TECHNICAL GUIDE

The intelligent building manager

WEOZ

YOUR SOLUTION FOR EFFICIENT SPACES

#legrandImprovingLives

legrand


WEOZ
THE INTELLIGENT
BUILDING MANAGER

index

ARE YOU A BUILDING OR FACILITY MANAGER ?

Get ready for:

- **Easy, independent management,** thanks to automated processes and alerts embedded into a user-friendly dashboard.
- **Remote access on desktop and app** for freedom of movement, peace of mind, and real-time control and monitoring.

ARE YOU AN ELECTRICAL CONTRACTOR?

Enjoy:

- **Quick, simple, and non-intrusive installation** compatible with existing, renovated and new buildings.
- **Fully scalable installation according to needs,** and easily managed from a single dashboard.

Find your own space for improvement

The intelligent building manager fully designed with sustainability, user autonomy and operational efficiency in mind.

While every business is well aware of pressing environmental challenges, and faces demanding regulations, some cannot afford the investment and complexity of traditional BMS solutions.

With WEOZ system, Legrand offers an affordable and empowering solution to meet the needs of small and medium spaces, as well as multi-site building management.

Well suited to your budget and requirements, it is a game changer for operational efficiency and the occupant well-being.

ARE YOU A REAL ESTATE DEVELOPMENT INVESTOR?

Make the smart move:

- **An affordable energy-efficient solution,** up to 5 times less expensive than a traditional BMS.
- **Compliance with new environmental legislation**, helping you reach new greenhouse gas emission standards.

WEOZ is suitable for workspaces such as offices, schools, restaurant, retail shops.

Enjoy multi-site remote access and compare energy-efficiency across sites.

Improve your WEOZ experience

Get Legrand support services

Our local teams are available to provide bespoke support at every stage of your WEOZ project.

ASK US ABOUT:

- Design
- Quotation
- Training
- Commissioning
- Maintenance
- Etc.

CONTACT

00 00 00 000 00 ▪ contact@XXXXX

Access in-depth information

Our local website provides you with a large choice of tools to help you understand and deploy WEOZ ecosystem full potential.

AVAILABLE FOR DOWNLOAD:

- Technical guides
- Tech sheets
- Tutorials
- Etc.

GO TO

Legrand.com/XXXX

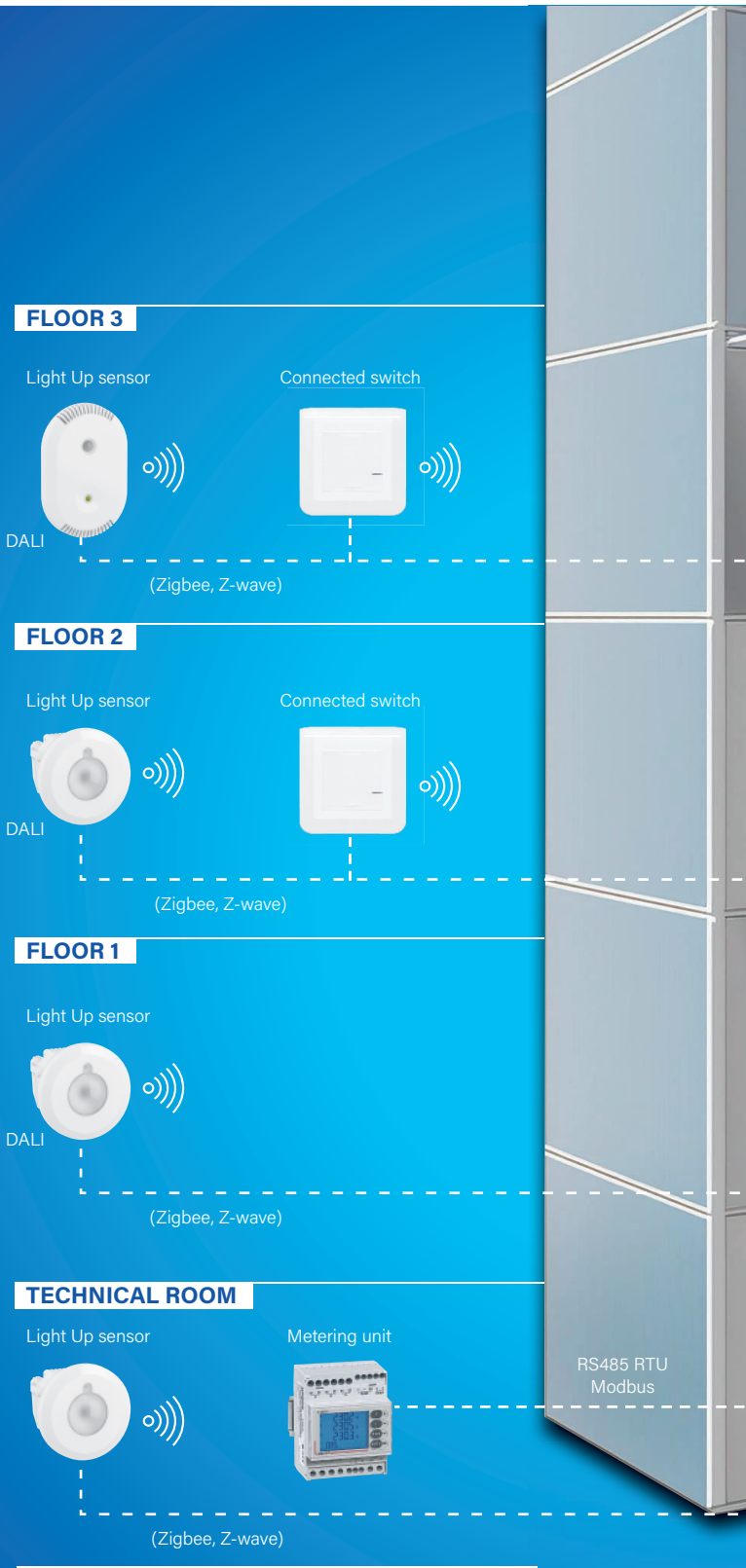
SYSTEM ARCHITECTURE

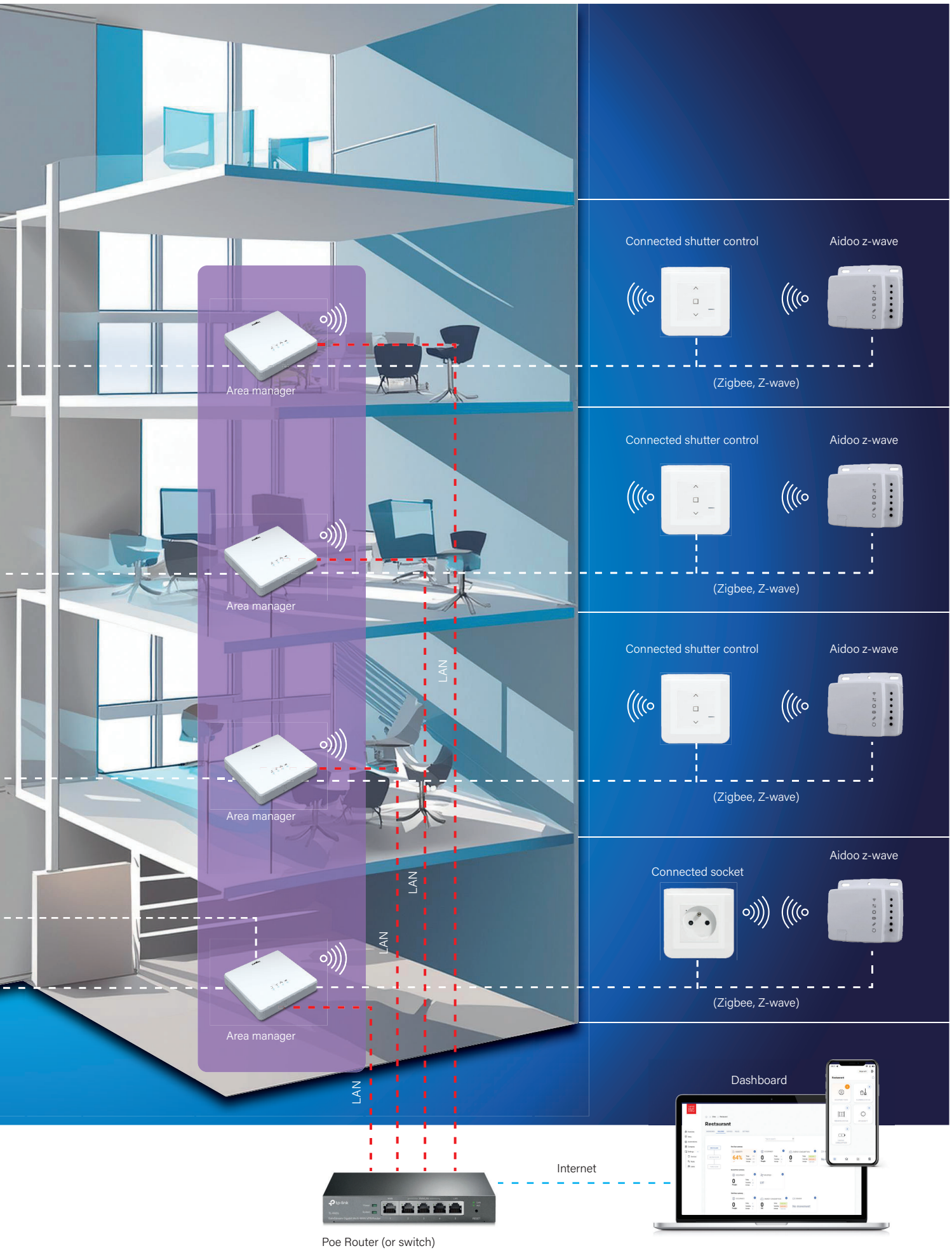
System architecture

The **Weoz system** provides the possibility of connecting the various intelligent and communicating devices to one or more webservers, depending on the type or complexity of the building automation system.

The various devices, specific for lighting applications, rather than thermoregulation and air conditioning, or even air quality or measurement, perform the functions for which they were installed, allowing them to be controlled remotely, through.

Examples of architecture are those represented in the figure where 2 configurations can be seen single-building architecture and multi-building architecture.




Area manager
Area manager
Area manager
Area manager
LAN
LAN
LAN
LAN
Connected shutter control
Aidoo z-wave
(Zigbee, Z-wave)
Connected shutter control
Aidoo z-wave
(Zigbee, Z-wave)
Connected shutter control
Aidoo z-wave
(Zigbee, Z-wave)
Connected socket
Aidoo z-wave
(Zigbee, Z-wave)
Dashboard
Restaurant
Internet
Poe Router (or switch)

Weoz protocols

There are multiple open communication protocols, but we are going to highlight the three protocols, integrated in the Legrand solutions.

ZIGBEE

The Zigbee protocol is a high-level communication protocol that utilizes small, low-power digital radios based on the IEEE 802.15.4 standard for wireless area networks.

It is designed to offer a wireless data solution characterized by secure, reliable network architectures.

Zigbee operates in the 2.4 GHz ISM band globally, with additional bands at 868 or 915 MHz. Zigbee's protocol stack is designed to support a variety of network topologies, including star, tree, and mesh. The mesh networking capability is particularly advantageous in commercial buildings as it allows for extended range and reliability through the interconnection of multiple devices.

Z-WAVE

Z-Wave protocol is a wireless communications standard designed for home and commercial building automation. It operates within the 800-900 MHz radio frequency range and is known for its low-energy consumption and robust signal strength, which is ideal for the mesh network topology it employs.

The protocol supports various command classes that allow for the control and automation of a wide range of smart devices, such as lights, security systems, thermostats, sensors...

MODBUS

Modbus Protocol is a messaging structure developed by Modicon in 1979.

It is used to establish client-server communication between intelligent devices. It is a de facto standard, truly open, and the most widely used network protocol in the industrial manufacturing environment.

- Port 1 seriale or IP

- 2 types; TCP or RTU

System architecture & limits

The architecture of a BMS typically consists of several layers, each serving a specific purpose.

FIELD DEVICES LAYER

- **Sensors**: These devices collect data from various systems within the building, such as light sensors, temperature sensors, humidity sensors, occupancy sensors, etc.
- **Actuators**: These devices are responsible for executing commands, such as turning on/off lights, adjusting HVAC setpoints, opening/closing shutters and blinds, etc.

AREA MANAGER

- **Area manager**: These are microprocessor-based devices installed at different locations throughout the building. They collect data from sensors, process it, and send commands to actuators based on predefined logic algorithms. Field controllers may be dedicated to specific subsystems (e.g., HVAC controllers, lighting controllers) or may be more interdisciplinate.

NETWORK LAYER

- **Communication Protocols**: Various communication protocols are used to facilitate communication between field devices and controllers. Common protocols include Modbus, Zigbee and Z-wave.
- **Network Infrastructure**: This includes the physical infrastructure (e.g., wiring, Ethernet cables or wifi solutions) and networking components used to connect field devices and controllers in a network.

SUPERVISORY LAYER (DASHBOARD)

- **Supervisory Controller**: This is the building higher-level controlller responsible for supervising and coordinating the operation of multiple field controllers within the building. It collects data from field controllers, perform advanced control algorithms, implement energy management strategies, and provide a centralized interface for monitoring and controlling the building systems.
- **Human Machine Interface (HMI):** The HMI provides a user-friendly interface for building operators to interact with the BMS. It may include graphical displays, dashboards, trend charts, alarms, scheduling tools, and other features to monitor system performance, troubleshoot issues, and make adjustments as needed.

MULTI BUILDING MANAGEMENT

- **Integration with Building Management Software:** BMS data may be integrated with higher-level building management software platforms or enterprise systems (e.g., Facility Management Software, Energy Management Software) for advanced analytics, reporting, and optimization.
- **Integration with External Systems**: Weoz system may also integrate with external systems such as weather forecasts, energy utilities, and demand response programs to optimize building operations further.

Overall, the architecture of a Weoz system is designed to provide centralized monitoring, control, and optimization of building systems to improve energy efficiency, occupant comfort, and operational performance. The specific implementation may vary depending on the size and complexity of the building, as well as the requirements of the building owner or operator.

Area Manager solution

The Area manager is the core of the system.

This devices collect data, analyzes them (artificial intelligence) and orders corrective measures. Legrand Area manager represent the next-generation of controllers that allows you to communicate using the protocols used in your smart building. Indeed, allow to REALLY save energy, it is necessary a solution that is easy to use but also a solution that is flexible enough to adapt to the existing one. Legrand controllers are able to operate with the following protocols: Modbus (RS485)
– Z-wave – Zigbee.

AREA MANAGER

The Area Manager is a solution that focuses on transforming new buildings and existing tertiary buildings into connected and intelligent structures.

The main features of this device are:

1. **Easy Installation:** The Area Manager is designed for simple installation and operation, making it ideal for energy-efficient renovations in small and medium-sized tertiary buildings. Unlike traditional systems, it doesn't require extensive construction work.
2. **Energy Savings:** By automating energy-saving scenarios, Area Manager can help reduce energy bills by up to 50%. It achieves this without major renovations or disruptions.
3. **Compliance with Legal Obligations:** Area Manager ensures compliance with legal requirements, such as the **ISO 52120-1:2021** standard, that represents a pivotal step in the commitment to energy efficiency and environmental stewardship.
4. **Control and Reporting:** Area Manager allows users to create energy-saving scenarios and manage operations through an online portal. It provides real-time supervision, customized reporting, and alerts for building management teams.

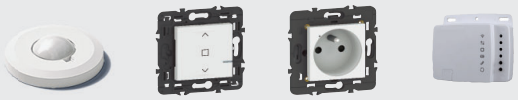
AREA MANAGER
OF WEOZ SYSTEM

System limits

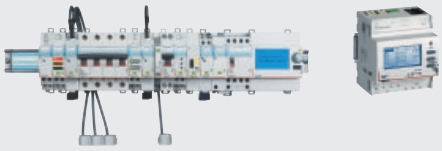
AREA MANAGER

FOR EACH AREA MANAGER

MAX 20 WIRELESS DEVICES (ZIGBEE OR ZWAVE)



MAX 100 MODBUS POINTS*



*In the portal is possible to select for every modbusdevice which data collect to reduce the number of points

NUMBER OF AREA MANAGERS

There's not a technical limit

Weoz solution for Ligthing management

Legrand lighting management solution is a comprehensive system designed to control and optimize the lighting within a building or facility.

It incorporates various technologies and strategies to enhance energy efficiency, improve user comfort, and reduce operational costs. Overall, a lighting management solution offers a comprehensive approach to lighting control and optimization, combining advanced technologies, user-friendly interfaces, and energy management strategies to create a more efficient, comfortable, and sustainable built environment. Some lighting management solutions include built-in diagnostic features that monitor system health and detect potential issues such as lamp failures or sensor malfunctions. These capabilities help streamline maintenance activities and ensure reliable operation of the lighting system.

LIGHT UP SENSORS

Legrand Light Up is a scalable sensors range with a wide array of features, from lighting optimisation to data collection.

Thanks to presence, activity and environmental detection, it helps improve employee well-being and energy performance in office spaces.

The Legrand Light Up sensor range offers a short but flexible selection of models in order to meet your workspace priorities and specificities. Small and discreet, designed to be ceiling-mounted, they unobtrusively fit in all types of rooms, offices and corridors.

Occupancy to Advanced, Light Up sensors put their detection power in service of real-time automated lighting management, and occupant well-being. Easy to install and adjust, they detect changes and react on the spot to provide optimal lighting at all times.

Weoz solution for HVAC management

HVAC stands for Heating, Ventilation, and Air Conditioning.

Legrand HVAC control system is designed to control the temperature, humidity, air quality, and overall comfort of indoor environments. Overall, Legrand HVAC system plays a crucial role in creating comfortable and healthy indoor environments by providing heating, ventilation, and air conditioning solutions tailored to the specific needs of residential, commercial, and industrial buildings.

AIRZONE CONTROL DEVICE

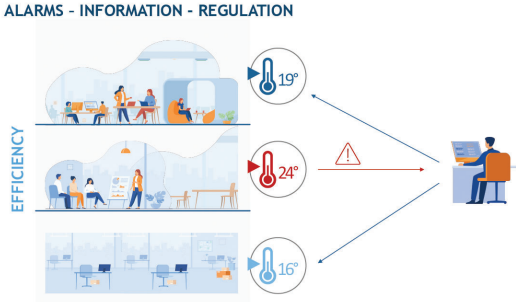
CONTROL DEVICE
FOR HVAC

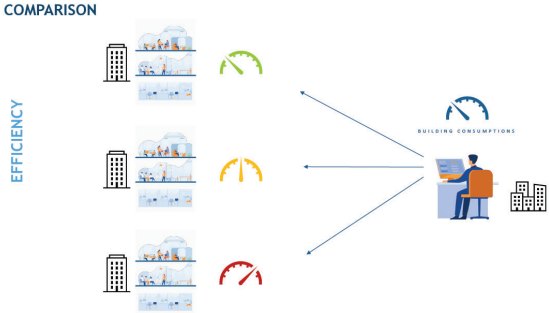
Aidoo Z-Wave Inverter/VRF offers complete control of Inverter/ VRF AC units via the Airzone Cloud app. Thanks to its wide range of integration options, Aidoo Z-Wave facilitates the management of these units from home automation and building management systems. The device extends the control options available to installers and integrators, enabling the control of Inverter units from a smart thermostat without losing functionality. Aidoo Z-Wave Inverter/VRF can be used for the two-way control of individual AC units or for the joint management of groups of AC units. The HVAC system manager can define different levels of control for different users. Aidoo Z-Wave enables the home automation integration of AC units belonging to the leading brands on the market. Thanks to the use of manufacturer certified communication protocols, the device allows two-way control, with status verification, between the management system and the AC unit.

Aidoo Z-Wave DX has the following integration options: Cloud API, Rest API, Modbus and Drivers

Daily scene: Comfort

Night scene: Eco





Weoz solution for Energy management

Legrand energy management solution is a comprehensive system designed to monitor, analyze, and optimize energy usage within a building or facility.

It incorporates various technologies, software platforms, and strategies to improve energy efficiency, reduce operational costs, and minimize environmental impact. Overall, an energy management solution offers a proactive approach to managing energy usage, combining data-driven insights, automated controls, and optimization strategies to achieve cost savings, environmental sustainability, and operational efficiency within buildings and facilities.

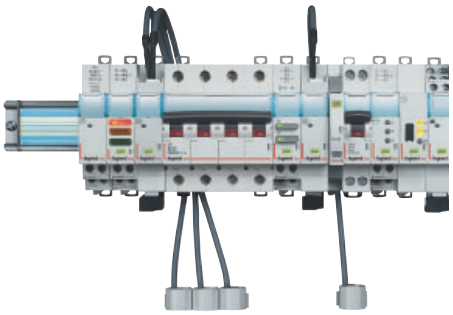
The measuring offer comprehends stand alone metering units or supervised system for more complex and large buildings:

EMDX³ STAND ALONE MULTIFUNCTION AND ENERGY METERS

The EMDX³ system is the multifunctional measuring system designed for electrical energy management. The main characteristics are:

Precision Class: The EMDX³ system offers a precision class of 0.5 for active energy measurement. This means it provides accurate readings for energy consumption.
RS485 Output and Impulse access: It comes with an RS485 output and integrated pulse functionality. The RS485 output allows data transmission to the BMS system, while the impulse access enables additional monitoring options. The Modbus RS485 output allows flexible data transmission options for monitoring and control.
Adaptability: The system is suitable for three-phase circuits with or without neutral, as well as single-phase setups.
Installation and Usage: EMDX³ supports 1A or 5A current transformers from the market. It can be powered by an auxiliary supply from the power plants in AC or DC.

EMS CX³ SUPERVISION SYSTEM



The EMS CX³ (Energy Management System) by Legrand is a comprehensive energy management solution designed to monitor, control, and optimize electrical installations.

The main characteristics are:

Energy Monitoring and Supervision:
- EMS CX³ allows you to verify the proper functioning of electrical installations either locally within the distribution panel or remotely from a computer, tablet, or smartphone. It simplifies energy management by providing real-time data visualization and measurement.

Energy Consumption Monitoring: EMS CX³ tracks the electrical consumption of all users within the installation. It measures various electrical values.

Local and Remote Visualization and control: You can view circuit data and electrical protection status both locally and remotely. EMS CX³ enables local and remote control of protection devices and motorized commands.

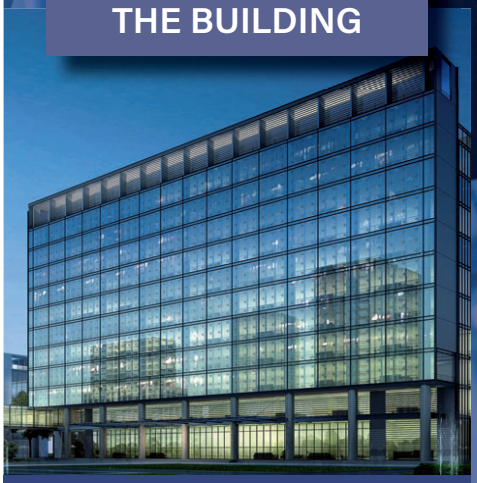
integration: It allows information to be sent outside the electrical panel. It is possible access data locally or remotely using PC, smartphone, or tablet.

AUDIT AND DIMENSIONING

Audit scope

For the correct design of your system set up with the Weoz system it is necessary to take into account 3 rather aspects:

1
UNDERSTAND THE BUILDING



Application: office, school, restaurant, retail shop,..

Layout & plan: square meters split by rooms

Network: internet availability

Type of intervention: new building or renovation

2
UNDERSTAND THE EQUIPMENT

Which functions exist, need upgrade, or has to be integated in BMS.

Which kind of solution (HVAC, light, meters..)

Network architecture

3
UNDERSTAND THE NEEDS

Functionalities: alerting, reporting, control

Regulation to meet: ISO 52120 class A or B

Data to collect

User customization: App, dashboard...

User permisssion

Understand the building

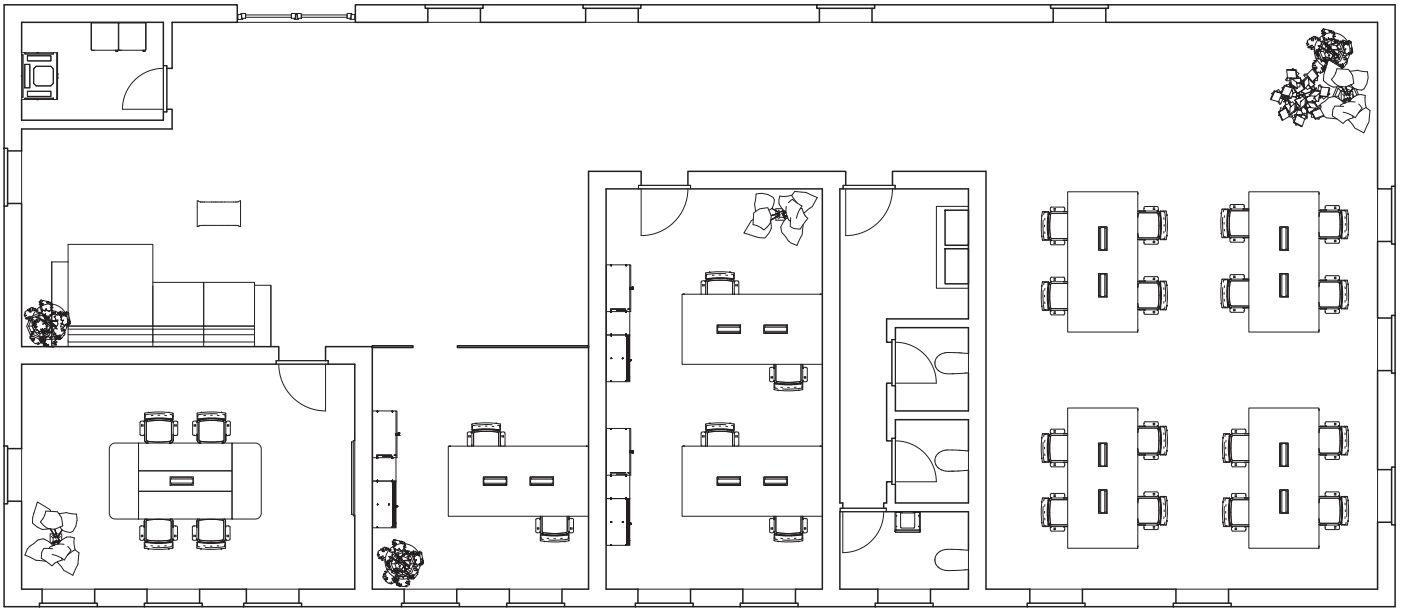
BUILDING TYPE DEFINITION

Each type of building has different characteristics and needs and therefore it is essential to first understand what they are. Commercial buildings that can be involved in these projects can be:

- Office
- School
- Retail shops
- Restaurants...

BUILDING LAYOUT

The optimal solution for correct system design is to be able to have the plan of the building and the different environments that compose it with the division of spaces and the position of the equipments.
In the event that the floor plan is not available it is necessary to at least have the main information with: number of floors, areas, rooms and spaces etc...
Once the type of building has been defined, the analysis must focus on the specific spaces that compose it. In this case it is possible to start from the project layout to identify the areas involved and consequently the functions you want to implement. Starting from the plan it will be possible to identify the points in which it will be possible to install the different devices.



NETWORK

The connection network is fundamental for the correct Setup of the system. It is a mandatory requirement for which it is necessary to know the characteristics, depending on the type, so that the various devices in the system can communicate. Without an Internet connection the system will not work and cannot be configured, therefore it is essential to ensure that such a connection exists, so as not to jeopardize the commissioning of the system. The installer must communicate with the site IT manager about the needs of the IoT BMS.

For more information, consult the network chapter on specific configuration.

Example of network availability
Internet ready
Box or 4G connection
VLAN or dedicated LAN
Ethernet PoE network

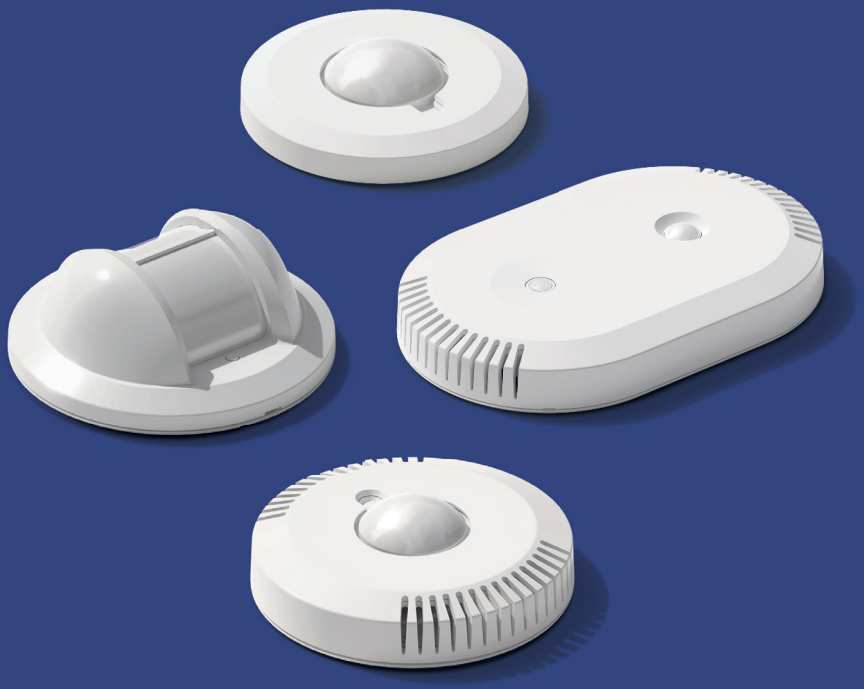
Understand the equipments

LIGHTING MANAGEMENT EQUIPMENTS

Technologies related to lighting management are one of the keys to choosing the various sensors. Depending on the environments, sensors with operating modes may be required. The most common choices refer to sensors of the type of luminaire:

- ON/OFF
- DALI type

For careful planning it is necessary to define how many lighting fixtures are needed for each room and how to control them (individually or in groups)



LIGHTING MANAGEMENT CONTROL

The choice of lighting sensors depends on the functions you want to consider. The Light UP sensors compatible with the Weoz system are available with the following functions, depending on the type:

- Presence sensing only
- Presence sensing with manual override
- Manual only

LIGHTING MANAGEMENT IN THE SPACE

The sensors must be chosen taking into account the environments in which they are to be installed, which have different needs. It is also important to take into account the number of sensors depending on the area to be covered or the layout of the environment.

Examples of main environments, in commercial buildings, for which appropriate assessments must be made are:

- Corridors
- Individual/double office
- Open space
- Restroom

Understand the equipments

HVAC ROOM EQUIPMENTS

There are many solutions for heating, air conditioning and air exchange.

For correct integration of these systems with Weoz solution it is necessary to take into account the following basic rules:

- Know brand and model of indoor units
- Know how many indoor units are necessary
- Check the compatibility of indoor units within Airzone tool (If not, modbus interface needed from HVAC manufacturer)
- Define how many Airzone control unit we need (HVAC Control Solutions)

FAN COIL UNITS

Knowing the number and type of fan coil units present in the system is essential for the correct sizing of the HVAC system. To do this, check the following:

- Calculate the number of fan coil units
- Verify if these fan coil units are 2 or 4 tubes
- Verify of Heating / Cooling or both type
- Verify if the fan coil units are 0-10V or ON-OFF valve
- Verify if the fan coil units are 0-10V or ON-OFF fan speed
- Verify if room thermostat is neccesary

OTHER CHECK ON THE PLANT

It is also important to know the characteristics of the system. Specifically, check whether the heating/air conditioning system is of the type:

- Water Under floor heating
- Water Radiators
- Electric under floor heating
- Electric radiators

METERING AND SUPERVISION

For the correct management of the measurement system it is necessary to first define what the scope is and above all whether it is possible to have management using only stand alone devices or more advanced systems are needed. Three types of measurement can be considered:

- Measurement of the energy consumed
- Measurement of different electrical quantities with stand-alone devices such as energy meters and multifunction measurement units
- Supervised system for complete measurement and management

STAND ALONE METERING EQUIPMENTS

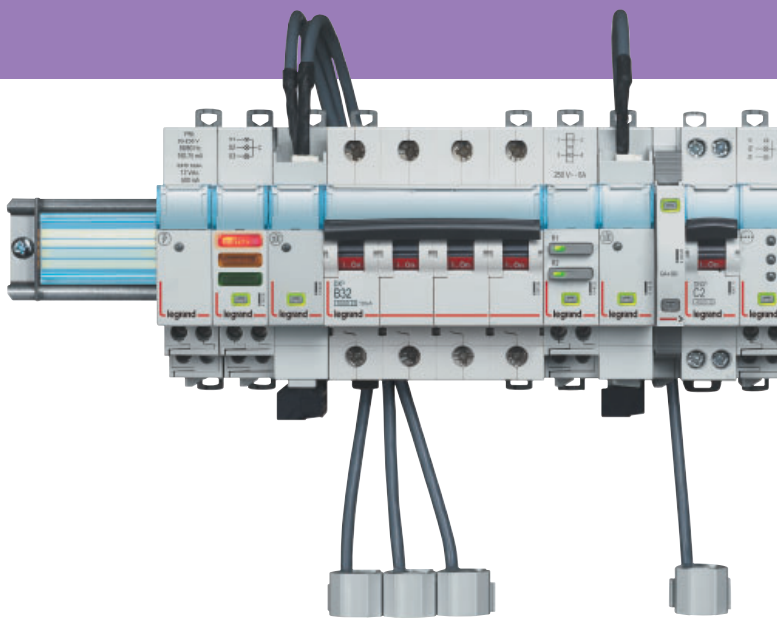
Knowing energy consumption is essential to optimize its use. When choosing the most correct measurement solution it is necessary to consider which electrical quantities are significant data to measure. At least, the measurable parameters are:

- Active positive and negative energy (MID)
- Active and reactive energy tariff 1 and tariff 2
- Partial resettable active and reactive energy
- Current / Voltage / Frequency
- Power factor
- Active and apparent phase power
- Average active power and peak average power

SUPERVISED METERING EQUIPMENTS

For more complex and extensive systems, supervised systems can be used enabling, in addition to the control of the electrical quantities measured, also real management of the systems. The choiche of a supervised system is justified when the following needs are requested:

- Setting the system with functions that are customised to specific needs.
- Configuration and programming of all devices, locally and remotely, so they can communicate with one another and with other external systems.
- Supervise and monitoring of all processes using IT tools to optimise energy consumption anytime, anywhere.
- Register the consumption of all installation users.
- Measure of analogue or electrical values (current, voltage,power, etc).
- Signalling or display of the status of electrical protection devices or circuits, both locally and remotely.
- Control of electrical protection devices or motorised controls.
- Communication to send all information remotely from the electrical switchboard.
- Display of the data locally or remotely, on built-in screens or on PCs,smartphones or tablets with an internet connection



Data to collect and expected functionalities

DATA TO COLLECT

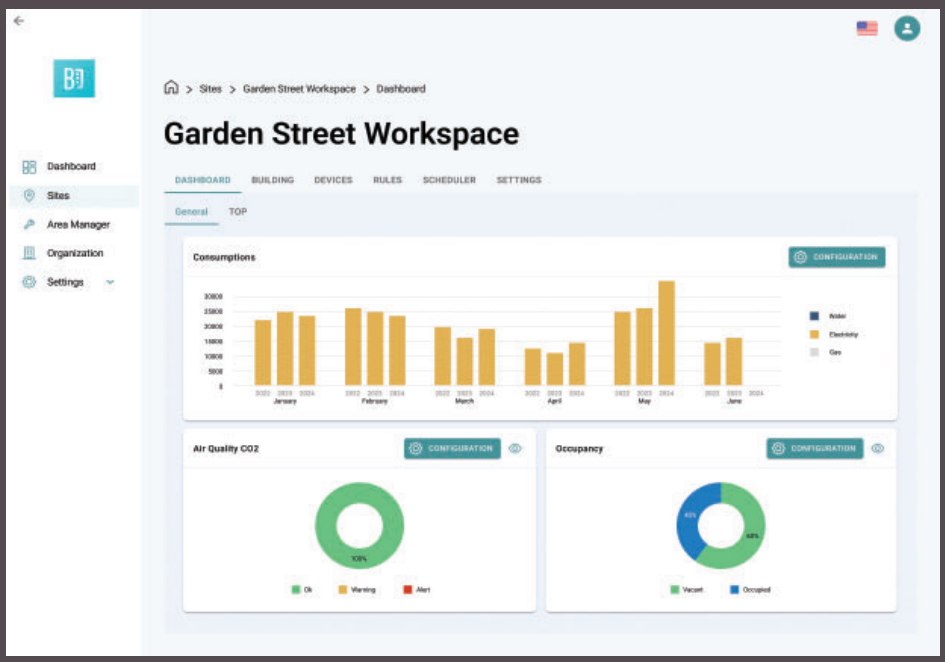
Through the dashboard you can keep the system under control, always having data and information available which can also be stored over time. Collectible information and data can be made on two levels: at the environment level (room data) or at the measurement level (metering data). Such storable information and data are:

- **Room Data**
  - People presence
  - People counting (N° of people in the room)
  - Air quality (COV)
  - Air quality (estimated CO2)
  - Temperature
  - Humidity
- **Metering data**
  - Energy consumption
  - other electric quantities

EXPECTED FUNCTIONALITIES

Having data and information available allows you to act on the system in order to optimize consumption, increase people's well-being and reduce waste.
The data that can be stored at measurement level can relate to any alarms or alerts, reports or controls. Following the list of these functionalities:

- List the alerts expected
- List the data analytics report expected
- List the control expected



Zigbee wireless recommendation

To optimize the installation of an Area Manager with Zigbee products, it's important to choose the right locations. Positioning the Area Manager in central areas maximizes the Zigbee network coverage.
The range of Zigbee varies depending on the environment. It's crucial to avoid obstacles such as concrete walls or metal furniture, which can weaken the signal.
By utilizing the mesh network capability of Zigbee products, you can extend the range, as each powered product can act as a repeater.
Walls made of plaster or wood have minimal signal attenuation, unlike concrete or brick walls, which significantly reduce the range. Metal walls can almost entirely block the signal, requiring the use of repeaters, such as connected outlets, to bypass these obstacles.
Following these recommendations will optimize the performance and reliability of your Zigbee network, ensuring effective coverage and stable communication between products in your building.

Example of AUDIT configuration

AUDIT WEOZ PLANT				
Site information				
Name				
Address				
Contact				
New plants o retrofitting				
Type of building				
Surface				
Attach the floor plan of the building (if available with furnishings)				
If not available:				
N° of floors				
Rooms per floor				
INTERNET NETWORK				
Available	yes		no	
Standard/Corporate/4G-5G				
CONNECTION DEVICES				
WiFi/PoE				
LIGHTING MANAGEMENT DEVICES				
Is there an installed system?	yes		no	
If YES, it can be replaced				
If NO, it is needed/not needed	needed		not needed	
TECHNOLOGY? NUMBER OF SENSORS? FUNCTIONS?				
	ON/OFF	DALI/DALI2	DALI/DALI2 (3 zone)	OTHER
Smart relay	n°			
DIN contactor	n°			
Corridor: brightness and presence	n°	n°	n°	n°
Standard: Multisensor	n°	n°	n°	n°
Corridor: Multisensor	n°	n°	n°	n°
Standard: Advanced Multisensor	n°	n°	n°	n°
* Multi-sensors: in addition to brightness and presence, temperature, humidity, air quality and noise				
* Multisensors advance: in addition to all the multisensor detections, people counting				
HVAC DEVICES				
Is there an installed system?	yes		no	
Type	Split	Fancoil	Valve	Other
Brand - type				
N° of internal units				
Contact windows	Yes n°		no	
MEASUREMENT DEVICES				
Is there an installed system?	yes		no	
If exist, is it MODBUS?	yes		no	
If MODBUS: Brand and model				
I doesn't exist, is it needed/not needed ?	needed		not needed	
What we want to monitor --> Measure				
Single-phase	63A n°			
Three-phase	63A n°	125A n°	over 125A n°	
Is there space in the switchboard/panel?				
Other functions				
Circuit breaker tripped				
Light				
Output contacts				
Input pulse contacts**				
** or example for water/gas meters (not supplied by Legrand)				

Example of AUDIT configuration

GENERALES INFORMATIONS	TO FILL	OBSERVATION
Site name		
Address		
Contact on site		
Date of visit		
Year of construction		
Commercial activity		
Equipped with a heating system, or air conditioning system, combined or not with a ventilation system		
Site map available		
Usable power rating > 70 kw		
Usable rated power > 290kw		
Building floor area (m²)		
Number of buildings		
Number of floors		
Number of zones		
Number of spaces		
Energy sources used		
Presence of bms		
Regulatory constraints		
Networks & communications		
Internet on site		
4g box		
Existing vlan		
Occupant's need		
Thermal comfort		
Air quality		
Lighting management		
Energy reductions		
Energy metering		
Operator needs		
Supervision		
Regulation		
Energy metering		
Energy optimization		
Multi site management		
Access management (supervision)		

CONFIGURATION AND COMMISSIONING

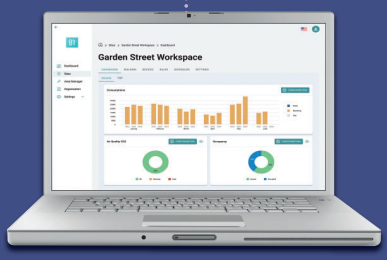
Commissioning & phases

For the proper commissioning of the Weoz system, leveraging the configuration tools provided, such as the BUILDING MANAGER PORTAL and BUILDING + MANAGER APP, it is essential to follow the six phases described below.

These phases ensure correct installation and configuration while meeting customer requirements.

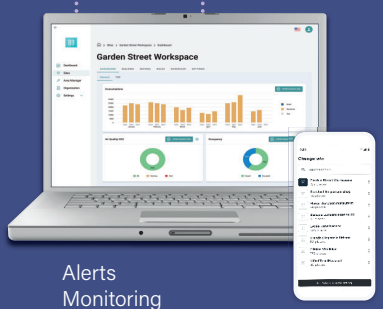
Detailed information can be found in the specific integrator manual, downloadable from **Legrand.com website.**

PHASE 1	**PHASE 2**	**PHASE 3**	**PHASE 4**	**PHASE 5**	**PHASE 6**
Creation of the virtual building site at office	Add area manager to the project	Installation and specific device settings	Pairing of the devices with APP Building+ Manager	Creation of rules	Exploit and use

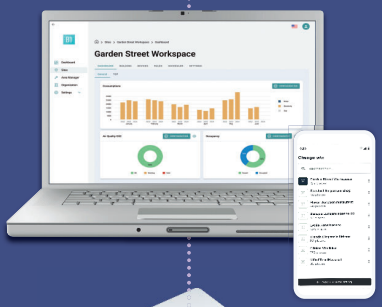


Definition of building
- floors
- specific areas
- rooms

For specific device settings are needed the dedicated tools (Close Up for Light up, ...)



Alerts
Monitoring
Data analysis
Rules activation



Foresee and add Area Manager and devices in the right location

Configure the Area Managers by ID or Scan QR code directly on the device

Different procedure for each device

Zigbee

Z-wave

RS485 Modbus

To access the BUILDING MANAGER PORTAL, type the address below.
Once connected, you can register for authentication with different profiles depending on your role (administrator, system integrator, user). Different and customizable functions are available for each of these profiles.

https://portal.buildingmanager.legrand.com

PHASE 1
Creation of the virtual building site at office

The Legrand portal allows you to manage various sites in a simple and intuitive way. During this phase, you define the building types and the number of floors (including basements and ground floors). This facilitates locating different rooms and connecting them to the Area Manager. Additionally, you can assign custom names to the floors or areas of the building.

PHASE 2
Add area manager to the project

In Phase 2, the appropriate number of Area Managers should be added based on the system characteristics, taking into account any specified limits. Each expected Area Manager must be properly configured with its own ID, which can be retrieved from the product itself for easy identification within the system. Alternatively, you can scan the QR code on the label of each individual Area Manager for automatic configuration with APP Building+ Manager.

PHASE 3
Installation and specific device settings

Each individual device or sensor planned for the system must be properly configured and set up to be recognized and managed by the Area Manager. The configuration process for each communicating device can vary depending on its type.
The **Light Up** sensors for lighting control must be configured using the specific **Close Up app**

PHASE 4
Pairing of the devices with the area mangers

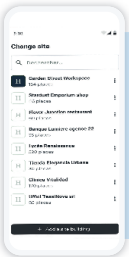
After configuration, individual devices and sensors must be associated with the designated areas in the system so that they can be recognized and managed. This can be done through the **BUILDING+MANAGER APP**. It is recommended to connect the Area Manager to the internet to update the firmware to the latest version available.
After adding Light UP sensors with the Building + manager app, you can add wireless batteryless switch and connected sockets linked directly to your sensor via the Close UP App.

PHASE 5
Creation of rules

In the final phase, you can create operational rules based on IF-Then logic. These rules allow you to manage the system to optimize energy consumption or comfort in the spaces. Additionally, they help handle any alarms triggered by abnormal operating conditions (such as window openings while the heating system is active). This way, customers can enhance their system efficiency and functionality. A rule model is a common model, which can be used and affected by more sites.

PHASE 6
Exploit and use

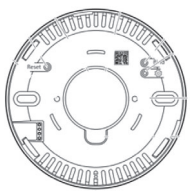
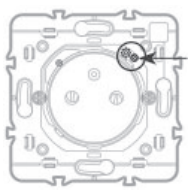
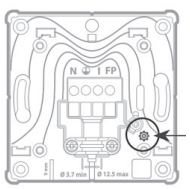
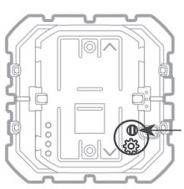
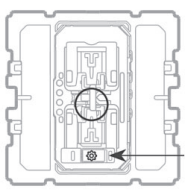
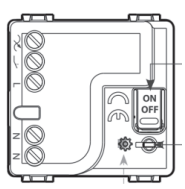
Exploitation and use is the last phase of the Legrand BMS system commissioning process.
In this phase the customer can get alerts, monitor, analyze data, enable-disable rules as needed.
All of this can be customized based on the registered access profile, which is different depending on whether you are an administrator, a system integrator or an end user. These functions can only be used if the user license (payment) is signed for each of the Area Managers installed.
Please remember that the license is only included for the first year, then if you want to use the functions you need to renew it at the costs established by your commercial network.



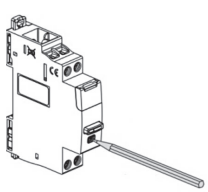
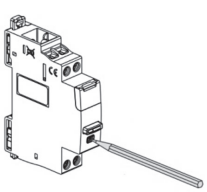
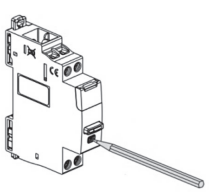
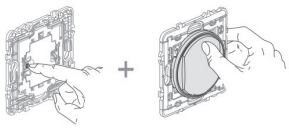
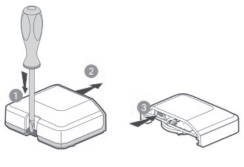
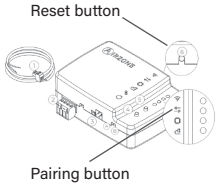
Download on App Store
GET IT ON Google Play

The BUILDING + MANAGER APP can be easily downloaded from the main stores such as Google Play and Apple store

Who to join the Zigbee or Z-wave network

BRAND	Legrand Group					
Family	Light Up	Connected				
Product	SENSORS	SOCKET	CABLE OUTLET	SHUTTER SWITCH WITH NEUTRAL	SWITCH WITH NEUTRAL	MICRO MODULE
"Device Model onPortal Building Manager"	"Legrand - ON-OFF OCCUPANCY DETECTOR Legrand - DALI OCCUPANCY DETECTOR Legrand - DALI OCCUPANCY DETECTOR (3 ZONES) Legrand - MULTI SENSOR Legrand - MULTI SENSOR (3 ZONES) Legrand - ADVANCED MULTI SENSOR Legrand - ADVANCED MULTI SENSOR (3 ZONES)"	Legrand - SOCKET OUTLET	Legrand - PLUG-IN OUTLET	Legrand - BLIND SWITCH	Legrand - SWITCH WITH / WITHOUT NEUTRAL	Legrand - LIGHTING MICRO MODULE
PROTOCOL	Zigbee 3.0					
Channel change	Automatic during pairing					
Link the product to the Area Manager network	"Start pairing on the App Building + Manager. Briefly push the ""configuration"" button on the product. The solid LED Magenta confirms the link. App Building + Manager confirms that the product has been added."					
Reset the product network	"Very long push on the ""reset"" button (over 5 seconds) The blinking red LED 5 seconds confirms the reset"	"Very long push on the configuration button (over 20 seconds) The steady red LED confirms the reset"				
Product picture						
"Pairing order (Only for adding product with Close Up App. Added product not managed by the BMS in this case)."	Pair the Light Up sensor to the Area Manager before adding the Green Power command or CONNECTED SOCKET on Close Up App.	Pair the Light Up sensor to the Area Manager before adding the CONNECTED SOCKET on Close Up App.				

