quality, and delivering actionable insights. It collects precise, high value-added data to better understand how spaces are used and improve the well-being of building occupants.

This compact device effectively combines: (1) a thermal sensor for people counting and (2) presence detection, (3) a light sensor, (4) a sound level sensor, (5) a Volatile Organic Compounds (TVOC) sensor, and (6) temperature and (7) humidity sensors (temperature and humidity sensors are not intended for regulation, but to be used as secondary/ backup sensors).

Natively, it has integrated a *Bluetooth*® low energy technology transceiver for the wireless control of all comfort parameters (HVAC, lighting, sunblinds) from the *my* Personify mobile app or with the Uniwave series room sensors.

Features & Benefits

- An AI-powered people counting solution that uses a thermal sensor for privacy.
- Resense Move leverages all of the Eclypse Facilities features; it integrates different protocols such as BACnet/IP, RESTful API and MQTT, and can work as an Autonomous IoT solution.
- Real-time presence detection provides immediate feedback, ensuring no delay in detecting movement or presence.
- The configurable LED visual indicator communicates information to occupants, such as room occupancy or the need to clean the space, etc.
- A compact style with clean lines and a slim profile easily blends in when installed in any setting.
- Daisy-chaining capabilities for maximum adjustment to the actual room characteristics.
- Accessories available for different types of building construction (false ceiling/open or concrete ceiling mounting).
- Integrated beacon technology that can be used in solutions such as indoor positioning systems (IPS).

Model Selection

Example: Resense Move **- Concrete ceiling (Black)**

Series	Mounting Type	Color
Resense Move	**Concrete ceiling**: Includes Resense Move Mounting Adapter for concrete or open ceiling mounting **False ceiling**: Includes Resense Move Installation Springs for false ceiling mounting	**(Black)**: Black **(White)**: White
Connected IoT Multi-Sensor (people counting, presence detection, lux level, noise, TVOC, and temperature/humidity with Bluetooth Low Energy connectivity and configurable LEDs, Autonomous BACnet IP device.		

Accessories

Accessory	Color	Description
Resense Move Installation Springs Box	N/A	Box of 5 pairs of springs for Resense Move; enables ceiling mounting from underneath.
Resense Move Mounting Adapter	**(Black)**: Black **(White)**: White	Resense Move Adapter for concrete or open ceiling mounting.

Product Specifications

Power Supply Input

Voltage	Subnet-IP Port: 55VDC Passive PoE Mode B: 48 to 55VDC, Class II, Limited Power Source (LPS) AUX Terminal block: 48VDC, Class II, Limited Power Source (LPS)
Typical Power Consumption	3.5W (including LED indicators)
Maximum Power Consumption	4.5W (including LED indicators)

Communications

Ethernet Connection Speed	10/100 Mbps
Topology	Internal 2-port switch
Maximum length (powered by external supply)	328ft (100m) between each Resense Move
Maximum length (Passive PoE)	197ft (60m) between each Resense Move Total segment length 328ft (100m)
Cable Type	Cat 5e or better (AWG26 maximum)
Connection	2 x RJ-45 ports
Addressing	IPv6, IPv4, or Hostname
BACnet Profile	BACnet Building Controller (BBC)
BACnet Listing	BTL (B-BC)
Data Protocols	BACnet /IP

Wireless Communication

Type	BLE 5.1
Frequency	2.4GHz
Carrier Power	<10dBm E.I.R.P

People Counting

Technology	Longwave infrared imaging sensor
Frame Rate	5Hz readout from sensor
Field of View	Minimum 119°x81°
Spectral Detection Range	8-12µm (LWIR)
Installation Height Range	min 8.2ft (2.5m); up to 9.84ft (3m)
Related Detection Area	*See Figure 3*

Occupancy

Technology	Longwave infrared imaging sensor
Response Time	Min 200ms
Related Detection Area	*See Figure 3*

Luminosity Sensor

Technology	Digital Ambient Light Sensor
Response Type	Human Eye Response
Range	0-4000 lux

Temperature Sensor

Technology	CMOS
Range	41°F to 95°F (+5°C to +35°C)

IMPORTANT
As the sensor is directly installed in ceilings, it is not recommended to use its temperature sensor as the input of a space temperature control loop. The temperature sensor should only be used as a backup sensor or for dew point together with humidity sensor.

