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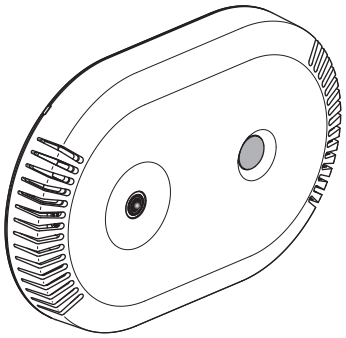
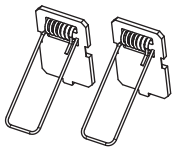
LIGHT UP Activity multisensor

Catalogue number(s): 0 485 91





Access the full documentation documentation for the activity Multisensors

SOMMAIRE PAGE

1. USE

The Activity Multi-Sensor is designed for use in tertiary buildings (small or large), such as co-working offices, meeting rooms, shared spaces, schools, etc., to disseminate information that allows third parties to deliver services such as:

- Space occupancy management,
- Premises cleanliness management,
- Improvement of air quality and comfort of living spaces.

In these objectives, the Activity Multi-Sensor has sensors to perform counting/localization/activity of people and to measure physical quantities:

Temperature, humidity, brightness, tVOC, eCO2, IAQ, sound, etc.

Product updates via the "Close Up" app available for iOS and Android.

2. TECHNICAL CHARACTERISTICS

- PoE → Class 1 (0.44W à 3.94W)
- Standby Consumption: <1,6 W
- Connection: Cord or RJ45 cable
- Mounting Hole Diameter: 68 mm
- Weight (product alone): 241 g
- Weight (packaged product): 307 g
- Shock Resistance: IK04
- Solid and Liquid Ingress Protection: IP20
- Operating Temperature: +5° C to +30° C
- Storage Temperature: -20°C to +70° C
- Bluetooth: From BLE 5.0 onwards

■ 2.1 Counting People

The people counting sensors help reduce the amount of energy consumed by heating, ventilation, and air conditioning (HVAC) systems and lighting systems in buildings.

- **Thermal Camera:**
-
- Field of Vision: 160°
- Coverage: 8m x 8m
- Installation Height: 2.5m (up to 4m possible)
- Management of 1 to 6 zones of interest
- Management of 1 to 6 exclusion zones
- Counting up to 40 people
- Resolution: 1
- Data Availability at Commissioning: Up to 5 minutes

2. TECHNICAL CHARACTERISTICS (continued)

■ 2.2 Temperature and Humidity

Humidity Sensor:

- Measures the relative humidity in the area in percentage.
- Measurement range: 0 to 100 %.
- Drift: < 0.25 % per year.
- Accuracy: ±5 %.
- Data availability at commissioning: 1 hour.
- Humidity offset: from -20 to +20 % (default: 0).
- Temperature Sensor:

Temperature Sensor:

- Measures the ambient temperature in degrees Celsius.
- Measurement range: 0° to 50° C.
- Resolution: 0.1° C.
- Drift: < 0.02° C per year.
- Measurement interval: starting from 3 seconds.
- Data availability at commissioning: 1 hour.
- Temperature offset: from -20 to +20° C (default: 0).

■ 2.3 Air Quality

VOC Sensor:

- Measures total volatile organic compounds (TVOC) through an air quality index (AQI) similar to the UBA index and estimates CO2 levels based on TVOC levels.
- VOC measurement range: 0 to 10,000 ppb (parts per billion).
  Resolution: 1 ppb.
  Accuracy: +/- 25 %.
- Niveau QAI : Plage de : 1,0 à 5,0
  Résolution : 0,1
  Précision : +/- 10 %
  Disponibilité des données à la mise en service :
  30 minutes

■ 2.4 Sound Level

Sound Sensor:

- Measures the ambient noise in the area in dB SPL.
- Omnidirectional responsiveness.
- Measurement range: 35 - 120 dB SPL.
- Resolution: 1 dB SPL.
- Sound level offset: from -20 to +20 dB SPL (default: 0).