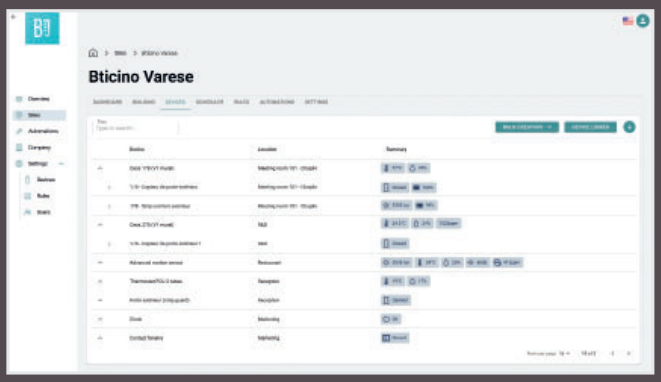
Legrand Group					Airzone
Drivia connected			Connected		Aidoo
CONTACTOR	ENERGY METER (SINGLE PHASE)	THREE-PHASES ENERGY METER	WIRELESS BATTERYLESS SWITCH	OPENING CONTACT	AIDOO XXX
Legrand - Connected contactor	Legrand - SINGLE PHASE ENERGY METER	Legrand - THREE PHASES ENERGY METER		Legrand - Opening contact	Aidoo Zwave

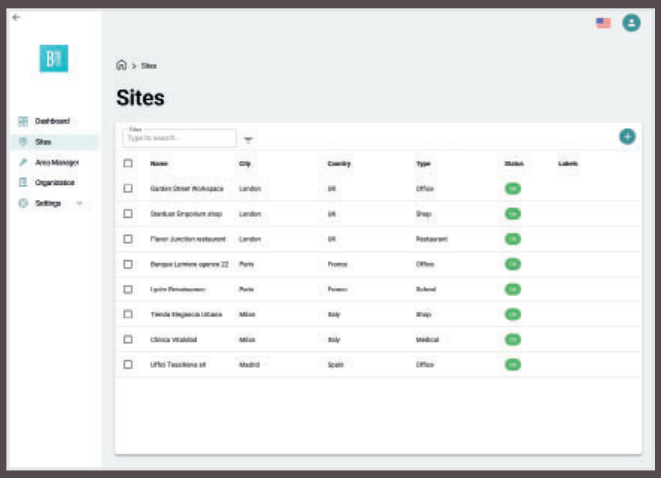
	Zigbee Green power		Z-wave
Automatic during pairing	While holding the «setup» button on the wireless, batteryless control, press the lower button on the wireless batteryless control for 5 seconds. Details and order of channel changes : (FACTORY : 11) 15, 20, 25, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 24, 26, 11, 15, 20, ... Repeat the operation to change to another channel.	Hold the «setup» button for 4 seconds then release. The product is switched to the next channel. Details and order of channel changes : (FACTORY : 11) 26, 15, 20, 25, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 24, 11, 26, 15, 20,... Repeat the operation to change to another channel.	Not Concerned
"Start pairing on the App Building + Manager. Briefly push the ""configuration"" button on the product. The solid LED Magenta confirms the link. App Building + Manager confirms that the product has been added."	Pairing the Green power control to a Light UP sensor via Close UP App.	Start pairing on App Building + Manager. Press the «setup» button on the opening contact less than one seconde. App Building + Manager confirms that the product has been added.	Start pairing on App Building + Manager. If the Aidoo Z-Wave has not been included yet into the Z-Wave network, the LED «Network» will remain off. The procedure of inclusion is activated by pressing the Association Button (link logo) . As soon as the inclusion procedure is started, the LED will remain steady red until the device is included in the network. Once connected, the network LED lights up blue.
"Very long push on the configuration button (over 20 seconds) The steady red LED confirms the reset"	While holding the «setup» button on the wireless, batteryless control, press the UPPER button for 5 seconds. Check that your control is correctly reset by pressing «ON» and then «OFF»	Press the «setup» button for 7 secondes. The LED change orange to Red and turn Off. The product is reset.	Please use this procedure only when the network primary controller is missing or ortherwise inoperable. The Aidoo Z-Wave Plus can be reset to the original factory settings by long pressing over the Factoy Reset button until all of the front side LEDs light up for a second.
					
			Pair the lightup sensor to the Area Manager before adding the Green Power command on Close Up App.		

User experience and customization of widgets and views

The system integrator is considered the owner of the site and therefore enjoys privileges in managing the system. Among the facilities it has the possibility to keep the site ownership or transfer it to another system Integrator (or end user, facility manager...), consequently losing his administrator access to the site.

In addition it is possible to invite end users with limited access.





CUSTOMIZABLE WIDGET

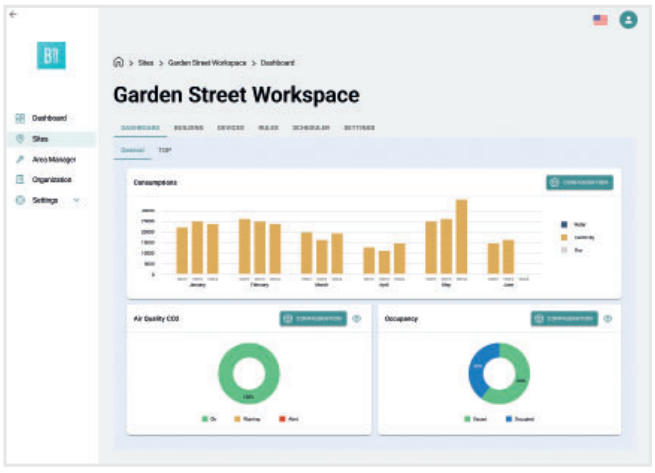
The first tab that appears in the site details is a customizable dashboard, on which it is possible to display different widgets.

Each user for each site therefore has its own dashboard, which can be organized into different sections according to relevant information depending on the operation.

The tab also allows to create profiles for users, as well as invite them to the site.

An operator will only have access to the site in reading mode. He will still be able to trigger the products but will not be able to modify the structure of the site.

By creating an operator profile, it is possible to limit the access to different widgets, reports and tasks.



It is possible to limit the detailed information on how to comply with the rules described in the commissioning phases is extensively covered in the dedicated integration manual.

NETWORK CONFIGURATION

How to install and configure the network

Power-over-Ethernet is now commonly used in the IT industry. Present in many applications, PoE is the preferred solution for powering the Area Manager.
The structured cabling system must be designed to ensure PoE Area Manager.

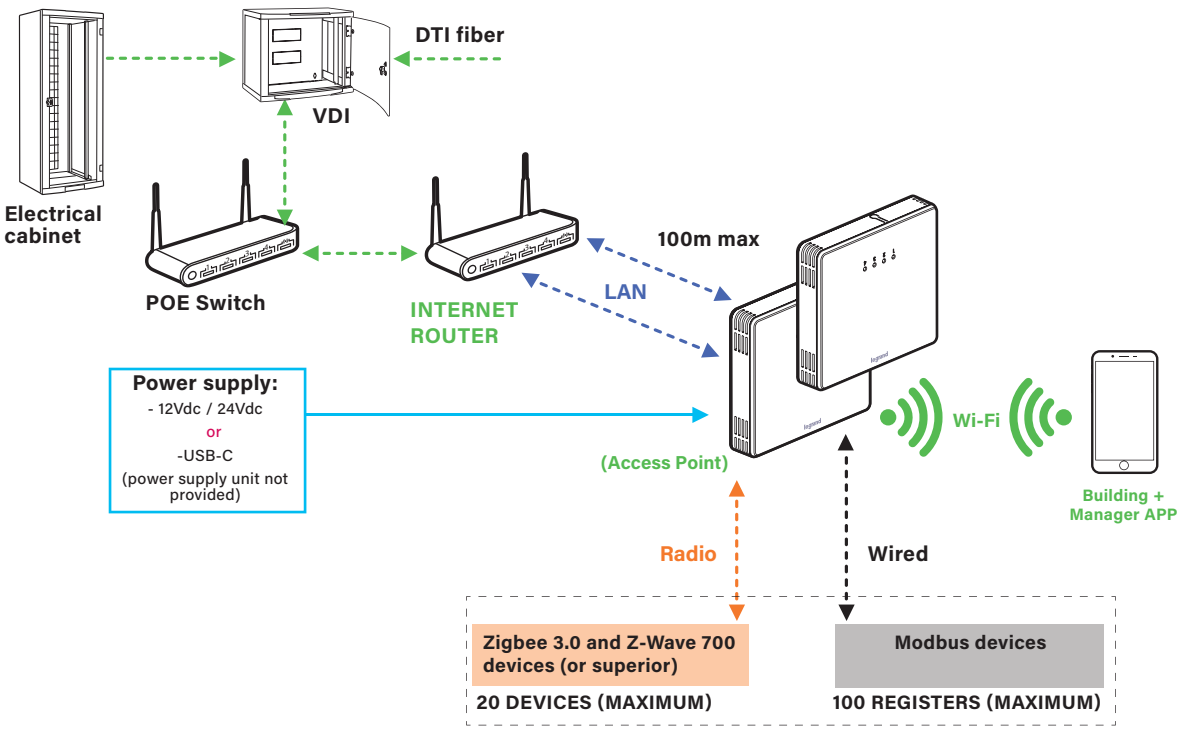
This includes the following requirements:

- Choice of PoE certified components
- Design of a solution to ensure system operation under PoE, including installation methods to limit heat and reduced distances to maintain performance at temperatures above 20°C.
- Guaranteed conformity to category RP3 according to ISO/IEC 14763-2.

INSTALLATION IN A SMALL NETWORK

For a correct configuration of a small Network follow these suggestions:

- Foresee an electrical box that will power the computer cabinet
- To increase the performances use fiber optic cable that goes to the computer cabinet
- Foresee the contents of the computer cabinet with its box and PoE injector
- The direct link max that ideally passes through a raised floor to arrive in a star configuration at the WEOZ should be less than 100m
- The various Area Managers should be placed on the ceiling (it is not possible to easily remove the RJ45 cable). The physical access to controllers and critical devices must be authorized personnel only.
- Configuration access via WiFi Acces Point as currently exists on Area Manager
- Connection to Legrand Building Manager portal with activated license (first year included with Area Manager)



INSTALLATION ON POE NETWORK CONFIGURABLE

TThe main characteristics for this application can be resume in:

- Verify the maximum distance between PoE switch and devices that must be 90m
- The various Area Managers should be placed on the ceiling (it is not possible to easily remove the RJ45 cable). The physical access to controllers and critical devices must be authorized personnel only.
- Configuration access via WiFi Acces Point as currently exists on Area Manager
- Connection to Legrand Building Manager portal with activated license (first year included with Area Manager)

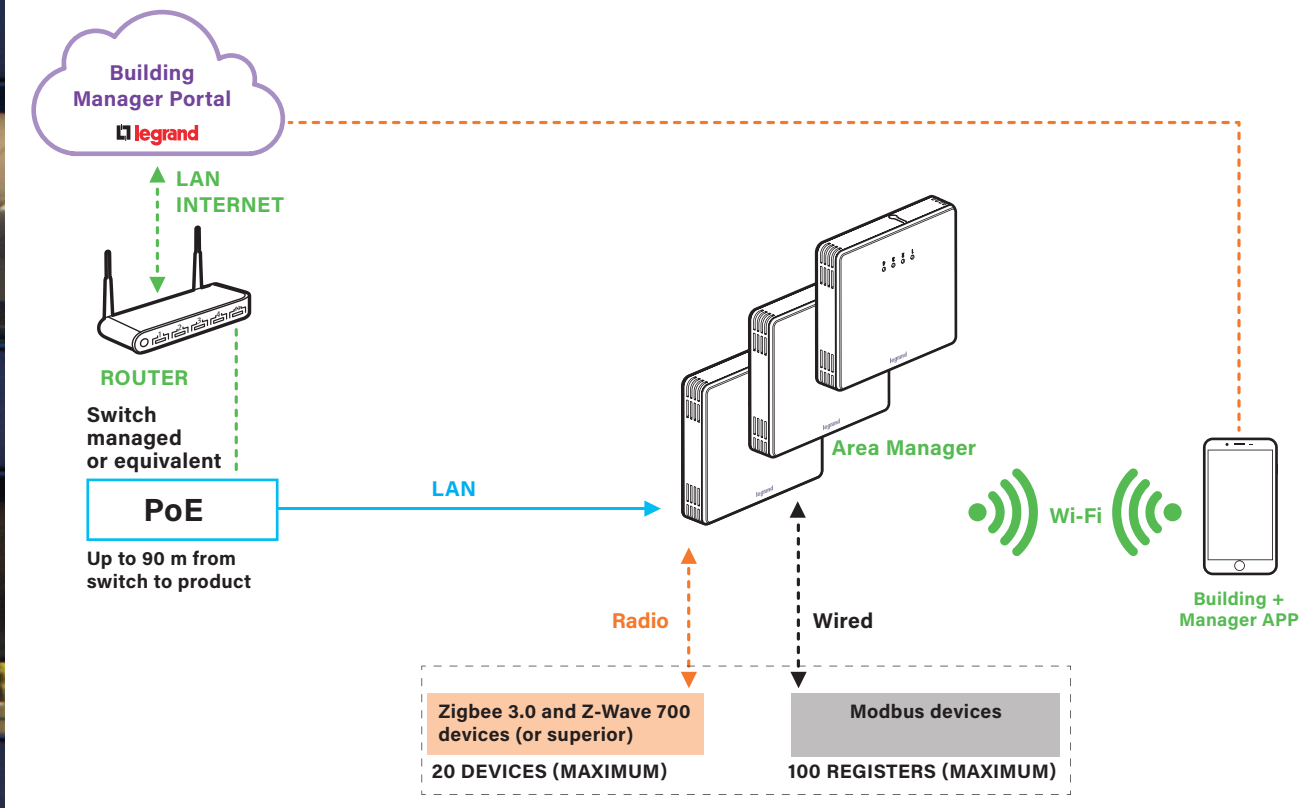
POE power supply

Power supply via Power over Ethernet (PoE) Class 1 (0.44 W to 3.94 W).

For each installation, it is essential to calculate the power capacity to determine the PoE power supplies.

The number of devices that can be connected to the PoE switch depends on the total power they absorb.

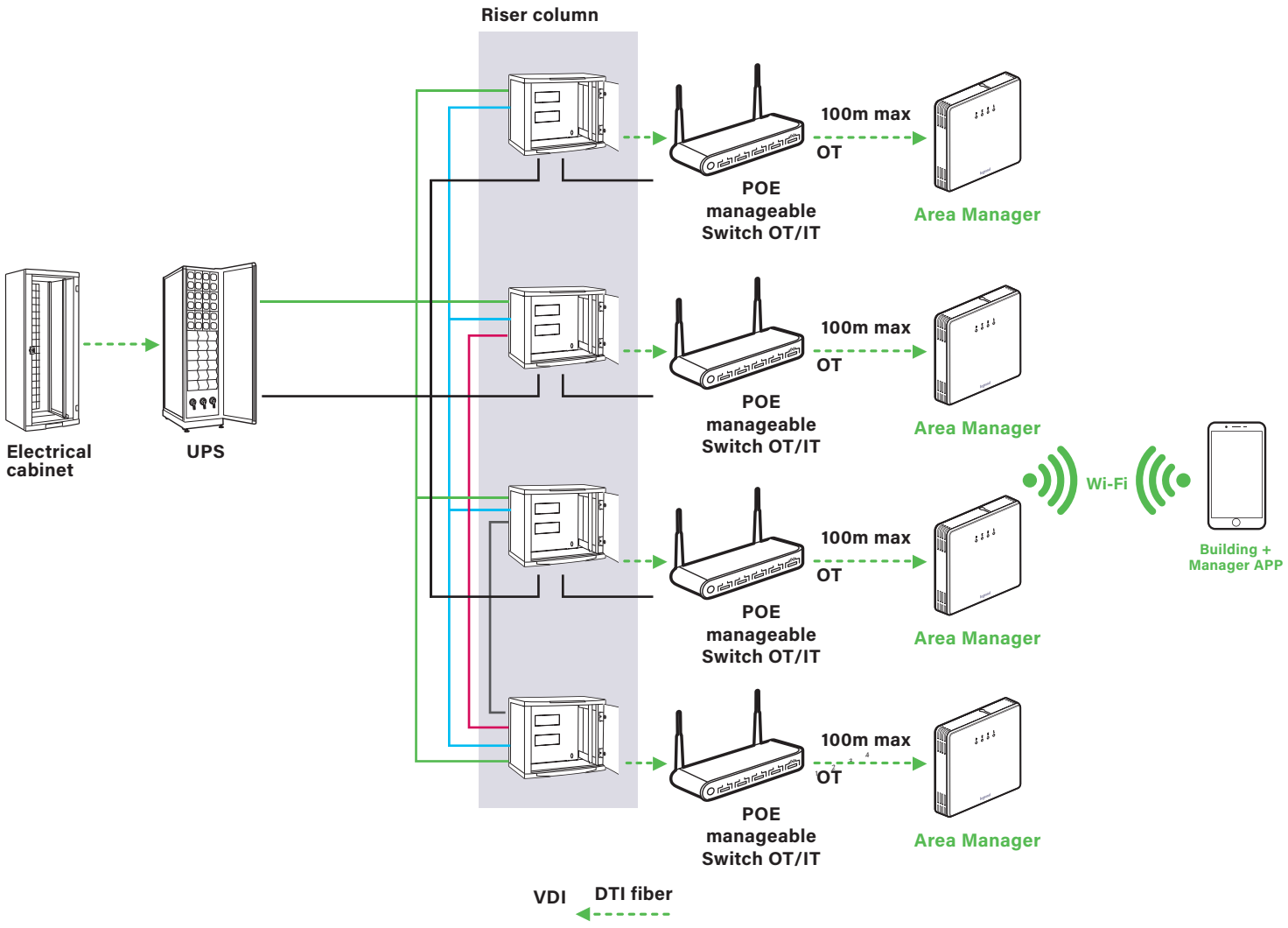
Once the installation has been completed, it is also necessary to check that the installation is working properly and that the power supplies are suitable for the limiting scenario considered during the study.



How to install and configure the network

INSTALLATION IN STRUCTURED CORPORATE NETWORK

- Low Voltage Board with its UPS equipment which supplies the VDI
The direct link max that ideally passes through a raised floor to arrive in a star configuration at the WEOZ should be less than 100m
- The various Area Managers should be placed on the ceiling (it is not possible to easily remove the RJ45 cable). The physical access to controllers and critical devices must be authorized personnel only.
- Configuration access via WiFi Acces Point as currently exists on Area Manager
- Connection to Legrand Building Manager portal with activated license (first year included with Area Manager)



PoE Guidelines

All products, designs and testing must comply with the ISO/IEC 11801 series and all associated standards.
The structured cabling solution must be designed and installed to provide the telecommunications infrastructure (patch panels, chassis, patch cords, cables, telecommunications plates and jacks) necessary to implement a telecommunication system on the premises. Uniform distribution to support required applications.

For cabling installation conforming to:

- **ISO/IEC 11801-2,**
- **ISO/IEC 11801-3,**
- **ISO/IEC 11801-4**
- **ISO/IEC 11801-6, the planning, installation and administration requirements of the category RP3 must be applied.**

Pre-installation of PoE
Wiring compliant with ISO/IEC 11801 series, and Category RP3.
Categories 5/6/7 Out of 5, 6, 6a.
Overview of PoE switch routers IEEE compliant. This ensures IEC 62368-3 compliance and therefore allows the circuit to be considered SELV.

GUIDELINES FOR POE SWITCH ROUTERS

PoE switches must be IEEE compliant.
This ensures IEC 62368-3 compliance and therefore allows the circuit to be considered SELV.

TROUBLESHOOTING

Perform testing in accordance with ISO/IEC 11801-1.
Submission of the Legrand PoE guide associated with ambient temperature assumptions can replace the PoE heating calculations in the as-built file.

TESTING CERTIFICATION ON SITE

Test equipment used for certification must comply with the following requirements:

- Complies with IEC 61935-1: Enables permanent link testing according to IEC 61935-1 and MPTL testing according to ISO/IEC 14763-4
- Use dedicated permanent link adapters for permanent link (PL) testing. (Channel adapters with cord are not accepted)
- Use dedicated adapters for MPTL testing, usually called “patch cord adapters”
- Enable verification of test results using dedicated, installed or cloud-based software.

SECURITY AND NETWORK GUIDELINES

The flow matrix specifies the network flows that the product uses to configure and operate the system.
This matrix lists all the paths through which data travels within a network and identifies all available avenues for data to move, ensuring maximum network security.

Flow type	Protocol	Port of destination	Source	Destination
Configuration	TCP	443	Client HTTPS	Area Manager
Exploitation	TCP	8883	Area Manager	Broker MQTTS
Exploitation	UDP	53	Area Manager	Server DNS
Exploitation	UDP	68	Area Manager	Server DHCP
Exploitation	TCP	22	Area Manager	Server SSH
Exploitation	UDP	123	Area Manager	Server NTP
Exploitation	UDP	5353	Area Manager	MDNS

Cyber security on several levels

Cyber security for the WEOZ system is one of the fundamental requirements for the efficient and safe management of your plant

Is the WEOZ system safe and protected against any threats coming from the Internet ? Is more than legitimate, but the answer is absolutely affirmative.

The WEOZ system guarantees the highest security standards against potential threats via the WEB, but to achieve this it is necessary to follow essential rules which we can summarize in 4 main areas

1 PHYSICAL

Physical segmentation : Mutualized network : Keeping the actual existing network.

It is mandatory to use a firewall qualified by the ANSSI in order to create partitioning zones and control their flows.
Depending on the environment in which the Firewall will be installed, it is recommended to choose a rugged model adapted to contexts (industrial, hospital, etc.).
For reasons of availability, it is recommended to favor a Firewall that supports redundancy of power supplies and if possible to set up a Firewall cluster. In the event of a breakdown of the master equipment, the slave will take over.
Firewalls are often integrated into the router, but functions are also covered by switches. Reach out to your CISO to identify the types of security controls your organization needs.
This equipment must be able to trace authorised and rejected flows. It is also recommended that these logs be transferred to a log well for analysis.

2 LOGICAL

Logical segmentation
Protecting all network access with firewalls is one of the most important and effective measures to strengthen IT security and block any attempts at illicit access.
The Firewall checks each received network packet before it is transferred, based on the sender/ destination address and the services used.
A more precise segmentation of the networks concerned makes it possible to further strengthen their security. This subdivision of the LAN at the switch level allows each of the subnets to be protected at its borders. This makes it possible to better limit the negative impact of virus-affected machines within the local network.
Network segmentation is a division of a large network into a smaller network. Each network corresponds to a grouping of equipment (e.g. file server) or business processes (e.g. production line, users, administrators, etc.).
This separation can be achieved by creating subnets (IP-level separation) or by creating Vlans (Switch-level separation).
All these networks are then connected to a central device that performs the filtering (firewall) between all these networks.
The firewall's role is to allow only legitimate flows between subnets. These flows will be defined by a source, recipient, protocol type, port/application IP address used.
In some cases, it may be necessary to access internal resources (trusted zone) from a risk area (internet). An intermediate zone called DMZ (De Militarized Zone) can be used. Only the services installed in this zone will be accessible from the outside and this zone will retrieve data from the internal zones.

3 ACCESS

Access switch port configuration (NAC):
Example of a request form for connecting IoT equipment for IT environments to the "LIGHTING CONTROL" VLAN
The switch whitelist ensures that only authenticated users and authorized devices that comply with security policies can enter the network VLAN: 10.2.142.0/25
- DHCP: 10.2.142.10 - 10.2.142.64
- BOOTP IP: 10.2.142.65 - 10.2.142.99
- STATIC IP (optional): 10.2.142.100 - 10.2.142.127

Port forwarding
In the scenario of a segmentation with a specific VLAN for the AREA MANAGER, it will be necessary to set up port forwarding at the switch level to allow broadcasting to the LIGHTING CONTROL, HVAC CONTROL and METERING VLANs.
Inter-vlan flows should be restricted as much as possible.

4 FILTERING

Filtering : flux matrix
It is recommended to allow only legitimate flows for the proper functioning of the Area Manager system.

Data encryption: SSL/TLS MQTT. Data encryption helps protect sensitive information in the event of a leak.

Cabling Guidelines

All cables dedicated to the PoE power supply of BMS IOT products must be compatible up to 90 W (IEEE 802.3 af, IEEE 802.3 at, IEEE 802.3 bt) and installed in accordance with ISO installation standards /IEC 14763-2 (final version) and/or EN 50174-2: 2018.

In order to simplify the calculation of the infrastructure while guaranteeing class RP3, Legrand has defined simple rules on a certain number of parameters: ambient temperature, beam type, distances, etc. The following table provides a summary of these simple rules.

Maximum ambient temperature around the cables	40°C
Maximum number of cables per bundle	24
Maximum number of beams	Depending on the type
Maximum Permanent Link Length	80 m
Maximum workspace cord length	5 m
Maximum equipment cord length	5 m
The specific conditions for external wiring are respected	
Specific identification for PoE is respected	

Poe Power Over Ethernet Simplify technical sheet	802.3bt							
	Type 3						Type 4	
	802.3at Type 2							
	802.3af Type 1							
Class of PSE (Power Sourcing Equipment)	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8
Maximum power at PSE (W)	4	7	15.4	30	45	60	75	90
Minimum power at PSE (W)	3.84	6.49	13	25.5	40	51	62	71.3
Number of pairs	2 pairs		2 or 4 pairs		4 pairs			

CATEGORIES OF CABLES

Under the specified conditions and when using Legrand cables, LCS^3 class E (Cat. 6) and class EA (Cat. 6A) cabling systems meet the RP3 requirements of standard ISO/IEC 14763-2 (and EN 50174-2) and therefore ensure Ethernet and PoE on 100% of installed links.

Class D (Cat. 5) is excluded from PoE recommendations because it generates significant losses in energy transport.

All cables dedicated to the PoE power supply of Area Managers products must be compatible up to 90 W

Infrastructure Guidelines

The infrastructure must be RP3 type for compliance with residential, commercial and industrial environments

The communications channel must be capable of supporting the delivery of electrical energy to terminal equipment. Therefore, the cabling system must be compatible with a series of standards, products and protocols, namely, at a minimum.

- IEEE 802.3 Power over Ethernet types 1 to 4 for power up to 90 W, ratified in the documents IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt.
- IEC 60512-99-001 Test program for connections and disconnections under electrical load (to verify PoE compliance up to 30 W).
- IEC 60512-99-002 Test program for uncoupling under electrical load (to verify PoE compliance up to 90 W).

The products must be installed by a qualified technician who complies stritcly with installation conditions, taking into account operating modes.

Governance and tooling

- **The correct management of a system created with the WEOZ system must consider two essential elements:**
- **Efficient control in processes**
- **Tooling**

PROCESS AND ORGANIZATION

Control in the process when connecting a new device.

Reccomendation:

- Implementation of qualification and validation steps in the process of a new request
- Validation to be done by a person with IT and security responsabilities
- Set up and integration check-list for the implementation of a new device

TOOLING

Appropriate tools are required to improve visibility of connected devices.

- Inventory devices
- Consolidated IP address management
- Monitoring (status, logs, alerts ...)

REGULAR SOFTWARE UPDATES

- In order to ensure a high level of defense, security measures must be checked at predefined maintenance intervals and with precise tests.
- All devices (computer, ..) and programs (malware protection software, ..) should be regularly updated with the latest versions available.
- Once the product is configured, all services, access, user accounts must be eliminated or/disabled.

Be careful, it may happen that some saved data turns out to be unusable after an incident.

Legrand regularly updates the software of its products.All products, including those already available on the market, are subject to updates. These updates, which are automatic and free of charge, ensure that Legrand users benefit from the latest security technologies.
Legrand works alongside trusted partners: Legrand also requires the same level of commitment from its partners in terms of security and certification. All these aspects are carefully studied by dedicated teams during the product development and control processes.

The Area Manager does not internally support the logging protocol, this logging is done at the level of the Legrand WEB portal «PORTAL BUILDING MANAGER

USER TRAINING: TRAINING USERS ON GOOD SECURITY PRACTICES IS ESSENTIAL TO PREVENT HUMAN ERROR.

The roles of the various stakeholders must be set up in the following diagram:
The network manager plays a central role in this process and has global visibility into the network architecture and local user and project requirements. It acts as a first level of validation on the request and ensures that:
The application is complete with all required elements
The technical specifications are technically feasible
The safety officer is responsible for assessing the security of the application. For the safety assessment, two types of risks are taken into account: existing risks and new risks that would be introduced by the change.

After each intervention (installation, configuration or removal), it is necessary to update the mapping tool. This makes it possible to trace:

- The reason for the intervention (e.g. IP change of a server, etc.)
- Installed software versions
- Date and who intervened

Authentication by Legrand account

Configuration via the customer's smartphone
During the initialization phase of the Area Manager device, it is necessary to use a mobile device to associate the devices with a WEOZ project. This association is carried out by a Wifi connection. It is recommended that you use a customer-managed mobile device. This recommendation avoids using the provider's uncontrolled mobile equipment. In this way, the customer will retain control of the mobile device.

INSTALLATION

How chose the right lighting sensor

Light Up sensors can be classified in 3 different type, according to the area concerned and the type of detection:

Motion sensors

These sensors are particularly suitable for areas where there is no natural light, and for passageways such as bathrooms, corridors, equipment rooms, etc.

- For areas with little or no natural light.
- For passageways.
- Automatic switch-on according to whether or not there is motion and low light level, automatic switch-off after the delay.

Lighting management sensors

- For areas with natural light.
- For work areas and passageways.
- Manual or automatic switch-on and automatic switch-off, according to whether or not there is anyone present and the natural light level.
- Can be adjusted using configuration tool.

Presence sensors

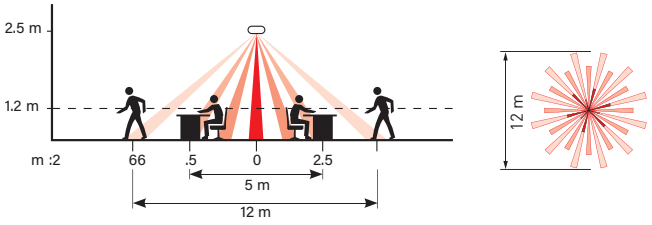
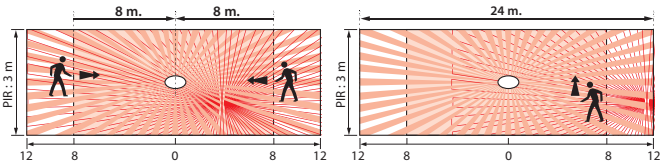
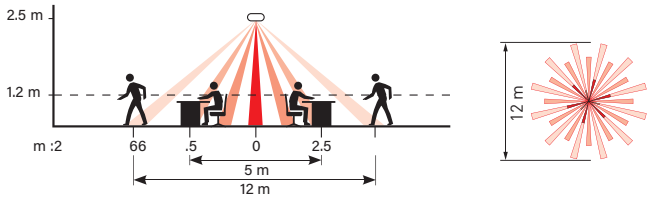
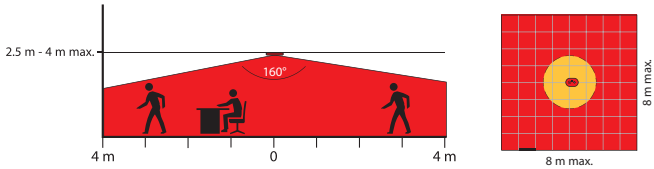
These sensors are particularly suitable for areas with natural light, whatever the type of building: shops, offices, healthcare buildings, recreation areas, warehouses or workshops, etc.
The sensors have built-in adjustable lux sensors:

- lighting Management sensors will keep the lighting switched off if there is sufficient natural light
- lighting Management sensors associated with room controllers will dim automatically while maintaining a pre-set lux level according to natural daylight.

1 DETECTION TECHNOLOGY

Passive infrared (PIR) technology

Passive infrared technology detects occupancy by reacting to infrared energy sources, such as a human body in motion.

Item	Installation type technology	Range	Detection area	Degree protection	Examples of application
 0 485 51/52/55		12 m		IP 20 IP 20	Corridor, stairways, restrooms, underground car park, etc.
 0 485 53/54/56		24 m		IP 20	Corridor, stairways, restrooms, underground car park, etc.
 0 485 71/73		12 m		IP 20	Corridor, stairways, restrooms etc.
 0 485 72/74		8 m		IP 20	Corridor, stairways, restrooms, utility room

OCCUPANCY MODE (AUTO ON/OFF)

Sensors will switch on lighting automatically when a person enters the room, and switch lighting off automatically when no movement is detected.

Application:
Energy saving and cost effective, can be used instead of a conventional switch.

VACANCY MODE (MANUAL ON/AUTO OFF)

Upon entering the room the person switches on the light as normal, but on leaving the sensor switches off the lighting automatically. Lights can also be switched off manually.

Application:
Commonly used for improved energy saving and to comply with regulations.

2 VACANCY/OCCUPANCY MODE SELECTION

Most Legrand sensors can work using occupancy mode (by default) or vacancy mode.

Occupancy mode (presence mode) means that lights are automatically switched on or off according to occupancy.

Vacancy mode (absence mode) means that lights are manually switched on and automatically switched off according to vacancy.
Vacancy mode offers extra energy savings (up to 15 % more than occupancy mode)

ON/OFF detector

- Switching on by means of presence detection and minimum level sensing (in lux)
- Delay time function
- Presence detection switching
- Absence detection switching
- Programmable via configuration Gateway and SmartBeam app
- Adjustable detection sensitivity
- On/off override via optional Infrared handset
- Manual on/off override via switch input.

DALI detector

- Switching on by means of presence detection and minimum level sensing (in lux)
- Delay time function
- Presence detection switching
- Absence detection switching
- Adjustable detection sensitivity
- Manual on/off override via switch input.
- Dimming functionality
- Maintained illuminance (daylight harvesting)
- Burn-in feature for fluorescent tubes
- DALI 2 broadcast and multicast depending on product
- Suitable for all lighting types
- Manual dimming with infrared
- Manual dimming with switch inputs for traditional pushbutton

Guide for Light Up sensors installation

The following section explains and illustrates the general rules for installation and operation of the Light Up sensors.
The Light Up occupancy detectors can be used to control the lighting in a room while maintaining predetermined levels of brightness.
They can operate alone and/or in addition to:

- a wired control for manual override
- a wireless, batteryless control for manual override
- a connected outlet to power plugged devices only when someone is present

	Description	Item code	Tecnology					
	ON/OFF detector	**0 485 51**		•	•			
	DALI detector - 1 zone	**0 485 52**		•		•		
	DALI detector - 3 zones	**0 485 55**		•		•		
	Corridor detector ON/OFF	**0 485 53**		•	•			
	Corridor DALI detector - 1 zone	**0 485 54**		•		•		
	Corridor DALI detector - 3 zones	**0 485 56**		•		•		
	Multisensor DALI detector - 1 zone	**0 485 71**		•	•	•		•
	Multisensor DALI detector - 3 zones	**0 485 73**		•	•	•		•
	Advanced multisensor DALI detector - 1 zone	**0 485 72**		•	•	•	•	•
	Advanced multisensor DALI detector - 1 zone	**0 485 74**		•	•	•	•	•

PIR

Thermal image sensor

LIGHTING CONTROL

ON/OFF

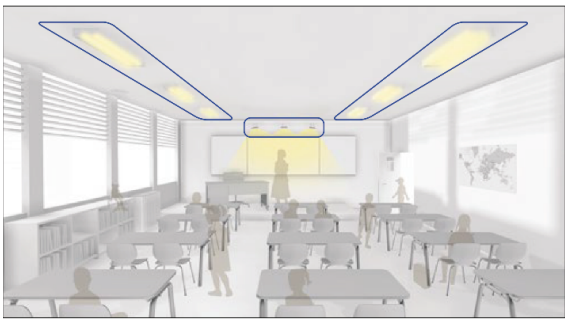
ON/OFF DIMMING

PEOPLE COUNTING

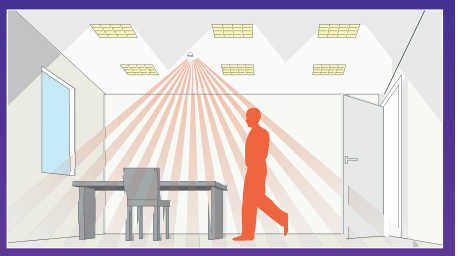
ENVIRONMENTAL DATA COLLECTION (Temperature, humidity, sound, air quality)

The Light Up DALI - 3 zone detectors enable the control of 3 lighting zones:

- dimming on the window side
- dimming on the corridor side
- ON/OFF on the board side

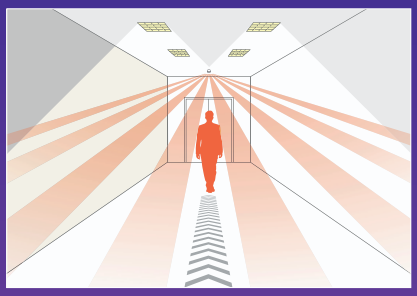


PIR SENSORS INSTALLATION



PIR (PASSIVE INFRARED) SENSORS: PIR sensors work on detecting the movement of body heat. They are better suited to smaller spaces or where a defined detection pattern is required.

FRONTAL AND TRANSVERSAL APPROACH (PIR SENSORS)

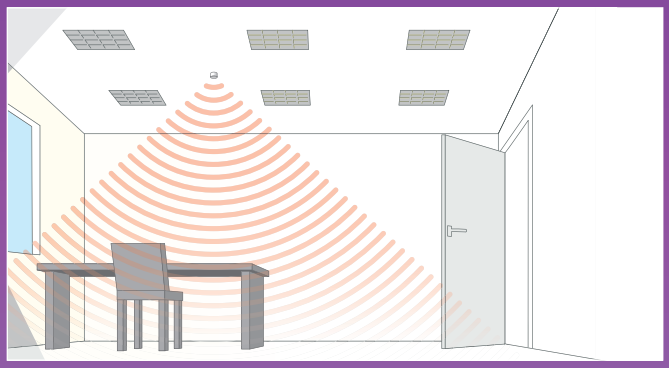


WALK TOWARDS: the detection of a PIR sensor may be less reactive in this direction, as it is possible to move towards the detector without a transversal movement (which is required for detection).

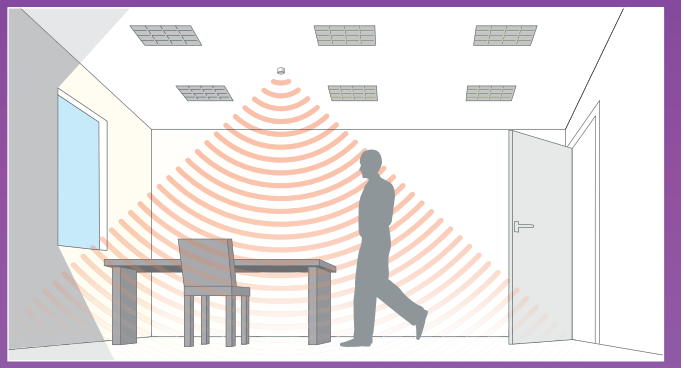
WALK ACROSS: the detection area of a PIR sensor results in a rapid detection because multiple sectors are crossed quickly triggering the sensor.

ON-OFF AND DALI BROADCAST

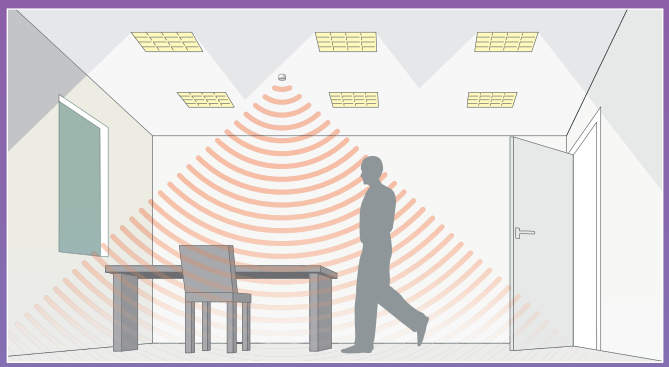
Switching on by means of presence detection and minimum level sensing (in lux)



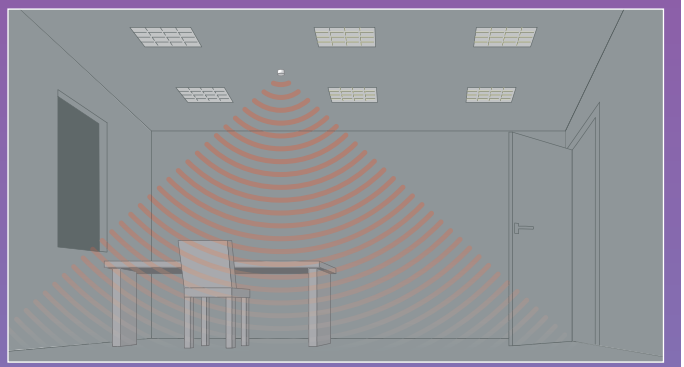
1 No presence detected, daylight, lights off.



2 Presence detected, sufficient daylight, lights off.



3 Presence detected, insufficient daylight, all lights on. For DALI version: Presence detected, insufficient daylight, lights on and dimmed to maintain lux level depending on the level of natural light.



4 No presence detected, insufficient daylight, lights off.

Sensors positioning

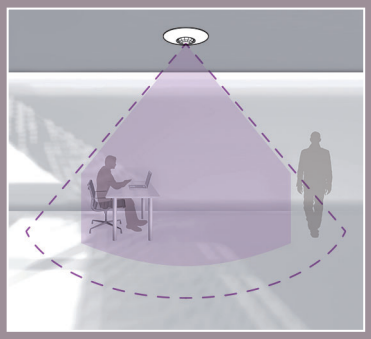
Whether it is a matter of work areas or passageways, the presence sensors must be chosen and positioned in line with the following recommendations:

1 WORK AREAS

These are areas in which people spend time, such as individual or open plan offices, meeting rooms, classrooms, etc.

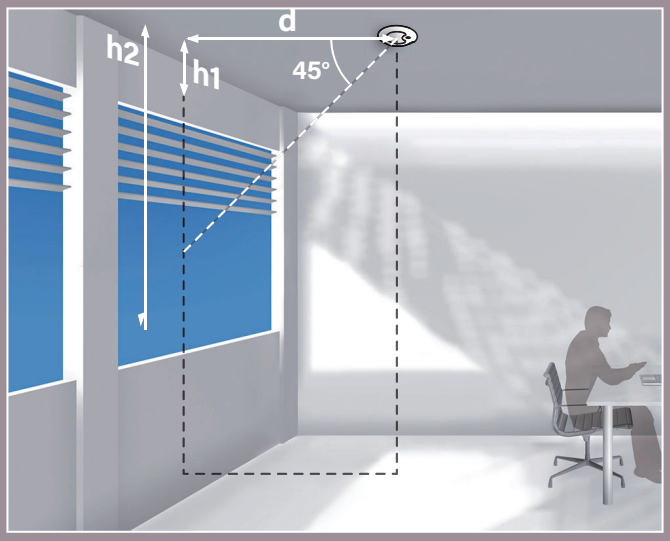
Positioning

For optimum detection, the sensor must have an unobstructed view (no obstacles in the sensor's detection field).



People who are seated must be completely within the area to be monitored, and preferably as close as possible to the sensor (the detection area for seated people is much smaller than that for people who are moving around).

In small spaces preference should be given to wall-mounted sensors placed in a corner. In large, open plan offices preference should be given to ceiling sensors (with their detection areas overlapping).



For optimum light level measurement, the sensor must be positioned between a minimum distance (to be determined) and 4 metres maximum from the source of natural light (large or small window, etc.). The ideal distance is calculated using the formula **d= (h1+h2)/2)**.

2 PASSAGEWAYS

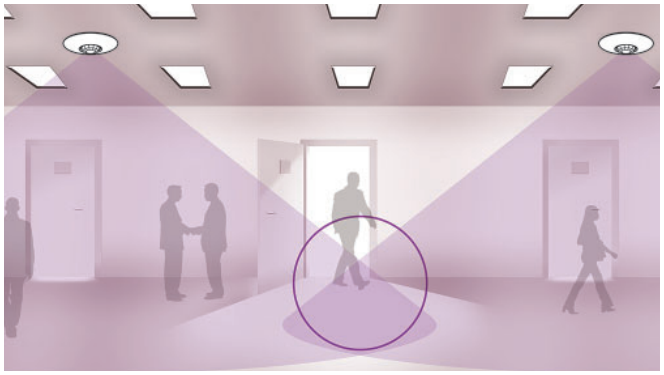
These are areas in which people "move around", such as corridors, halls, stairways, archive areas, toilets, etc.

Positioning

For optimum detection, the sensor must have an unobstructed view (no obstacles in the sensor's detection field).

The following types of presence sensor can be used:

- for wall mounting, with an 180° detection area
- for ceiling mounting, with long range detection areas.



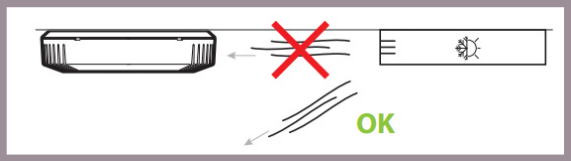
The detection areas in horizontal or vertical spaces where people move around must overlap, to avoid any blind spots.

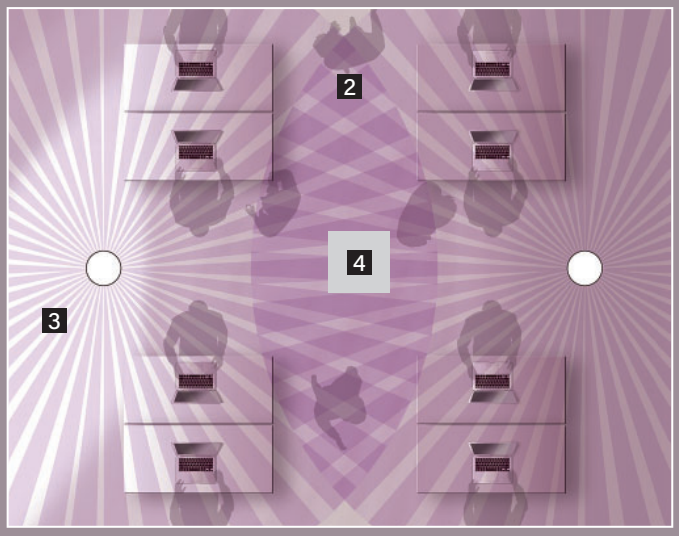
The transverse detection performance is more important than the radial performance.

Recommendations

The sensors must not:

- be positioned less than 1 m from sources of heat or cold (radiators, air conditioning units, etc.) which could cause “false detection”
- have a luminous flux (luminaire, window) in direct view, to ensure correct measurement of the light level.





1 Seated person
2 Moving person
3 Window
4 Air conditioning unit

HD

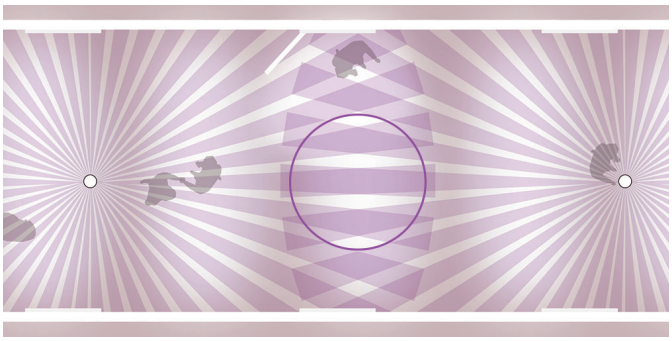
PIR high density detection is able to detect the slightest move also and it is adapted for working areas. PIR can be suitable where a defined detection pattern is required.

- Do not site in places where the temperature of the ambient air is similar to that of the human body.
- Do not install IR sensors in area in which objects, furnitures or walls break the signal.