Humidity Sensor

Technology	CMOS
Range	0 to 100% HR, Non-condensing

IMPORTANT
As the sensor is directly installed in ceilings, it is not recommended to use its humidity sensor as the input of a humidity control loop. The humidity sensor should only be used as a backup sensor or for dew point together with a temperature sensor.

Sound Level Detection

Technology	MEMS
Range	37dbA to 120 dbA

Volatile Organic Compounds (TVOC) Detection

Technology	MOX-based
Range	Index 1-100

Mechanical

Overall Dimensions	Ø 3.489” x 2.128” (Ø 88.62mm x 54.04mm)
Recessed Dimensions	Ø 2.962” x 1.742” (Ø 75.23mm x 44.24mm)
Shipping Weight	0.35lb (160g)
Enclosure Material	PC and ABS
Enclosure Rating	UL94 V-0
Color	White and Black
Installation	In-ceiling mounting with provided hardware
LED Indicators	24-bits RGB LED

Environmental

Operating Temperature	41°F to 95°F (+5°C to +35°C)[1]
Storage Temperature	-4°F to 122°F (-20°C to 50°C)
Relative Humidity	0% to 90%, Non-condensing
IP Rating	IP20 (IEC 60529)

[1]Non permanent, non continuous. Continuous operation above 95°F (35°C) could deteriorate product performance over time.

Standards and Regulations

EMC Emissions and EMC Immunity	EN 63044-5 / ETSI EN 309-481 / EN 55032 / EN 55035 /CISPR 32 / CISPR 35 / FCC rules part 15, sub-part B (B) / ICES 003 (B)
Radio	ETSI EN 300-228 / FCC rules part 15, sub-part C / RSS-Gen5 / FCC ID: 2AAQS-IPS1907 / IC ID: 11306A-ISP1907
Safety	IEC 62368-1 / EN IEC 62368-1 / UL916 Energy Management Equipment (Pending) UL File number: E228719