■ 2.5 Brightness

Daylight Sensor:

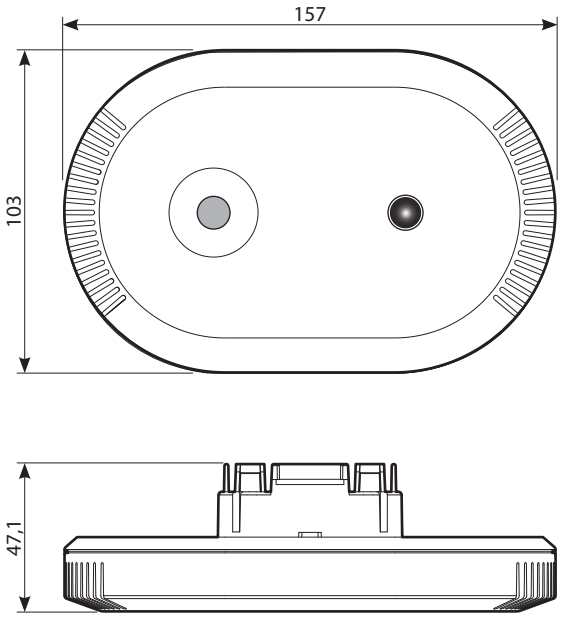
- Measures both natural and artificial daylight.
- Measurement range: 5 to 1275 lux.

2. TECHNICAL CHARACTERISTICS (continued)

■ **2.6 Bluetooth 5.0**

Allows the product to be configured with a smartphone.
- LED Indicator: Not Paired → LED off ○
  Paired Solid blue → Solid blue ●
- Range → 10 meters
- Compatible with Bluetooth version 4.2 and above

3. DIMENSIONAL SENSOR

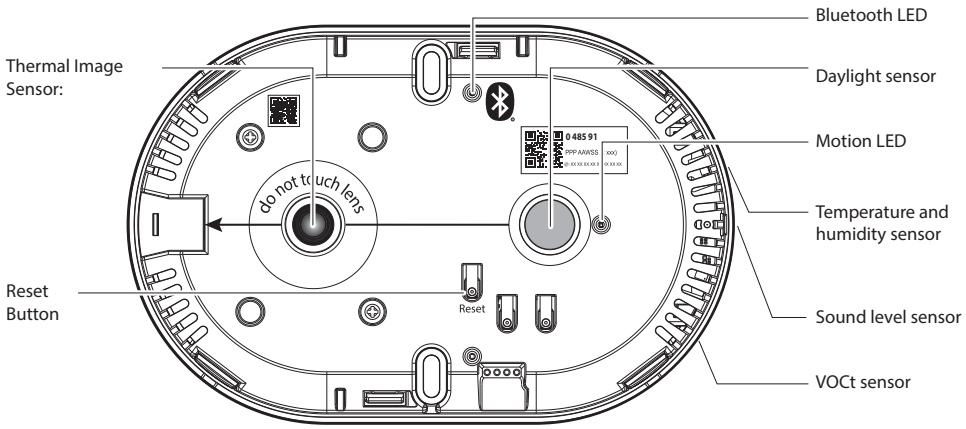


4. SIMPLIFIED EU DECLARATION OF CONFORMITY

- **Frequency (f):** 24 to 2483 GHz
- **Power (P):** < 100 mW

LEGRAND, declares that radio equipment of the type Cat. no. **0 485 91** complies with Directive **2014/53/EU**. The full text of the EU declaration of conformity can be found at: **www.legrand.com/ecatalogue.**