Recommendations

Access points (doors) must be fully covered by the detection areas.

The sensors must not have any luminous flux (luminaire, window) in direct view, to ensure correct measurement of the light level.



- **PIR detection** should be given preference. It provides good detection performance for people moving around, with a long detection range.
- Do not site in places where the temperature of the ambiant air is similar to that of the human body
- Do not install IR sensors in area in which objects, furnitures or walls break the signal
- Do not install in area where the occupants move around very little

Light Up sensors configuration

Light Up sensors have been designed to make the work easy at every turn.
Quick and flexible installation through BLE communication, and smart and easy configuration are proof.

BLUETOOTH SET-UP

No need for a configuration platform. Set up sensors directly on smartphone. All you need is an updated version of your Close Up App and a bluetooth connection.

SWITCH-OUTLET APPLICATION

To avoid additional wiring, Light Up sensors can be associated with wireless, batteryless switches on a glass wall. Sensors can also be paired with control connected outlets to switch off stand-by equipment when everyone has left the premises.

green power

Arteor, Céliane, Mosaic, Dooxie, Valena Next


RULES
MANAGEMENT

Rules management

Through the Weoz portal (dashboard) it is possible to define specific rules, which allow the sending of any reports and alarms that allow immediate intervention by the user, for the possible resolution of the problem.

To set the specific rules it is necessary to respect the simple rules described below and detailed in the specific integrator manual.

CREATING A RULES TEMPLATE

A rules template is a common template, which can be used and assigned to several sites. To access it, simply go from the main menu of the integrator area. Here we find all the models that you will have created and which will be usable on the different customer sites.
This is your rule library. Click on + at the top right of the screen to create a new template.

A creation pop-up opens, allowing you to:

1. Enter the name of the model
2. Write a description
3. Define the logic of the rule.

The name will be modified later when assigned to the site, so it is advisable to be as generic as possible. When assigning to a site, is possible personalize the name of the rule which will make it easier to identify the location where the rule will be applied.

THE STRUCTURE IN GENERAL

The structure is defined by a succession of conditions, followed by a succession of commands to be triggered if the conditions are true.
At the condition level, we have the possibility to :

- Pass the conditions in "AND" (all the conditions must be true),
- Pass the conditions in "OR" (only one condition must be true),
- Add/delete conditions,
- Add subconditions,
- Raise or lower the conditions to modify the logical order (hierarchization).

By clicking on the condition or sub-condition headers, is possible to modify the condition operator (AND/OR), at any level of the logical sequence hierarchy.

DEFINE THE OPERAND TYPE

Once the combinatorial logic is in place, a selection of operands and logical operators allows to set up different conditions to check.
We have the opportunity to work with:

- A product,
- A property of the location,
- A notion of date and time,
- A personalized function,

DEFINE THE OPERATOR

Once the first "operand" has been chosen, click on "Select an operator" to choose the comparator:

▪ Classic operators

We can choose from the list the different classic logical operators:

- Equal, or different,
- Superior or inferior,
- Classic operators
- Greater than or equal,
- Less than or equal.

For each of the classic operators, additional options will allow you to include a certain notion of time. The "Included past" option: Allows to check if the condition has been true for the last x seconds. The "Minimum validity period" is an option: that allows to check if the product value has remained the same for x seconds.

▪ Specific operators

We can also choose 2 more specific notions:

1 - That is to say check if a property has changed at least N times in the last x seconds / hours selected.

2 - Modified maximum N times:

That is, check if a property has changed at most N times in the last x selected seconds/hours.

TRIGGERING COMMANDS

- Trigger a product,
- Store the value of a product,
- Send user reports,
- Block/unblock one or more rules.

Rule execution management

As soon as the conditions of the rule are met, it changes to "triggered" status.
3 options are possible:

- The command is directly executed (delays at 0),
- The command is executed with a delay in seconds defined in the model (delay different from 0),
- The command repeats as long as the rule is triggered/true ("repeat" box checked).

Commands are executed only once and will be re-executed when the rule conditions return to "false" and then back to "true".
If the "Repeat device trigger" box is checked, commands will be executed several times.

Product trigger

The "Trigger a product" command allows you to select any controllable property of the ecosystem (switch, HVAC mode, set point, ventilation speed, flag, etc.) and change its state. Once selected, you must:

- Define the type of object (HVAC Mode, switch, etc.),
- Define the action (depending on the type of object, this will be for example a set Mode, switch ON/OFF, etc.),
- Set the value (ON, OFF, Cooling Heating... This will depend on the type of object and the selected action),

Value storage

The value storage command allows you to store the state of a product, in particular in order to restore it at the desired time, for example when you want to turn off the HVAC system if windows are open. Before turning off the HVAC, we will remember the mode it was in so that we can restore it when the windows are closed. Once the value storage command is selected, simply:

- Define the type of object (HVAC Mode, switch, etc.),
- Define the action, store or restore,
- Define the delay option if necessary,
- Confirm the mail report

Report

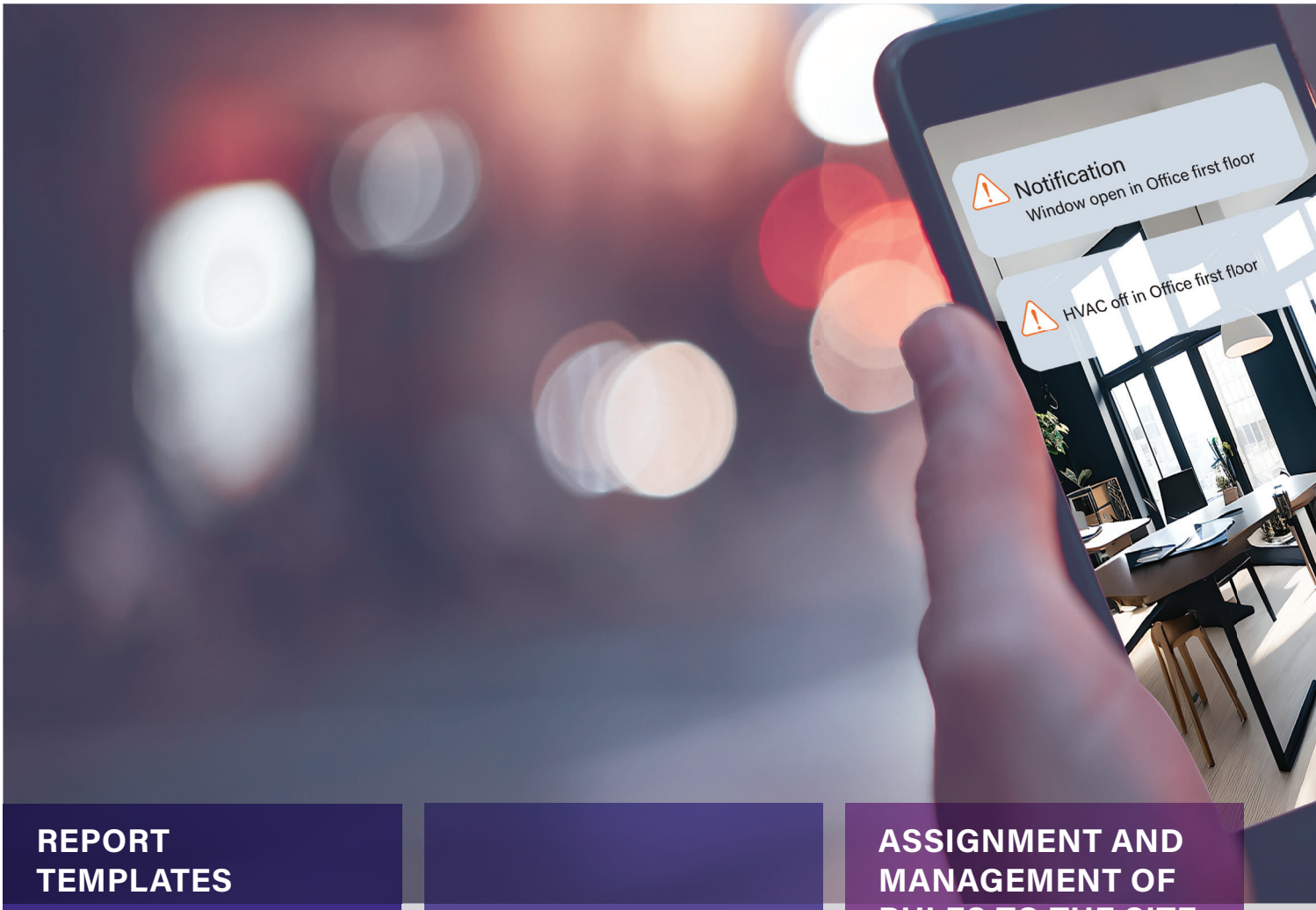
The report command will allow you to send a customizable user report template which will be visible on the mobile application or to be alerted by email as needed.
Once the report command has been selected, simply:

- Select the report model,
- Define the delay option if necessary.

Rule blocking

The Rule Blocking command allows you to "block" and "unblock" a rule according to certain conditions that have been previously defined.

- Action: Block and Unblock,
- For: blocking/unblocking time.



REPORT TEMPLATES

In order to use report templates in the rules, you must first create a report template.

User report templates allow you to create customizable message bodies that will be sent to the Building + Manager mobile application and by email. Confirm the mail report

Through this screen, you can give a name, a priority index, define variables which will take the name of the product or location concerned by the alert, and define the body of the message with a multi-language option:

You should know that you can create a general message but, depending on the linked site, will take into account the name of the correct product as well as the location.

To do this, simply:

- Click on + the at Variables level,
- Define the Type: Product or Location,
- Define the Name of the variable,
- Define the Name displayed when you want to assign the rule to a site,
- In the message body, write the following syntax: {{Variable name. name}} or here in the example, sensor concerned:{{device.name}}.

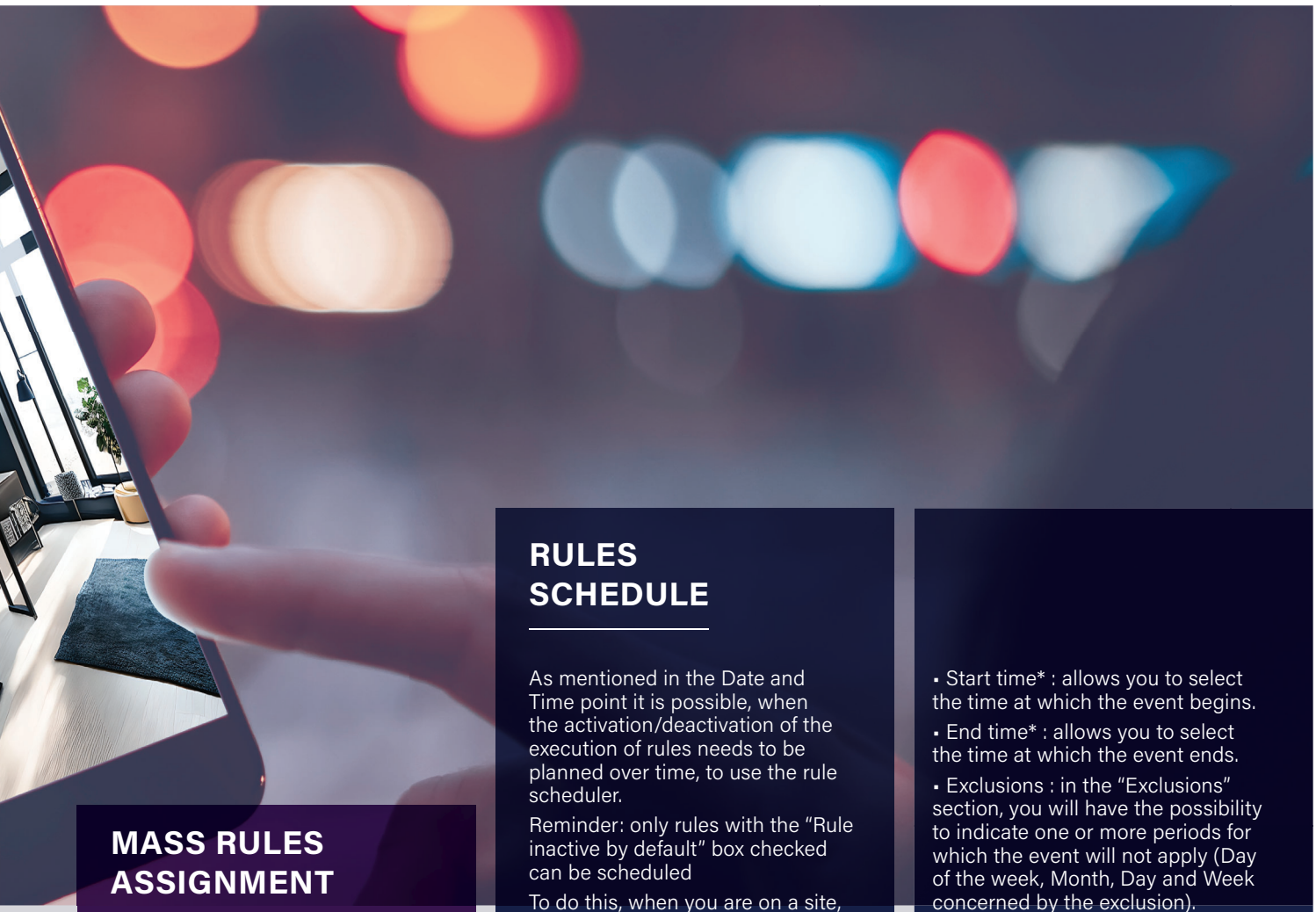
This will allow, depending on the site, to have the correct name of the product.

ASSIGNMENT AND MANAGEMENT OF RULES TO THE SITE

To assign a rule defined in our library to a particular site

This is where we can:

- View the different rules associated with the site,
- View which Area Manager the rule is associated with,
- Manage their ON or OFF status
- Add new ones by clicking on • Find out the details by clicking on the desired line (History of rule activity),
- Edit an existing rule by accessing its details.



MASS RULES ASSIGNMENT

It is possible to mass assign one or more rule models to one or more Area Managers.

RULES SCHEDULE

As mentioned in the Date and Time point it is possible, when the activation/deactivation of the execution of rules needs to be planned over time, to use the rule scheduler.

Reminder: only rules with the "Rule inactive by default" box checked can be scheduled

To do this, when you are on a site, click on the tab to create the events in order to schedule the activation and/or deactivation of a rule by clicking on.

You will need to fill in the following fields (only fields containing:

- Name* : name of the event,
- Day of the week : allows you to select the days on which the event is applicable,
- Month : allows you to select the months to which the event is applicable
- Day : allows you to select the number of days on which the event is applicable,
- Week : allows you to select the number of weeks to which the event is applicable,
- Start date* : allows you to select the start day of the event,
- End date : allows you to select the end day of the event.
- Start time* : allows you to select the time at which the event begins.
- End time* : allows you to select the time at which the event ends.
- Exclusions : in the "Exclusions" section, you will have the possibility to indicate one or more periods for which the event will not apply (Day of the week, Month, Day and Week concerned by the exclusion).
- Rules : allows you to select the rules that will be activated and/or deactivated during the period of the created event.

Once finished, is necessary validate the rule schedule.

Planned events will then appear in the events banner as well as in the calendar view. Planned events can be modified, duplicated and deleted.

When a rule has been triggered (here the air conditioning was cut off when the window was opened), information on the last execution of the rule will be displayed, as well as the history of its execution.

You will also find this information in the properties of products that have been triggered by a rule, as opposed to manual triggering.


DASHBOARDS

Use of dashboard and configuration

For the management of the Weoz system, a dashboard accessible from the BMS portal has been designed which allows you to configure your system in a simple and intuitive way.

It is possible to configure the types of systems, environments, individual devices, up to the types of users with different profiles, from a PC. Through the dashboard it is also possible to create specific rules of use which can help to maintain greater control of the system to make it more efficient.

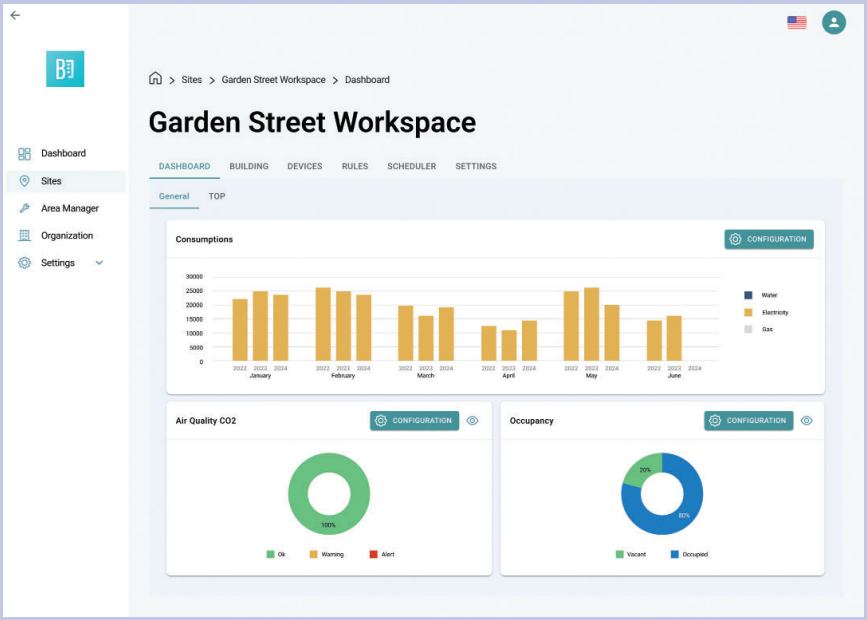
The main pillars on which the construction of the dashboard was based are 3: Know, Act and Alert

Know

Knowing in real time the status of the system and the devices installed in it is the first of the necessary conditions for a BMS system to be efficient.
Knowledge of historical data also allows analysis over time with consequent rethinking, modifications or implementations, aimed at improving overall efficiency or resolving any critical issues

Act

Acting means intervening quickly where the situation requires. Through the dashboard you can modify those operating parameters in such a way as to make the system efficient and avoid unnecessary waste of energy with the resulting costs.
The actions can also be of a preventive nature if you want to create automated operating rules such as those for regulating the temperatures of an environment in the presence or absence of people or brightness in the case of external brightness conditions



Alert

Abnormal operating conditions can be reported remotely on a smartphone so that you can intervene quickly to resolve problems. All this is possible by configuring the conditions of use for which you want to receive the various alarm signals via the dashboard.

Weoz system configuration by dashboard

By dashboard is possible to configure the system. In the following description are summarized the main functions configurable via dashboard. The configuration methods are fully described in the integration manual which can be downloaded from the Legrand website.

1 Creation of a site

The Building Manager portal allows you to manage multiple sites.
It is possible to create a new site, or add others.
For a correct configuration, the type of building and the number of levels (including basements and ground floors) must be defined. External spaces can be considered as levels or places.
For each of these spaces it will be necessary to assign customizable names according to needs. The last step in the configuration will be to indicate the actual physical location of your site (postal address).

IMPORTANT: providing site location information is an important step, especially for time zones. Area Managers connected to this site will synchronize with this time zone.

2 Dashboard management

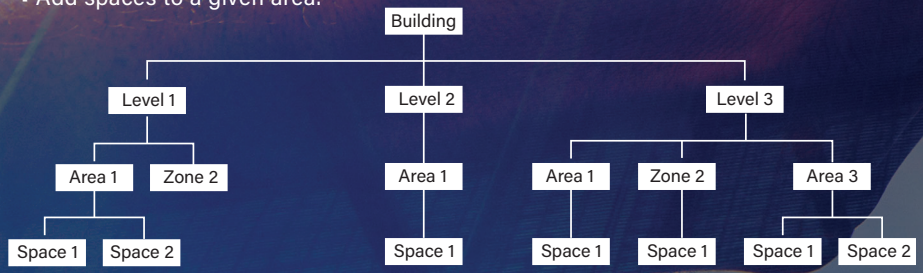
The Dashboard is customizable. Different widgets of the user's choice can be displayed. In this way each user, for each site, can have their own Dashboard, which can be organized into different sections based on the relevant information relating to their operation. These widgets can be added/removed or reordered at any time. Once you have created your widgets, you need to configure them.
The configuration will be specific to each widget.

3 Hierarchical structure of the building

Through the Dashboard it is possible to view and modify the hierarchical structure of our building. You can add locations to these levels, allowing you to create different spaces, meeting rooms and any components of the site to use.

Changing the building's hierarchical structure allows you to:

- Add zones to a certain level,
- Add spaces to a given area.



4 Area Manager declaration

Once the structure of the building has been defined, it will be possible to define the products that will be installed.
First of all, the Area Managers under whom the products will be attached must be defined.

For each Area Manager it will be necessary to define:

- Name (and identification number)
- The level and location or space of the Area Manager
- Indicate whether it is "waiting online" (deselect if the Area Manager will not be connected to the Cloud)

When the Area Manager appears in the list of products on the site you will be sure that the device is virtually present until it is physically connected and synchronized with the Building Manager portal.

All Area Managers natively incorporate this protocol, but it must be activated and configured based on the elements to be controlled. Modbus configuration can be done at any time.

In addition to wireless communication protocols, the Area Manager is also able to communicate via Modbus.

For this mode, new fields will appear inviting you to enter the different characteristics of the Modbus configuration.

5 Product declaration

For each Area Manager already declared it is possible to associate one or more devices.

The Dashboard also provides the possibility of creating a new product for another Area Manager.
For each of them it will be necessary will be defined:

- The property's display name (editable)
- The "Active" box: to possibly allow it to be deactivated in a system.
- A "Cache" box: allows you to avoid reporting information at room level, the property will be hidden but still usable at room level.

level of management rules

- The possibility of excluding it from the location property : preventing it from being included in the calculation of the average property of the location.

area

- Minimum difference threshold : allows you to limit the feedback of information, works in absolute value to limit the difference in temperature rise at 0.5 or 1°C for example, as well as in percentage
- for some Modbus meters it will be necessary to apply a modifier to display the value in the correct unit
- A "Cloud Storage" box : allows you to activate the saving of this data on the Cloud (future function)
- A "Modifier coefficient" box : allows you to carry out an operation to modify the value reported by the product.

We recommend keeping data useful for the proper functioning of your site (example: consumption, temperature).

In the list of available products, there are virtual products.

They allow different notions to be symbolized, configuration, and can be used as indicators, controllable through management rules, and make it possible to refine the behavior of a site or improve maintenance and comfort operations.

6 Status tracking rule

By accessing a product data sheet it is possible to create a master/slave (or Primary/Secondary) type relationship between two products. For example, define a master thermostat, which when one of its parameters is changed, "forces" this change to the slave thermostats that depend on it (e.g. its mode). You can create relationships between your installed products.

For this there are 2 possibilities.

- Choose the relationship type at the master product or slave product level.
- Select the properties that will be affected by the master/slave relationship.

7 Modification and deletion of products

To change the name or properties of a product, you need to access its details by clicking on the product name. In this way you will be able to:

- Enter the single product
- Edit general information
- Delete the product

8 Group creation

Through the Dashboard it is possible to create and manage the elements of a site in bulk, to optimize time by eliminating unnecessary procedural repetitions.

Weoz system configuration by dashboard

9 Area Manager group management

To manage a group of Area Manager using the specific grouping functions is necessary:

- Define the Area Manager model,
- Define the name you want to give to the Area Managers,
- Define the locations on which to create an Area Manager.

Two important options are possible:

- "Connect all devices in a location to the Area Manager of that location."
- By selecting this box it is possible to directly connect an Area Manager associated with a location and the products associated with this location.
- "Include all products from all sublocations."

By selecting this box it is possible to make the connection between the Area Manager of a location and the products associated with it spaces of the place in question.

10 Products group management

The bulk creation tool allows you to create several products in a single action having the same model multiple areas at the same time.
When you open the product creation tool, the single configuration will be applied to all selected areas. If the site has areas whose configuration is different from one to the other in terms of products, the creation will have to be done in several steps to cover all cases.

11 Location

You can create levels, zones, or spaces in groups.

To do this you need:

- define the typology of places
- define the zones and spaces,
- set the main position

12 Rules

It is possible to mass assign one or more rule models to one or more Area Managers. To do this is necessary:

- Select the rule templates to deploy and the Area Managers concerned
- Modify and personalize the rule name
- Make it Active by checking the box or inactive by leaving the box unchecked. If it is not checked, the rule is not active therefore does not react to conditions. It will then not be possible to associate it with a planner. This is useful if you want to do upstream programming without the rules being triggered.
- Make the rule "Inactive by default" by checking the box. When the Area Manager starts, it inhibits the rule so that it does not trigger even if the conditions are met, the goal being to then associate it with the planner who will make it operational.

You must:

1. Associate the Properties/Locations defined in the logic with the actual Properties/Locations of the site,
2. Associate the product defined in the order with the actual property on the site.

13 Group editing

The bulk editing tool allows you to apply changes in a single operation to different elements of the site. Bulk Editing allows you to modify:

- Area Manager (Name)
- Products (Name)
- Product properties (Name, Enabled, Hidden, Exclude from location property, Minimum difference threshold, Modifier, Local storage, Online storage),
- Locations (Name)
- Rules

14 Bulk deletion

The bulk delete tool allows you to delete several items of the same type in a single operation.

Once the window opens, select the type of element to delete (Area Manager, products, locations and rules). The system will not let you delete products that are paired to an Area Manager, or Area Managers that are linked.

You will first need to unpair or exclude them.

15 Group order

The groups (in general) can be ordered in very simple way. The user can decide the order that best suits him.

16 Product connection

This function allows you to associate products already created with an Area Manager.

When products are recreated in a space that does not have an Area Manager, they appear as “Unlinked Products”. Each of these can subsequently be associated with an Area Manager.

It will then be possible to connect or disconnect the products using the functions:

- “Create a link”
- “Delete a link”

17 Registration of area managers

Each physical Area Manager has a unique identification number as well as an owner key.

As an integrator, you will potentially have to handle a large number of Area Managers, and you will not always know which one will be physically installed in which location upon receipt.

The first step will consist of declaring each Area Manager in your possession by providing its identification number and its owner key in order to activate it.

18 Assignment/ deassignment to the site

Your Area Manager appears in the list of Area Managers you own. It is not yet assigned to any site, nor linked to any virtual Area Manager of a site.

The selected Area Manager will be assigned to a site, it will then be necessary to use the Building + Manager mobile application to establish the connection between the Area Manager and the Building Manager portal.

Site setup and operator access

The system must be flexible to guarantee any changes and settings for each of the users authorized to manage it.

Through the BMS portal dashboard it is possible to modify or delete the information of a specific Building, or enable one or more people to manage the system with different profiles to allow access to the information necessary for the user.

It is also possible to delete any sites or users, keeping in mind, however, that these operations are irreversible and therefore it is best to pay the utmost attention to avoid running into complex problems.

Changes to site Information

To modify the general information of a site, go to the site tab: of the site and click on the top right of the profile.

You can then modify the general location information, language, time zone, labels.

Deletion of the site

To completely delete a site, a button DELETE is present at the site details level.

This action is irreversible and will delete absolutely everything that was created for this site.

Creation of user Access

The tab SETTING also allows to create profiles for users, as well as invite them to the site.

An operator will only have access to the site in reading mode. He will still be able to trigger the products but will not be able to touch the structure of the site (create/ modify/delete areas or products).
By creating an operator profile, the user can also limit their access to different widgets, reports and tasks.

To invite a user to join the site, enter the email address they used to register for the Building Manager portal, determine their role

(Admin or Member) and select a previously created profile.
A user with an “Admin” role will have the possibility to:

- Modify the site information (without being able to delete it),
- Create/modify/delete user profiles,
- Invite or remove other users from the site for which he is an administrator.

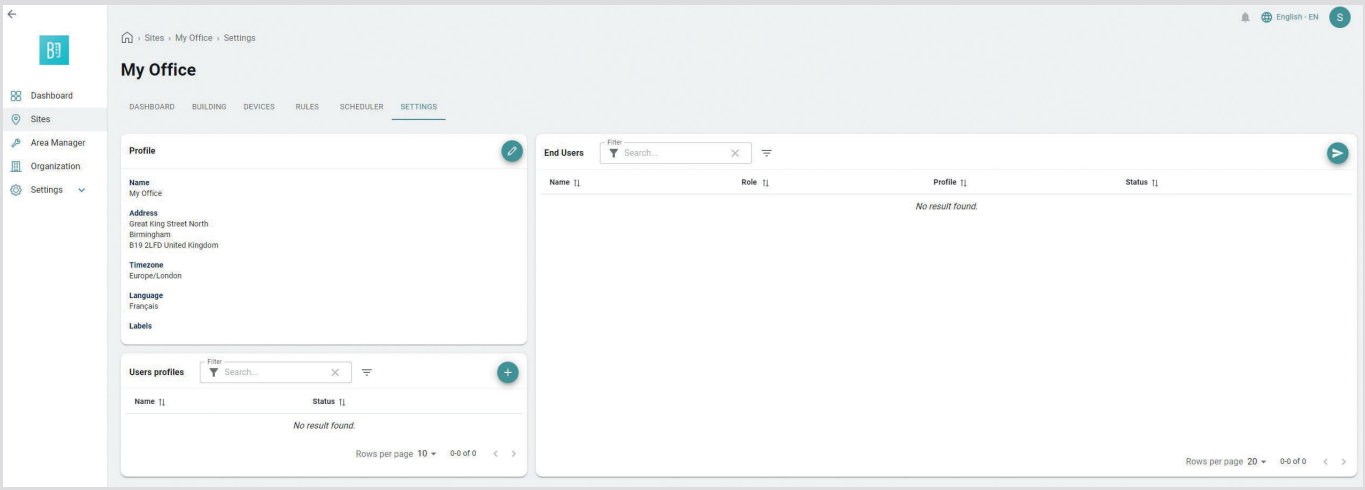
This will allow to manage your teams. A user with a “Member” role will not even have access to the site settings tab.

Deletion of operator access

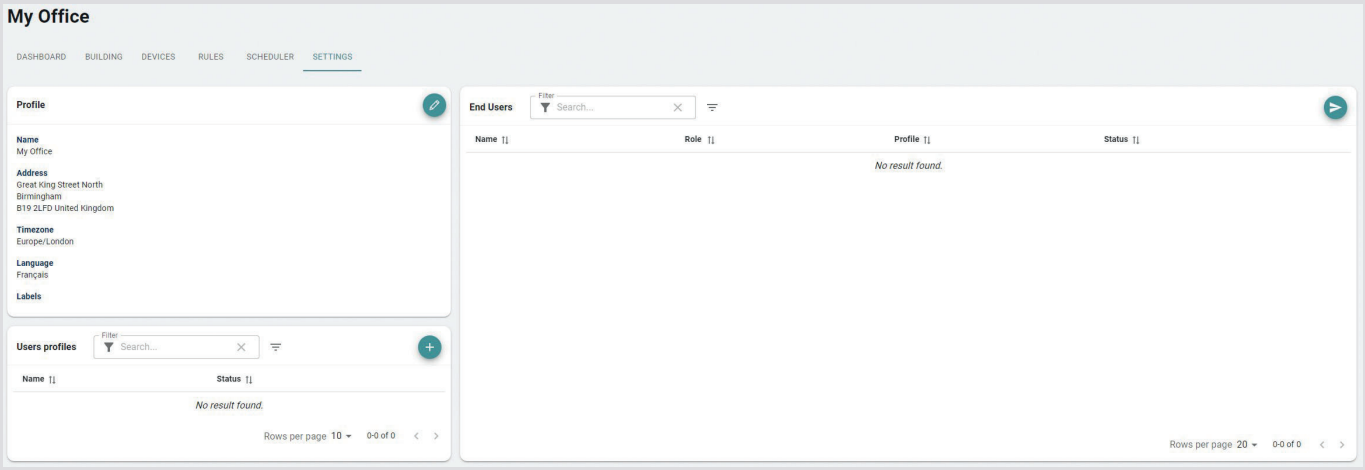
In order to delete a user from a site, is necessary to be connected either with an Integrator account (Admin or Member), or with a User account with an Admin role.

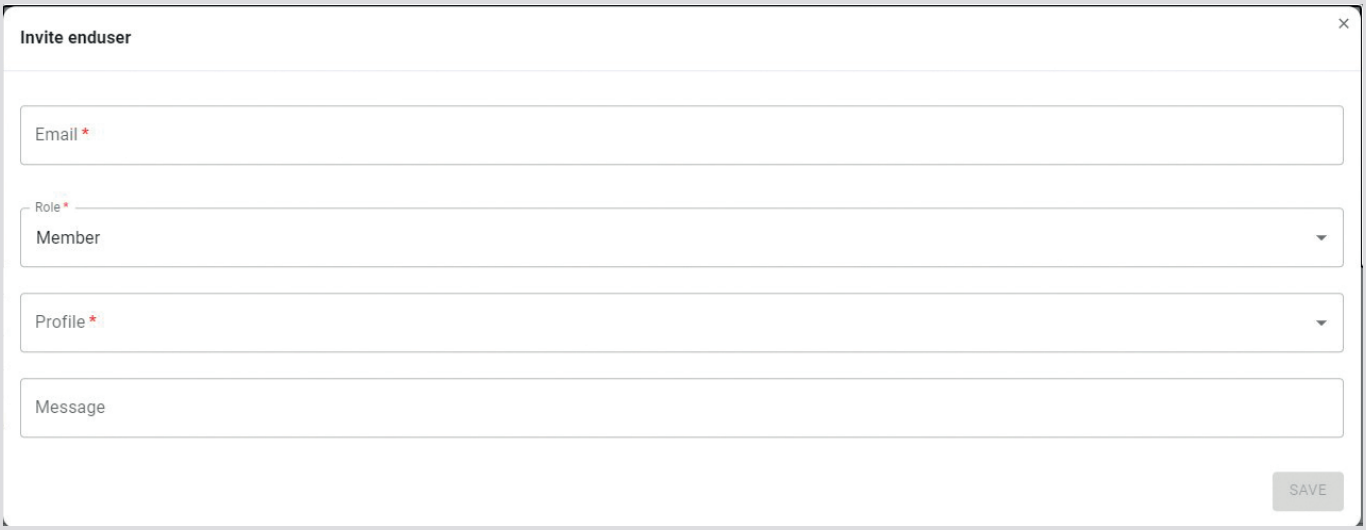
In the tab SETTING access the details of the account to be deleted by clicking on the corresponding line, and delete the selected user.

Changes to site Information



Creation of user Access





Use of site data

Once the Area Manager is physically installed, connected and associated with the portal, it is possible to check the configuration directly by the BMS Weoz portal.

From the dashboard of BMS portal is possible to manage the following information:

- Area Manager number (Area Manager Identifier),
- Link of the physical Area Manager with the virtual Area Manager defined in the portal (Linked Area Manager),
- Site to which the Area Manager (Site) belongs.

1 PRODUCT HISTORY

The third tab of a sensor allows to view the different products making up the site. Depending on the ownership of actuator site, is possible control or view its status feedback. This function can be realized in two ways:

- Selecting the product for which you want the details and choosing the specific properties interested
- Selecting directly the property of interests (for example, the mode of a thermostat).

Each widget is composed of:
- A graph, showing the different changes over a configurable period of time,
- A summary of the changes that have occurred and the trigger link (manually, by a human or by automatic rule),
- For controllable properties only, an “Action” button allows the user to control the property of the product in question (action manual).

2 LOCATION HISTORY

The second tab allows to visualize the hierarchical structure of the building, with the different levels as well as the locations, different spaces... We also have an overview of the important information reported by all the sensors in the different locations such as temperature, humidity, lighting control status, HVAC status, the status of doors and windows. This list of location properties automatically sizes based on the products that are in the locations. The icons may change depending on how the product has been configured (for example an opening sensor depending on whether it has been defined as a window or door sensor will not show the same icon).
These properties are an aggregate of product properties; that is to say that at the space level we will only have one icon for the opening status of the windows, even if there are several windows equipped in the room. As soon as a window is opened, the icon will change color.
We also display the temperature, which displays the average of the temperatures recorded by the different products in the location.

3 LOCATION DETAILS

To access the details of each location, is necessary select the corresponding line and clicking on the specific elements.
This view allows to visualize both the properties of the location as well as the properties of the products that compose it.

4 STATISTICS

In order to be able to analyze and compare product values, a button is located at tab level each site:

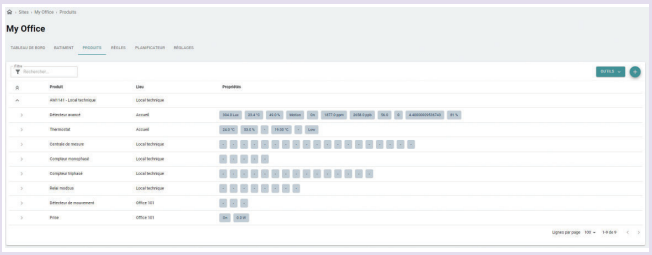
There are 3 important pieces of information to provide in order to be able to analyze and the information:
- The range of dates and times used to configure the abscissa axis,
- The locations concerned by the analysis of the values,
- The ordinate axis, allowing to display the properties that interest (temperature, power, brightness...).

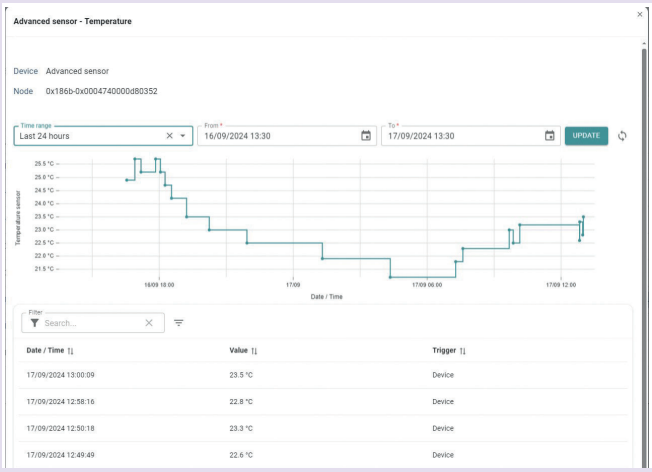
It is also possible at this location to select one or more locations (for example, raise the temperatures of all the offices on a floor) or to compare different locations with each other (for example, compare the evolution of the temperatures of the offices on the North facade with those of the South facade).

All product properties are interpretable and analyzable. We have the possibility of combining several variables in order to obtain, for example, the evolution of the temperature of the rooms in relation to the evolution of the outside temperature. There is no limit to the number of variables displayed in the chart.

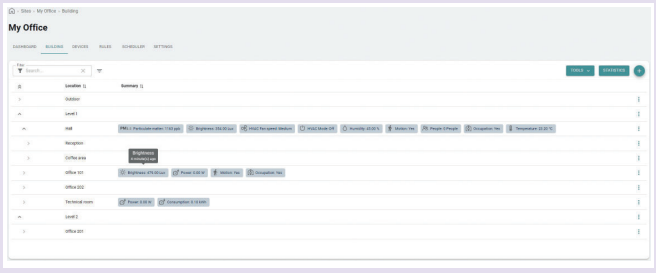
In terms of configuration, it is possible to choose the color of each curve, or choose whether you want to put the information on a single graph or several .

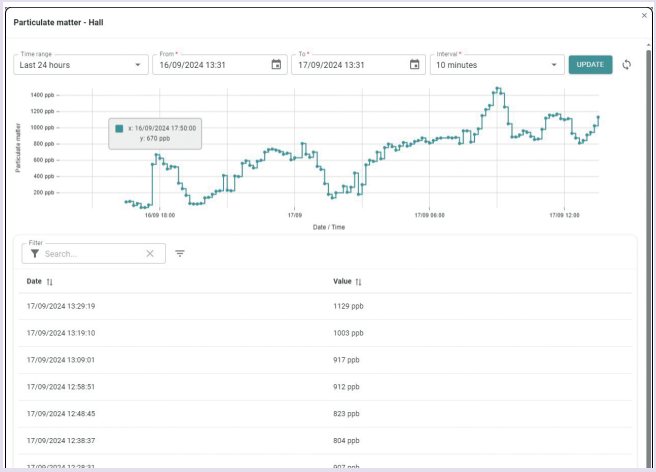
Product history example



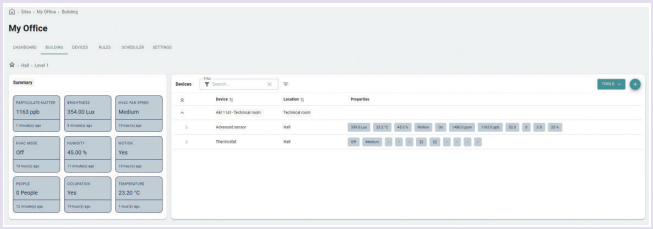


Location history example

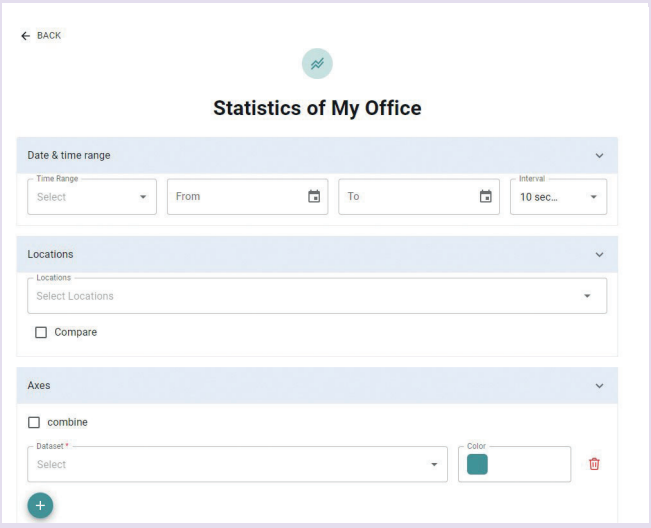




Location details example



Statistics example



Note: All information can be downloaded in .csv format which allows you to carry out more precise analyzes if necessary.

All instructions for configuring or accessing the information described can be found in the integrator manual, which can be downloaded from the Legrand website

WEOZ License: a unique one, integrating everything is needed to manage and optimize the building

For the first year of use the license, which allows you to have a series of very important functions, is already included. If you want to continue to use the services offered, you must renew it upon expiry.

The main features that can be obtained thanks to the activation of the license are:

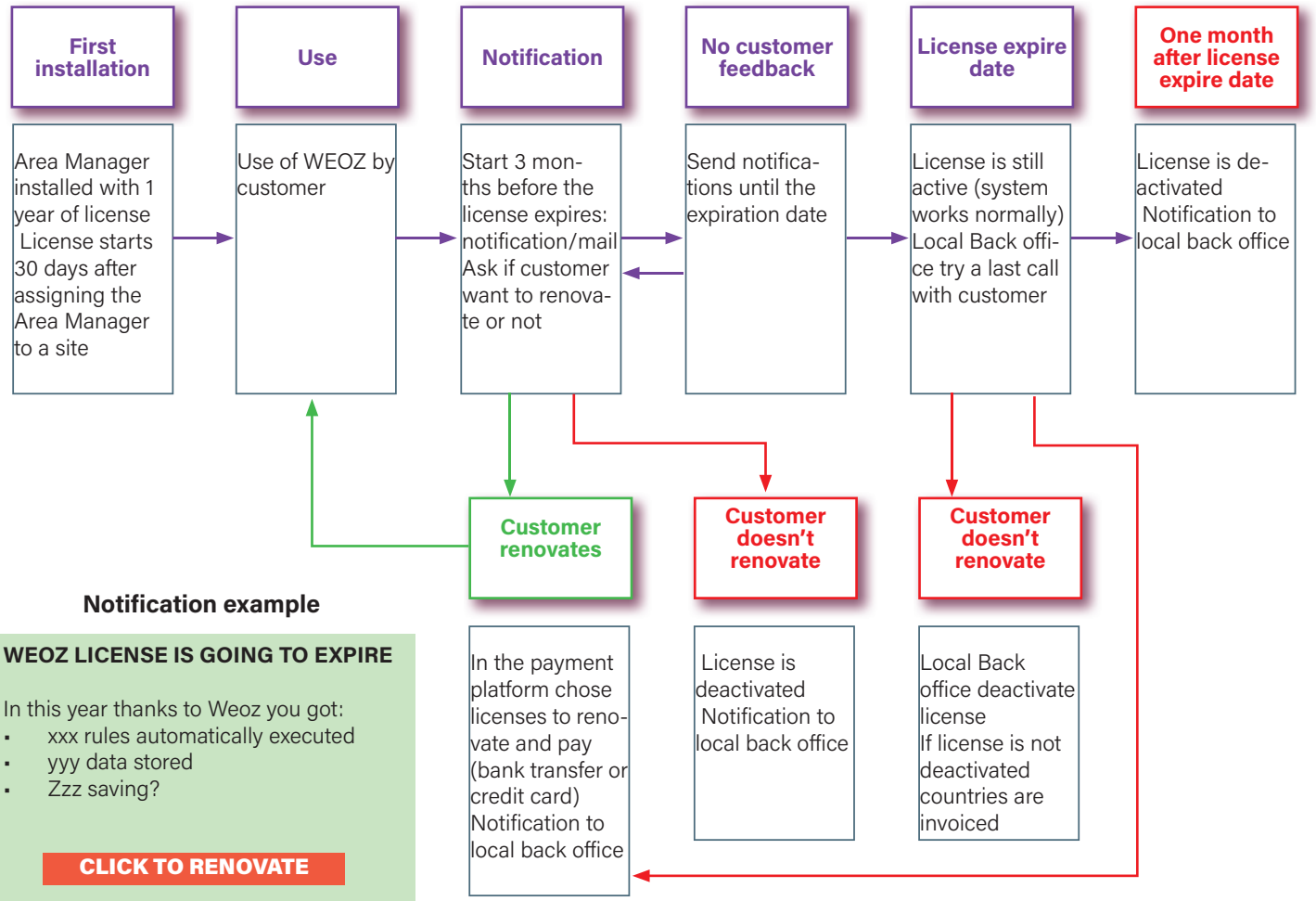
- Value the functions included in the license to push for the renovation
- Data permit to better understand the building and make analysis
- Remote access permit to monitor and act on buildings wherever you are
- Rules permit to to optimize energy consumption linking for example HVAC with Light Up presence detection or with the events in the calendar

FUNCTIONS /STATUS	SITE ACTIVATED **LICENSE ACTIVATED** CONNECTED TO INTERNET	SITE ACTIVATED **EXPIRED LICENSE** CONNECTED TO INTERNET
Create / modify / view site structure on the portal	✓	✓
Link new products via the B+M app	✓	-
Remote access (multi user, multi site)	✓	-
View real time data (widget, building and device view)	✓	-
Exporting data	✓	-
Data upload	✓	10 000 last events per AM until license reactivation
Send orders	✓	-
Get notifications	✓	-
Operation of rules within an Area Manager	✓	-
Operation of rules between Area Managers	✓	-
Sub systems (Light_Up, HVAC system, metering) once configured	✓	✓
All protocols included (Zigbee, Z-wave, modbus RTU, Modbus IP, Airzone local API)	✓	✓
20 wireless devices + 100 points (modbus RTU or IP)	✓	✓

It's needed one license per each Area Manager

Only with the activation of the license is it possible to obtain all the advantages that the WEOZ system can offer. For further details, consult the local sales network to obtain information, quotes and activation methods

License renovation flux



Notification example

WEOZ LICENSE IS GOING TO EXPIRE

In this year thanks to Weoz you got:
- xxx rules automatically executed
- yyy data stored
- Zzz saving?

CLICK TO RENOVATE

Without license renovation you will loose:
- Rules execution
- Data visualization and storage
- Access from remote
- Notifications and controls

I don't want renovate

REGULATION AND STANDARDS

General standard & regulation overview

The Regulations and standards play a crucial role in the implementation and operation of Building Management Systems (BMS), ensuring compliance with industry benchmarks and legal requirements. Adhering to these regulations and standards is essential for ensuring the safety, efficiency, and environmental sustainability of buildings while also mitigating risks associated with non-compliance, penalties, or legal issues. Compliance often requires collaboration between building owners, managers, Building Management System professionals, and regulatory bodies to meet the requirements.

Each country has a regulation that defines when BMS and automated systems are mandatory.

EPBD

Energy performance of building directive

ITALY

DM 6/26/15: Minimum requirements decree

Application of energy performance calculation methodologies and definition of the requirements and minimum requirements of buildings.

FRANCE

Decree n° 2019-771 of the 23rd of July 2019

French regulation that focuses on reducing energy consumption in buildings used for tertiary purposes.

SPAIN

Código Técnico de Edificación (CTE)

It establishes the basic quality requirements that buildings and their installations must meet to ensure safety and habitability.