Dimensions

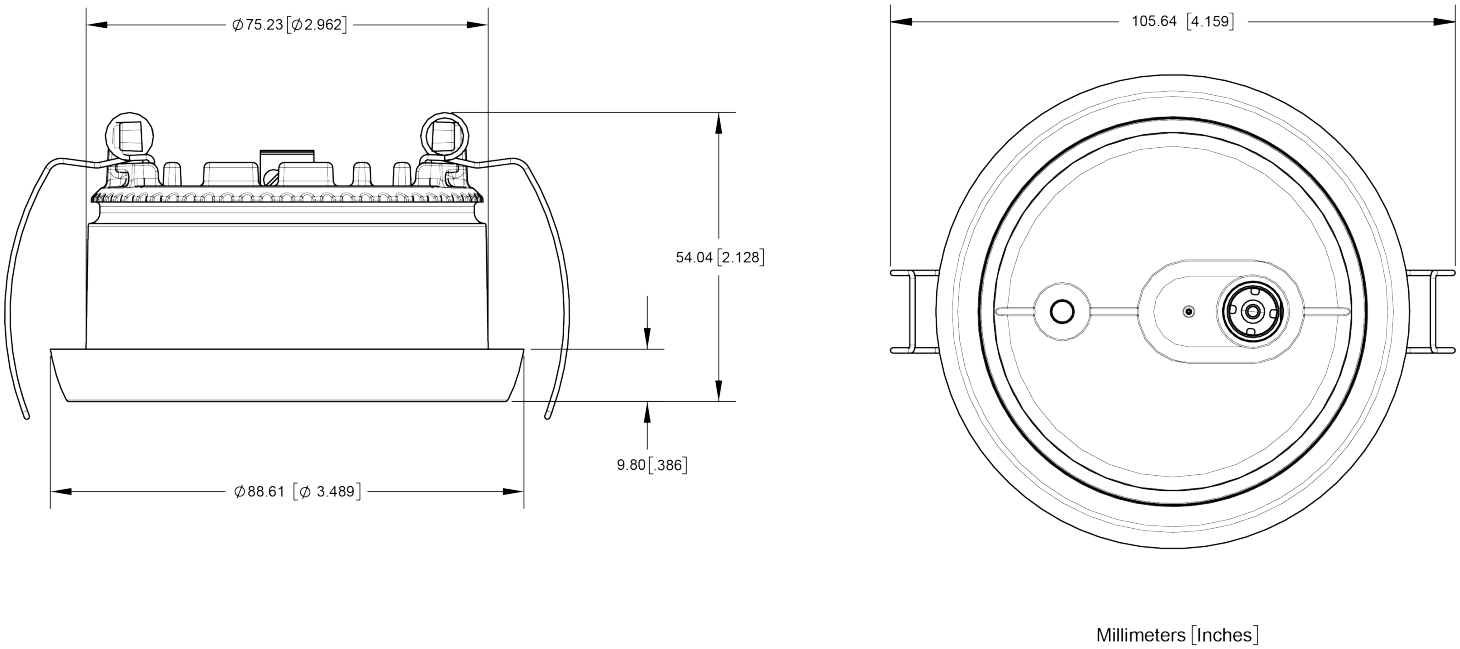

Figure 1. Resense Move dimensions

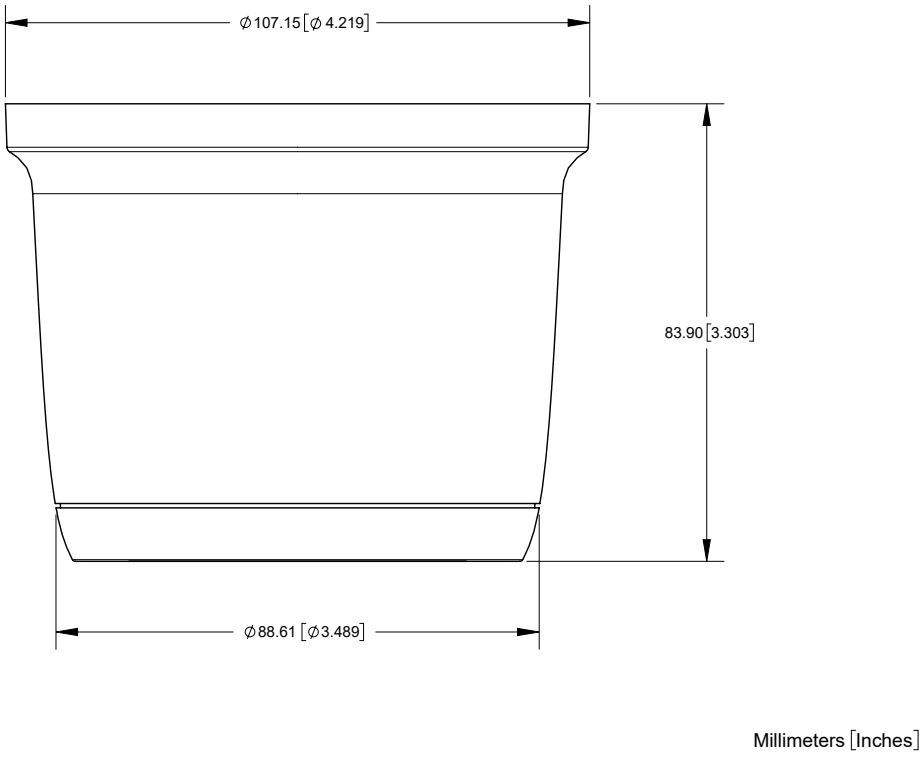

Figure 2. Mounting Adapter dimensions

Thermal Sensor Detection Data

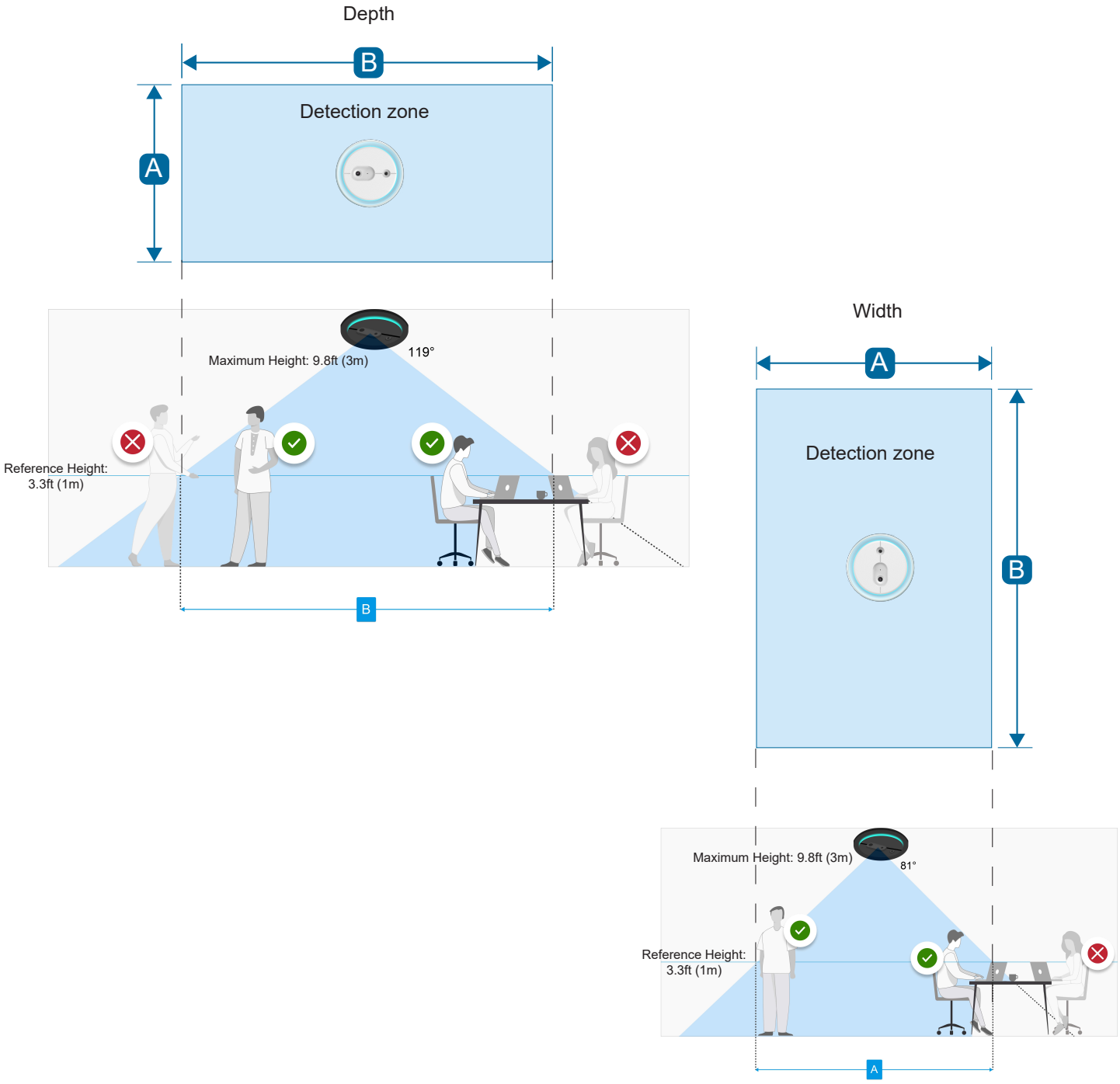

Figure 3. Area of detection at 3.3ft (1m) from the ground

Ceiling Height	A	B	Total Area
8.2ft (2.5m)	8.2ft (2.5m)	16.4ft (5m)	139.9ft^2 (13m^2)
8.9ft (2.7m)	9.5ft (2.9m)	18.7ft (5.7m)	183ft^2 (17m^2)
9.8ft (3m)	11.5ft (3.4m)	22ft (6.7m)	247.6ft^2 (23m^2)