5. DESCRIPTION

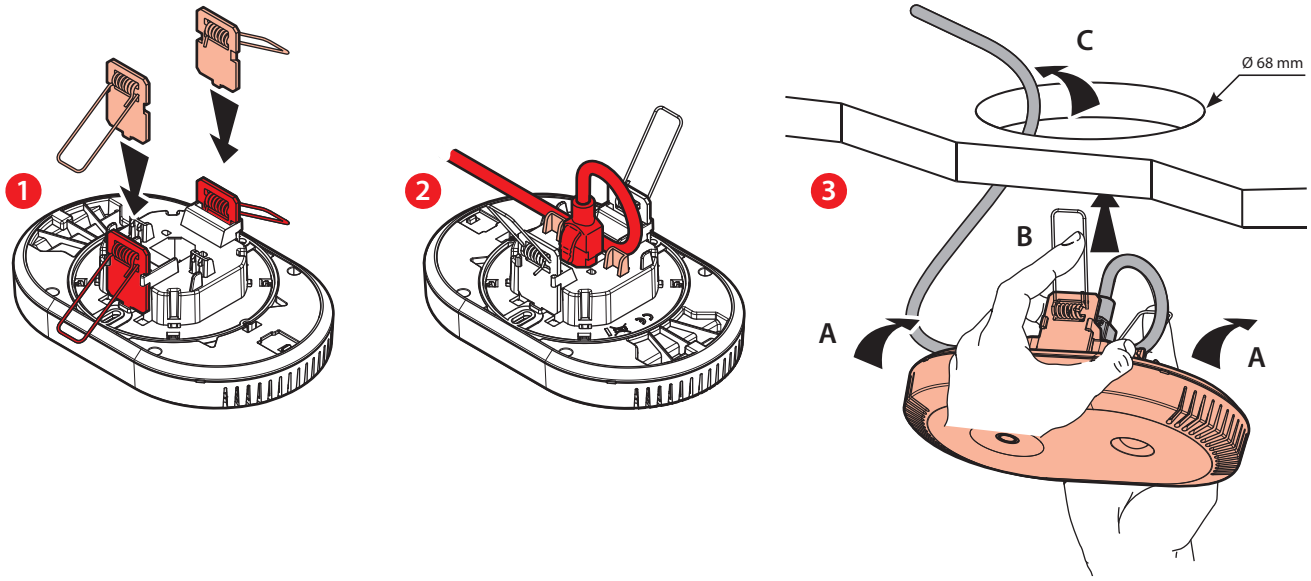


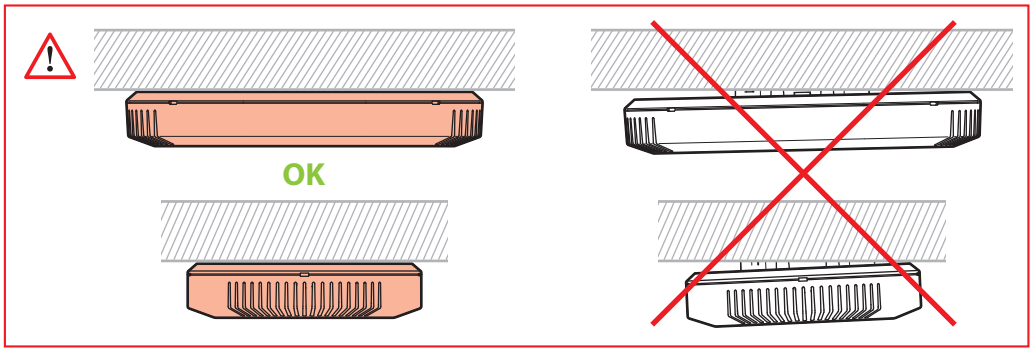
Reset Button :
This button allows restoring the factory settings.

Bluetooth Indicator (Blue):
Indicates when a device is paired with a mobile device (e.g., smartphone).

Motion Indicator (Green):
A green light dedicated to indicating the sensor's warm-up phase and movement detection.