GREAT BRITAIN

Energy Efficiency Directive (EED – 2012/27/EU)

The directive sets measures to help the EU achieve a 20% improvement in energy efficiency by 2020.

ISO 52120-1:2021

Energy performance of buildings Contribution of building automation and controls and building management.

Part 1:
General framework and procedures

EPBD Roadmap

The European EPBD directive has defined key dates for which a series of measures must be implemented at European level aimed at increasing the efficiency of buildings for zero-emission environmental sustainability. The main milestones defined in the plan are summarized below.

2024: The revised directive on the energy performance of buildings is formally adopted. Member states begin incorporating the provisions of the directive into their national legislation.

2028: All new public building must meet net-zero emission building standards.

2030: All new buildings are required to be **zero-emission buildings.** Non-residential buildings must exceed the energy performance of the 16% worst performing buildings.

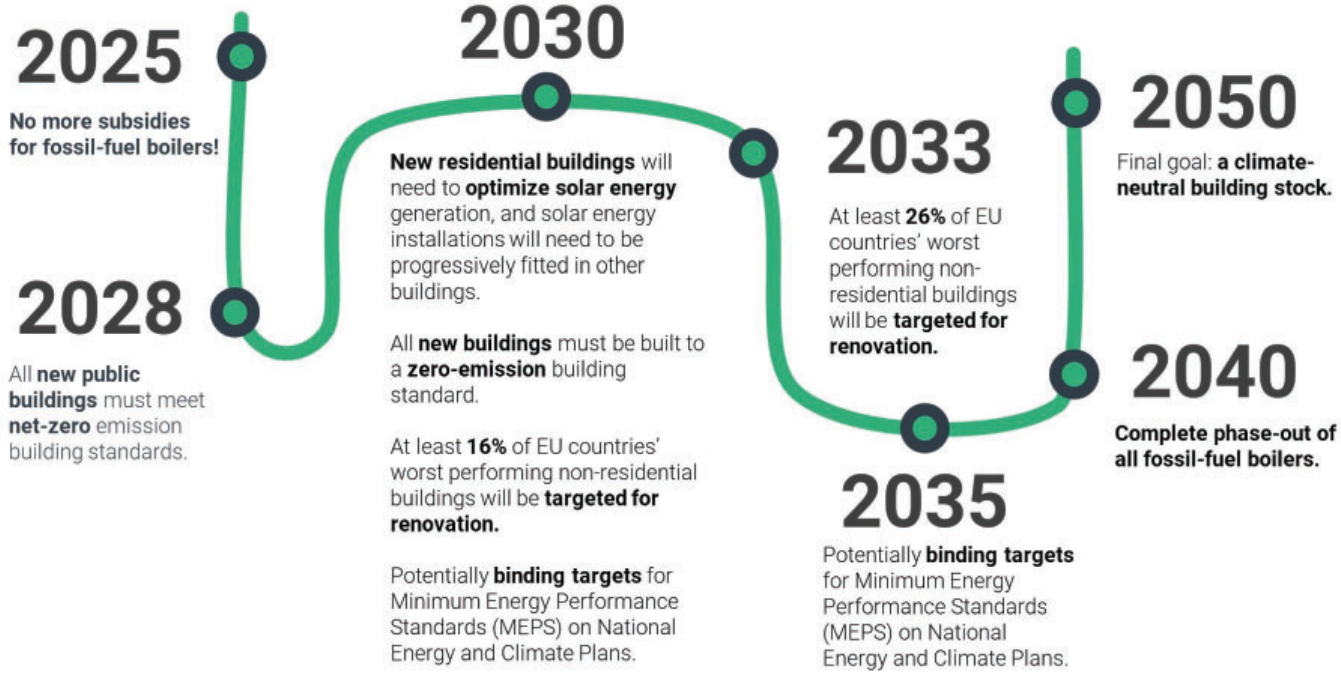
2033: Non-residential buildings must exceed the energy performance of the 26% worst performing buildings.

2040: National building renovation plans include a roadmap to phase out fossil fuel boilers.

2050: The EU's building stock is transformed into zero-emission building stock.

These milestones are part of the EU's commitment to reduce greenhouse gas emissions and energy poverty, aiming for a zero-emission and fully decarbonised building stock by 2050. The directive also includes provisions for the deployment of solar energy installations and sustainable mobility infrastructure.

Key EPBD target dates affecting HVAC



Regulatory and legislative obligations for energy efficiency

EPBD Directive

CLASS B COMPULSORY

The European EPBD (Energy Performance of Building Directive) promotes the energy efficiency of buildings in countries belonging to the European Union.

Energy classes for the control of lighting systems - BACS

	Definition classes							
	Residential				No-residential			
	D	C	B	A	D	C	B	A
LIGHTING CONTROL								
Switch ON/OFF	☒	☒			☒			
Switch ON/OFF and general automatic shutdown control	☒	☒	☒		☒	☒		
Automatic detection Auto On/Auto Off	☒	☒	☒	☒	☒	☒	☒	☒
Automatic detection Auto On/Dimmed/Off	☒	☒	☒	☒	☒	☒	☒	☒
Automatic detection Manual On/Auto Off	☒	☒	☒	☒	☒	☒	☒	☒
Automatic detection Manual On/Dimmed/Off	☒	☒	☒	☒	☒	☒	☒	☒
DAYLIGHT CONTROL								
Central	☒				☒	☒		
Manual local	☒	☒	☒		☒	☒		
Auto On/Off	☒	☒	☒		☒	☒	☒	
Auto dimmed with lux control	☒	☒	☒	☒	☒	☒	☒	☒

BACS

The term BACS, an acronym for Building & Automation Control System, refers to the set of intelligent automation and regulation tools that allow certain operations within a building to be “controlled” and made automatic, while at the same time allowing a reduction in energy consumption and costs.

Compliance with current ISO 52120-1:2021 - Class A, B standard

Energy performance of buildings — Contribution of building automation and controls and building management

The ISO 52120-1:2021 standard represents a pivotal step in the commitment to energy efficiency and environmental stewardship.

It represents the blueprint for the future of building construction and management. It provides a comprehensive framework that outlines the procedures necessary to assess and enhance the energy performance of buildings. This is not just about compliance; it's about leading the charge in smart building technologies.

This standard introduces a structured list of functions related to control, building automation, and technical management. These functions are the building blocks for constructing and retrofitting buildings that are not only efficient but also intelligent.

Furthermore, the standard defines methods to establish minimum requirements for these functions, tailored to buildings of varying complexities.

Whether it's a small residential structure or a sprawling commercial complex, the ISO 52120-1:2021 standard ensures that energy efficiency is at the forefront of design and operation.

It defines the method that allows us to predict the energy savings potential for typical building types and usage profiles, empowering stakeholders to make informed decisions.

Lastly, the standard establishes detailed methods to evaluate the effect of these functions on specific buildings. This personalized approach ensures that each building's unique characteristics are considered, maximizing the potential for energy savings.

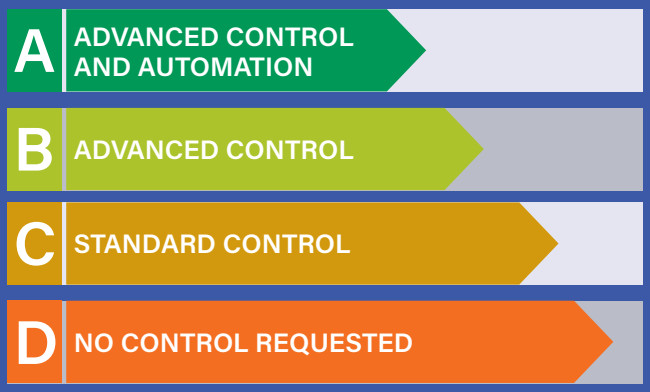
ISO 52120-1:2021 standard is not just a set of guidelines; it is a commitment to a future where our buildings work smarter for the environment benefits.

ISO 52120-1:2021

Energy performance of buildings - Contribution of building automation and controls and building management.

General framework and procedures

BACS EFFICIENCY



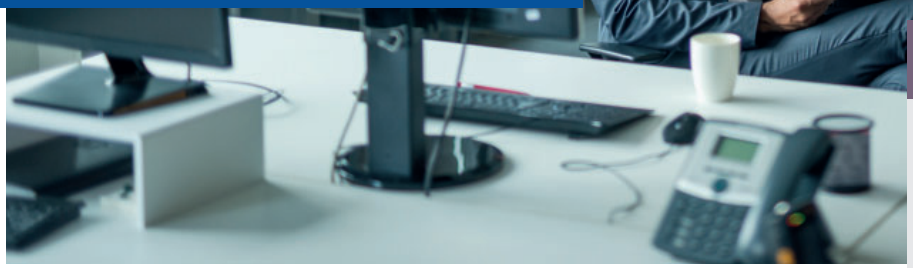
To be in class B: building automation function plus some specific functions defined in Table 5 shall be implemented in addition to class C. Room controllers shall be able to communicate with a building automation system.

APPLICATION OF USE

OFFICE APPLICATION

Connect energy savings to occupation rates to create a comfortable and flexible workplace.

Weoz system improves your building's energy efficiency while maintaining a productive and stimulating office environment well-suited for frequent layout changes.



TECHNICAL SOLUTIONS

Light Up occupancy for presence detection in all spaces, DALI Control for people counting in open spaces, and ON-OFF in circulation areas.

Light Up multisensor to monitor presence, air quality and noise in meeting rooms and open spaces.

Airzone Aidoo to integrate HVAC in every space.

EMDX³ single-phase meters to monitor HVAC, lighting and socket consumption.

Dashboard manager to monitor, receive alerts, analyse and take action.

TECHNICAL TOOLS FOR WEOZ SYSTEM

Buiding Manager Portal => to create the site structure and add area managers

Building+Manager app => to pair the devices with the area manager

Close Up app => to set specific parameter for Light Up sensor and pair battery less swtiches

MAIN BENEFITS

Energy savings:

> Optimise lighting and HVAC in every space based on real occupancy.

> Leverage daylight harvesting with DALI control in working spaces.

Better understanding of the building:

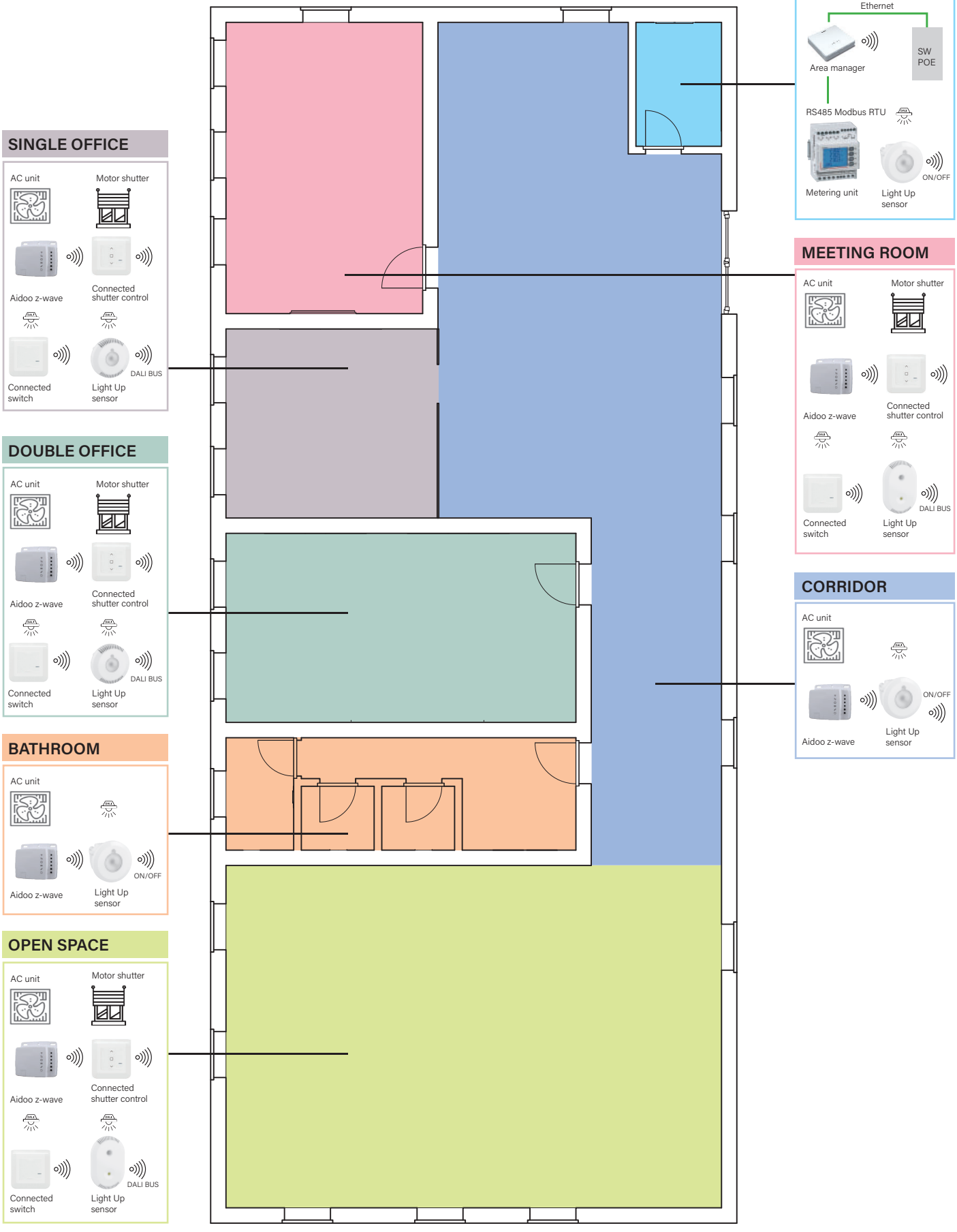
> Visualize the real use of your office spaces by Monitoring consumption by main usage, presence, and using people counting in open spaces.

Well-being in office spaces:

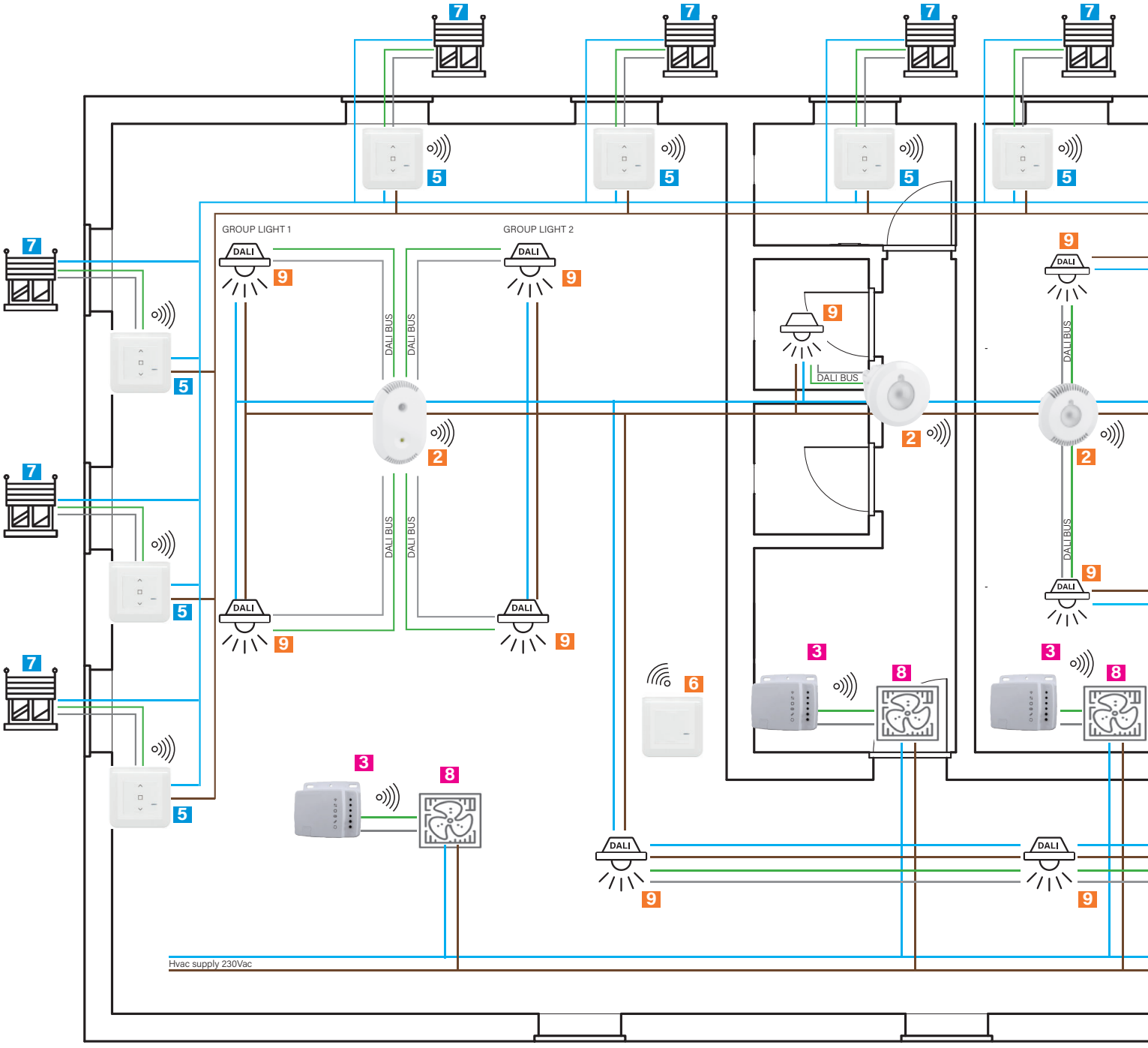
> Improve employee's well-being by monitoring air quality in meeting rooms and noise in open spaces.

FUNCTIONS			AMBIENTS															
N°	FUNCTION	SOLUTION	OPEN SPACE		DOUBLE OFFICE		CORRIDOR		MEETING ROOM		SINGLE OFFICE		TECHNICAL ROOM		BATHROOM	
			q.ty		q.ty		q.ty		q.ty		q.ty		q.ty		q.ty	
	Size			65m²		26m²		72m²		22m²		15m²		5m²		15m²
1	**Area Manager**	Area Manager					1	0 485 84					1	0 485 84		
2	**Lighting**	Light UP sensor	1	0 485 74	1	0 485 73	1	0 485 56	1	0 485 74	1	0 485 73	1	0 485 51	1	0 485 51
3	**Hvac**	Airzone	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo
4	**Metering**	Stand alone meters											3	4 120 51		
5	**Shutter control**	Connected shutter control	3	0 777 06LA	2	0 777 06LA			3	0 777 06LA	2	0 777 06LA				
6	**Command**	Connected switch	1	0 770 53L	1	0 770 53L			1	0 770 53L	1	0 770 53L				
		Door Contact								0 485 75	1					

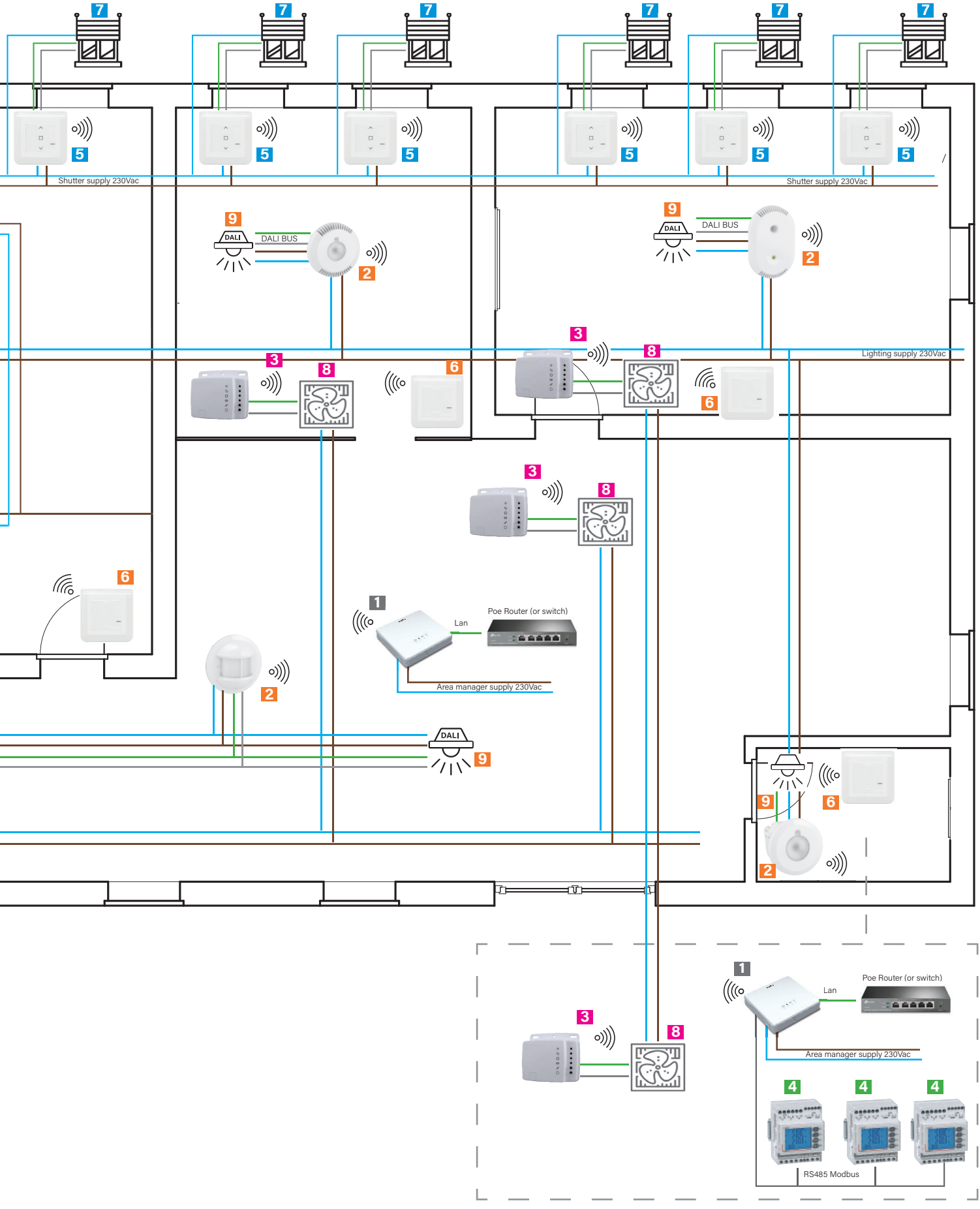
Office planimetry



Office application (general electric diagram)



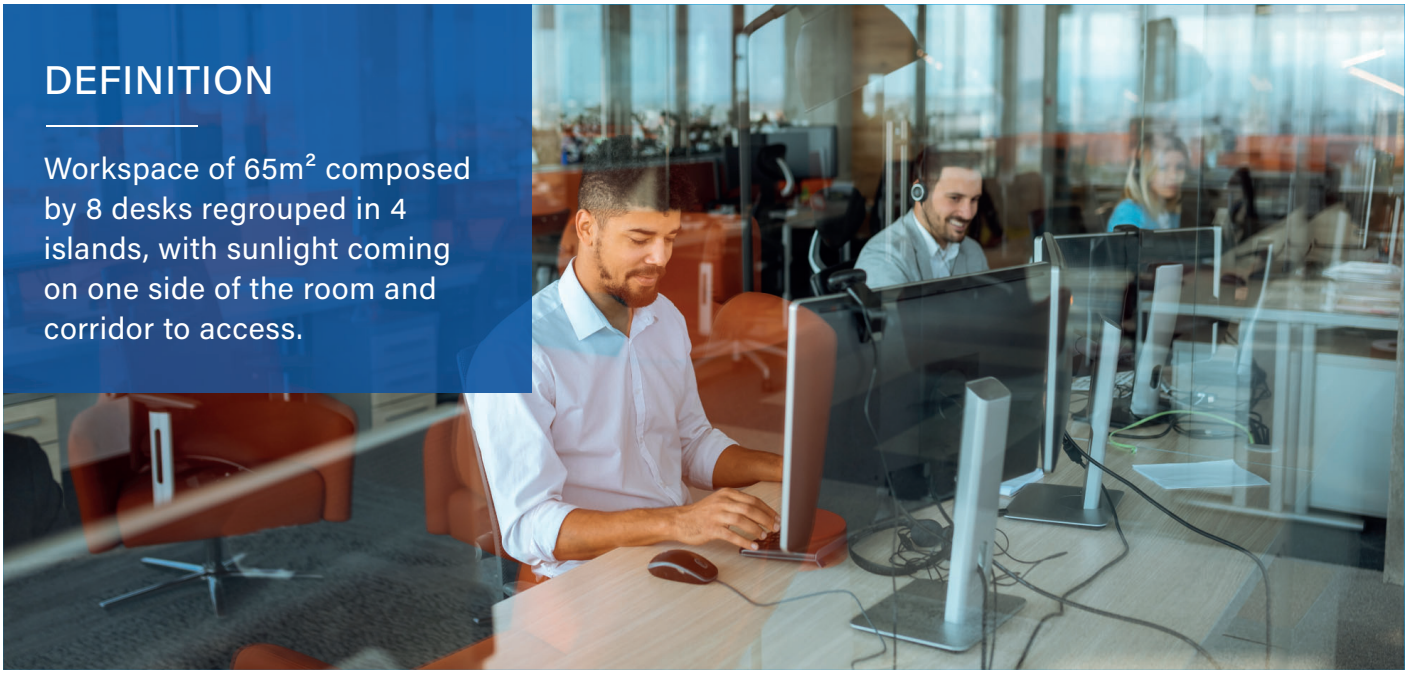
LEGEND	
n°	**Device description**
1	Area manager
2	Light UP sensor
3	Airzone Aidoo Pro
4	Stand alone meters
5	Connected shutter control
6	Connected switch
7	Motor shutter
8	AC unit
9	Lamp (DALI or ON/OFF)


7
5
Shutter supply 230Vac
9
DALI
DALI BUS
2
3
8
6
Lighting supply 230Vac
1
Lan
Poe Router (or switch)
Area manager supply 230Vac
4
RS485 Modbus

Open space office

DEFINITION

Workspace of 65m² composed by 8 desks regrouped in 4 islands, with sunlight coming on one side of the room and corridor to access.



APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

HVAC control: set point managed depending on the real presence in the open space defining rules for occupied / unoccupied space.

Shutter control: opening/closing shutters according to a schedule.

Analytics: count people in the open space to monitor the real use excluding the corridor area at the entrance of the open space.

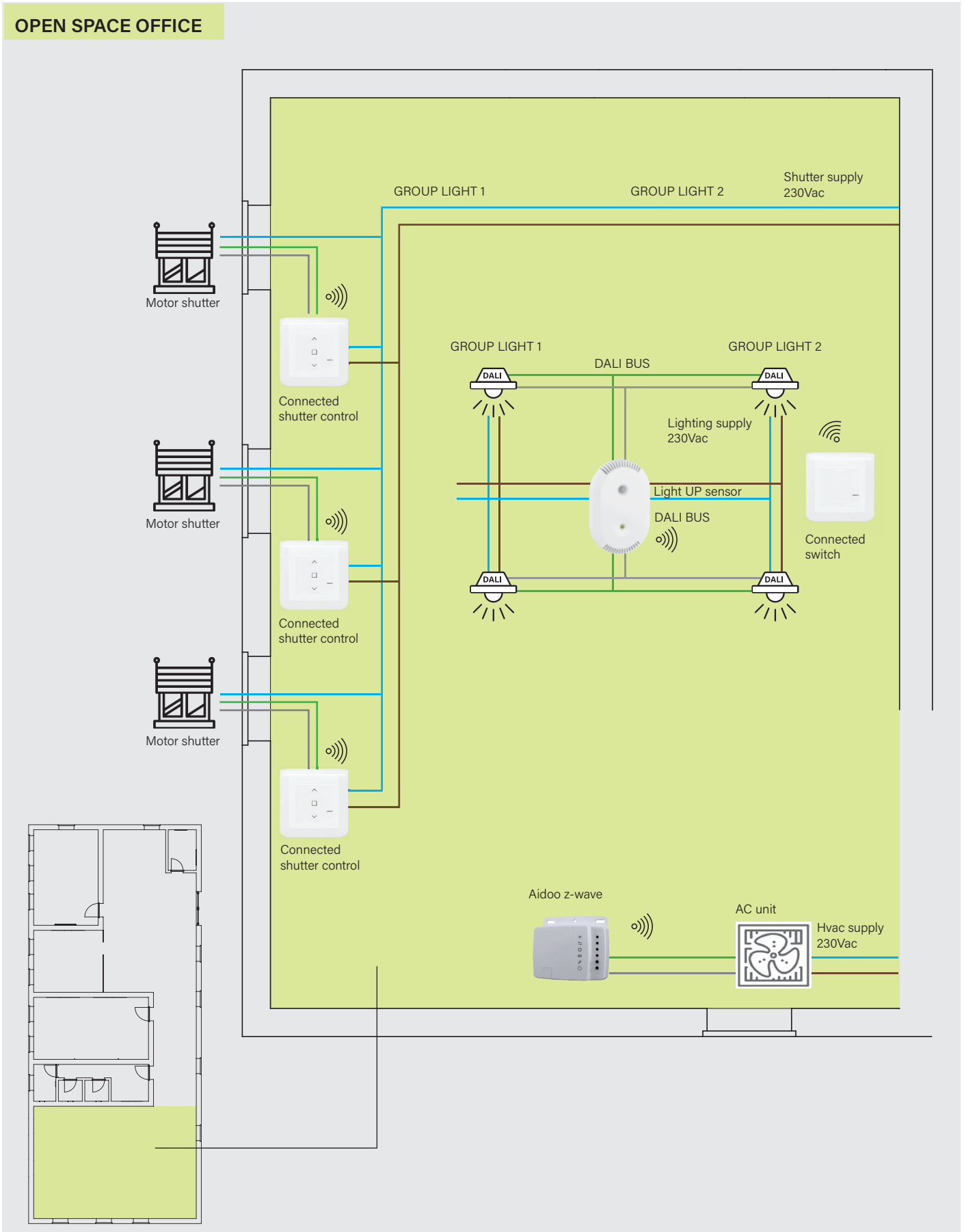
Alert: Monitor noise and air quality to keep under control the wellbeing of people, set alert beyond a warning.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	DALI group creation (window – wall side)	■		Advanced sensor
	Commissioning push buttons for manual override	■		Advanced sensor, batteryless switch
Hvac control	Occupied / Unoccupied space rule		■	Advanced sensor, Aidoo
Shutter control	Opening/closing management		■	Connected shutter control
Analytics	Counting people – excluding corridor	■	■	Advanced sensor
Alert	Alert on noise and air quality level		■	Advanced sensor

LIST OF MATERIALS

OPEN SPACE OFFICE (65m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 74	DALI advanced 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Shutter control**	Connected Shutter control	3	0 777 06LA	Mosaic - Connected shutter control
4	**Command**	Connected pushbutton	1	0 770 53L	Mosaic - Connected pushbutton

OPEN SPACE OFFICE



Double office

DEFINITION

Workspace less than 40m² composed by 2 desks and single entance.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor but with independent dimming level between window side and entrance side to keep a proper light level in each zone having a different daylight harvesting + manual control for override.

HVAC control: set point managed depending on the real presence in the open space defining rules for occupied / unoccupied space.

Shutter control: opening/closing shutters according to a schedule.

Analytics: occupancy in the space to monitor the real use.

Alert: Monitor air quality to keep under control the wellbeing of people, set alert beyond a warning level.

FUNCTION REQUESTED

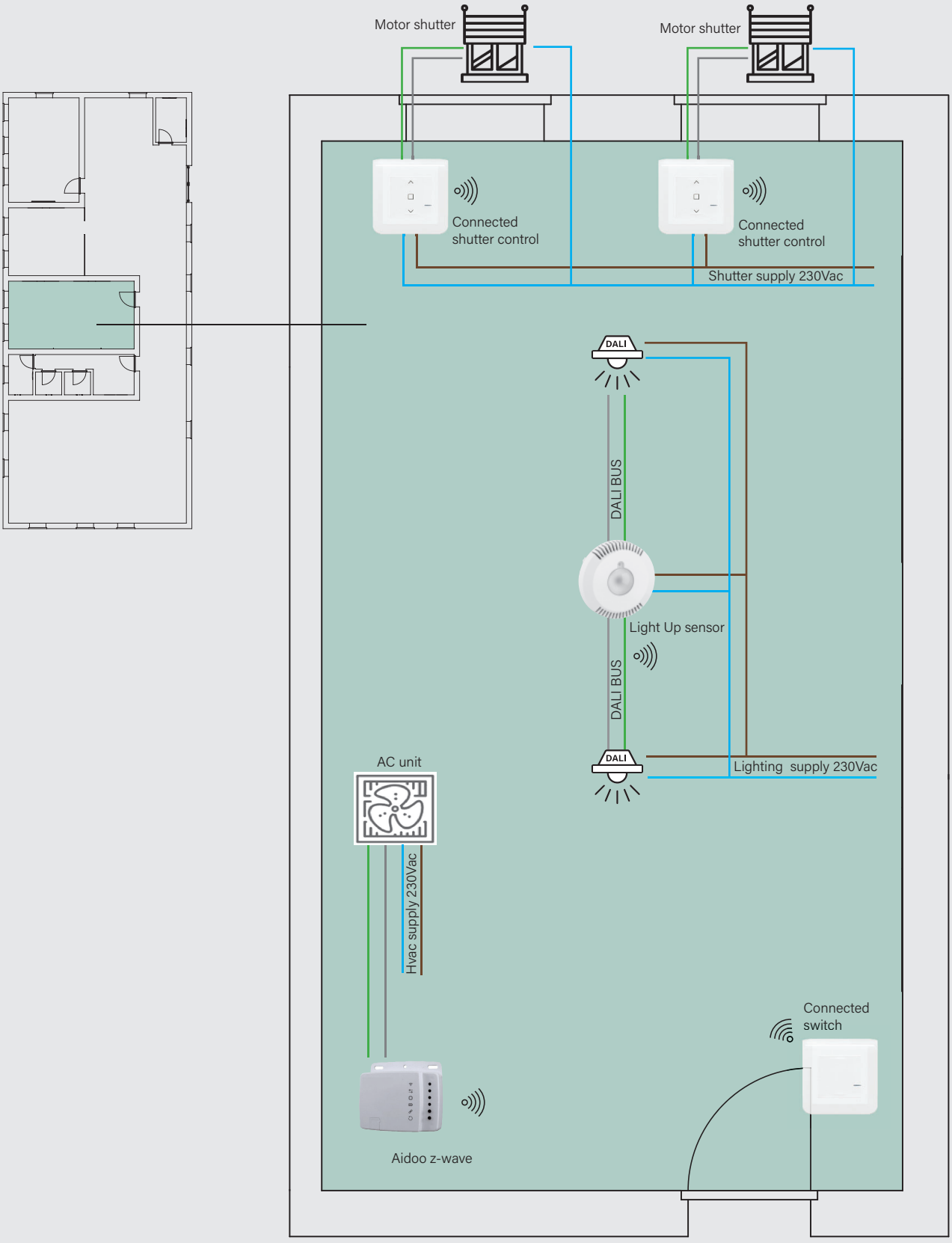
FUNCTIONS	DESCRIPTION	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	DALI group creation (window – entrance side)	■		Multi sensor
	Commissioning push buttons for manual override	■		Multi sensor, batteryless switch
Hvac control	Occupied / Unoccupied space rule		■	Multi sensor, Aidoo
Shutter control	Opening/closing management		■	Connected shutter control
Analytics	Occupancy		■	Multi sensor
Alert	Alert on noise and air quality level		■	Multi sensor

LIST OF MATERIALS

DOUBLE OFFICE (26m²)

N°	FUNCTION	SOLUTION	QTY	ITEM CODE	DESCRIPTION
1	**Lighting**	Light UP sensor	1	0 485 73	DALI multi 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Shutter control**	Connected Shutter control	2	0 777 06LA	Mosaic - Connected shutter control
4	**Command**	Connected pushbutton	1	0 770 53L	Mosaic - Connected pushbutton

DOUBLE OFFICE



Corridor

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor specific for corridor wit DALI to keep a safety level in case of unoccupied space and max 80% in case of presence. Daylight harvesting.

HVAC control: set point managed depending on the real presence in the corridor defining rules for occupied / unoccupied space.

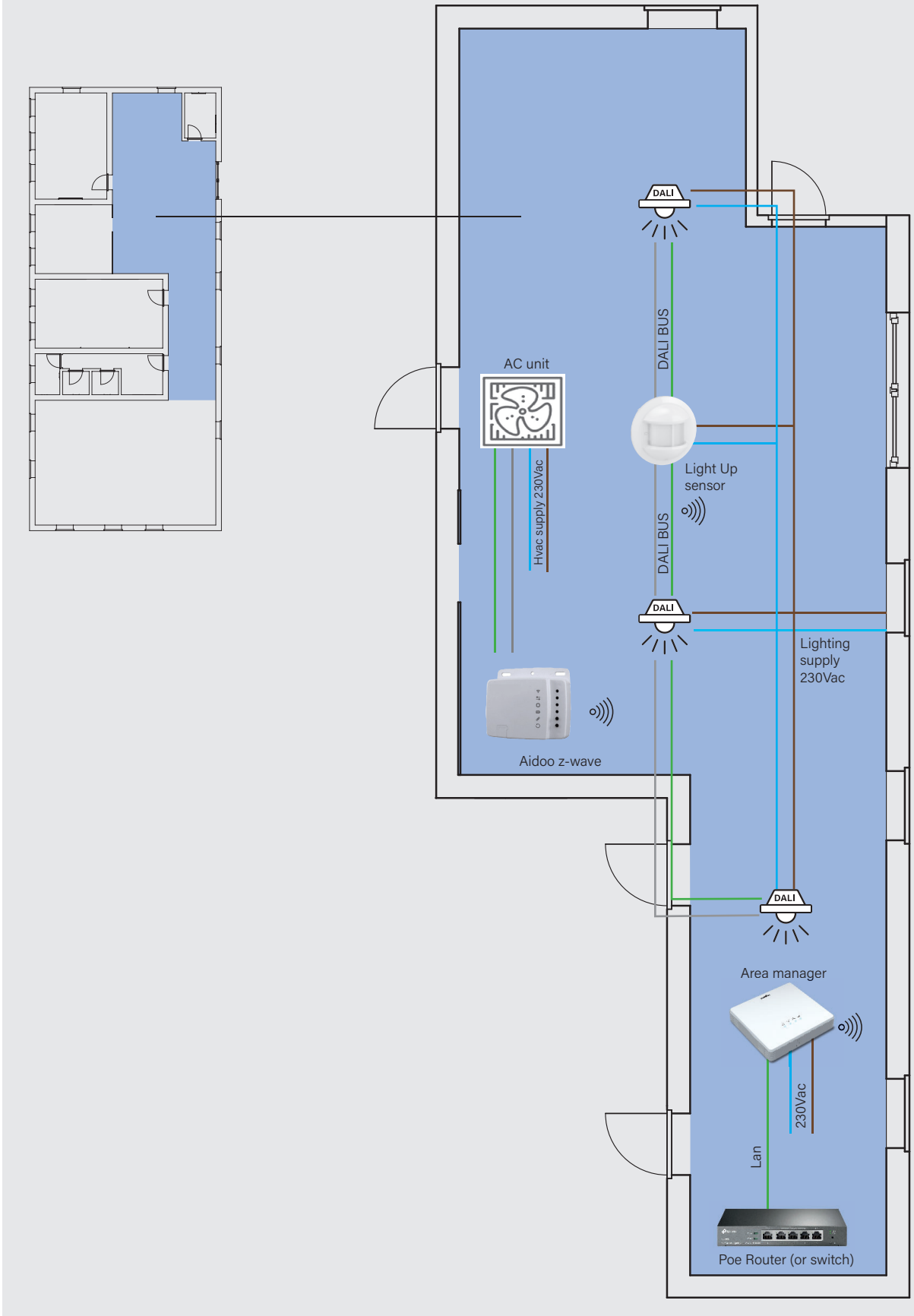
Analytics: occupancy in the space to monitor the real use.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set min and max level	■		Corridor sensor
Hvac control	Occupied / Unoccupied space rule		■	Corridor sensor Aidoo
Analytics	Occupancy		■	Corridor sensor

LIST OF MATERIALS

CORRIDOR (72m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 74	DALI advanced 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Area Manager**		1	0 485 84	Management

CORRIDOR


DALI
DALI BUS
AC unit
Hvac supply 230Vac
Light Up
sensor
DALI BUS
DALI
Lighting
supply
230Vac
Aidoo z-wave
DALI
Area manager
230Vac
Lan
Poe Router (or switch)

Meeting room

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor with DALI and daylight harvesting, manual override with wireless batteryless switch and shutter control to adapt manually lighting to the needed meeting conditions.

HVAC control: set point managed depending on the real presence in the meeting room defining rules for occupied / unoccupied space.

Shutter control: opening/closing shutters according to a schedule.

Energy management: wireless socket to monitor consumption of projection equipment and switch off in the space is unoccupied.

Analytics: people counting in the meeting room to monitor the real use.

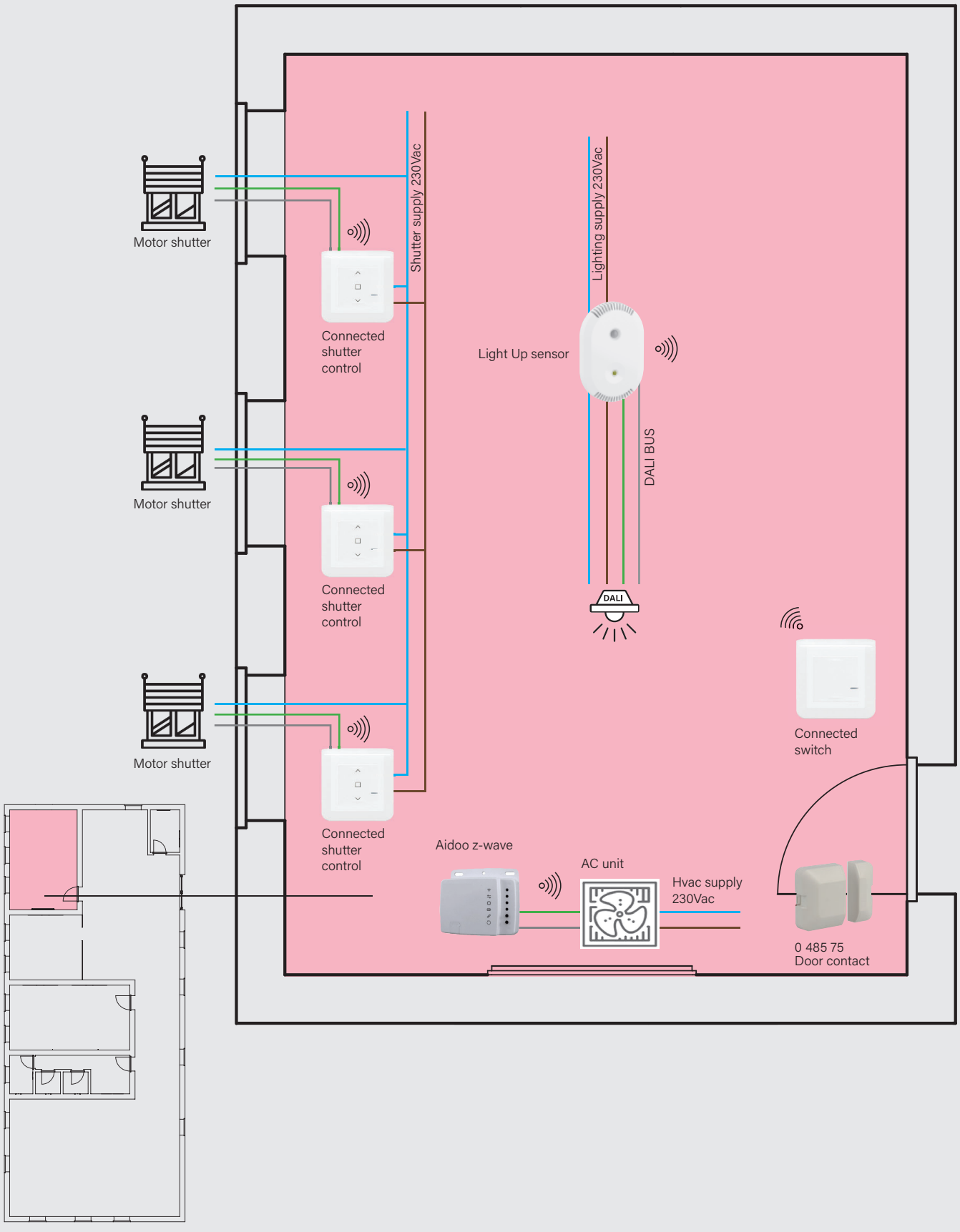
Alerts: on number of people exceeding the 10 max and air quality.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Commissioning push buttons for manual override	■		Advanced sensor, batteryless switch
HVAC control	Occupied / Unoccupied space rule		■	Advanced sensor, Aidoo, socket
Shutter control	Opening/closing management		■	Connected shutter control
Analytics	Counting people	■	■	Advanced sensor
Alert	Alert on number of people and air quality level		■	Advanced sensor

LIST OF MATERIALS

MEETING ROOM (22m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 72	DALI advanced
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Shutter control**	Connected Shutter control	3	0 777 06LA	Mosaic - Connected shutter control
4	**Command**	Connected pushbutton	1	0 770 53L	Mosaic - Connected pushbutton

MEETING ROOM



Single office

DEFINITION

Workspace less than 15m² composed by 1 desk and single entance.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor with DALI dimming to keep a proper light level leveraging daylight harvesting + manual control for override.

HVAC control: set point managed depending on the real presence in the office defining rules for occupied / unoccupied space.

Shutter control: opening/closing shutters according to a schedule.

Analytics: occupancy in the space to monitor the real use.

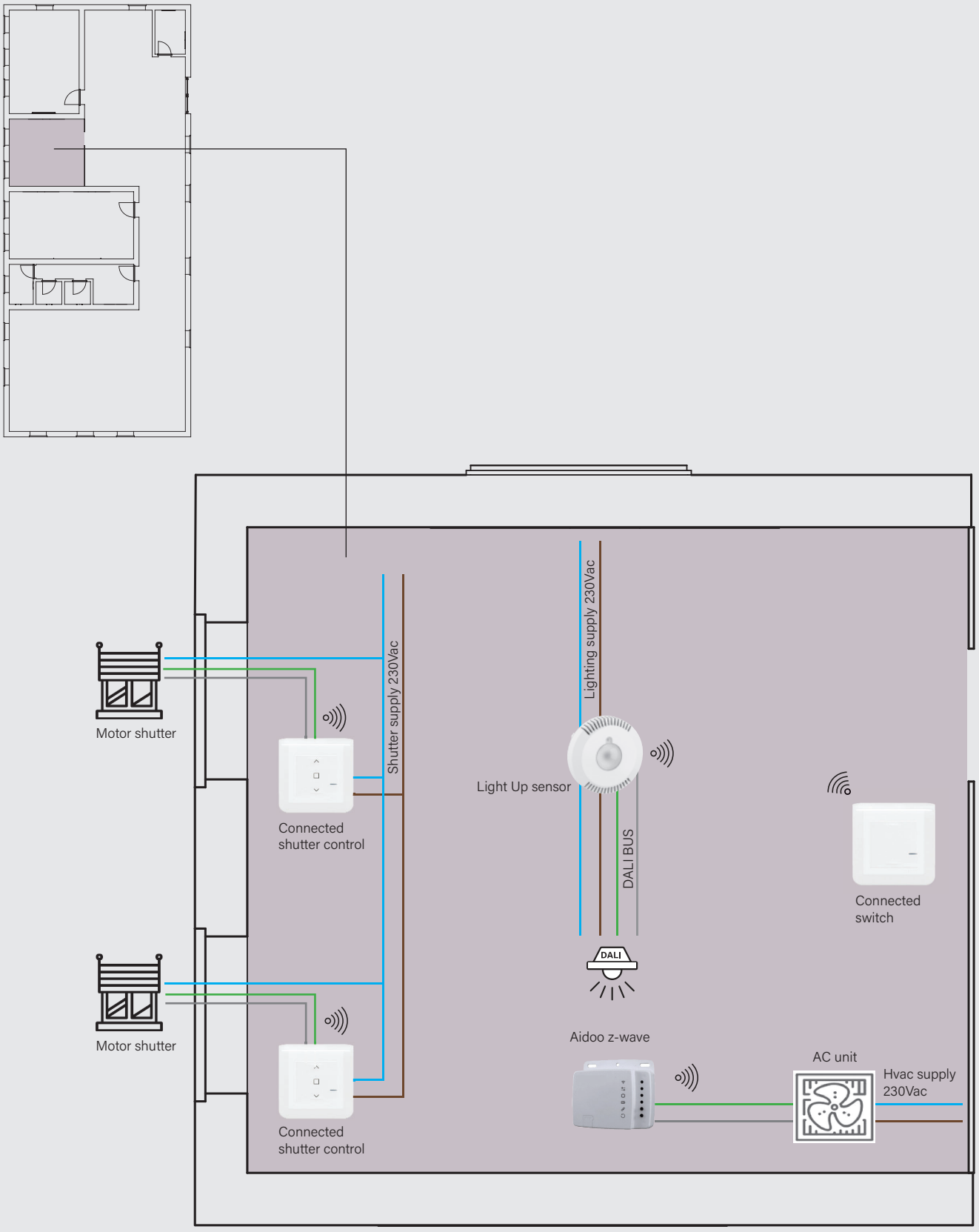
Alerts: Monitor air quality to keep under control the wellbeing of people, set alert beyond a warning level.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Commissioning push buttons for manual override	■		Multi sensor, batteryless switch
Hvac control	Occupied / Unoccupied space rule		■	Multi sensor, Aidoo
Shutter control	Opening/closing management		■	Connected shutter control
Analytics	Occupancy		■	Multi sensor
Alert	Alert on air quality level		■	Multi sensor

LIST OF MATERIALS

SINGLE OFFICE (15m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 71	DALI multi 1 zone
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
4	**Shutter control**	Connected Shutter control	2	0 777 06LA	Mosaic - Connected shutter control
5	**Command**	Connected pushbutton	1	0 770 53L	Mosaic - Connected pushbutton

SINGLE OFFICE



Technical room

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

HVAC control: set point managed depending on the real presence in the meeting room defining rules for occupied / unoccupied space.

Metering: 3 single phase meters to monitor general consumption splitted by HVAC, lighting and socket line.

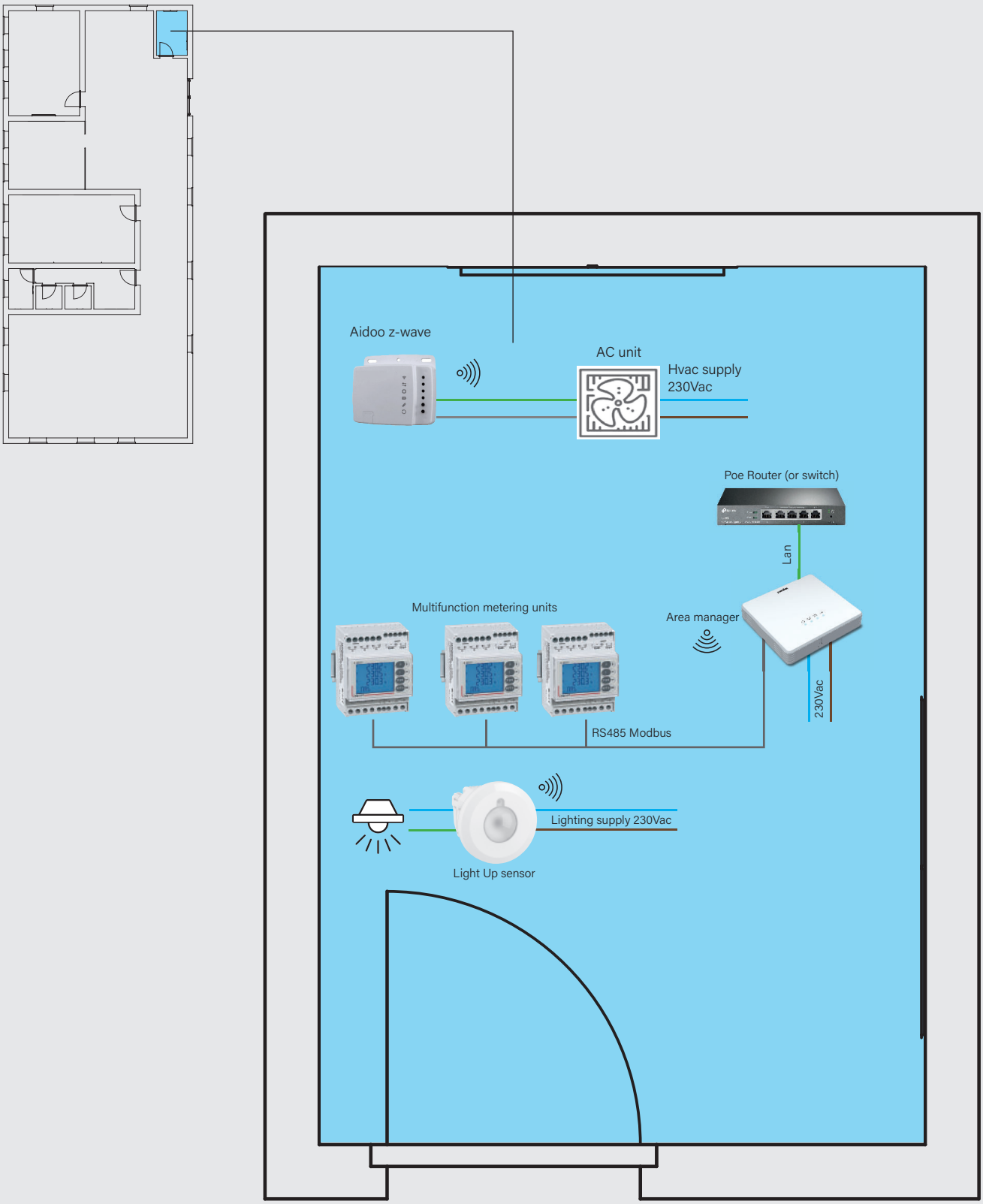
Alerts: on real time consumption exceed a defined threshold.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer and brightness setting	■		ON-OFF sensor
Hvac control	Occupied / Unoccupied space rule		■	ON-OFF sensor, Aidoo
Alert	Alert on number on real time consumption		■	EMDX³ meters

LIST OF MATERIALS

TECHNICAL ROOM 5m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Area Manager**	Area manager	1	0 485 84	Webserver
2	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor
3	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
4	**Metering**	EMDX³ meters	1	4 120 51	stand alone multifunction meters

TECHNICAL ROOM



Bathroom

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

HVAC control: set point managed depending on the real presence in the bathroom defining rules for occupied / unoccupied space.

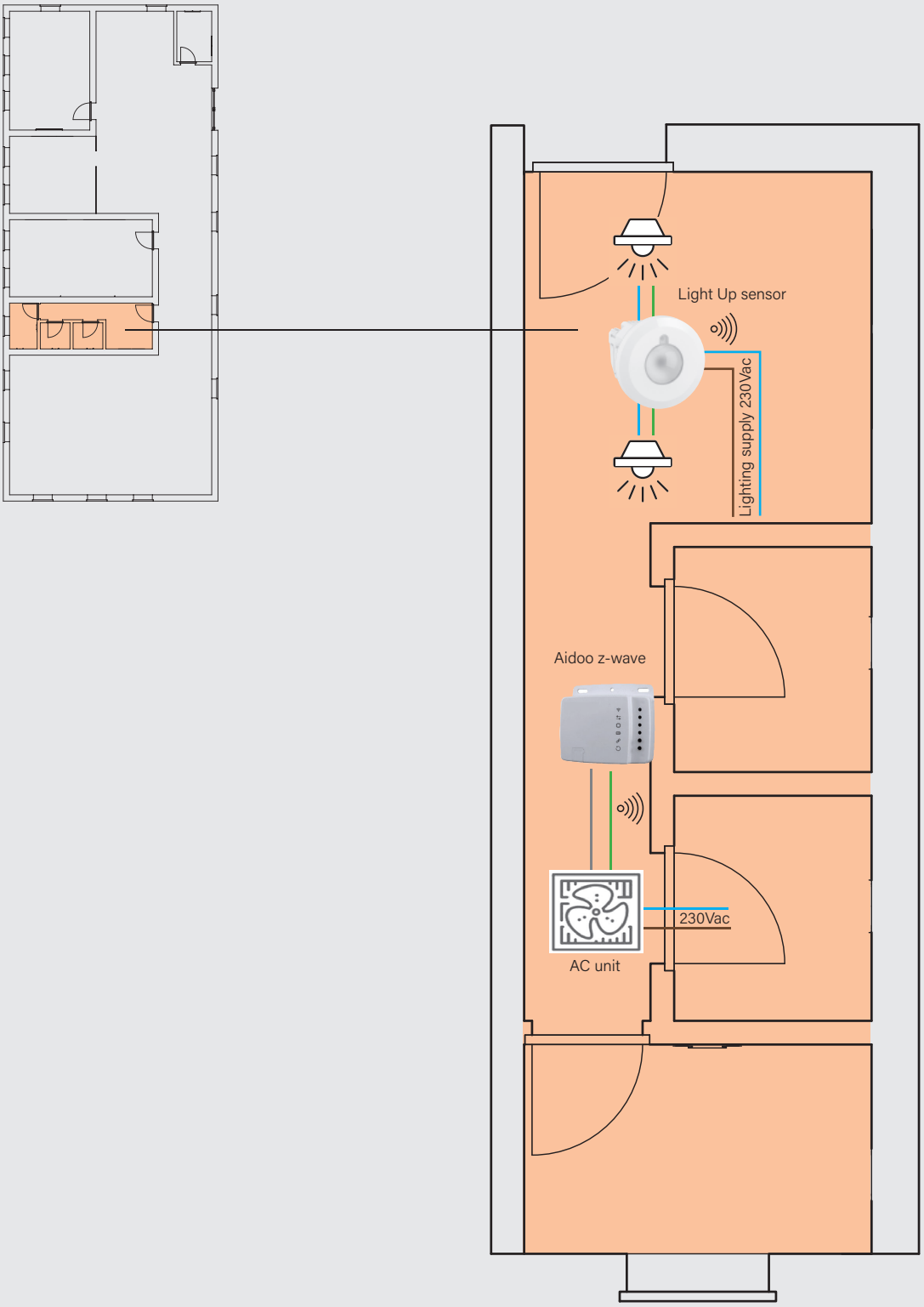
Analytics: occupancy to monitor the real use.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer and brightness level settings	■		ON / OFF sensor
Hvac control	Occupied / Unoccupied space rule		■	ON-OFF sensor, Aidoo
Analytics	Occupancy		■	Occupancy sensor

LIST OF MATERIALS

BATHROOM (15m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
2	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor
3	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave

BATHROOM


Light Up sensor
Lighting supply 230Vac
Aidoo z-wave
230Vac
AC unit

SCHOOL AND EDUCATIONAL BUILDINGS

Adapt to a variety of uses and schedules to meet your saving targets while providing a good learning environment.

Weoz system optimises energy efficiency is spaces as different as classrooms, staff offices or gyms;

it makes it easy to integrate a variety of daily and yearly school schedules, adapt to different lesson types, and ensure everyone's well-being and engagement.

TECHNICAL SOLUTIONS

Light Up multisensors to monitor presence, air quality and noise in classrooms, combined with DALI multicast to differently manage windows, corridors, and the front of the classroom, with manual control to adapt lighting to lesson requirements.

Light Up occupancy for presence detection in all spaces, with DALI control in workspaces and ON-OFF in circulation areas (lavatories).

Airzone fan coil with hidden temperature sensors to integrate HVAC in every space.

EMDX³ single phase meters to monitor HVAC, lighting and socket consumption.

Dashboard manager to monitor, receive alerts, analyse and take action.

TECHNICAL TOOLS FOR WEOZ SYSTEM

Buiding Manager Portal => to create the site structure and add area managers.

Building+Manager app => to pair the devices with the area manager.

Close Up app => to set specific parameter for Light Up sensor and pair battery less swtiches.

Airzone Cloud => allows you to control any number of Aidoo Pro Fancoil units

MAIN BENEFITS

Energy savings:

> Leverage daylight harvesting by managing lighting and HVAC according to real occupancy, and using DALI control in classrooms.

> Optimise energy consumption according to school calendars, and adapt schedules to classro-oms and staff spaces.

Better understanding of the building:

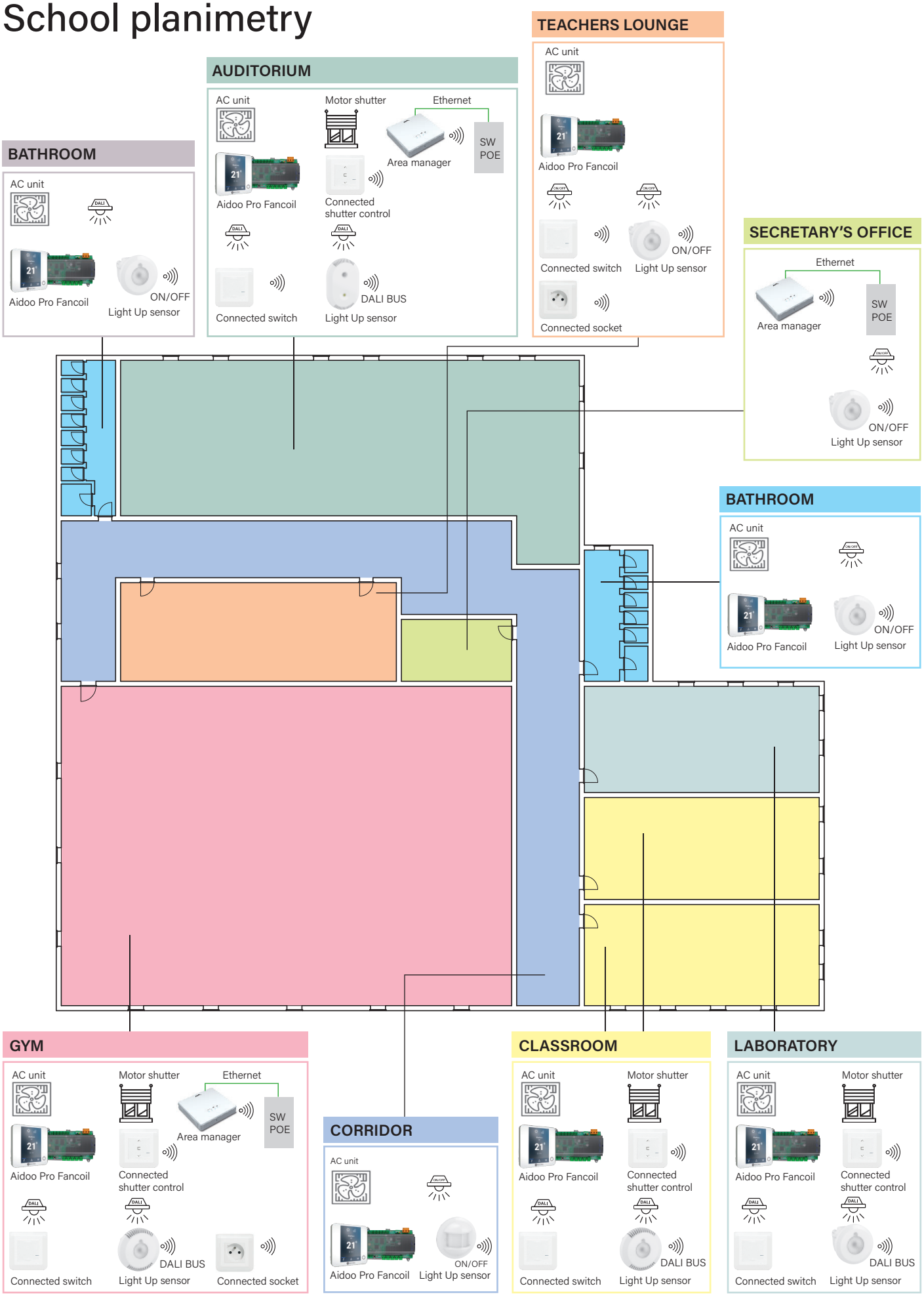
> Visualise the real use of each space by monitoring presence and consumption according to main usage (HVAC, lights...).

Classroom well-being:

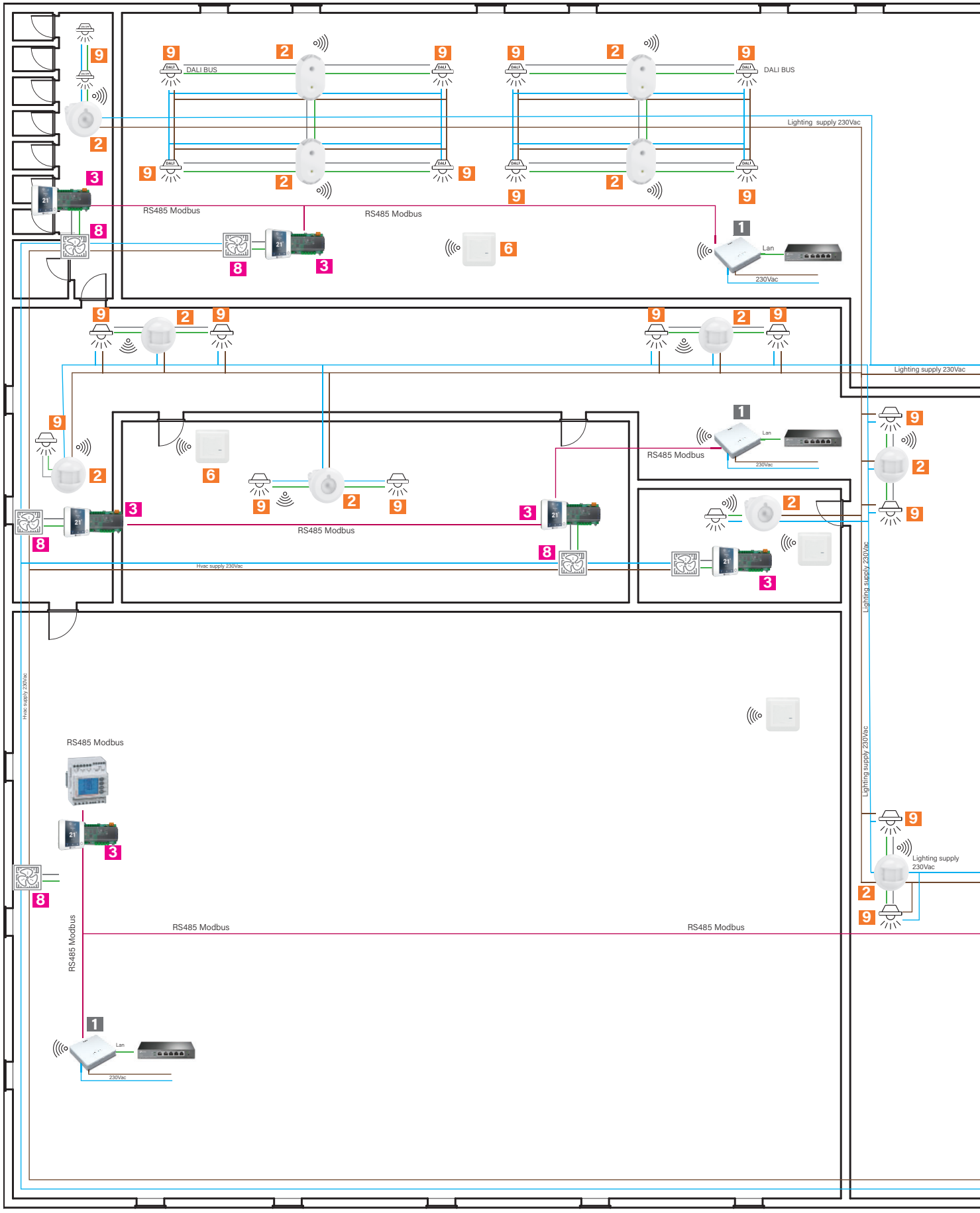
> Improve students and teachers' well-being by monitoring air quality and noise.

FUNCTIONS			AMBIENTS																	
N°	FUNCTION	SOLUTION	CLASS ROOMS		LABORATORY		SECRETARY OFFICE		TEACHER'S LOUNGE		AUDITORIUM		CORRIDOR		GYM		BATHROOM	
			q.ty		q.ty		q.ty		q.ty		q.ty		q.ty		q.ty		q.ty	
	Size			90m² (x2)		90m²		25m²		100m²		260m²		220m²		515m²		30m² (x2)
1	**Area Manager**	Area manager					1	0 485 84			1	0 485 84	1	0 485 84	1	0 485 84		
2	**Lighting**	Light UP sensor	1	0 485 73	1	0 485 55	1	0 485 51	1	0 485 51	4	0 485 74	5	0 485 54			1	0 485 51
3	**Hvac**	Airzone	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil	1	Aidoo Pro Fancoil
4	**Metering**	Stand alone meters							1	0 648 37			1	4 120 51	1	4 120 51		
5	**Shutter control**	Connected shutter control	2	0 777 06LA	2	0 777 06LA					3	0 777 06LA						
6	**Command**	Connected switch	1	0 770 53L	1	0 770 53L	1	0 770 53L	1	0 770 53L	1	0 770 53L			1	0 770 53L		
		Door contact	1	0 485 75	1	0 485 75												

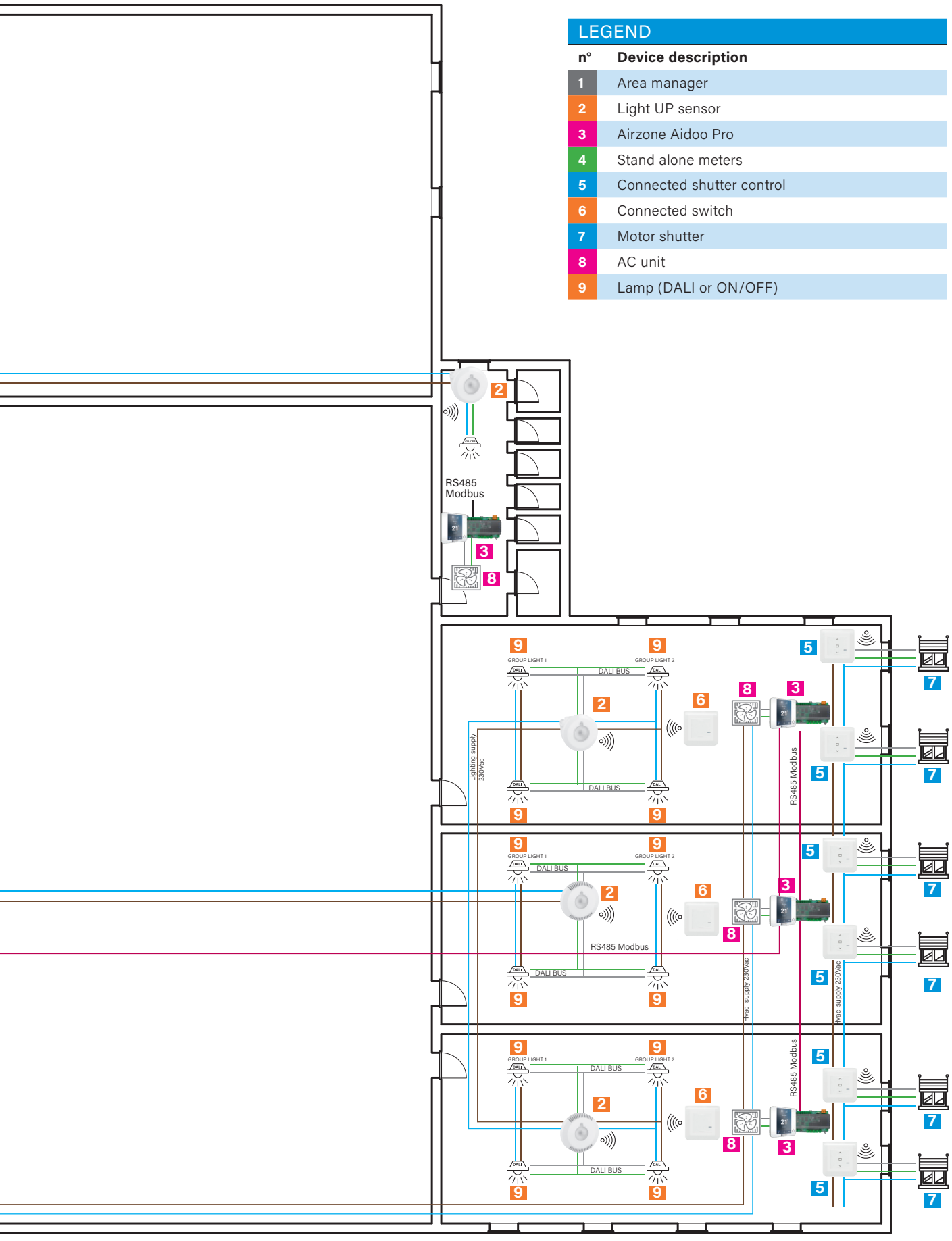
School planimetry



School application (general electric diagram)



LEGEND	
n°	**Device description**
1	Area manager
2	Light UP sensor
3	Airzone Aidoo Pro
4	Stand alone meters
5	Connected shutter control
6	Connected switch
7	Motor shutter
8	AC unit
9	Lamp (DALI or ON/OFF)



Classrooms (1 and 2)

DEFINITION

Classroom of 90m²
adapt to 25 students max.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting. The black board can be controlled by the wirless and batteryless switch.

HVAC control: set point managed depending on the real presence in the open space defining rules for occupied / unoccupied space. Window contacts can be used to deactivate the HVAC system to avoid wastage.

Shutter control: opening/closing shutters according to a schedule

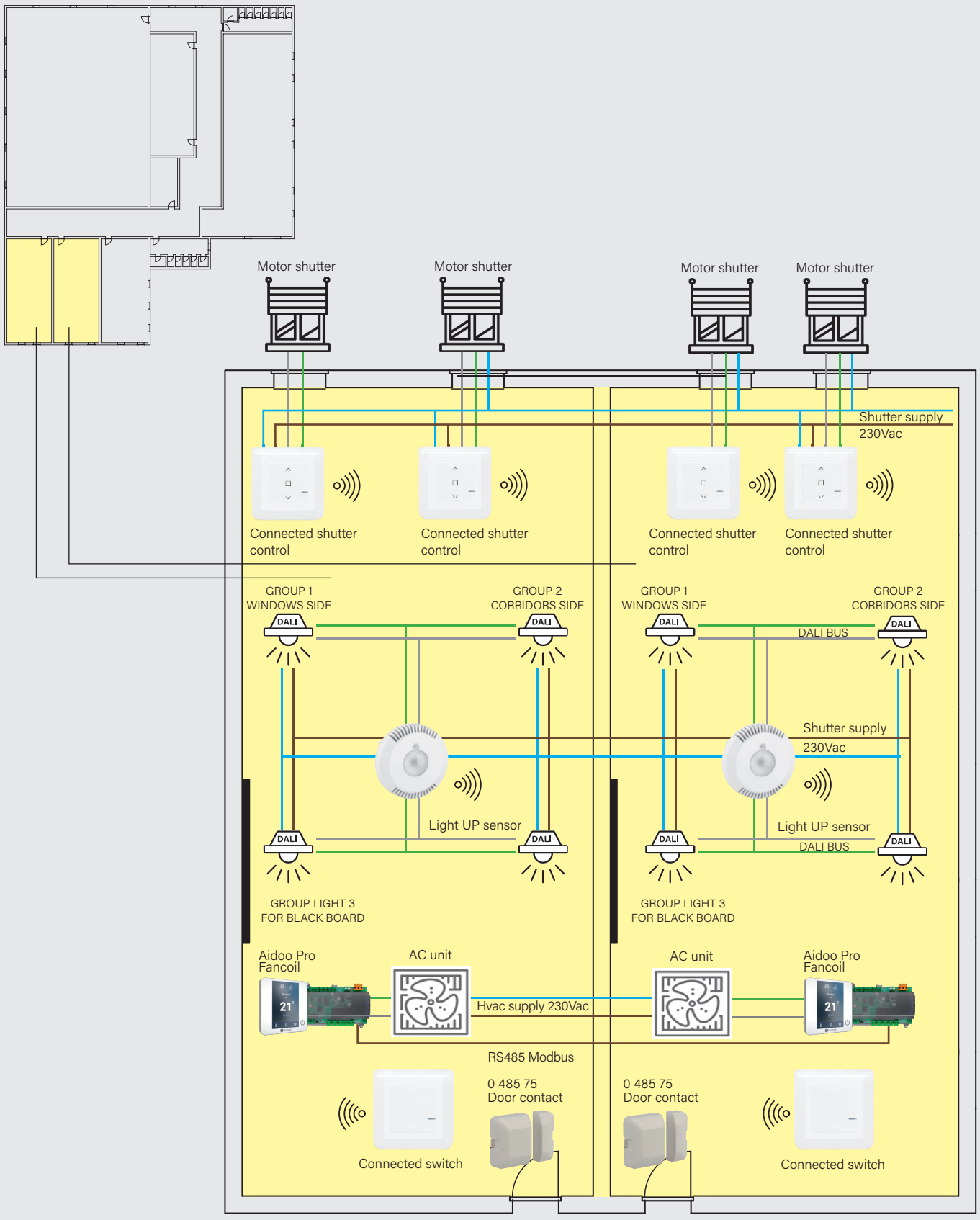
Alerts: an alert can be sent if the windows are left open too long or if the air quality is too low.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer and brightness setting	■		Dali Multi 3 zones sensor batteryless switch
HVAC control	Occupied / Unoccupied space rule		■	Advanced sensor, Aidoo, socket
Shutter control	Opening/closing management		■	Connected shutter control
Alert	Alert on noise, air quality level and open windows		■	Dali Multi 3 zones sensor Opening contact sensor

LIST OF MATERIALS

SINGLE CLASSROOM (90m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 73	DALI multi 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil
3	**Shutter control**	Connected Shutter control	2	0 777 06LA	Mosaic - Connected door contact
4	**Command**	Connected push-button	1	0 770 53L	Mosaic - Connected push-button
		Door Contact	1	0 485 75	Door contact sensor

CLASSROOMS (1 AND 2)



Laboratory

DEFINITION

Space of 90m² adapt to 25 students max for technical or scientific experiments.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting. The black board can be controlled by the wirless and batteryless switch.

HVAC control: set point managed depending on the real presence in the open space defining rules for occupied / unoccupied space. Window contacts can be used to deactivate the HVAC system to avoid wastage.

Shutter control: opening/closing shutters according to a schedule.

Alerts: an alert can be sent if the windows are left open too long.

FUNCTION REQUESTED

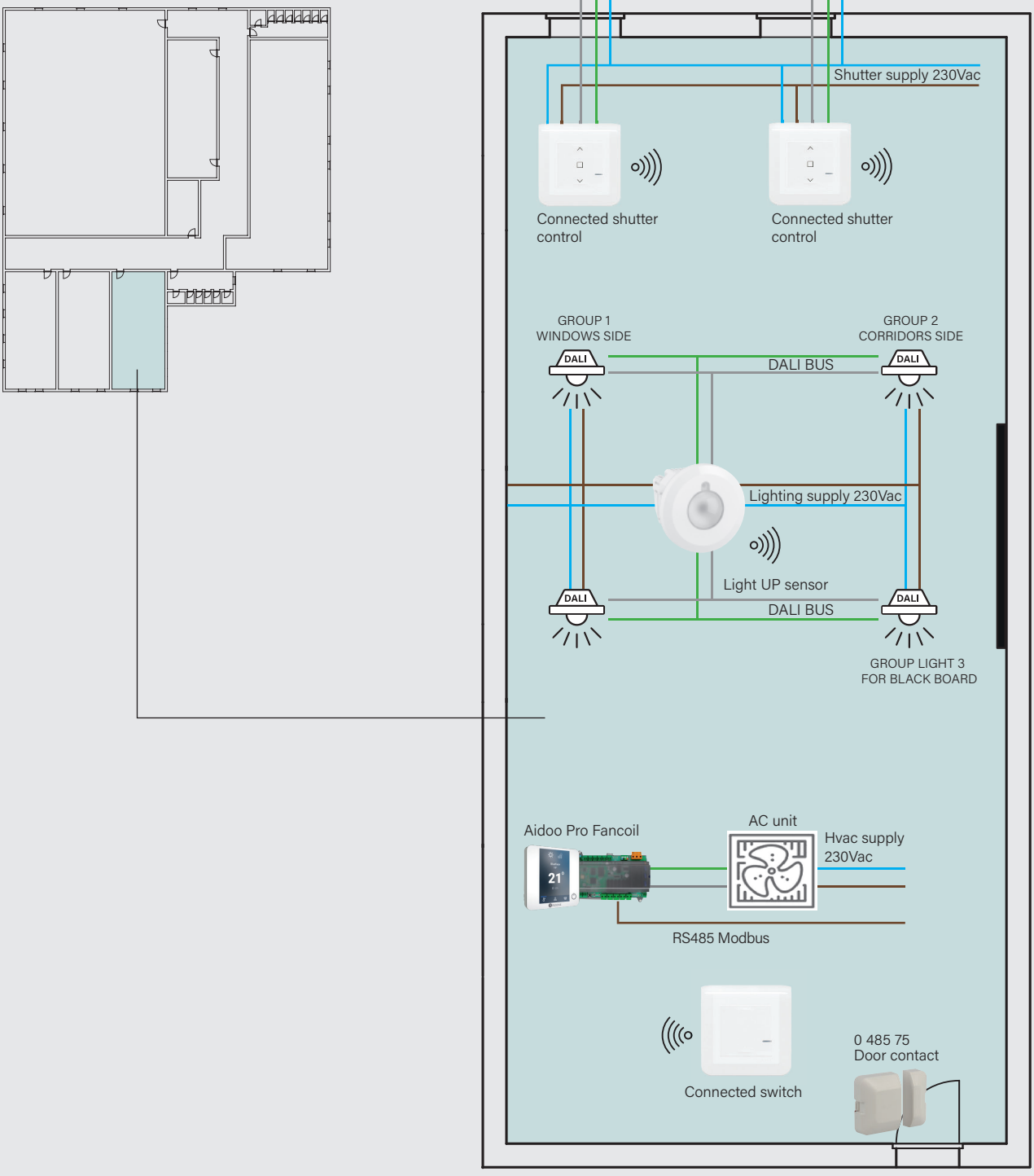
FUNCTIONS	DESCRIPTION	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	Timer and brightness setting	■		Dali sensor batteryless switch
	DALI group creation (window – wall side – Black board)	■		
HVAC control	Occupied / Unoccupied space rule		■	Advanced sensor, Aidoo, socket
Shutter control	Opening/closing management		■	Connected shutter control
Alert	Alert on noise, air quality level and open windows		■	Dali Multi 3 zones sensor Opening contact sensor

LIST OF MATERIALS

LABORATORY (90m²)

N°	FUNCTION	SOLUTION	QTY	ITEM CODE	DESCRIPTION
1	**Lighting**	Light UP sensor	1	0 485 55	DALI 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil
3	**Shutter control**	Connected Shutter control	2	0 777 06LA	Mosaic - Connected shutter control
4	**Command**	Connected push-button	1	0 770 53L	Mosaic - Connected push-button
		Door Contact	1	0 485 75	Door contact sensor

LABORATORY


Motor shutter
Motor shutter
Shutter supply 230Vac
Connected shutter control
Connected shutter control
GROUP 1 WINDOWS SIDE
GROUP 2 CORRIDORS SIDE
DALI
DALI BUS
DALI
Lighting supply 230Vac
Light UP sensor
DALI
DALI BUS
DALI
GROUP LIGHT 3 FOR BLACK BOARD
Aidoo Pro Fancoil
AC unit
Hvac supply 230Vac
RS485 Modbus
Connected switch
0 485 75 Door contact

Auditorium

DEFINITION

Space of 260m² adapt to 200 people max for meeting, presentation, courses or events.

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

HVAC control: set point managed depending on the real presence in auditorium defining rules.

Shutter control: opening/closing shutters according to a schedule.

Analytics: count people in the auditorium to monitor the real use.

Alerts: monitor noise and air quality to keep occupied / unoccupied space

FUNCTION REQUESTED

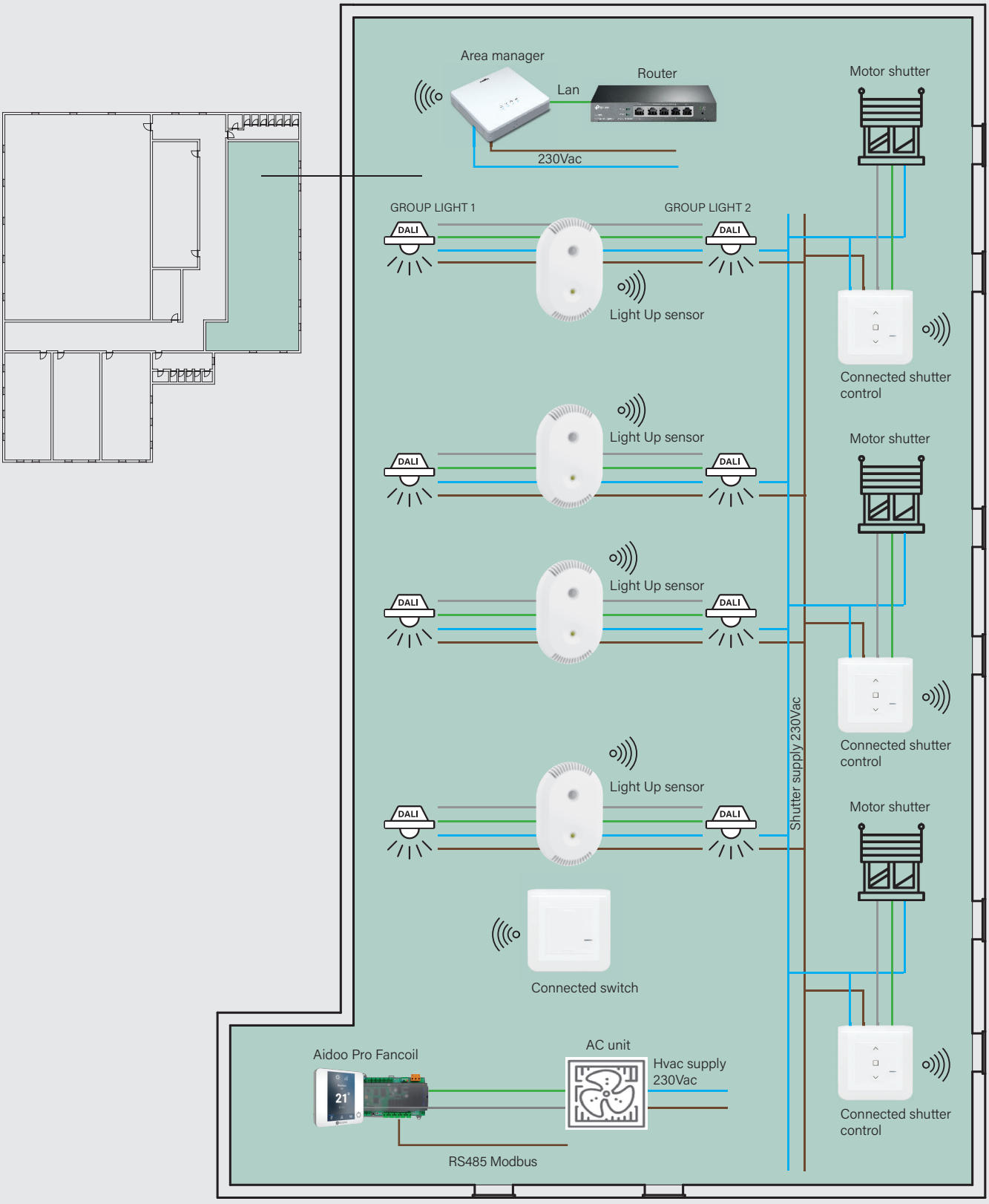
FUNCTIONS	DESCRIPTION	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	Timer and brightness setting	■		Advanced sensor
	DALI group creation (window – wall side - stage)	■		
	Timer and brightness setting	■		Dali multi 3 zones sensor
HVAC control	Occupied / Unoccupied space rule		■	Advanced sensor, Aidoo
Shutter control	Opening/closing management		■	Connected shutter control
Analytics	Counting people		■	Advanced sensor
Alert	Alert on number of people and air quality level		■	Advanced sensor

LIST OF MATERIALS

AUDITORIUM (260m²)

N°	FUNCTION	SOLUTION	QTY	ITEM CODE	DESCRIPTION
1	**Lighting**	Light UP sensor	4	0 485 74	DALI advanced 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil
3	**Area manager**	Area nanager	1	0 485 84	Webserver
4	**Shutter control**	Connected Shutter control	3	0 777 06LA	Mosaic - Connected shutter control
5	**Command**	Connected push-button	1	0 770 53L	Mosaic - Connected push-button

AUDITORIUM


Area manager
Lan
Router
230Vac
Motor shutter
GROUP LIGHT 1
GROUP LIGHT 2
DALI
Light Up sensor
Connected shutter control
Motor shutter
Light Up sensor
Connected shutter control
Light Up sensor
Motor shutter
Shutter supply 230Vac
Light Up sensor
Connected switch
AC unit
Aidoo Pro Fancoil
Hvac supply 230Vac
Connected shutter control
RS485 Modbus

Gym

DEFINITION

Space of 515m² adapt to 50 students max for gym and fitness.

APPLICATION DESCRIPTION

HVAC control: the setpoint temperature is managed according to the calendar.

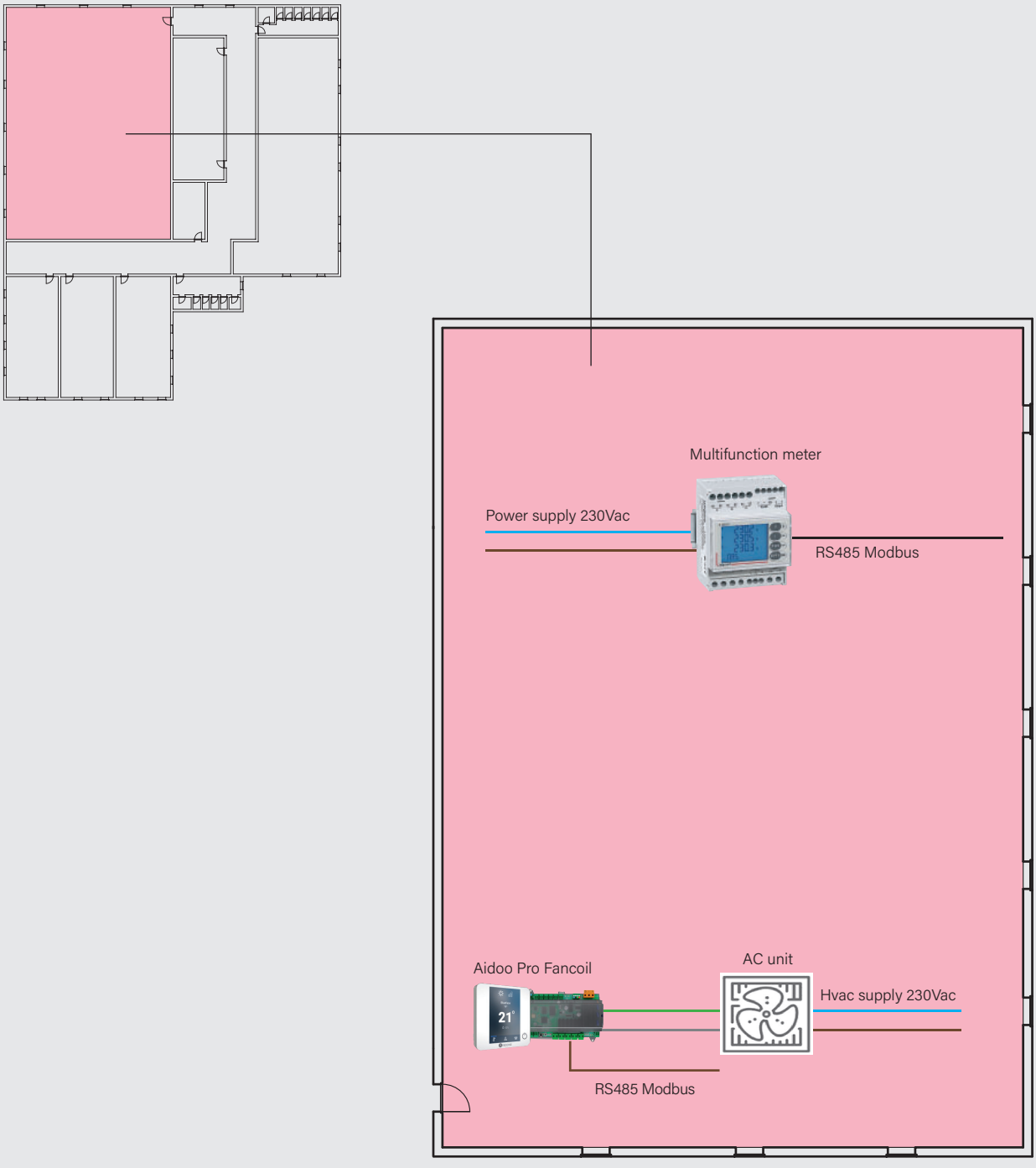
Alerts: on real time consumption exceed a defined threshold.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
HVAC control	Calendar rule		■	Aidoo
Alert	Alert on real time consumption		■	EMDX³

LIST OF MATERIALS

GYM (515m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil
2	**Metering**	EMDX³ meters	1	4 120 51	Stand alone multifunction meters

GYM


Multifunction meter
Power supply 230Vac
RS485 Modbus
Aidoo Pro Fancoil
AC unit
Hvac supply 230Vac
RS485 Modbus

Corridor

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes

HVAC control: set point managed depending on the real presence in corridor defining rules..

Analytics: occupancy in the space to monitor the real use.

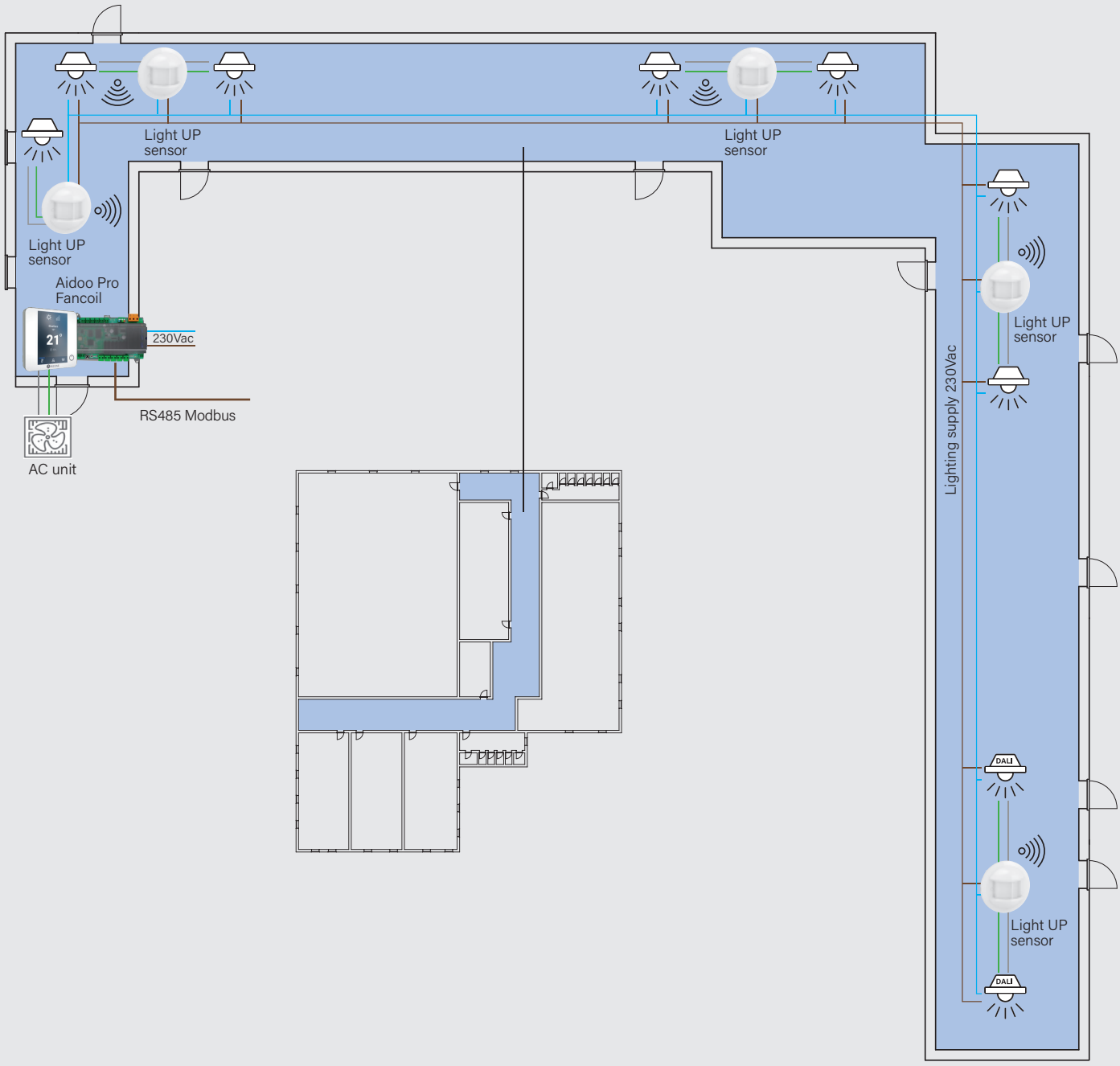
Alert: On real time consumption exceed a defined threshold.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set max – min lux level	■		Corridor sensor
	Timer and brightness level settings		■	
Hvac control	Calendar rule		■	Aidoo pro
Analytics	Occupancy	■		Corridor sensor
Alert	Alert on real time consumption		■	EMDX³

LIST OF MATERIALS

CORRIDOR (220m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	5	0 485 54	ON / OFF corridor
2	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil

CORRIDOR


Light UP sensor
Light UP sensor
Light UP sensor
Aidoo Pro Fancoil
230Vac
RS485 Modbus
AC unit
Lighting supply 230Vac
Light UP sensor
DALI
DALI
Light UP sensor

Teacher's lounge

DEFINITION

Lounge and meeting room for up to 20 people.