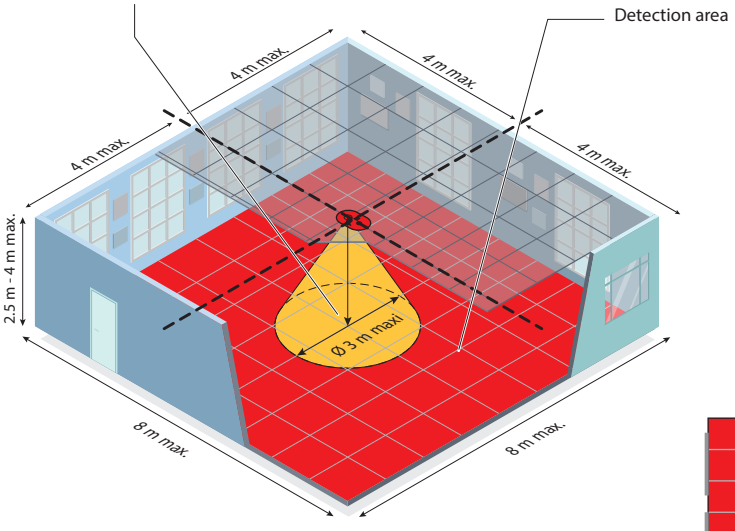
6. MOUNTING

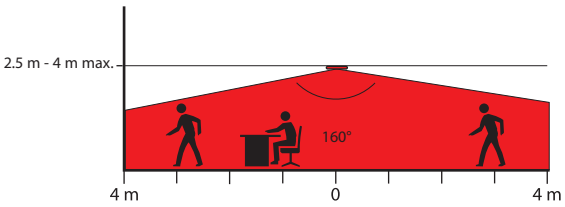


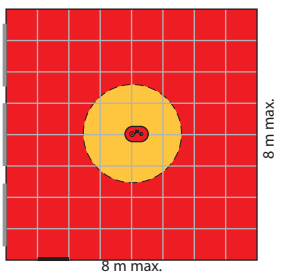


7. DETECTION ZONE

The measurement of the light level is carried out vertically to the detector on a diameter of 3 meters





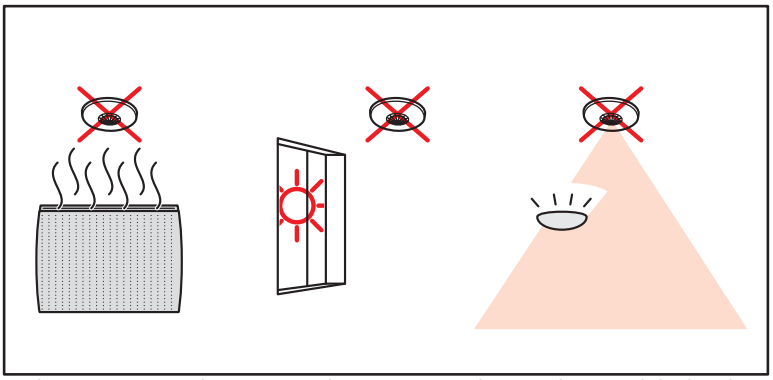


Up to 6 configurable **Zones of Interest** and/or Exclusions can be monitored.

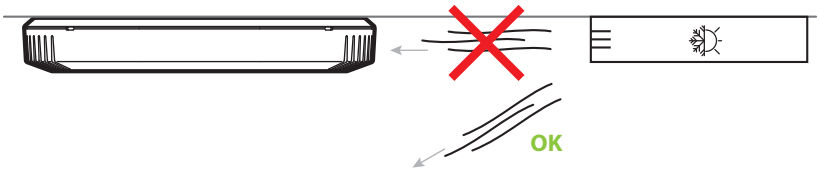
8. INSTALLATION PRECAUTIONS

Maximum installation height 4 m.

Make sure that the thermal imager's field of vision is not obstructed by high objects or devices that could conceal one or more persons.



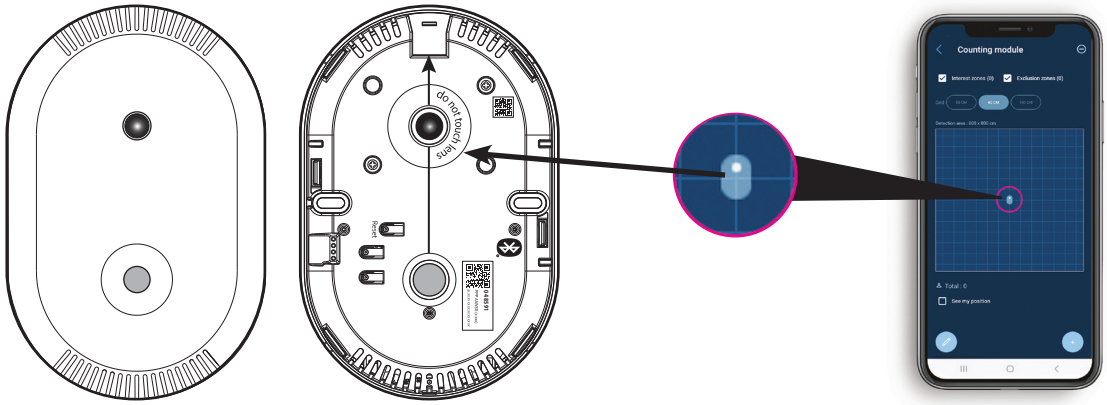
Avoid direct airflow over product vents (air conditioning, ventilation, open windows or glass panels higher than 1.5m to prevent infra-red reflections, etc.).