APPLICATION DESCRIPTION

Lighting control: The detector controls lighting according to occupancy.

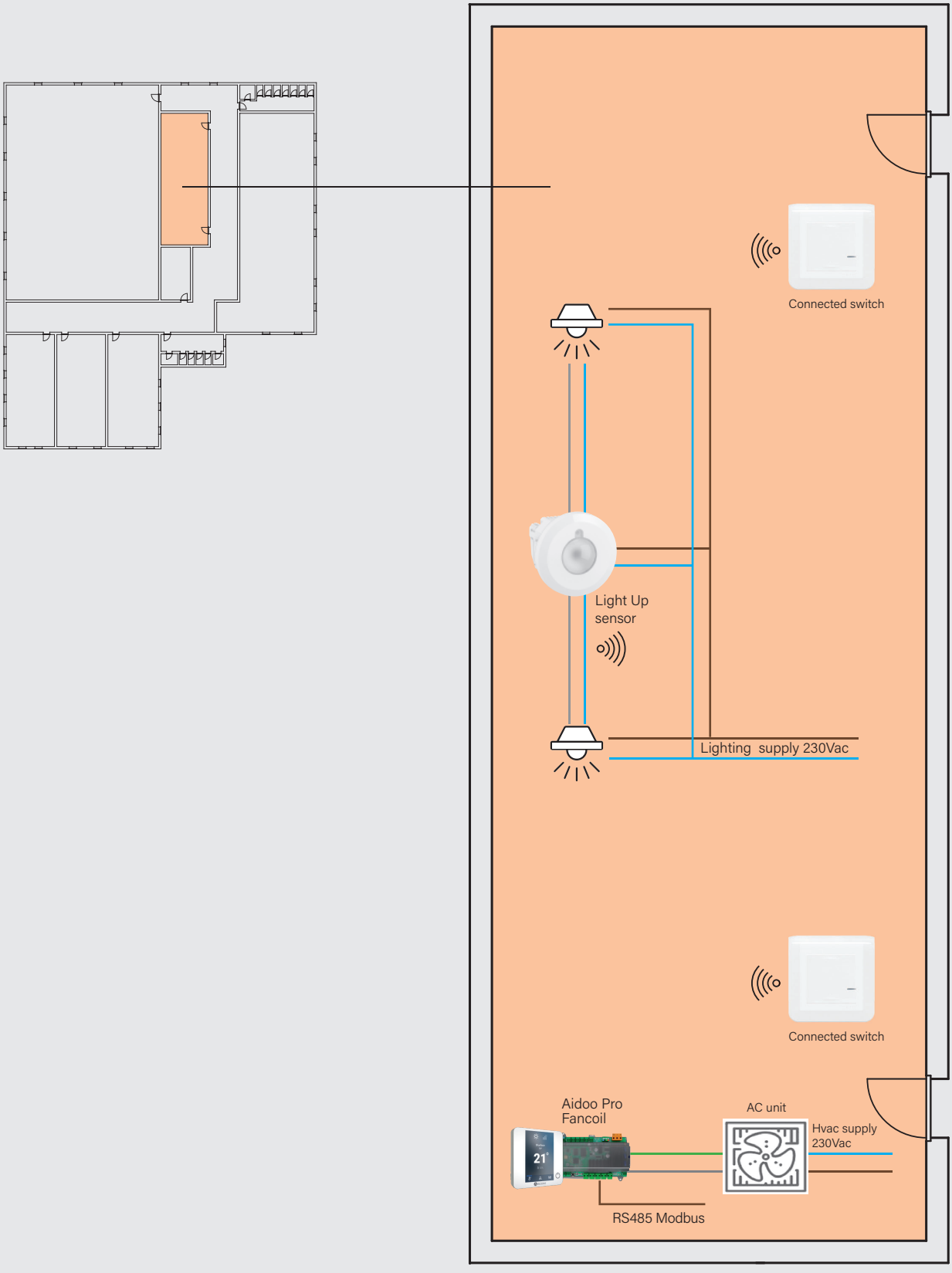
HVAC control: The set point is managed according to the actual presence in the room and the rules defined.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer settings	■		ON / OFF sensor
HVAC control	Occupied / Unoccupied space rule		■	Advanced sensor, Aidoo
Analytics	Occupancy		■	ON / OFF sensor

LIST OF MATERIALS

TEACHER'S LOUNGE (100m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor
2	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil
3	**Command**	Connected pushbutton	2	0 770 53L	Mosaic - Connected pushbutton

TEACHER'S LOUNGE



Secretary office

DEFINITION

Workspace less than 25m² composed by 2 desks and single entance.

APPLICATION DESCRIPTION

Lighting control: the detector controls lighting according to occupancy.

HVAC control: setpoint managed as a function of actual presence in the secretariat room according to defined rules.

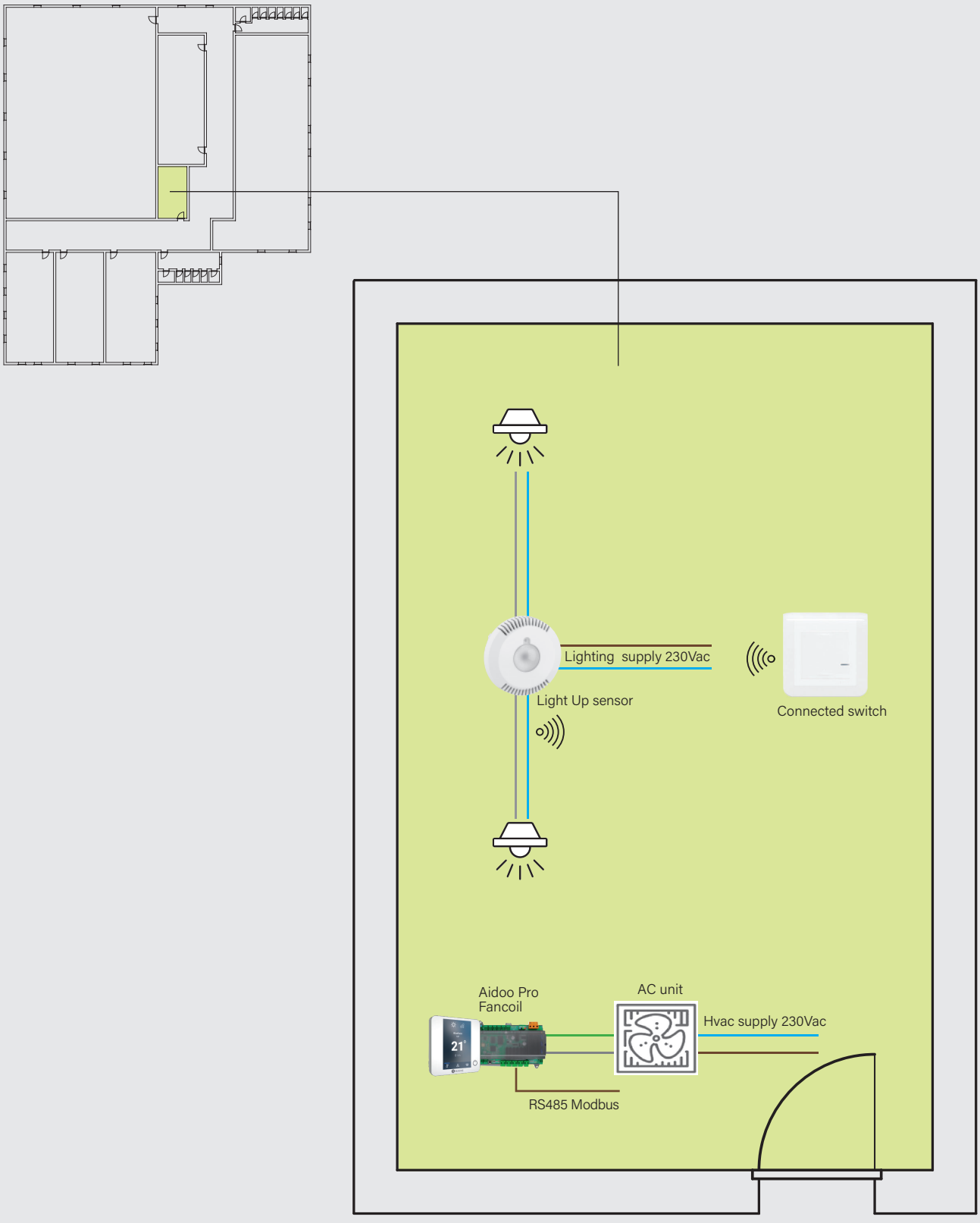
Analytics: occupancy in the space to monitor the real use.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer setting	■		ON / OFF sensor
	Commissioning push buttons for manual override	■		ON / OFF sensor, batteryless switch
Hvac control	Occupied / Unoccupied space rule		■	ON / OFF sensor Aidoo
Analytics	Occupancy		■	ON / OFF sensor

LIST OF MATERIALS

SECRETARY OFFICE (25m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor
2	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil
3	**Command**	Connected pushbutton	1	0 770 53L	Mosaic - Connected pushbutton

SECRETARY OFFICE



Bathroom (1 and 2)

DEFINITION

Space of 15m² with
3 toilets and sink area.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

HVAC control: set point managed depending on the real presence in the bathroom defining rules for occupied / unoccupied space.

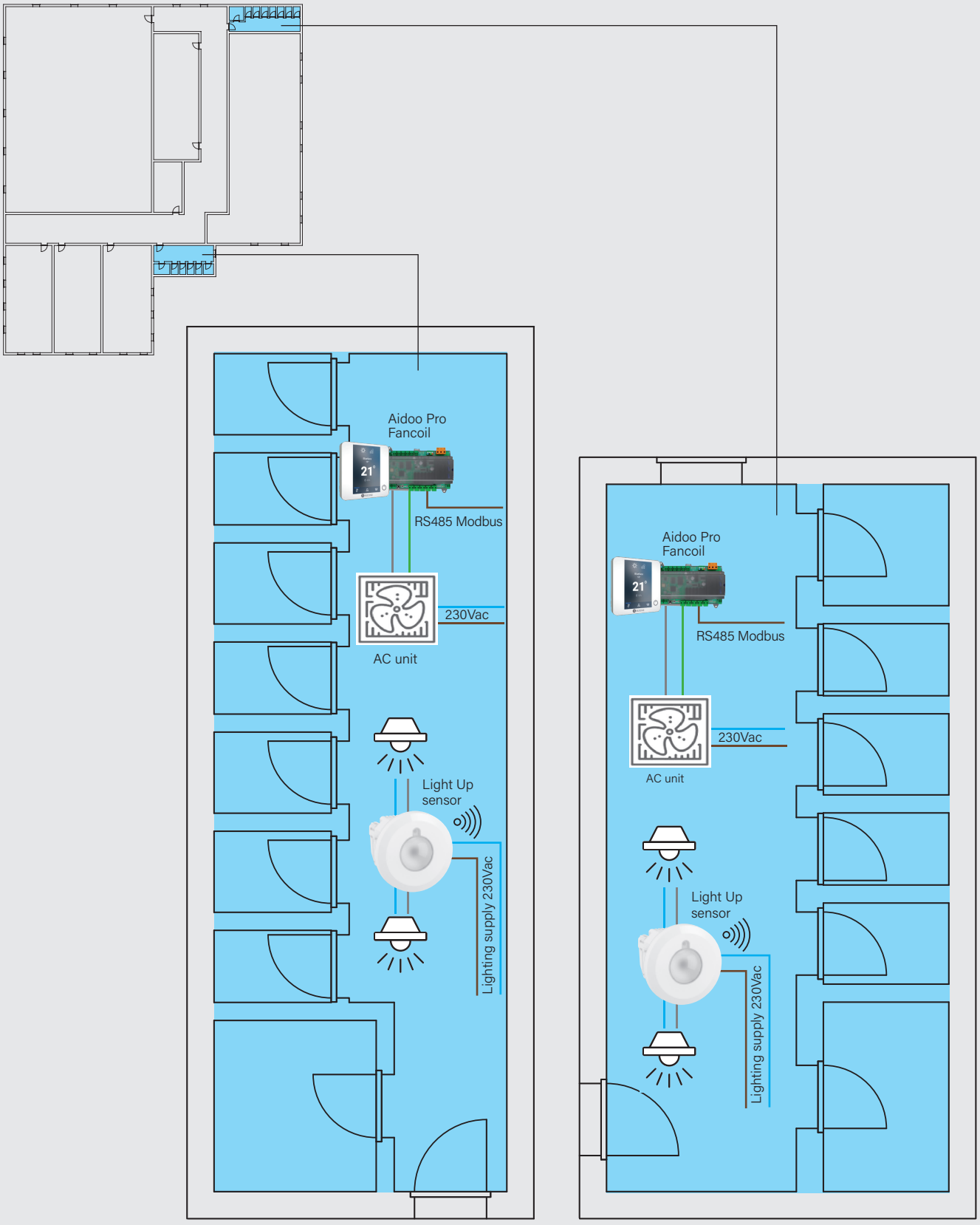
Analytics: occupancy to monitor the real use.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer settings	■		ON / OFF sensor
Hvac control	Occupied / Unoccupied space rule		■	ON-OFF sensor, Aidoo
Analytics	Occupancy		■	Occupancy sensor

LIST OF MATERIALS

BATHROOM (15m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
2	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor
3	**Hvac**	Airzone	1	AIDOO	Aidoo Pro Fancoil

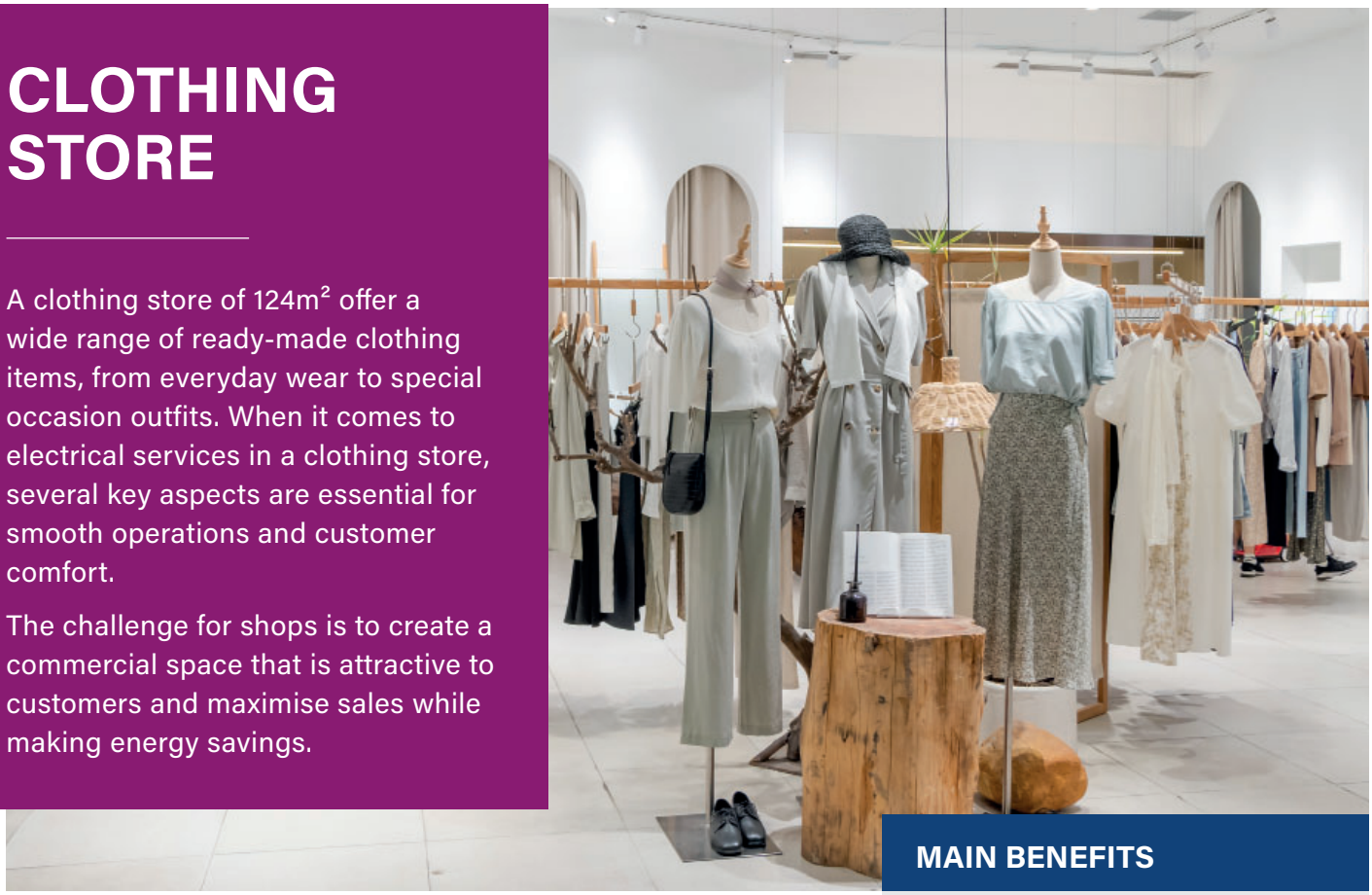
BATHROOM (1 AND 2)



CLOTHING STORE

A clothing store of 124m² offer a wide range of ready-made clothing items, from everyday wear to special occasion outfits. When it comes to electrical services in a clothing store, several key aspects are essential for smooth operations and customer comfort.

The challenge for shops is to create a commercial space that is attractive to customers and maximise sales while making energy savings.



TECHNICAL SOLUTIONS

Light Up occupancy for presence detection in all spaces, DALI Control for people counting in open spaces, and ON-OFF in circulation areas.

Light Up multisensor to monitor presence, air quality and noise in meeting rooms and open spaces.

Airzone Aidoo to integrate HVAC in every space.

EMDX³ single-phase meters to monitor HVAC, lighting and socket consumption.

Dashboard manager to monitor, receive alerts, analyse and take action.

TECHNICAL TOOLS FOR WEOZ SYSTEM

Buiding Manager Portal => to create the site structure and add area managers.

Building+Manager app => to pair the devices with the area manager.

Close Up app => to set specific parameter for Light Up sensor and pair battery less swtiches.

MAIN BENEFITS

Lighting Management:

> Proper lighting is crucial for creating an inviting atmosphere and showcasing merchandise.

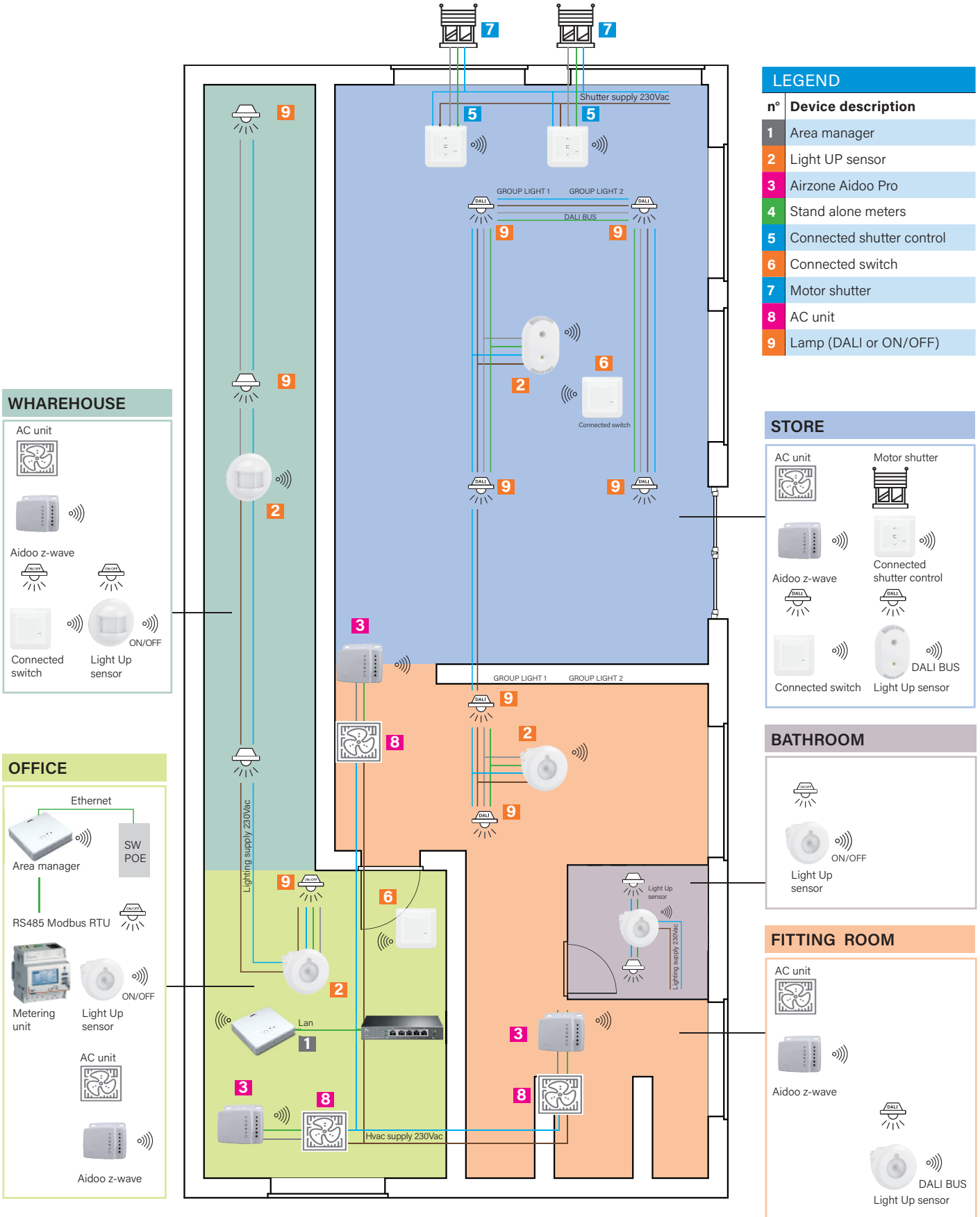
> High-quality lighting helps emphasize colors and textures, making products more appealing to shoppers.

HVAC (Heating, Ventilation, and Air Conditioning):

> Maintaining a comfortable temperature is essential for both customers and staff.

FUNCTIONS			AMBIENTS									
N°	FUNCTION	SOLUTION	STORE		FITTING ROOM		OFFICE		WAREHOUSE		BATHROOM	
			q.ty		q.ty		q.ty		q.ty		q.ty	
	Size			57m²		28m²		18m²		21m²		30m² (x2)
1	**Area Manager**	Area manager					1	0 485 84				
2	**Lighting**	Light UP sensor	1	0 485 74	1	0 485 52	1	0 485 52		0 485 53	1	0 485 51
3	**Hvac**	Airzone	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo		
4	**Metering**	Stand alone meters					1	4 120 91				
5	**Shutter control**	Connected shutter control	2	0 777 06LA								
6	**Command**	Connected switch	1	0 770 53L			1	0 770 53L				

Clothing store (general electric diagram)



LEGEND

n°	Device description
1	Area manager
2	Light UP sensor
3	Airzone Aidoo Pro
4	Stand alone meters
5	Connected shutter control
6	Connected switch
7	Motor shutter
8	AC unit
9	Lamp (DALI or ON/OFF)

WHAREHOUSE

AC unit

Aidoo z-wave

Connected switch

ON/OFF

Light Up sensor

OFFICE

Ethernet

Area manager

SW POE

RS485 Modbus RTU

Metering unit

ON/OFF

Light Up sensor

AC unit

Aidoo z-wave

STORE

AC unit

Motor shutter

Aidoo z-wave

Connected shutter control

Connected switch

DALI BUS

Light Up sensor

BATHROOM

ON/OFF

Light Up sensor

FITTING ROOM

AC unit

Aidoo z-wave

DALI BUS

Light Up sensor

Store

DEFINITION

A pleasant 57m² sales area that displays products and encourages sales.

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

HVAC control: set point managed depending on the real presence in the store defining rules.

Shutter control: opening/closing shutters according to a schedule.

Analytics: the detector enables people to be counted to measure the shop's hours of activity.

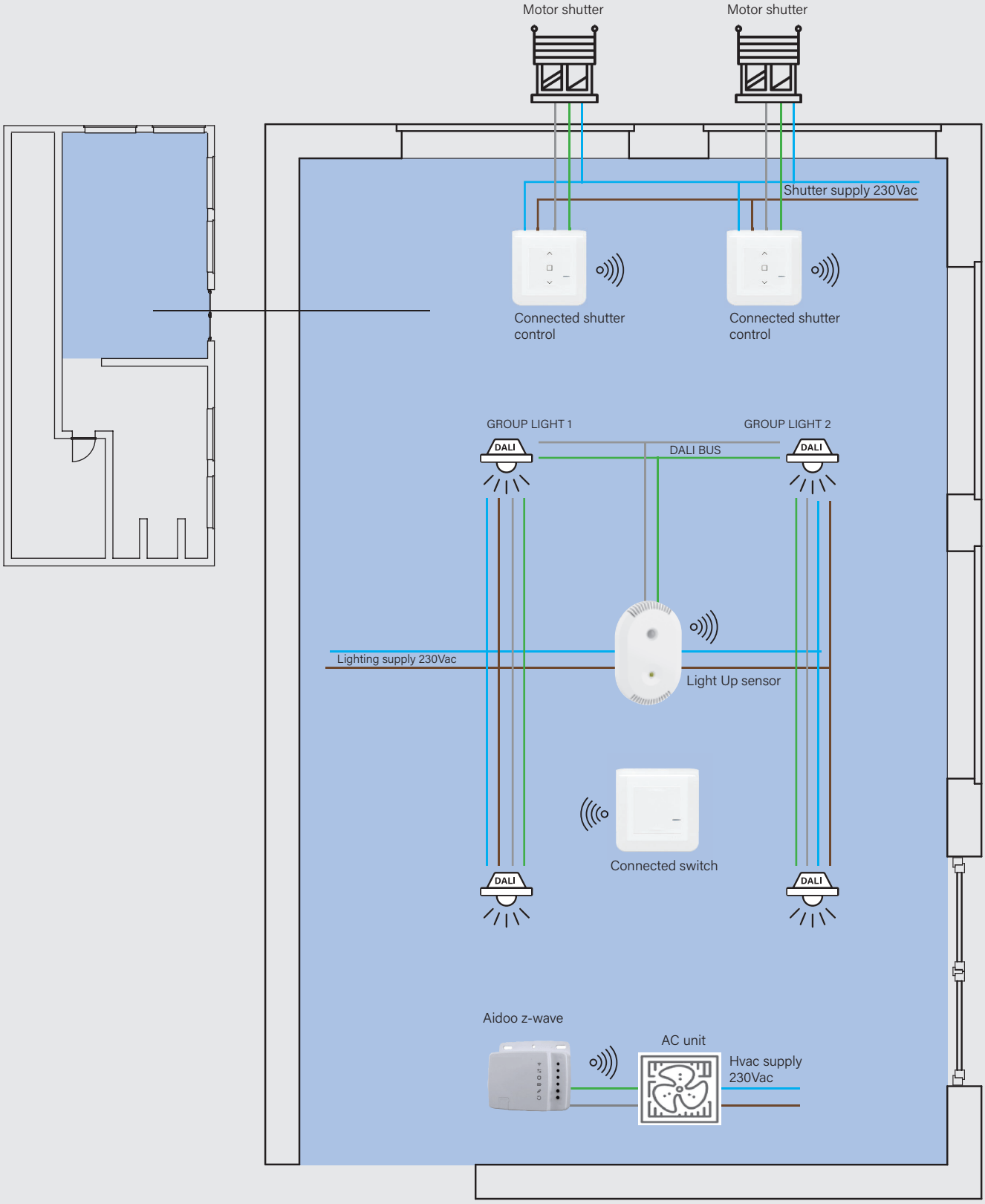
Alerts: on number of people exceeding the 10 max and air quality.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Commissioning push buttons for manual override	■		Advanced 3 zones sensor
Lighting control	Occupied / Unoccupied space rule	■		Advanced 3 zones sensor battery-less switch
HVAC control	Adapt ventilation according to the number of people		■	Advanced sensor Aidoo
Shutter control	Alert on number of people and air quality level		■	Connected shutter control
Analytics	Counting people		■	Advanced sensor
Alert	Alert on noise and air quality level		■	Advanced sensor

LIST OF MATERIALS

STORE (57m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 74	DALI advanced 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Shutter control**	Connected Shutter control	2	0 777 06LA	Mosaic - Connected shutter control
4	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch

STORE


Motor shutter
Motor shutter
Shutter supply 230Vac
Connected shutter control
Connected shutter control
GROUP LIGHT 1
GROUP LIGHT 2
DALI
DALI BUS
DALI
Lighting supply 230Vac
Light Up sensor
Connected switch
DALI
DALI
Aidoo z-wave
AC unit
Hvac supply 230Vac

Fitting room

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

HVAC control: set point managed depending on the real presence in the store defining rules..

Shutter control: opening/closing shutters according to a schedule.

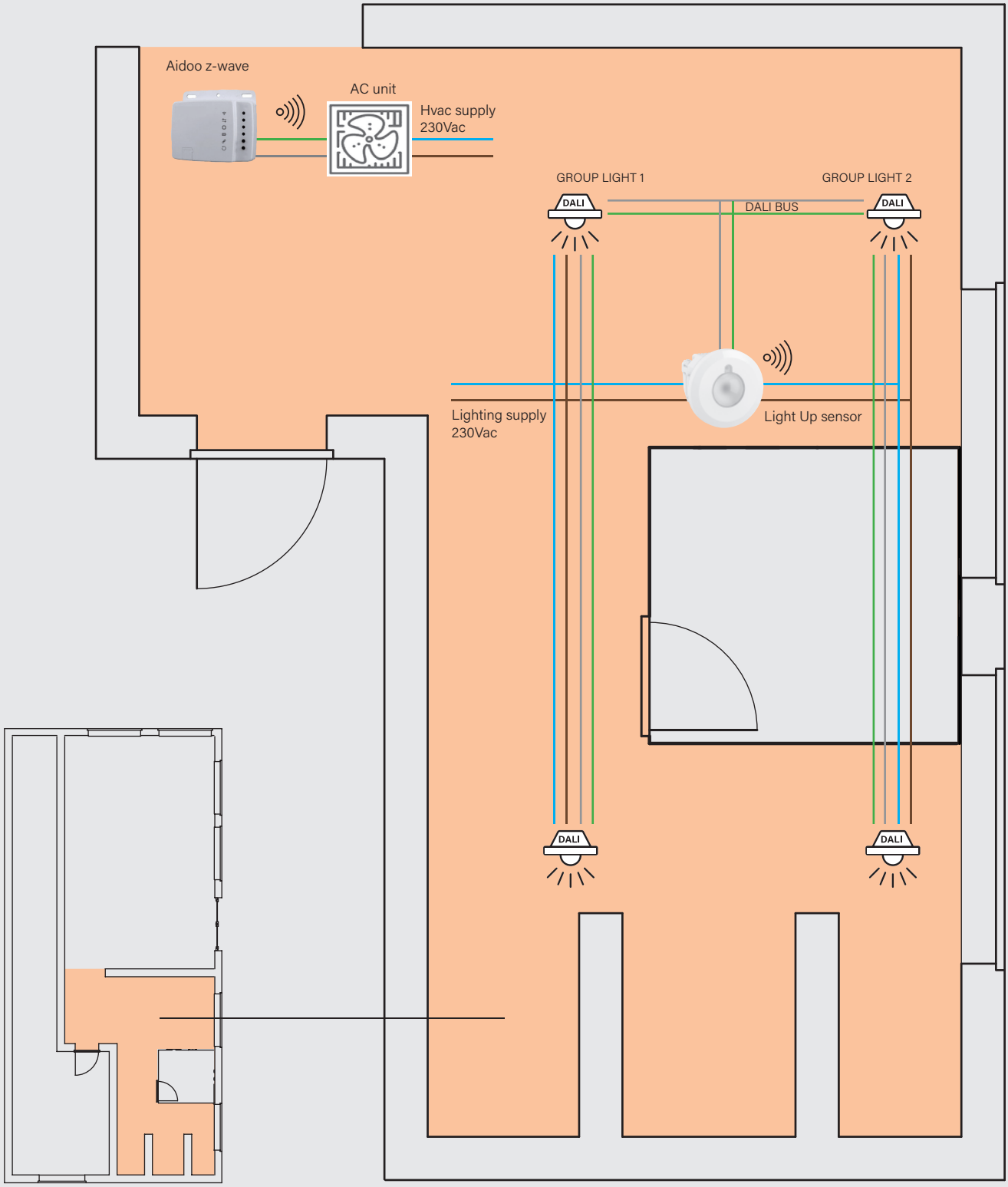
FUNCTION REQUESTED

	FUNCTIONS	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	Set max-min lux level	■		DALI 1 zone sensor
	Commissioning push buttons for manual override	■		DALI 1 zone sensor batteryless switch
HVAC control	Adapt ventilation according to the number of people		■	Aidoo Pro
Shutter control	Opening / Closing management		■	Connected shutter control

LIST OF MATERIALS

FITTING ROOM (28m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 52	DALI 1 zone
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave

FITTING ROOM



Office

DEFINITION

Workspace less than 18m² composed by 1 desk and single entrance.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor with DALI dimming to keep a proper light level leveraging daylight harvesting + manual control for override.

HVAC control: set point managed depending on the real presence in the office defining rules for occupied / unoccupied space.

Shutter control: opening/closing shutters according to a schedule.

Alert: on real time consumption exceed a defined threshold.

FUNCTION REQUESTED

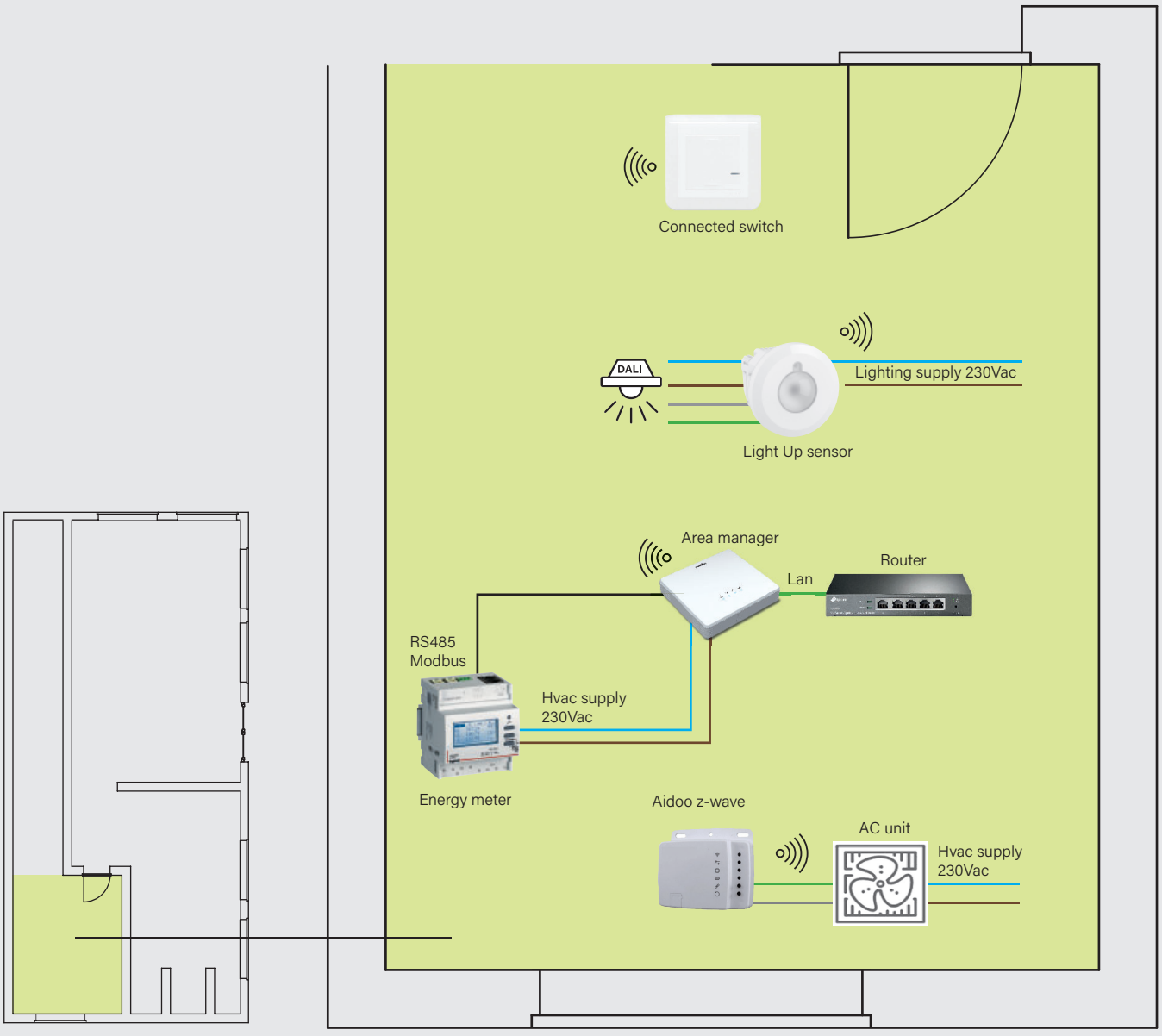
	FUNCTIONS	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	Set max - min lux level	■		DALI sensor
	Commissioning push buttons for manual override	■		DALI 1 zone, batteryless switch
	Timer settings	■		ON/OFF sensor
HVAC control	Adapt ventilation according to the number of people		■	Aidoo Pro
Shutter control	Opening / closing management		■	Connected shutter control
Alert	Alert on real time consumption		■	EMD X3 meters

LIST OF MATERIALS

FITTING ROOM (28m²)

N°	FUNCTION	SOLUTION	QTY	ITEM CODE	DESCRIPTION
1	**Lighting**	Light UP sensor	1	0 485 52	DALI 1 zone
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Area manager**	Area manager	1	0 485 84	Webserver
4	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch
5	**Measure**	Three-Phase Meter 63A	1	4 120 91	EMDX³ multifunction meter

OFFICE


Connected switch
DALI
Lighting supply 230Vac
Light Up sensor
Area manager
Router
Lan
RS485
Modbus
Hvac supply
230Vac
Energy meter
Aidoo z-wave
AC unit
Hvac supply
230Vac

Warehouse

DEFINITION

Warehouse of 21m².

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

HVAC control: set point managed depending on the real presence in the meeting room defining rules for occupied / unoccupied space.

FUNCTION REQUESTED

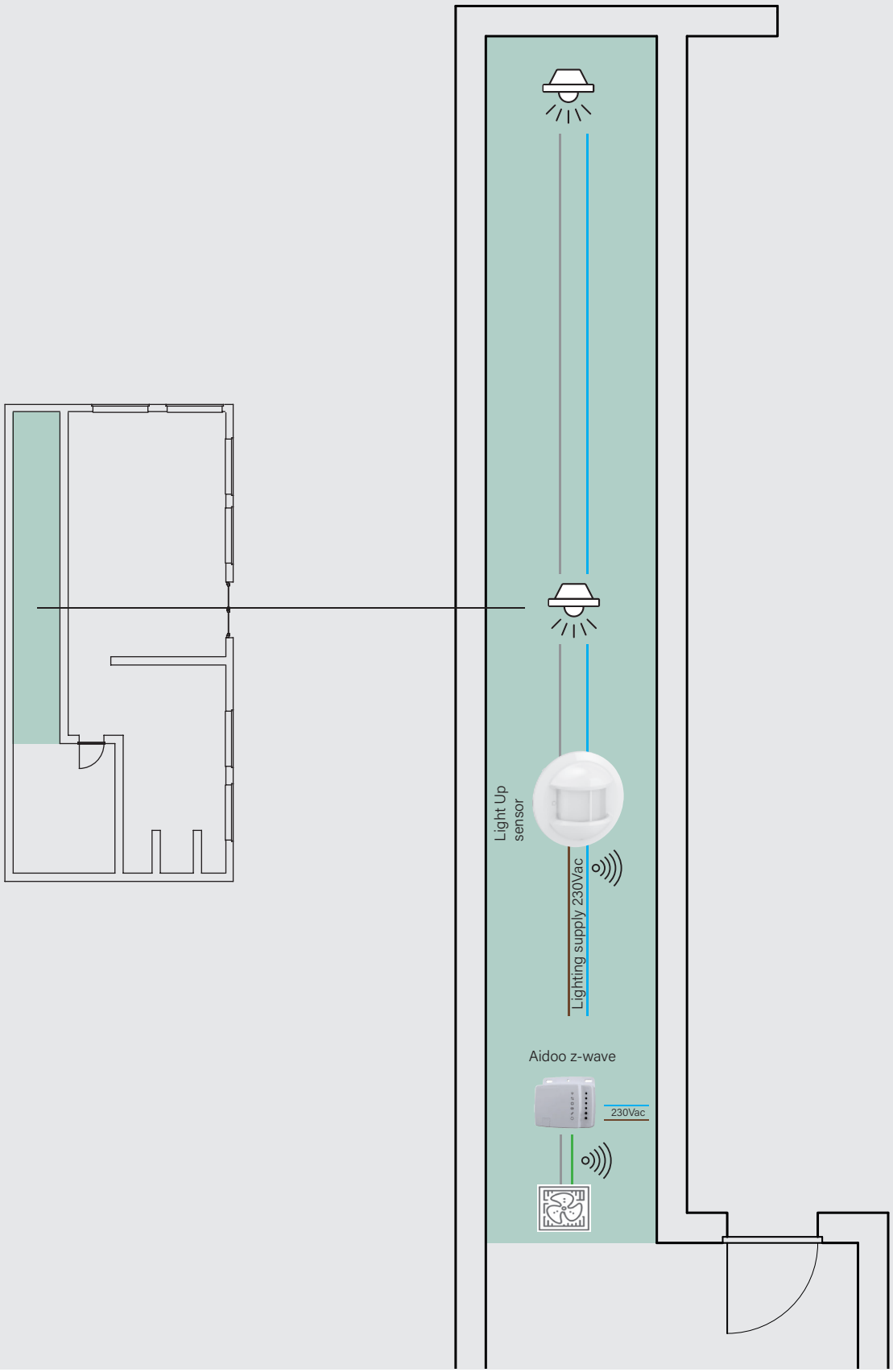
FUNCTIONS	DESCRIPTION	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	Set max – min lux level	■		ON / OFF corridor sensor
	Timer settings	■		ON/OFF sensor
Hvac control	Adapt ventilation according to the number of people		■	Aidoo Pro

LIST OF MATERIALS

WAREHOUSE (21m²)

N°	FUNCTION	SOLUTION	QTY	ITEM CODE	DESCRIPTION
1	**Lighting**	Light UP sensor	1	0 485 53	ON / OFF corridor
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave

WAREHOUSE



Bathroom

DEFINITION

Space of 15m² with 3 toilets and sink area.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

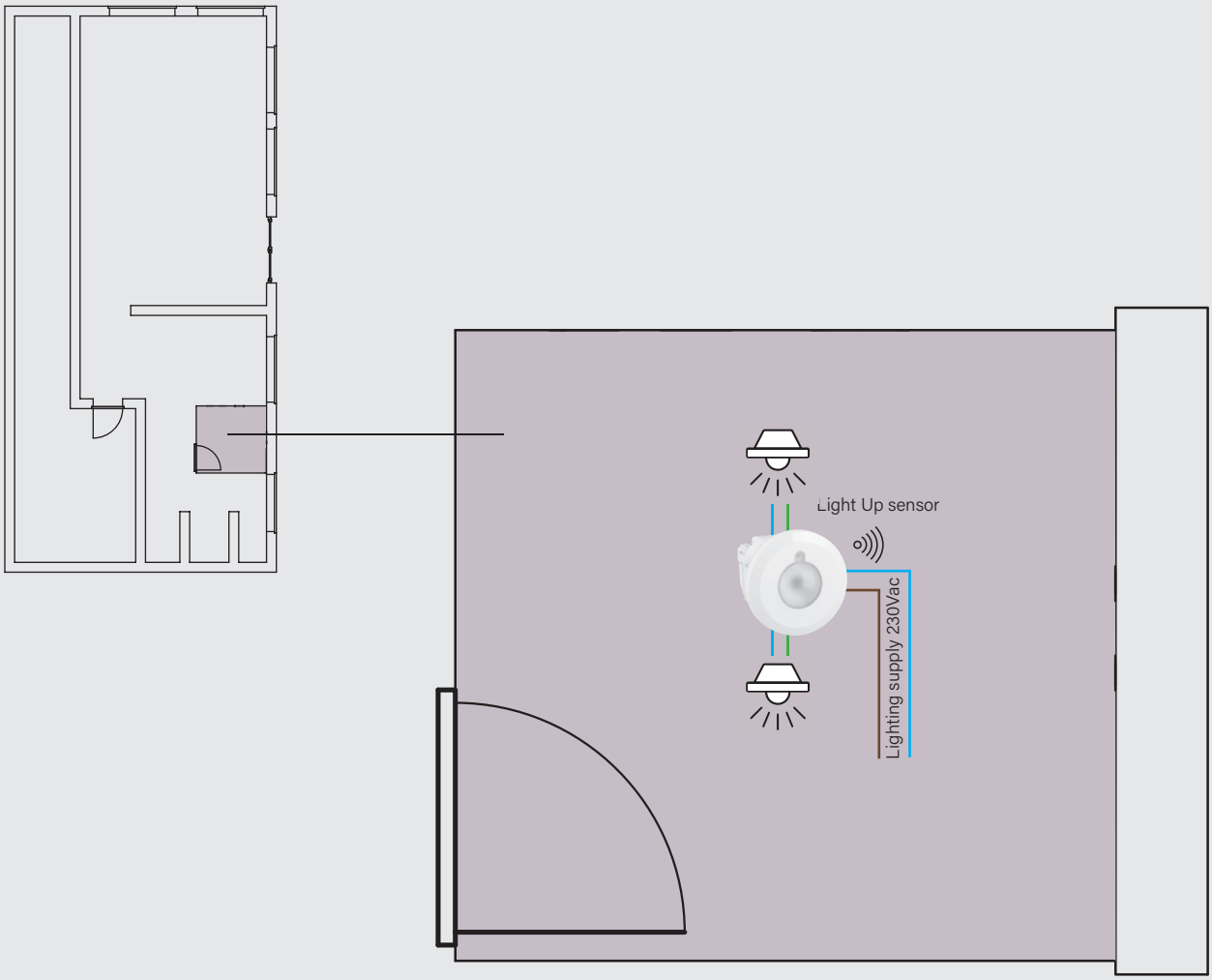
Analytics: occupancy to monitor the real use.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer and brightness level settings		■	ON / OFF sensor
Analytics	Occupancy		■	Occupancy sensor

LIST OF MATERIALS

BATHROOM (15m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor

BATHROOM



RESTAURANT

Improve your energy efficiency while promoting a welcoming atmosphere and an efficient kitchen.

Weoz system optimises every aspect of your business' energy consumption, from kitchen to restaurant areas.
It helps you ensure efficient and comfortable working conditions for your staff, and a pleasant meal experience for your guests.

TECHNICAL SOLUTIONS

Light Up occupancy for presence detection in service spaces, with DALI control in the kitchen and ON-OFF in circulation areas (lavatories, storage rooms).

Airzone Aidoo in every space..

EMS CX³ to monitor HVAC, lighting and appliances (refrigerators, ovens,...).

Dashboard manager to monitor, receive alerts, analyse and take action

TECHNICAL TOOLS FOR WEOZ SYSTEM

Buiding Manager Portal => to create the site structure and add area managers.

Building+Manager app => to pair the devices with the area manager.

Close Up app => to set specific parameter for Light Up sensor and pair battery less swtiches.

MAIN BENEFITS

Energy savings:

> Optimise lighting and HVAC based on real occupancy.

> Optimise heating based on restaurant schedule, opening hours, and activity in kitchen and guest spaces.

> Identify anomalies in appliance consumption and call for maintenance or substitution.

Better understanding of the building:

> Measure the real use of spaces by monitoring presence and consumption according to main usage (HVAC, lighting...).

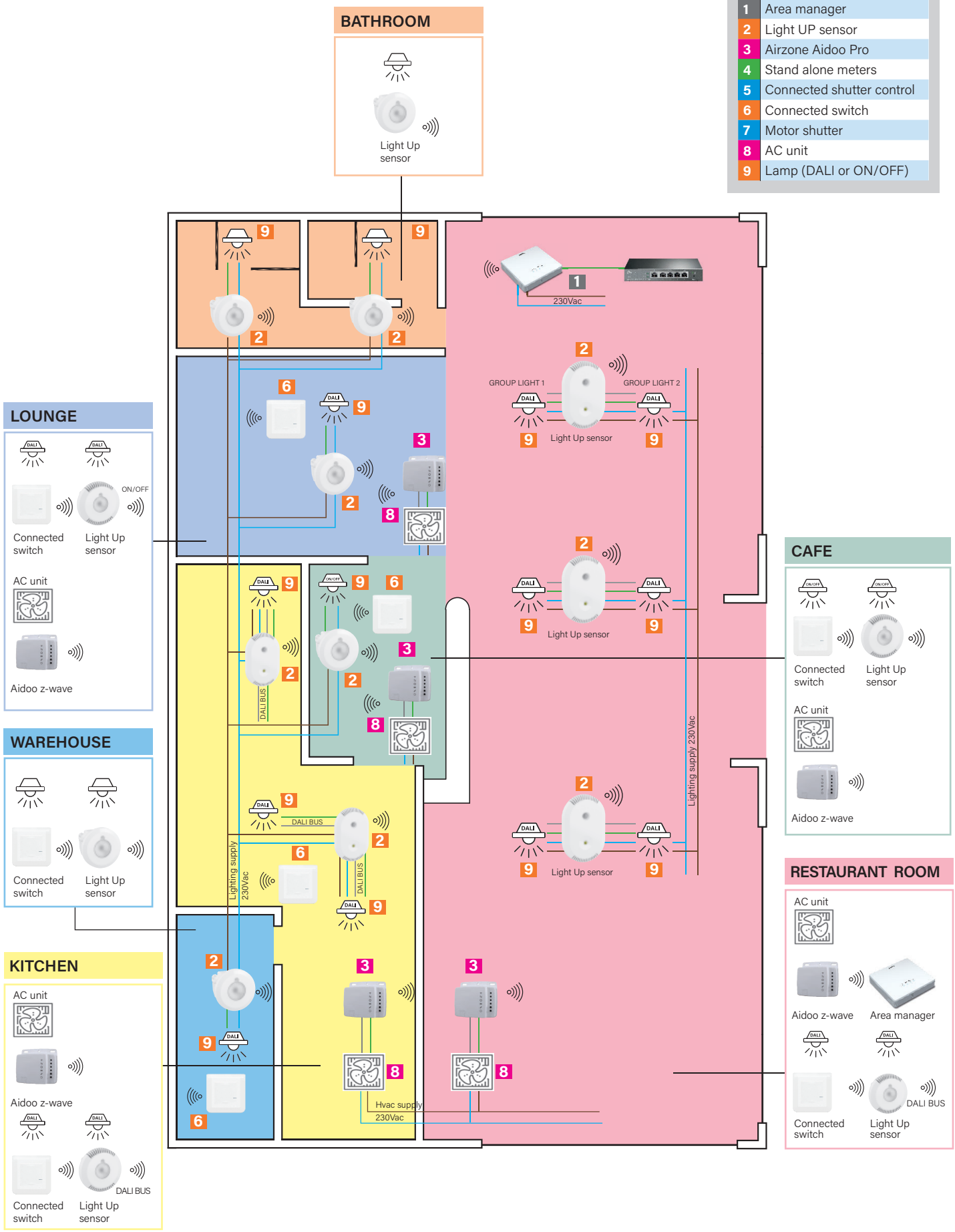
Restaurant well-being:

> Pre-heat or cool guest spaces depending on schedules.

FUNCTIONS			AMBIENTS											
N°	FUNCTION	SOLUTION	RESTAURANT ROOM		KITCHEN		CAFE		LOUNGE		WAREHOUSE		BATHROOM	
			q.ty		q.ty		q.ty		q.ty		q.ty		q.ty	
	Size			57m²		28m²		18m²		18m²		18m²		21m²
1	**Area Manager**	Area manger					1	0 485 84	1	0 485 84	1	0 485 84	1	
2	**Lighting**	Light UP sensor	2	0 485 73	1	0 485 71	1	0 485 71	1	0 485 71	1	0 485 51	1	0 485 51
3	**Hvac**	Airzone	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo	1	Aidoo
4	**Metering**	Stand alone meters												
5	**Command**	Connected switch	1	0 770 53L	1	0 770 53L								

Restaurant (general electric diagram)

LEGEND	
n°	**Device description**
1	Area manager
2	Light UP sensor
3	Airzone Aidoo Pro
4	Stand alone meters
5	Connected shutter control
6	Connected switch
7	Motor shutter
8	AC unit
9	Lamp (DALI or ON/OFF)



Restaurant room

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

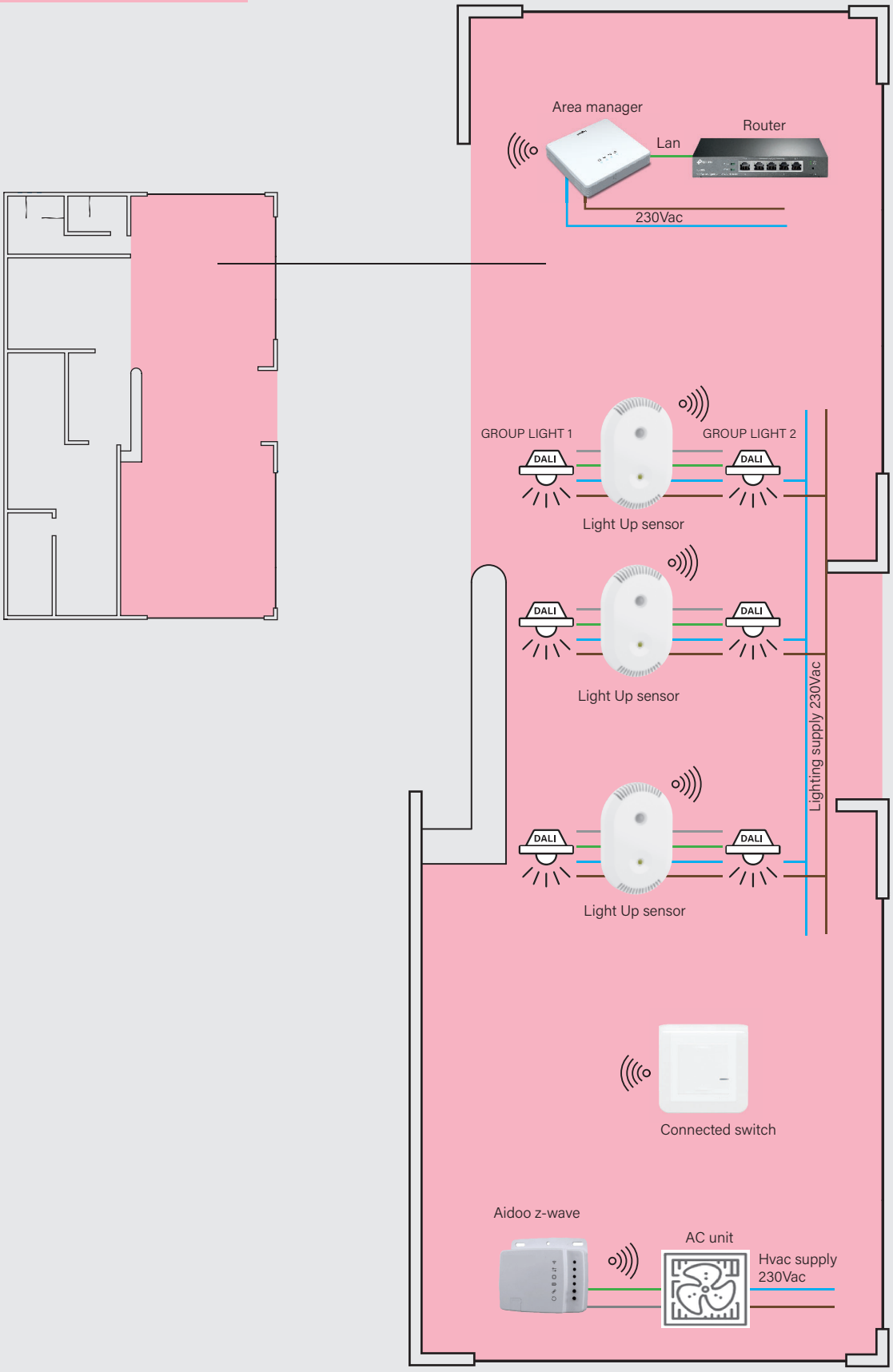
HVAC control: set point managed depending on the real presence in the store defining rules.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	DALI group creation (window - wall side) Set max - min lux level	■		Multi 3 zones sensor
Lighting control	Commissioning push buttons for manual override	■		Multi 3 zones sensor batteryless switch
HVAC control	Occupied / Unoccuppied space rule		■	Multi sensor Aidoo
Alert	Alert on real time consumption		■	Multi sensor

LIST OF MATERIALS

RESTAURANT ROOM (220m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	2	0 485 73	multi DALI 3 zones
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Area Manager**	Area Manager	1	0 485 84	Webserver
4	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch

RESTAURANT ROOM



Kitchen

DEFINITION

100m² work area for cooks.

APPLICATION DESCRIPTION

Lighting control: presence detection from sensors with DALI + manual control for override.

HVAC control: set point managed depending on the real presence in the kitchen defining rules for occupied / unoccupied space.

Energy management: Monitor HVAC, lighting and appliances (refrigerators, ovens,...).

Alert: monitor air quality.

FUNCTION REQUESTED

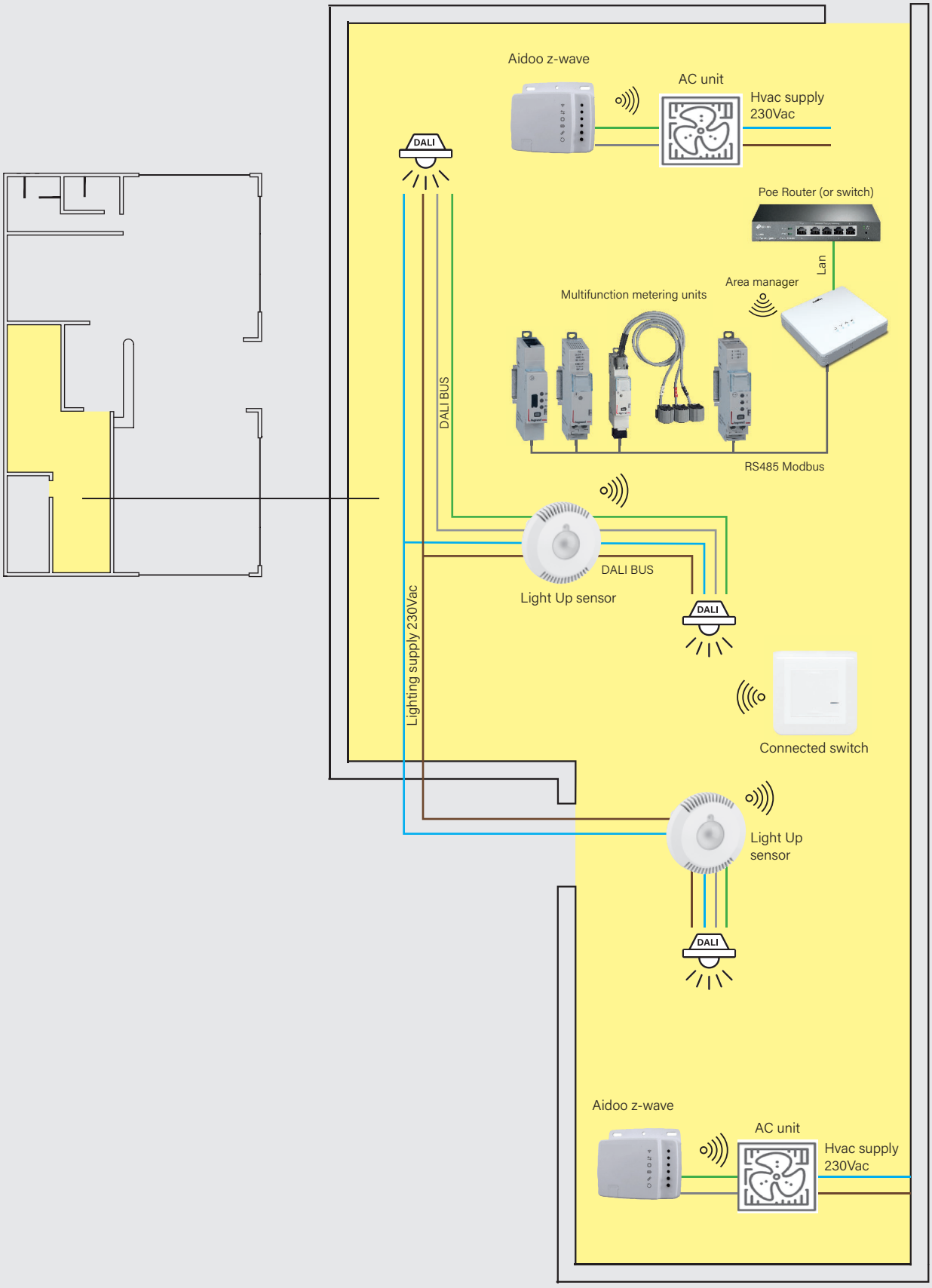
	FUNCTIONS	CLOSE UP	BMS PORTAL	PRODUCT
Lighting control	Commissioning push buttons for manual ovverride	■		Multi sensor, batteryless switch
HVAC control	Occupied / Unoccuppied space rule		■	Multi sensor, Aidoo
Energy management	Measure and monitor consumption points		■	EMS CX³
Alert	Alert on air quality level and on real time consumpiont		■	Multi sensor EMS CX³

LIST OF MATERIALS

KITCHEN (100m²)

N°	FUNCTION	SOLUTION	QTY	ITEM CODE	DESCRIPTION
1	**Lighting**	Light UP sensor	2	0 485 71	multi DALI 1 zone
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Area Manager**	Area Manager	1	0 485 84	Webserver
4	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch
5	**Metering**	EMS System	1	4 149 40	EMS modbus interface
			1	4 149 45	Power supply
			1	4 149 07	EMS cable
			1	4 149 18	EMS 3-phase measurement
			1	4 149 26	EMS pulse measurement

KITCHEN


Aidoo z-wave
AC unit
Hvac supply
230Vac
DALI
Poe Router (or switch)
Lan
Area manager
Multifunction metering units
DALI BUS
RS485 Modbus
DALI BUS
Light Up sensor
DALI
Lighting supply 230Vac
Connected switch
Light Up
sensor
DALI
Aidoo z-wave
AC unit
Hvac supply
230Vac

Cafe

DEFINITION

35m² bartenders' work area to serve and cash customers.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor with DALI dimming to keep a proper light level leveraging daylight harvesting + manual control for override.

HVAC control: et point managed depending on the real presence in the bar defining rules for occupied / unoccupied space.

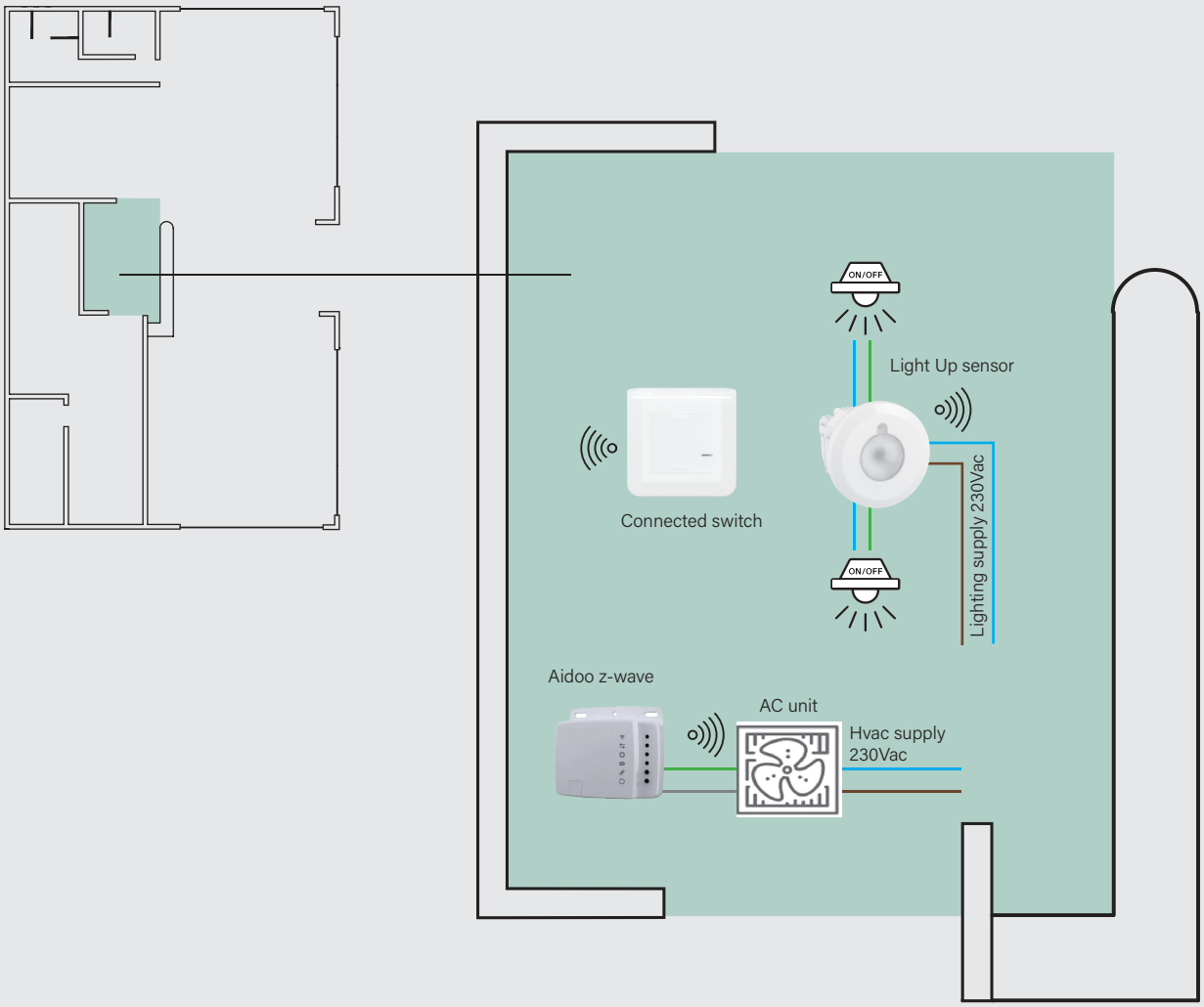
Alert: monitor air quality to keep under control the wellbeing of people (increase ventilation speed).

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set max - min lux level	■		Multi sensor
	Commissioning push buttons for manual ovverride	■		Multi sensor, batteryless switch
	Timer settings	■		ON/OFF sensor
HVAC control	Occupied / Unoccuppied space rule		■	Multi sensor, Aidoo
Alert	Alert on air quality level		■	Multi sensor

LIST OF MATERIALS

CAFE (35m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 71	multi DALI 1 zone
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
3	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch

CAFE


ON/OFF
Light Up sensor
Connected switch
Lighting supply 230Vac
ON/OFF
Aidoo z-wave
AC unit
Hvac supply
230Vac

Lounge

DEFINITION

A cosy 40m² area for guests to relax and enjoy cocktails.

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor with DALI dimming to keep a proper light level leveraging daylight harvesting + manual control for override.

HVAC control: set point managed depending on the real presence in the lounge defining rules for occupied / unoccupied space.

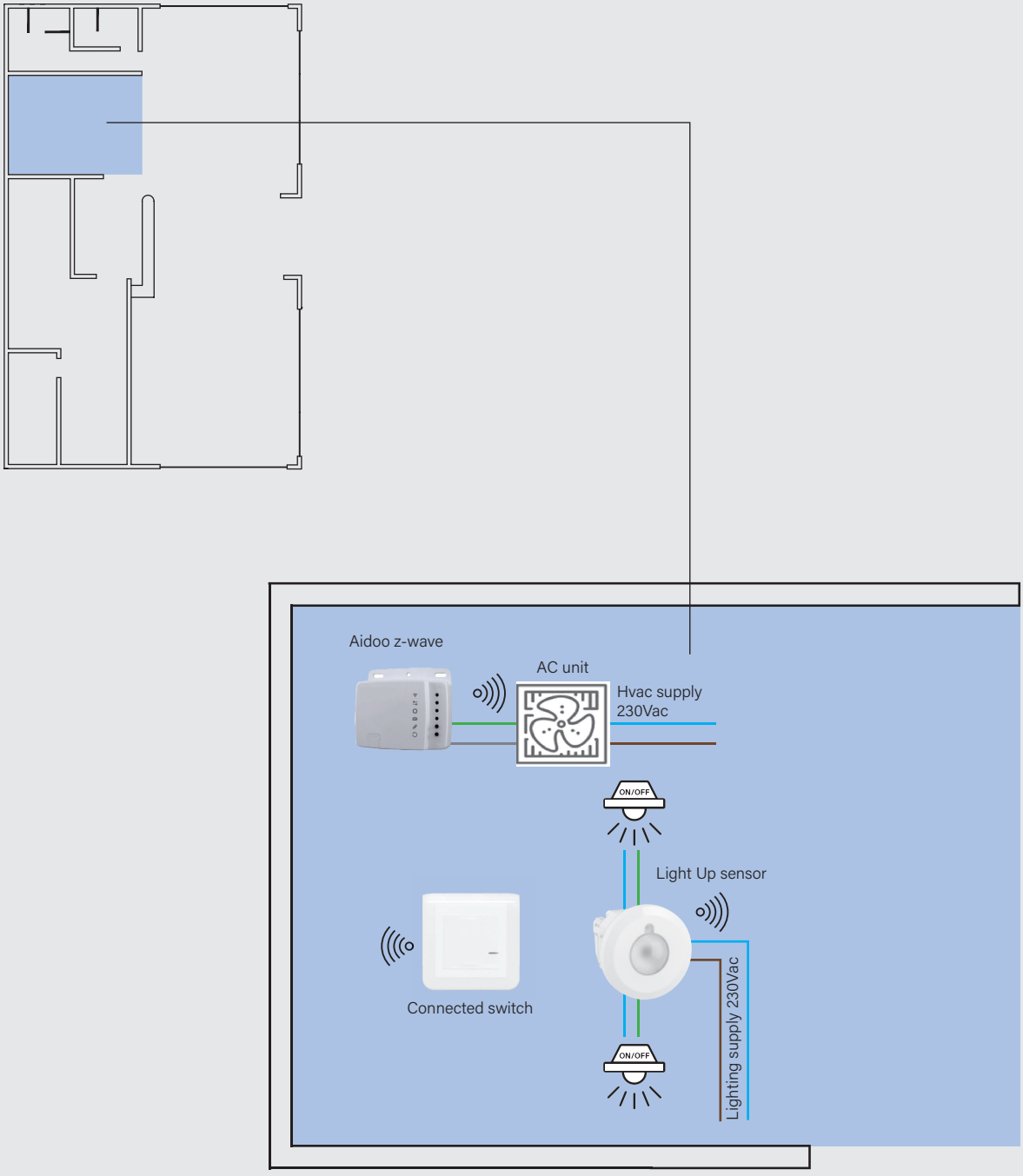
Alert: monitor air quality to keep under control the wellbeing of people (increase ventilation speed).

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set max - min lux level	■		Multi sensor
	Commissioning push buttons for manual ovverride	■		Multi sensor, batteryless switch
	Timer settings	■		ON/OFF sensor
HVAC control	Occupied / Unoccuppied space rule		■	Multi sensor, Aidoo
Alert	Alert on air quality level		■	Multi sensor

LIST OF MATERIALS

LOUNGE (40m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 71	multi DALI 1 zone
2	**Hvac**	Airzone	1	AIDOO	Aidoo z-wave
4	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch

LOUNGE


Aidoo z-wave
AC unit
Hvac supply
230Vac
ON/OFF
Light Up sensor
Connected switch
ON/OFF
Lighting supply 230Vac

Bathroom (1 and 2)

DEFINITION

A 25m² space with a separate men's and women's area with toilets and sink.

APPLICATION DESCRIPTION

Lighting control:presence detection from a unique ON/ OFF sensor in automatic mode without manual push button.

HVAC control: set point managed depending on the real presence in the bathroom defining rules for occupied / unoccupied space.

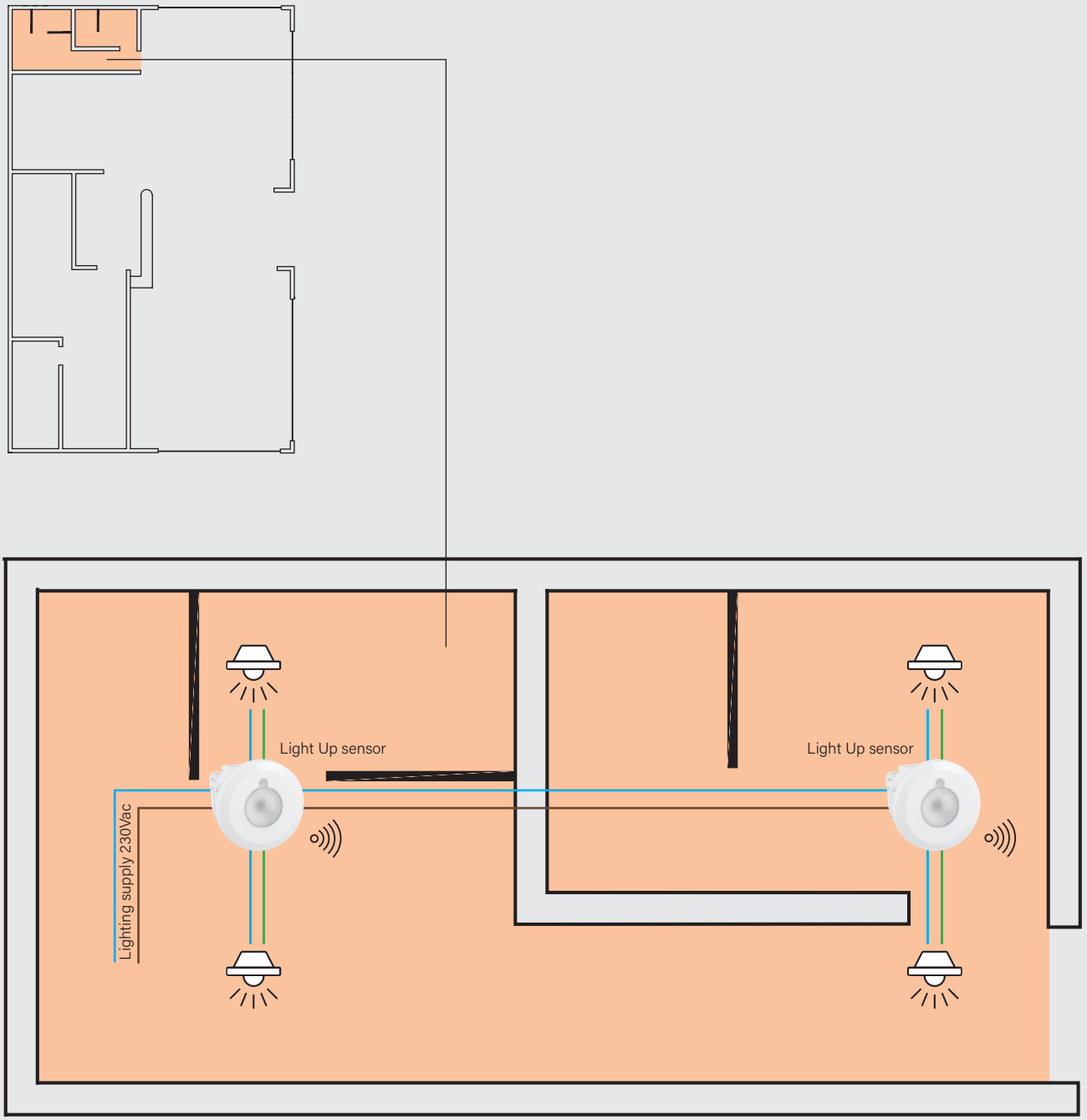
Analytics: occupancy to monitor the real use.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set max - min lux level	■		ON / OFF sensor
	Timer settings	■		ON/OFF sensor
HVAC control	Occupied / Unoccuppied space rule		■	ON / OFF sensor Aidoo Pro
Analytics	Occupancy		■	ON / OFF sensor

LIST OF MATERIALS

BATHROOM (15m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	2	0 485 51	ON/OFF sensor

BATHROOM (1 AND 2)



Warehouse (refrigerators)

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

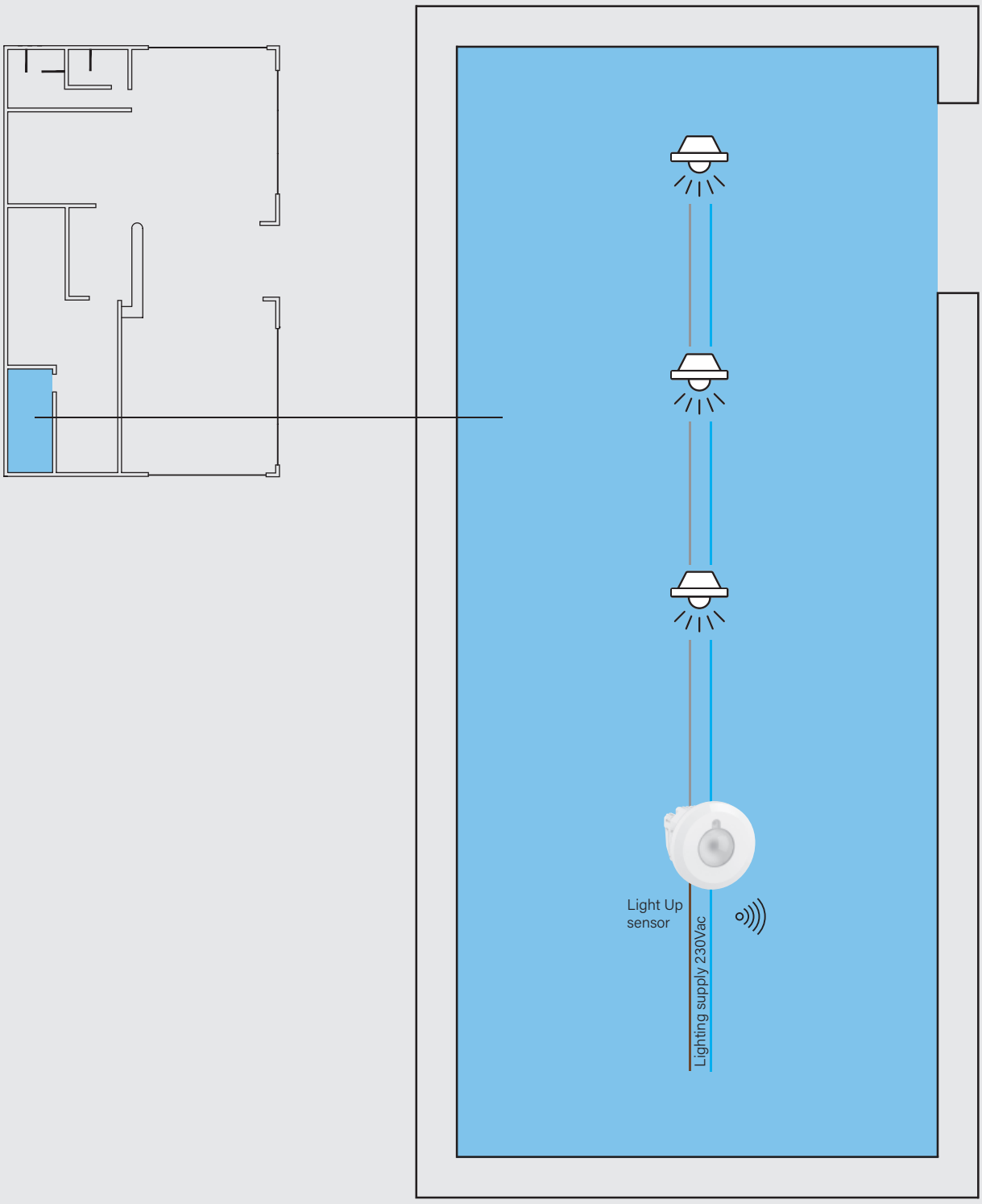
Analytics: occupancy in the space to monitor the real use.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer and brightness level settings	■		ON / OFF sensor
Analytics	Occupancy		■	ON / OFF sensor

LIST OF MATERIALS

WAREHOUSE (21m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 51	ON / OFF sensor

WAREHOUSE (REFRIGERATORS)



MEDICAL PRACTICE

A 150m² medical practice must be able to offer maximum comfort in terms of light, temperature and air conditioning for patients. It must also be sized to reduce energy waste and optimize consumption depending on the environments that compose it.

Different temperature levels may be required depending on the medical practices or based on the presence of people or medical equipment.

TECHNICAL SOLUTIONS

Light Up occupancy for presence detection in all spaces, DALI Control for people counting in open spaces, and ON-OFF in circulation areas.

Light Up multisensor to monitor presence, air quality and noise in meeting rooms and open spaces.

Airzone Flexa 4.0 system to integrate HVAC system with valve control in every space.

EMDX³ single-phase meters to monitor HVAC, lighting and socket consumption.

Dashboard manager to monitor, receive alerts, analyse and take action.

TECHNICAL TOOLS FOR WEOZ SYSTEM

Buiding Manager Portal => to create the site structure and add area managers.

Building+Manager app => to pair the devices with the area manager.

Close Up app => to set specific parameter for Light Up sensor and pair battery less swtiches.

MAIN BENEFITS

Lighting Management:

> To visit patients or treat them it is essential to have adequate lighting levels.

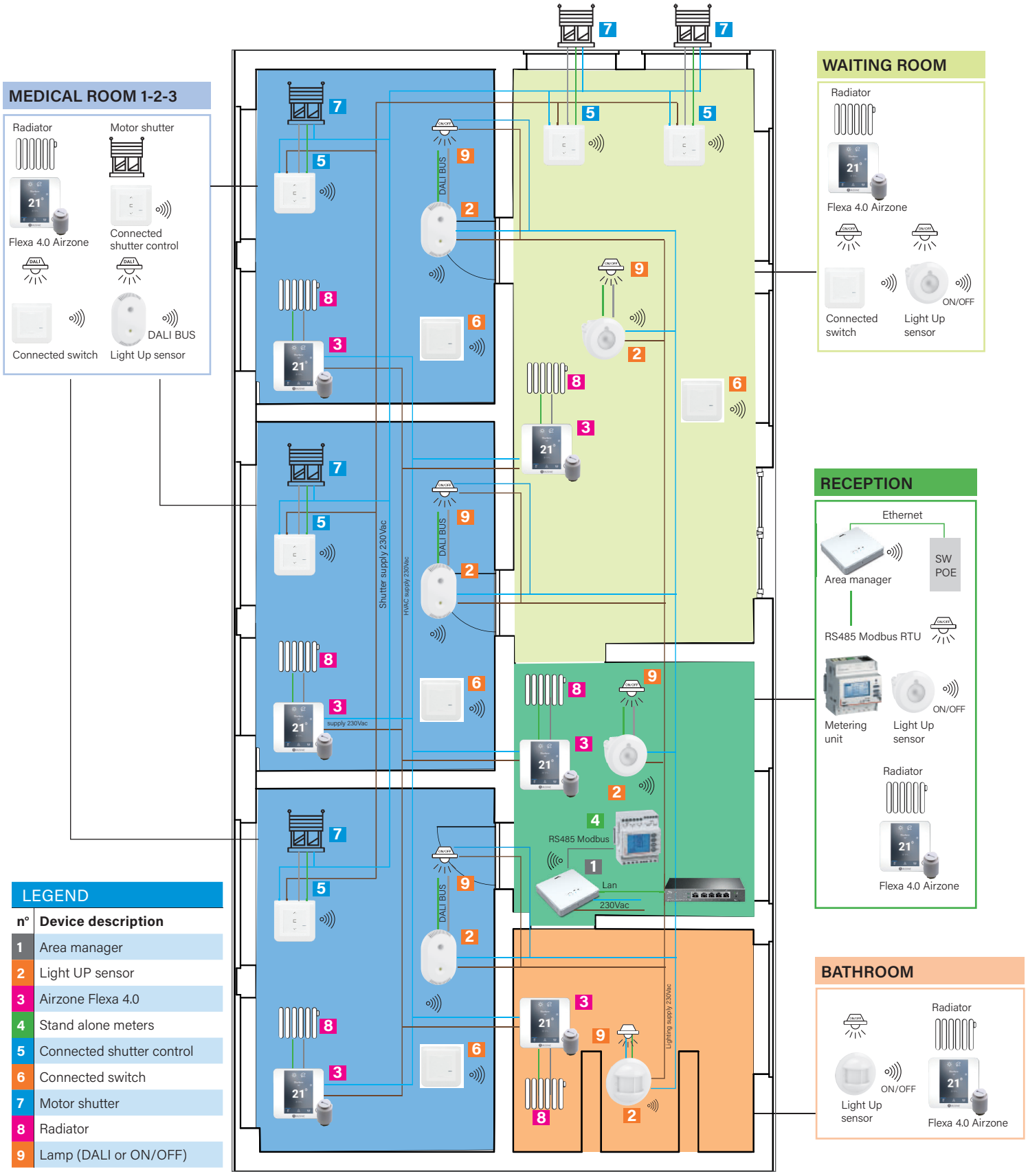
> High-quality lighting facilitates the work of doctors and assistants.

HVAC (Heating, Ventilation, and Air Conditioning):

> Maintaining a comfortable temperature in any ambinet is essential for both patients and staff.

FUNCTIONS			AMBIENTS							
N°	FUNCTION	SOLUTION	RECEPTION		WAITING ROOM		MEDICAL ROOM (3)		BATHROOM	
			q.ty		q.ty		q.ty		q.ty	
	Size			40m²		50m²		3x20m²		20m² (x2)
1	**Area Manager**	Area manager	1	0 485 84						
2	**Lighting**	Light UP sensor	1	0 485 74	1	0 485 74	1	0 485 52	1	0 485 51
3	**Hvac**	Airzone	1	Flexa 4.0	1	Flexa 4.0	1	Flexa 4.0	1	Flexa 4.0
4	**Metering**	Stand alone meters	1	4 120 91						
5	**Shutter control**	Connected shutter control			2	0 777 06LA				
6	**Command**	Connected switch	1	0 770 53L			1	0 770 53L		

Medical practice (general electric diagram)



LEGEND

n°	Device description
1	Area manager
2	Light UP sensor
3	Airzone Flexa 4.0
4	Stand alone meters
5	Connected shutter control
6	Connected switch
7	Motor shutter
8	Radiator
9	Lamp (DALI or ON/OFF)

Reception

DEFINITION

Reception of 40 m² with front desk area where patients check in, schedule appointments, and receive initial assistance

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

HVAC control: set point managed depending on the real presence in the store defining rules.

Shutter control: opening/closing shutters according to a schedule.

Analytics: the detector enables people to be counted to measure the shop's hours of activity.

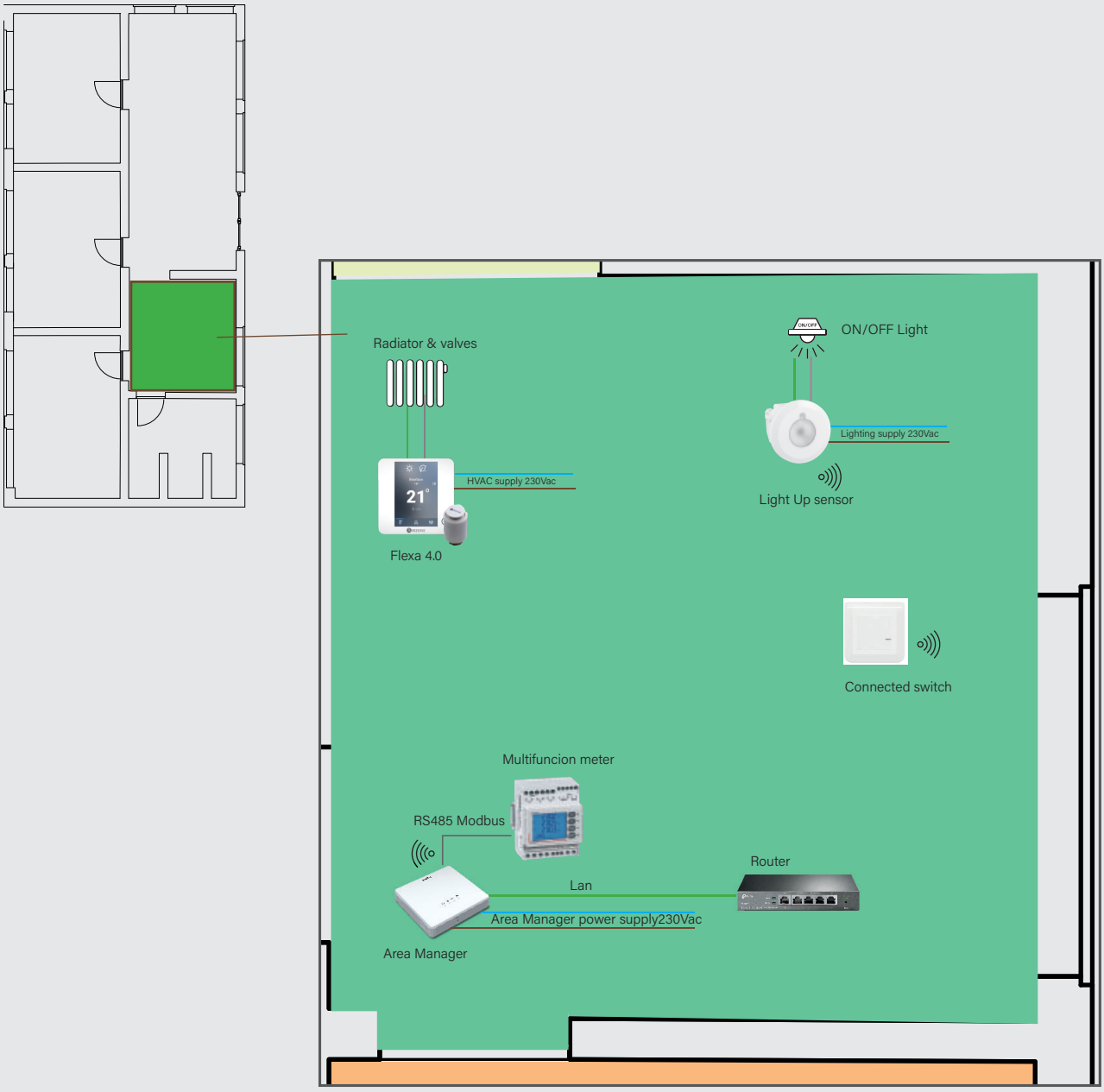
Alerts: on number of people exceeding the 10 max and air quality.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Commissioning push buttons for manual override	■		Advanced 3 zones sensor
Lighting control	Occupied / Unoccupied space rule	■		Advanced 3 zones sensor battery-less switch
HVAC control	Adapt ventilation according to the number of people		■	Flexa 4.0 and connected valves
Shutter control	Alert on number of people and air quality level		■	Connected shutter control
Analytics	Counting people		■	Advanced sensor
Alert	Alert on noise and air quality level		■	Advanced sensor

LIST OF MATERIALS

RECEPTION (40m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Area Manager**	Area manager	1	0 485 84	Webserver
2	**Lighting**	Light UP sensor	1	0 485 74	DALI advanced 3 zones
3	**Hvac**	Airzone	1	Flexa 4.0	Connected valves and thermostats
4	**Measure**	Three-Phase Meter 63A	1	4 120 91	EMDX³ multifunction meter
45	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch

RECEPTION


Radiator & valves
21°
HVAC supply 230Vac
Flexa 4.0
ON/OFF Light
Lighting supply 230Vac
Light Up sensor
Connected switch
Multifuncion meter
RS485 Modbus
Router
Lan
Area Manager power supply230Vac
Area Manager

Waiting room

APPLICATION DESCRIPTION

Lighting control: presence detection from four sensors but with independent dimming level between window side and wall side to keep a proper light level in each zone having a different daylight harvesting + manual control for override with wireless batteryless control ready for layout changes.

HVAC control: set point managed depending on the real presence in the store defining rules..

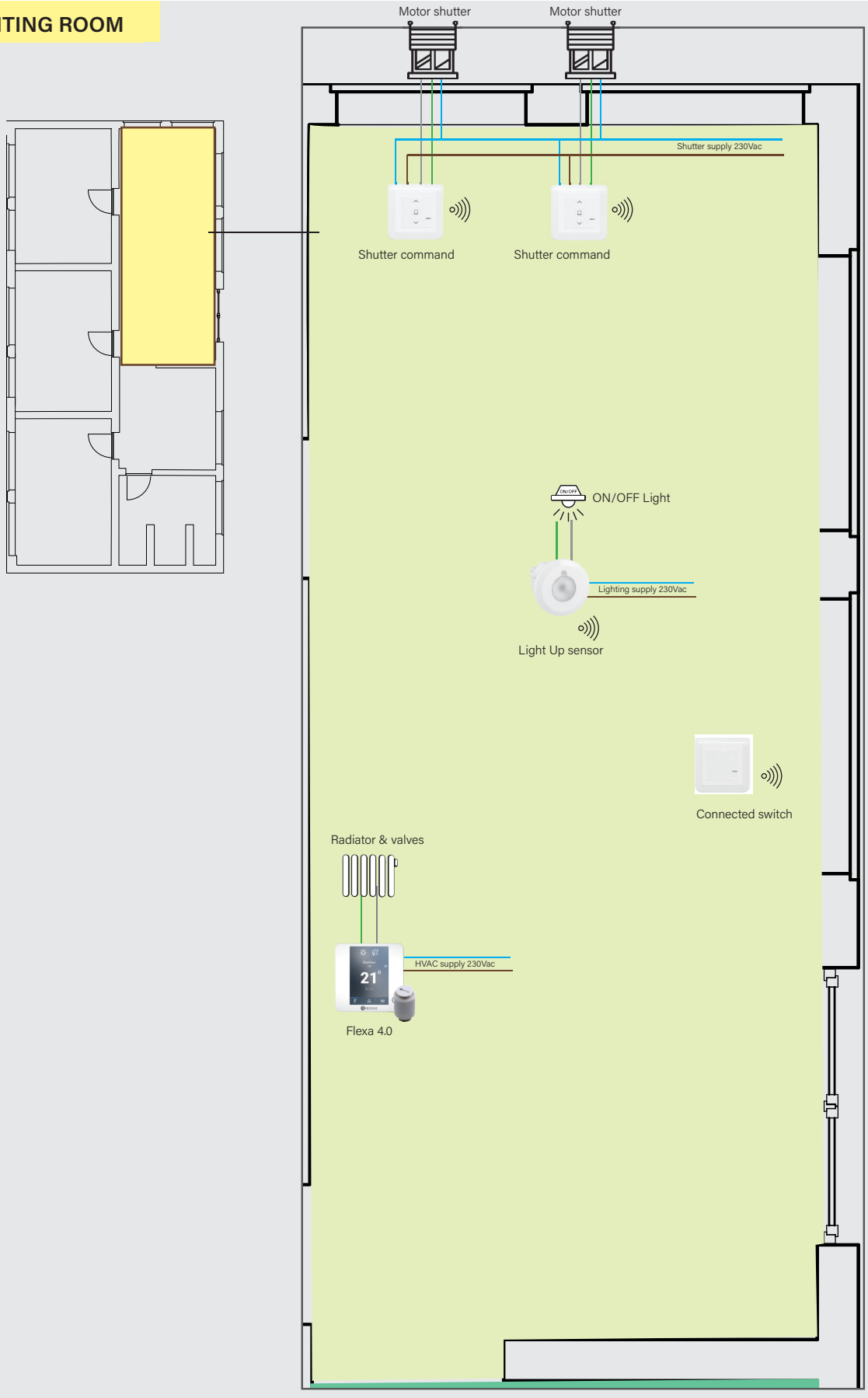
Shutter control: opening/closing shutters according to a schedule.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set max-min lux level	■		DALI 1 zone sensor
	Commissioning push buttons for manual override	■		DALI 1 zone sensor batteryless switch
HVAC control	Adapt ventilation according to the number of people		■	Flexa 4.0 and connected valves
Shutter control	Opening / Closing management		■	Connected shutter control

LIST OF MATERIALS

WAITING ROOM (50m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 74	DALI 1 zone
2	**Hvac**	Airzone	1	Fkexa 4.0	Connected valves and thermostats
3	**Shutter control**	Connected shutter control	2	0 777 06LA	Mosaic - Connected shutter control

WAITING ROOM



Medical room

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique sensor with DALI dimming to keep a proper light level leveraging daylight harvesting + manual control for override.