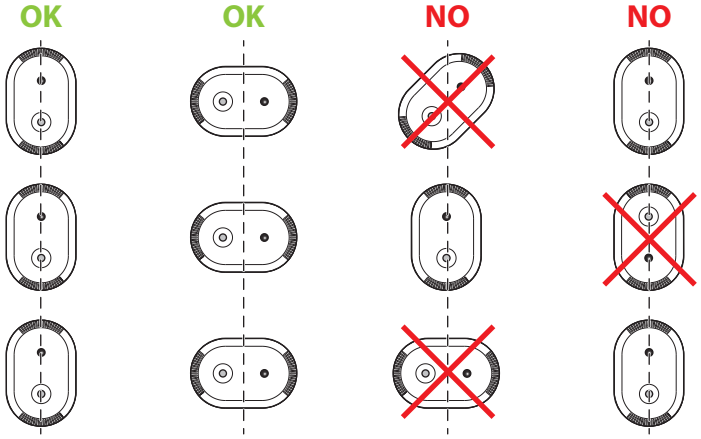
9. FIRST POWER-UP

First commissioning:

The product is operational after 5 minutes. The device self-calibrates in 20 minutes. To calibrate it immediately, start calibration from Close Up, making sure that no-one is in the area covered by the product.



In large areas that require the installation of several devices, it is recommended to install them in a row and facing in the same direction



10. SETTINGS - DEFAULTS

Sensor Parameters		Default Value	Modifiable Settings
Network	DHCP Mode	Oui	Oui / Non
	IP Address		
	Subnet Mask		
	Gateway		
	NTP Server		
	DNS Server		
	Current IP Address	10.2.1XX.XX	(Read-only)

Sensor Parameters			Default Value
Temperature		Current temperature	(Read-only)
Humidity		Current humidity	
Sound level sensor		Maximum noise	
		Current Noise Average	
Sensor air		VOCt	
		Air Quality	
Light		Artificial Light Level	
Mode avancé	Temperature	Temperature Offset	0
	Humidity	Relative Humidity Offset	
	Sound level sensor	Sound Pollution Offset	
	Sensor air	CO2 Equivalent	(Read-only)
	Version	Product version	

All these parameters can be viewed and/or modified using the **"Close Up"** app. The procedures for using the app are available in the **"LIGHT UP Activity Multisensor Detector" Technical Guide**.

■ 10.1 Temperature Measurement

The product measures the room's temperature level using a dedicated sensor calibrated by the manufacturer. The value is expressed in degrees Celsius and used as an "indicator."

■ 10.2 Sound Level Measurement

The product measures the room's sound level using a dedicated sensor. The value is expressed in dB SPL and used as an "indicator."

Maximum Sound Level (dB SPL):
→ Maximum raw measurement between two queries + sound level offset

Average Sound Level (dB SPL):
→ mesure brute
+ décalage du niveau sonore pendant 1 min

■ 10.3 Humidity Level Measurement

The product measures the room's relative humidity level using a dedicated sensor calibrated by the manufacturer. The value is expressed in percentage and used as an "indicator."

Current Relative Humidity (%):
→ Raw measurement + relative humidity offset

10. SETTINGS - DEFAULTS (continued)

■ 10.4 Air Quality Measurement

The product measures the total volatile compounds in the room using a dedicated sensor. The value is expressed in ppb and used as an "indicator."

Current VOC Level (ppb) → Raw measurement

• IAQ Measurement:

The product provides the IAQ level based on the UBA index measured in the room from the TVOC measurement. This value is used as an "indicator."

Current IAQ Index (UBA) → Raw measurement

• Estimated CO^2 Measurement:

The product estimates the CO2 level from the TVOC measurement. The value is expressed in ppm and used as an "indicator."

eCO2 (ppm) → Raw measurement

■ 10.5 Returning to Factory Configuration Settings

• Action :

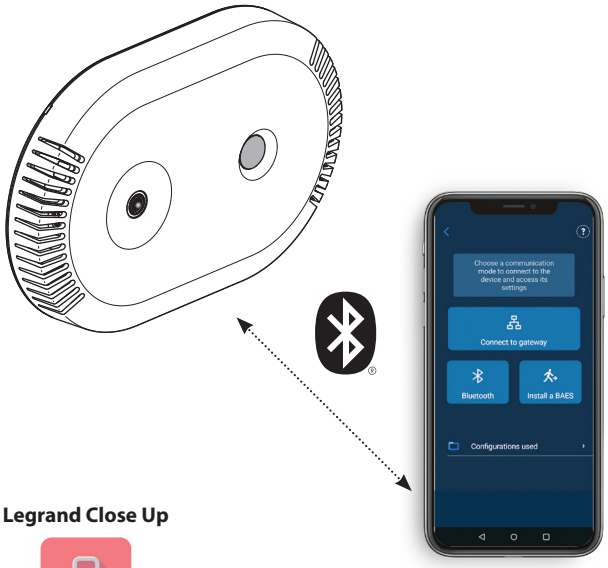
Press the reset button for 10 seconds. (Rapid green flashing until it turns solid green, then release. The LED will flash red for 5 seconds at 2 Hz.).

• Results:

The settings are reset to default values. Product links and the network table are cleared. Passwords are reset to factory values.

11. "CLOSE UP" USAGE

This product can be set up using the Close Up application.



Legrand Close Up

Downloadable from :

Download on the App Store **or** GET IT ON Google Play

Direct access

The "Close Up" application allows:
- Viewing product parameters and customizing offset settings (highlighted in blue on the screen).
- Configuring the counting module by defining interest and exclusion zones.

Upon first use of "Close Up," you will be asked to create a **Legrand account** and initiate a project (site). Follow the on-screen instructions and/or consult the **Light Up Technical Guide.**

12. LEDs

Bluetooth	Steady Blue	Lights up when the product is paired with a smartphone.
Motion	Steady Green	In the preheating state (upon start-up), the LED stays lit for 60 seconds. It lights up for 1 second when movement is detected.
Radio	Flashing red	The radio LED flashes red after pressing the Reset button for 5 seconds. Indicating that the product has been successfully reset to factory settings.
	Steady yellow	Is lit during product startup.
	Steady Magenta	Lights up during the product's startup phase.
	Blinking Magenta	• After pressing the network button: attempts to join a radio network. It turns to solid magenta if successful, otherwise, it flashes red 5 times. • After pressing the bind button: indicates an ongoing binding attempt. The flashing ends if successful, otherwise, it flashes red 5 times.
	5 red flash	The last operation failed (network creation, joining a network, or binding).
	Blinking Cyan	Indicates an ongoing update.
	Steady White	Indicates a product anomaly; the product will restart 15 seconds after the anomaly.

12. STANDARDS

Installation Standards: NFC 15-100

Product Standards: NF EN 50428

LVD "Low Voltage Directives :" :
- Directive → 2014/35/EU
- Standard → NF EN IEC 62368-1:2020

EMC "Electromagnetic Compatibility " :
- Directive → 2014/53/UE
- Standards → EN55035:2017
  EN55032:2015
  IEC61000-3-2:2019
  EN61000-3-3:2014
  ETSI EN 301489-1
  ETSI EN 301489-17

RED (Radio Equipment Directive) :
- Directive → 2014/53/UE
- Standard → ETSI300 328 v2.2.2:2020
  IEC62311:2020

RoHS (Restriction of Hazardous Substances) :
- Directive → 2011/65/EU
  2015/863/EU

Directives CE :
- European Directive 2002/96/CE :
  DEEE (Déchet des équipements électriques et électroniques) or
  WEEE (Waste Electrical and Electronical Equipment).
- European Directive 2002/95/CE :
  LSD (Limitation des Substances Dangereuses) or
  RoHS (Restriction of Hazardous Substances).

13. MAINTENANCE

Keep the lens clean.

Perform surface cleaning with a cloth.

Do not use acetone, tar remover, or trichloroethylene.

Resistant to the following products:
- Hexane (En 60669-1),
- Denatured alcohol,
- Soapy water,
- Diluted ammonia,
- 10% diluted bleach,
- and Glass cleaner.

Caution: For the use of specific cleaning products, a preliminary test is necessary.

14. SURFACE MOUNTING

Surface mounting with accessory ref. 0 485 80, follow the instructions in the data sheet supplied with the accessory.