HVAC control: set point managed depending on the real presence in the office defining rules for occupied / unoccupied space.

Shutter control: opening/closing shutters according to a schedule.

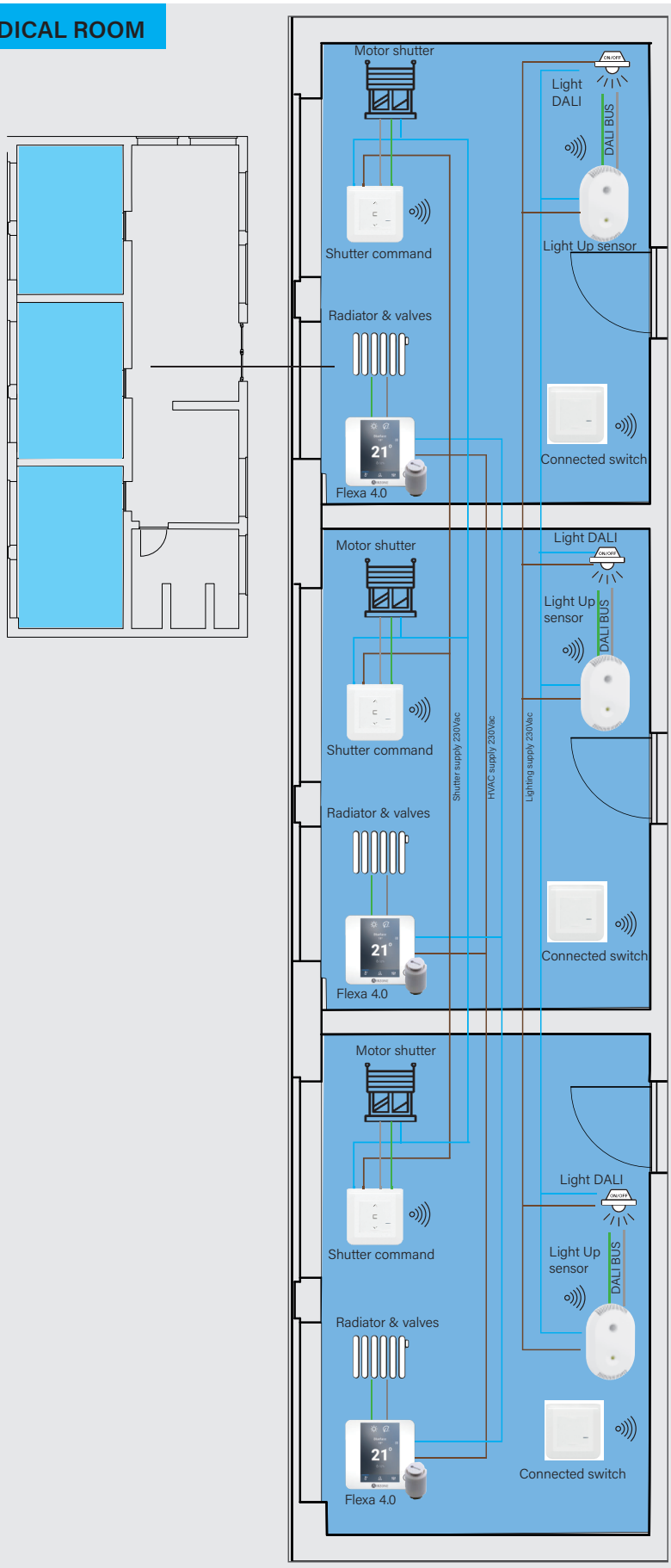
Alert: on real time consumption exceed a defined threshold.

FUNCTION REQUESTED				
	FUNCTIONS	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Set max - min lux level	■		DALI sensor
	Commissioning push buttons for manual override	■		DALI 1 zone, batteryless switch
	Timer settings	■		ON/OFF sensor
HVAC control	Adapt ventilation according to the number of people		■	Flexa 4.0 and connected valves
Shutter control	Opening / closing management		■	Connected shutter control
Alert	Alert on real time consumption		■	EMD X3 meters

LIST OF MATERIALS

MEDICAL ROOM (20m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 52	DALI 1 zone
2	**Hvac**	Airzone	1	Flexa 4.0	Connected valves and thermostats
3	**Command**	Connected switch	1	0 770 53L	Mosaic - Connected switch

MEDICAL ROOM



Bathroom

APPLICATION DESCRIPTION

Lighting control: presence detection from a unique ON-OFF sensor in automatic mode without manual push button.

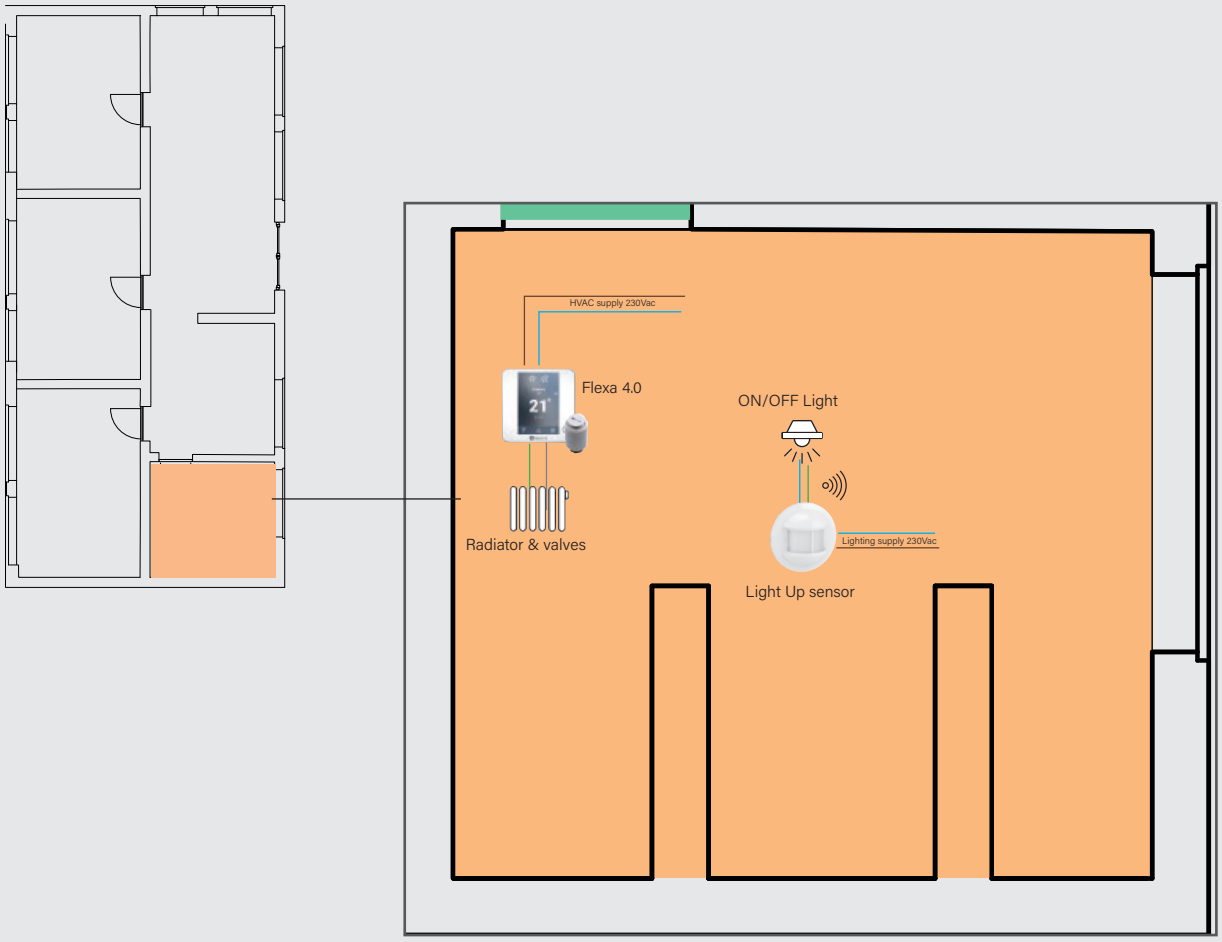
Analytics: occupancy to monitor the real use.

FUNCTION REQUESTED				
FUNCTIONS	**DESCRIPTION**	**CLOSE UP**	**BMS PORTAL**	**PRODUCT**
Lighting control	Timer and brightness level settings		■	ON / OFF sensor
HVAC control	Adapt ventilation according to the number of people		■	Flexa 4.0 and connected valves
Analytics	Occupancy		■	Occupancy sensor

LIST OF MATERIALS

BATHROOM (15m²)					
N°	**FUNCTION**	**SOLUTION**	**QTY**	**ITEM CODE**	**DESCRIPTION**
1	**Lighting**	Light UP sensor	1	0 485 51	ON/OFF sensor
2	**Hvac**	Airzone	1	Flexa 4.0	Connected valves and thermostats

BATHROOM


HVAC supply 230Vac
Flexa 4.0
21
ON/OFF Light
Radiator & valves
Lighting supply 230Vac
Light Up sensor

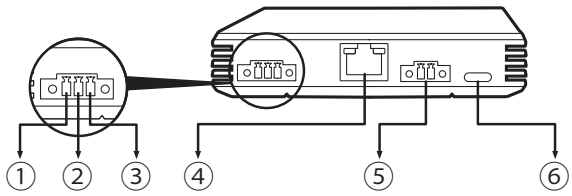
TECHNICAL DATA

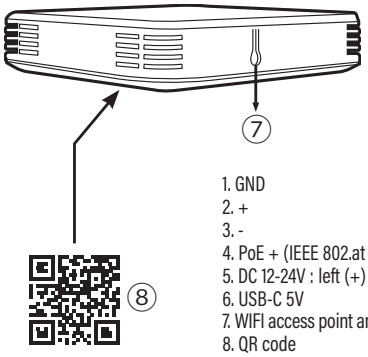
Area manager

Weoz Area manager is the new generation of BMS webserver that allows you to communicate using the industrial protocols used in your smart building. Indeed, we note that to make of energy savings, it is a simple solution to use but also a solution flexible enough to adapt to the existing one.

Communication protocols:
Modbus (RS485) – Z-wave – Zigbee
Architecture Buildroot
Mesh network
Application installation (Android)
Portal access for supervision and statistics
Online and offline functions
Alerts and notifications
Rule generator, planning and scenarios

Cat.Nos	Area Manager
0 485 84	Area Manager server of WEOZ BMS system





1. GND
2. +
3. -
4. PoE + (IEEE 802.at Type 2)
5. DC 12-24V : left (+) right (-)
6. USB-C 5V
7. WIFI access point and return usage
8. QR code

TECHNICAL CHARACTERISTICS

Power supply: 12 Vd.c. / 24 Vd.c. power supply - USB-C
Housing: ABS plastic
Product Weight: 155 g (295 g packed product)
Maximum number of products connected: 20
Installation method: DIN rails and panels
Power Supply: USB-C 5V, DC 12V, PoE
Interfaces: RS485, UART, Micro JTAG
Communication protocols: Modbus (RS485), Zwave, Zigbee, BLE, Wi-Fi, Ethernet
Radio frequency bands:
- Zwave (868.0-868.6 MHz / 869.7-870.0 MHz)
- ZigBee (2400 - 2483 MHz)
- Wi-Fi (2400 - 2483 MHz)

Maximum transmission powers:
- Zwave: +14 dBm
- Zigbee: +10 dBm
- Wi-Fi: +14 dBm / +20 dBm

Operating temperature: 0 to 40 °C
Storage temperature: 0 to 70 °C
Tolerated humidity range: 5% to 95% (non-condensing)
Dimensions: 105x115x25 mm
Safety certificates: UL, EMC, CE, RoHs
Reset: by pressing WAP button

HVAC controller AIDOO (Airzone)

Cat.Nos	Airzone HVAC control device
AZAI6ZWEDA1	Aidoo Zwave for Daikin
AZAI6ZWEFU2	Aidoo Zwave for Fujitsu
AZAI6ZWEHIT	Aidoo Zwave for Hitachi
AZAI6ZWEMD2	Aidoo Zwave for Midea
AZAI6ZWEMEL	Aidoo Zwave for Mitsubishi
AZAI6ZWEMHI	Aidoo Zwave for Mitsubishi heavy
AZAI6ZWEPAN	Aidoo Zwave for Panasonic
AZAI6ZWESA2	Aidoo Zwave for Samsung
AZAI6ZWETOS	Aidoo Zwave for Toshiba

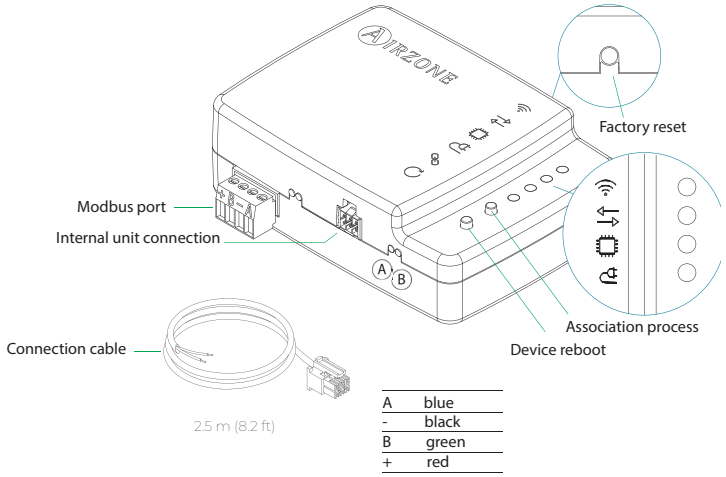
Device to manage and integrate units remotely. Wireless Z-Wave Plus connection. The Aidoo Z-Wave Plus by Airzone operates in any Z-Wave network with other Z-Wave/Z-Wave Plus certified devices and controllers from any other manufacturer. Externally powered by the indoor unit. As a constantly powered node, will act as repeater regardless of the vendor in order to increase the reliability of the network.

Features:
Control of the parameters of the unit.
Communication errors detection.
Port for integration via Modbus.

TECHNICAL CHARACTERISTICS

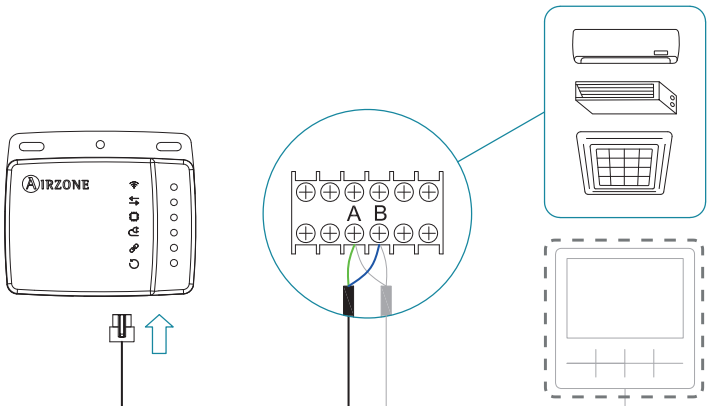
Rated voltage: 12-16 Vdc (max. 18 Vdc)
Rated current: 137.5 mA
Consumption: 310 mW
Wire length: 2.5 m
Protocol: Z-Wave
Communication frequency: 868.4 MHz, 869.85 MHz
Maximum power (antenna power): 13 dBm
Sensitivity: -97 dBm
Protection System: S2 Security
Maximum distance: 100 m (Outdoor) - 40 m (Indoor)
Modbus Port Shielded twisted pair: 2x0.22 + 2x0.5 mm^2
(AWG23 – 2 wired + AWG20 – 2 wired)
Communication protocol: MODBUS RS-485 Par – 19200 bps
Strorage temperatures: -20 to 70 ºC
Operating temperatures: 0 to 45 ºC
Operating humidity: 5 to 90 % (non-condensing)
Protection class: IP 41
Weight: 130 g
Size (WxHxD): 92x80x29 mm

Components



A	blue
-	black
B	green
+	red

Schematic diagram



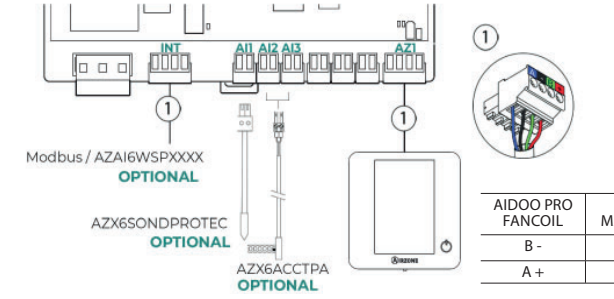
HVAC Aidoo PRO FANCOIL (Airzone)

Cat.Nos	HVAC Aidoo PRO FANCOIL
AZAI6WSPFAN	Allows you to control any number of fancoil units of all types from the same app, with the ability to integrate this control into building management systems.

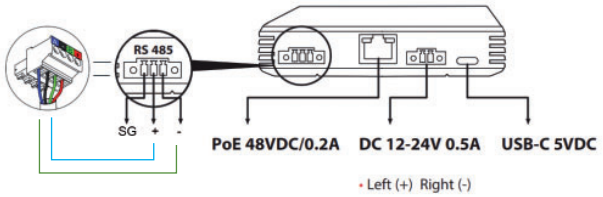
Aidoo Pro Fancoil allows you to control any number of fancoil units of all types from the same app, with the ability to integrate this control into building management systems.

The main features are:
Control of the parameters of the unit.
Dual Wi-FI communications (2.4/5 GHz).
Possibility of integration via Local API and Cloud API.
Communication errors detection.
Temperature and operating mode time schedules.
Multi-user and multi-session.
Port for integration via Modbus/BACnet protocol.
2 relays for control of solenoid valves on demand.
3 relays for control of up to 3 speeds.
3 0-10 V outputs for control of cooling valve, heating valve and fan.
3 digital inputs for open window detection, occupancy detection and Eco mode.
3 analogue probe inputs for measuring room temperature, heating battery temperature and cooling battery temperature.

Schematic diagram



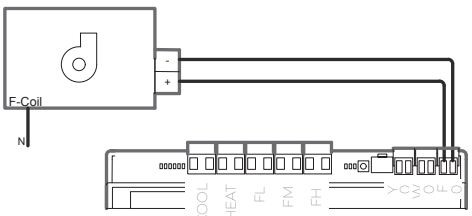
AIDOO PRO FANCOIL	AREA MANAGER
B -	-
A +	+

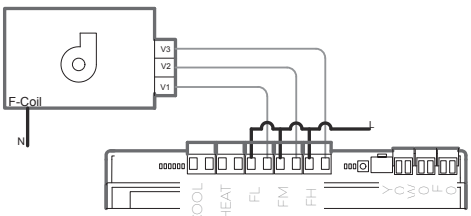


TECHNICAL CHARACTERISTICS

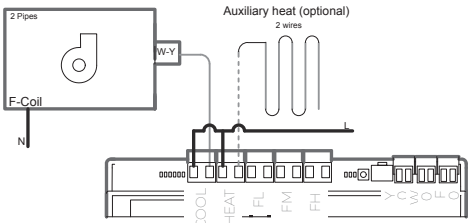
Rated voltage: 110 / 230 Va.c.
Rated current: 250 mA
Frequency: 50 / 60 Hz
Consumption (stand-by): 4.5 W / Max. 20 W
Module over-current protection: 250 mA
WIFI Protocol: Wi-Fi – CERTIFIED TM 802.11a/b/g/n/ac
Communication frequency: 2.4 GHz (max. 150 Mbps) 5 GHz (max. 433 Mbps)
Maximum power-Antenna: 19.5 dBm
Sensitivity: -82 dBm
IP address: DHCP
Bluetooth Protocol: Bluetooth v5.0 EDR and BLE specification
Bluetooth class: Class-1, class-2 and class-3 transmitter
Storage temperature: -20 to 70 ºC
Operational temperature: 0 to 45 ºC
Operating humidity range: 5 to 90% (non-condensing)

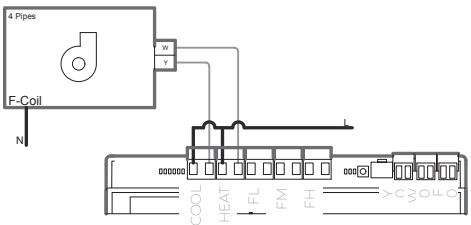
Speeds

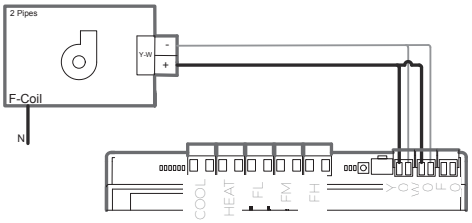


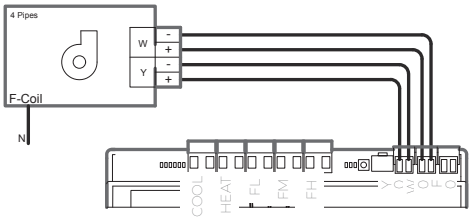


Modes









EMS CX^3: measuring modules (single-phase and three-phase)

Multifunction measuring modules which allow you to measure the main electrical data of a single-phase or three-phase circuit. Measurement via closed Rogowski type toroids.

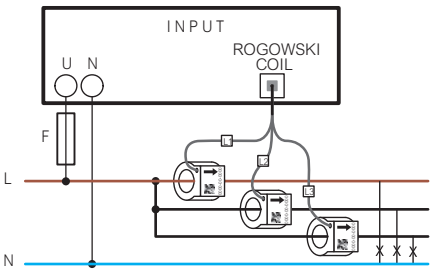
TECHNICAL CHARACTERISTICS

Power supply: 12 Vd.c.
Insulation voltage Ui: 400 Va.c.
Impulse withstand voltage Uimp: 6 kV
Maximum current: 63 or 125 A (only item 4 149 21)
Rated frequency 50/60 Hz
Power consumption: 0.419 W (34.8 mA)
Insertion rated voltage: : 110÷500 Va.c. (phase-phase)
65÷290 Va.c. (phase-neutral)
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
Insertion: by Rogowski coils
Operating temperatures: -40 to 70 ºC (storage),
-25 to 70 ºC (operation)
Protection degree: IP20 / IP40
Dimensions: 17.8x83x64.9 mm

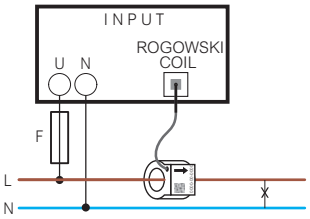
Cat.Nos	Multifunction measuring modules
4 149 18	3 x single-phase measuring module + 3 coils - 63A
4 149 19	Single-phase measuring module + 1 coil - 63A
4 149 20	3-phase measuring module + 3 coils - 63A
4 149 21	3-phase measuring module + 3 coils - 125A

Schematic diagram

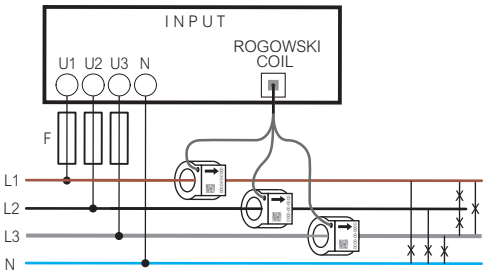
3 x 1N-1E



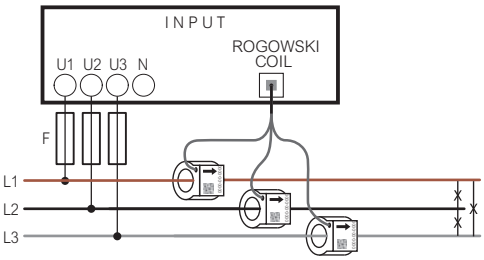
1N1E



3N-3E



3-3E



EMS CX^3: pulse concentrator module

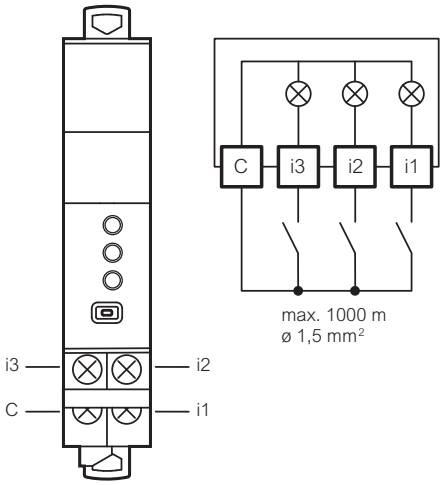
Cat.Nos	Pulse concentrator module
4 149 26	Pulse concentrator module with 3 inputs NO (Normally open) "dry contacts" type without voltage with a common terminal.

Module dedicated to Energy Management System (EMS CX3) use. It collects, memorises and transmits pulses in output from electrical, gas, water counters or from the pulse output of multifunction measuring devices.

TECHNICAL CHARACTERISTICS

Power supply: 12 Vd.c.
Insulation voltage Ui: 400 Va.c.
Impulse withstand voltage Uimp: 6 kV
Rated current: 5 A (via CTs external x/5 A)
Max current, Imax: 1.2 In
Rated frequency 50/60 Hz
Power consumption: 0.419 W (34.8 mA)
Insertion rated voltage: : 110÷500 Va.c. (phase-phase)
65÷290 Va.c. (phase-neutral)
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP20 / IP40
Dimensions: 17.8x83x64.9 mm

Schematic diagram



EMS CX^3: Three-phase measuring module for 5A CTs

Cat.Nos	Measuring modules fo CTs
4 149 23	Multifunction measuring module for current transformer(s) (CT) with 5A at secondary. Transformers not supplied.

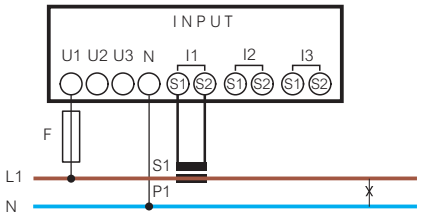
Multifunction measuring module which allows you to measure the main electrical data of a single-phase or three-phase circuit.
All types of current transformers (TI) with 5A secondary.

TECHNICAL CHARACTERISTICS

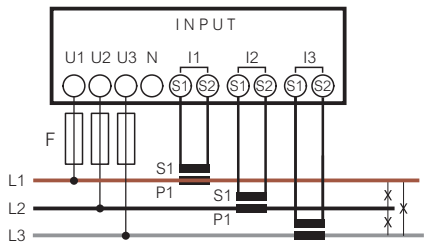
Power supply: 12 Vd.c.
Insulation voltage Ui: 400 Va.c.
Impulse withstand voltage Uimp: 6 kV
Maximum current: 63 or 125 A (only item 4 149 21)
Rated frequency 50/60 Hz
Power consumption: 0.419 W (34.8 mA)
Insertion rated voltage: : 110÷500 Va.c. (phase-phase)
65÷290 Va.c. (phase-neutral)
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Insertion: by Rogowski coils
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP20

Schematic diagram

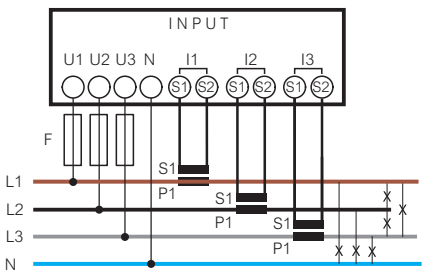
1N1E



3-3E



3N-3E



EMS CX^3: measuring modules with open Rogowski coils

Module dedicated to EMS CX3 (Energy Management System). Multifunction measuring module for high currents which allows you to measure the main electrical data of a three-phase circuit.
Measurement via flexible Rogowski open type coils.

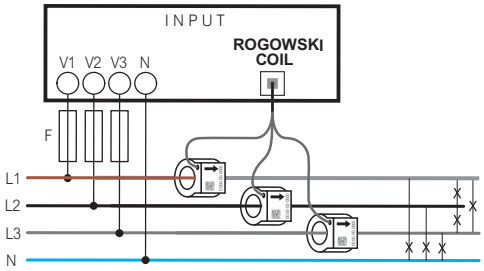
TECHNICAL CHARACTERISTICS

Power supply: 12 Vd.c.
Insulation voltage Ui: 400 Va.c.
Impulse withstand voltage Uimp: 6 kV
Rated frequency 50/60 Hz
Power consumption: 0.419 W (34.8 mA)
Insertion rated voltage: : 110÷500 Va.c (phase-phase)
65÷290 Va.c. (phase-neutral)
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Insertion: by Rogowski coils
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP20

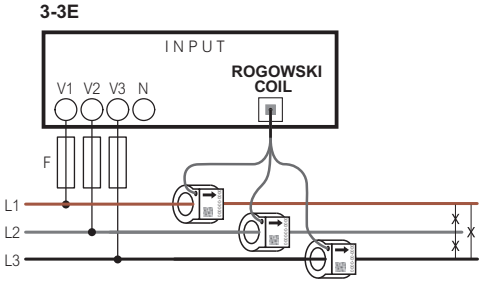
Cat.Nos	Measuring modules for Rogowski coils
4 149 22	Measuring module for three-phase circuit up to 630 A
4 149 24	Measuring module for three-phase circuit up to 1600 A
4 149 25	Measuring module for three-phase circuit up to 3200 A
4 149 27	Measuring module for three-phase circuit up to 6300 A

Schematic diagram

3N-3E



3-3E



EMS CX^3: Signaling auxiliary module

State reporting modules Auxiliary + fault signalling contact. Enables upstream busbar connection. Indicates the position of the contacts and the fault tripping of its associated device. To fit on the Left-hand side of DX^3 MCBs, RCCBs, RCBOs and isolating switches.

TECHNICAL CHARACTERISTICS

Power supply: 12 Vd.c.
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 0.5
Consumption: 0.236 W - 19.7 mA (12 Vd.c.)
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP20

Cat.Nos	Signaling auxiliary module
4 149 29	Auxiliary + fault signalling contact

EMS CX³: Universal state module

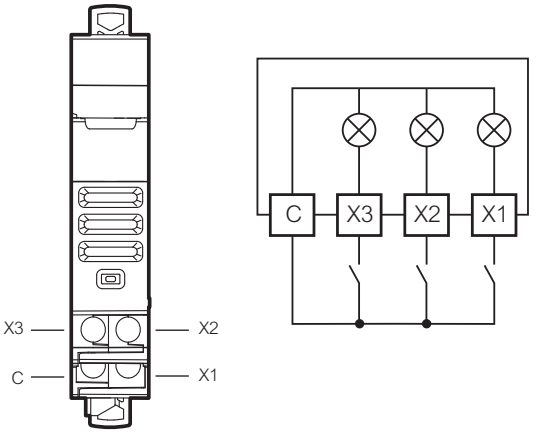
Cat.Nos	Universal state module
4 149 30	Universal module for light signalling configurable

Module dedicated to Energy Management System (EMS CX³) use. Enables to display a clear indication on the status of a circuit or of an associated modular device (MCBs, RCCBs, RCBOs...) and/or
power devices (e.g. ACBs, MCCBs...) via voltage-free SPST-NO contacts.
Equipped with DIP switches (on the side) allowing product configuration of:
- type of information returned by the device:
  open, closed, tripped positions of a modular or power device spring state of an ACB

TECHNICAL CHARACTERISTICS

Power supply: 12 Vd.c.
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP20

Schematic diagram



EMS CX³: Universal control module and status and control module

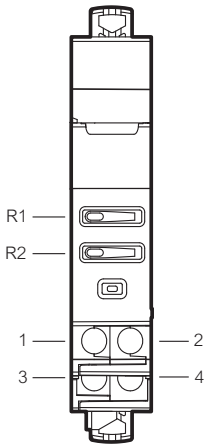
Enables to remotely command different electrical loads and motor driven control modules of modular devices (MCBs, RCCBs, RCBOs...) or power devices (e.g. MCCBs...). Equipped with DIP switches (on the side) allowing product configuration of:
- contacts type (NO or NC contacts)
- working method (maintained or momentary contact)

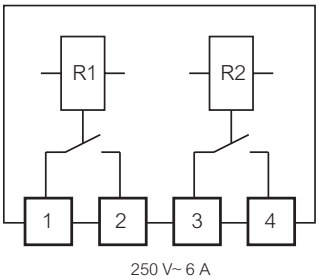
TECHNICAL CHARACTERISTICS

Power supply: 12-250 V
Rated current: 6 A
Max. switching power: 1500 W
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP40

Cat.Nos	Universal control module
4 149 32	Universal control module for 2 relays: 240 V A - 6 A

Schematic diagram





Enables to remotely command and control the state of Legrand modular Latching relays and Contactors.
Equipped with DIP switches (on the side) allowing product configuration of:
- type of associated device (latching relay or contactor)
- type of contactor

TECHNICAL CHARACTERISTICS

Power supply: 250 V
Rated current: 6 A
Max. switching power: 1500 W
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP40

Cat.Nos	Status and control module
4 149 31	Status and control module for contactors and remote switches

EMS CX³: Interface module RS485

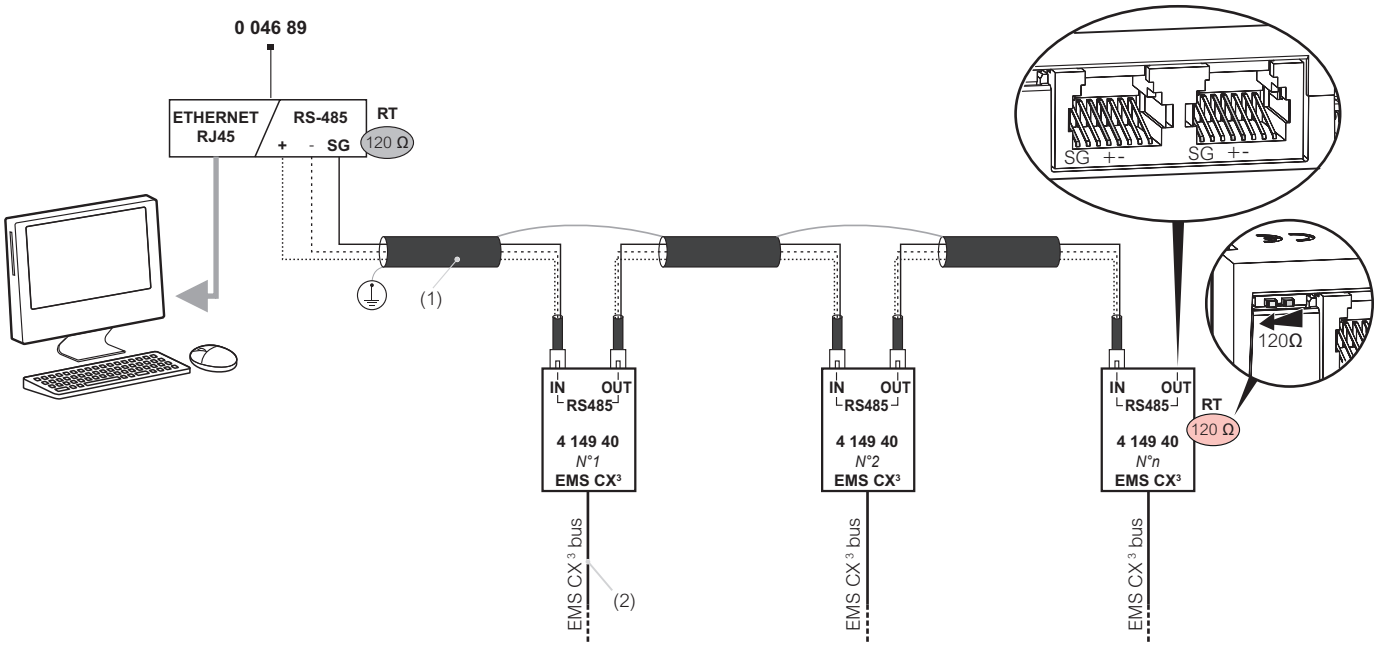
It performs conversion from the EMS CX3 bus to Modbus RS485 protocol.

TECHNICAL CHARACTERISTICS

Power supply: 250 V
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP40

Cat.Nos	Interface module RS485
4 149 40	Interface for converting into Modbus RS485 for integration in supervisory systems and other management systems.

Schematic diagram



EMS CX³: Stand alone configuration module

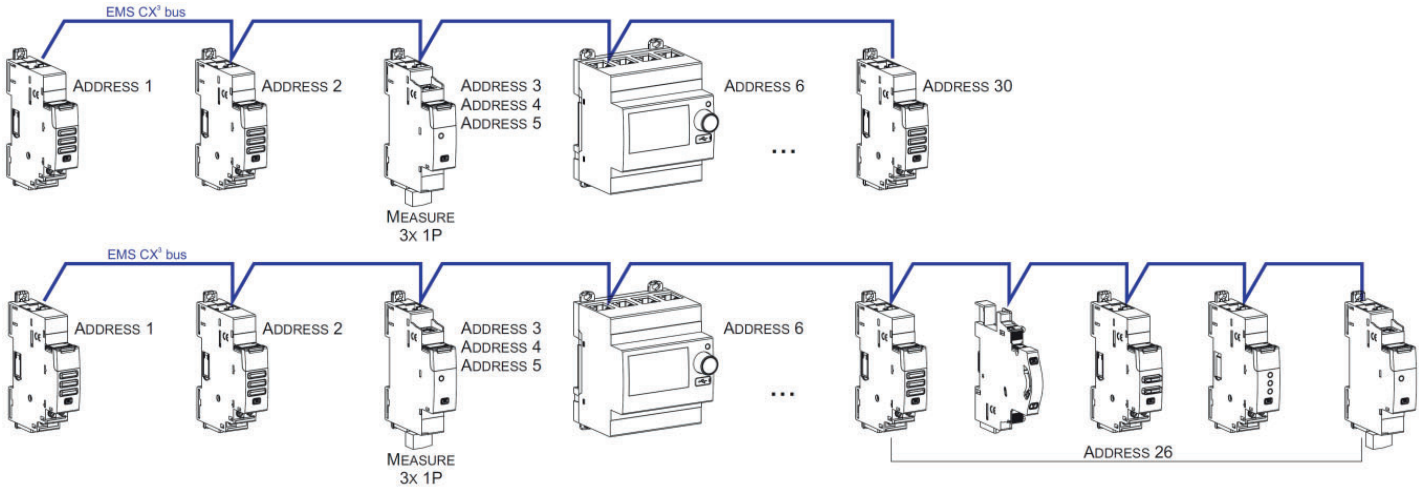
On site, in stand-alone (without any computer or IP) allows to display data (measure, status, command and alarms) and to make several configurations of EMS CX³ devices.

TECHNICAL CHARACTERISTICS

Power supply: 12 V
Rated current: 6 A
Max. switching power: 1500 W
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP40

Cat.Nos	Stand alone configuration module
4 149 36	Modular Mini Configurator with display for local system operation

Schematic diagram



EMS CX³: Power supply module

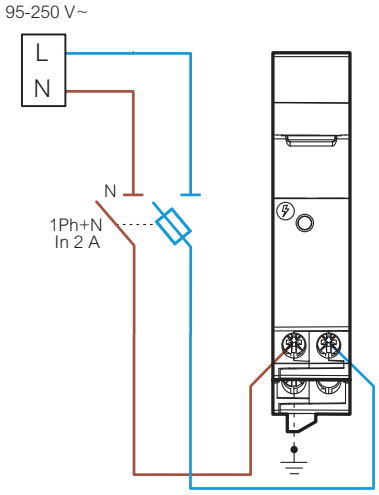
Power supply module: allows the power up and distribution of the supply and of the communications data within the EMS CX³ system.

TECHNICAL CHARACTERISTICS

Power supply: primary 250 Va.c., secondary 2 Vd.c.
Rated current: 500 mA
Rated frequency: 0/60 Hz
Insulation voltage: 400 V
Impulse withstand voltage Uimp: 6 kV
Housing: Self-extinguishing polycarbonate
Installation method: DIN rails
N° of modules: 1
Operating temperatures: -40 to 70 °C (storage),
-25 to 70 °C (operation)
Protection degree: IP40

Cat.Nos	Power supply module
4 149 45	230V/12V power supply with double cable connection or with connectors for base on the back.

Schematic diagram



EMDX³: Multifuncion meters

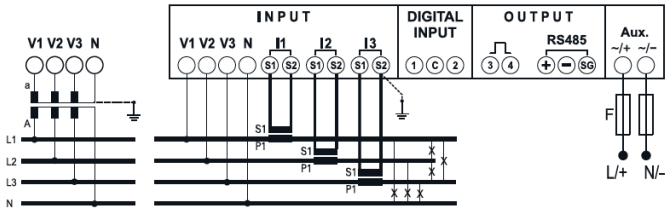
Cat.Nos	Multifunction meter
4 120 51	RS485 multifunction electronic measurement control unit

Multifunction electronic measuring unit RS485 (4 DIN35 modules). Measures current, voltage, active and reactive power, energy, internal temperature, power factor, operating time, programmable alarms, LCD display, output for alarm signaling and pulse counting.

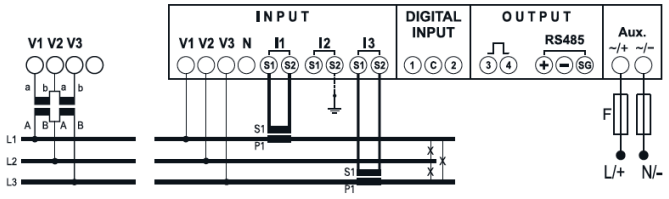
- Mounting on DIN35 rail;
- Width: 4 DIN modules;
- Backlit LCD display;
- Insertion on single-phase and three-phase network with and without neutral;
- Measurement of currents, voltages, active, reactive and apparent power;
- Minimum and maximum values for voltages;
- Average values and peak of average values for currents and power;
- Multi-tariff counting on 4 tariffs;
- Total and partial active energy consumed;
- Total active energy produced;
- Total and partial reactive energy consumed;
- Total reactive energy produced;
- Operating time;
- Power factor;
- Harmonic distortion rate THD;
- Harmonic analysis up to the 25th harmonic;
- Programmable alarms for all functions;
- Pulse counting function on the two inputs;
- Output for controlling devices, alarm signaling and pulse counting;
- Integrated Modbus RS485 communication port.

Schematic diagram

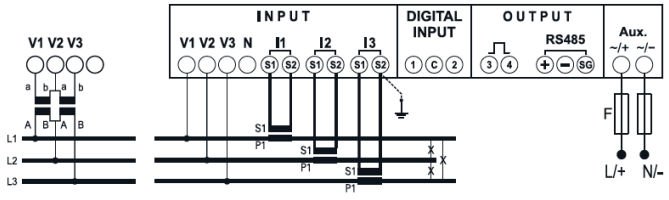
. Three phase 4 wires, 3 CT (3N -3E) :



. Three phase 3 wires, 3 CT (3-2E) :



. Three phase 3 wires, 3 CT (3-3E) :



TECHNICAL CHARACTERISTICS

Compliance with CEI / EN 61557-12 standards:
Active energy: class 0.5 - reactive energy: class 1
Connection: 4 mm² (flexible) 6 mm² (rigid)
Protection degree: front IP54, rear IP20
Weight: 285 g
Display: backlit LCD
Update time: 1 s
Measurements: 1P+N, 3P (balanced or unbalanced load), 3P+N (balanced or unbalanced load)
Direct voltage measurement: phase/phase 80 ÷ 500 V, phase/neutral 50 ÷ 290 V
Current measurement via CT: primary max. 10 kA (x/1 A) or 50 kA (x/5 A) secondary 1 A or 5 A
Minimum measurement: 5 mA
Input consumption: ≤ 1 VA
Display: 0.005 A ÷ 10 kA (x/1 A) or 0.005 A ÷ 50 kA (x/5 A)
Permanent overload: 1.2 In
Intermittent overload: 20 In / 0.5 s
Update time: 0.2 s
Max CT x VT ratio: 99990
Total power measurement: 0 ÷ 9999 kW / kVAR / kVA, 0 ÷ 9999 mW / MVAR / MVA
Update time: 0.2 s
Frequency measurement range: 45.0 ÷ 65.0 Hz
Update time: 0.2 s
Auxiliary power supply: 50 / 60 Hz 80 ÷ 265 Vac ± 10%, DC 100 ÷ 300 Vac ± 10%
Consumption: AC ≤ 2.5 VA, DC ≤ 3.5 W
Operating temperature: (- 5 °C) - (+ 55 °C)
Storage temperature: (- 25 °C) - (+ 70 °C)

EMDX³: Energy meter mono direct 63A 230V 2 tariff RS485

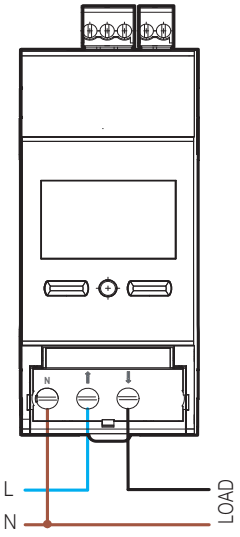
Cat.Nos	Energy meter direct connection
4 120 81	Standard version

Bidirectional active and reactive energy meter (4 quadrants) with direct connection.
The device, in 2 DIN modules, is self-powered and is equipped with ModBus communication or pulse output and double tariff input.

TECHNICAL CHARACTERISTICS

Starting current (Ist): 0,02 A
Min. current (Imin): 0,25 A
Basic current (Ib): 5 A
Max. current (Imax): 63 A
Short-time overcurrent: 30Imax/10 ms
Power consumption: 1,5 W / 4 VA
Reference single-phase voltage: 230 V ±10%
Reference frequency: 50-60 Hz (tolerance 49÷51-59÷61 Hz)
Nominal voltage: Taken from measurement (self-supplied)
Accuracy active energy kWh EN50470: cl. B
Accuracy reactive energy kWh EN/IEC62053-21: cl. 2
Display: Backlit Graphic display LCD (Inch Display 1")
Energy resolution 9999999,99 KWh
Housing: 2 module DIN 43880 (35 mm)
Housing material: self-extinguishing policarbonate >PC<
Classification: V2 in accordance with standard UL94
Protection degree IP20 terminals/ IP54 front frame
Cable with lag output: - max 1 mm^2 / input - max 16 mm^2
Flexible cable output: - max 2,5 mm^2 / input - max 10 mm^2
Nominal temperature range: -25÷55°C
Limit range for storage and transport: -40÷70°C
Max.power dissipation: ≤4W
Contact range: 27 Vd.c./a.c. – 50 mA
Assignable energy: active or reactive
Pulse weight selectable: 1 Wh/varh÷10 kWh/kvarh
Pulse duration selectable: 50÷500 ms
Protocol: Modbus RTU, Standard RS485-3-wire
Impedance: 120Ohm (setting by menù)
Baud rate selectable 4800÷38400 bit/s
Contact characteristics 12-24 Vd.c. -10 mA
Management Double tariff T1-T2 or pulse from external contactors (selecting pulse measurement unit)

Schematic diagram



EMDX^3: Energy meter three-phase direct 63A

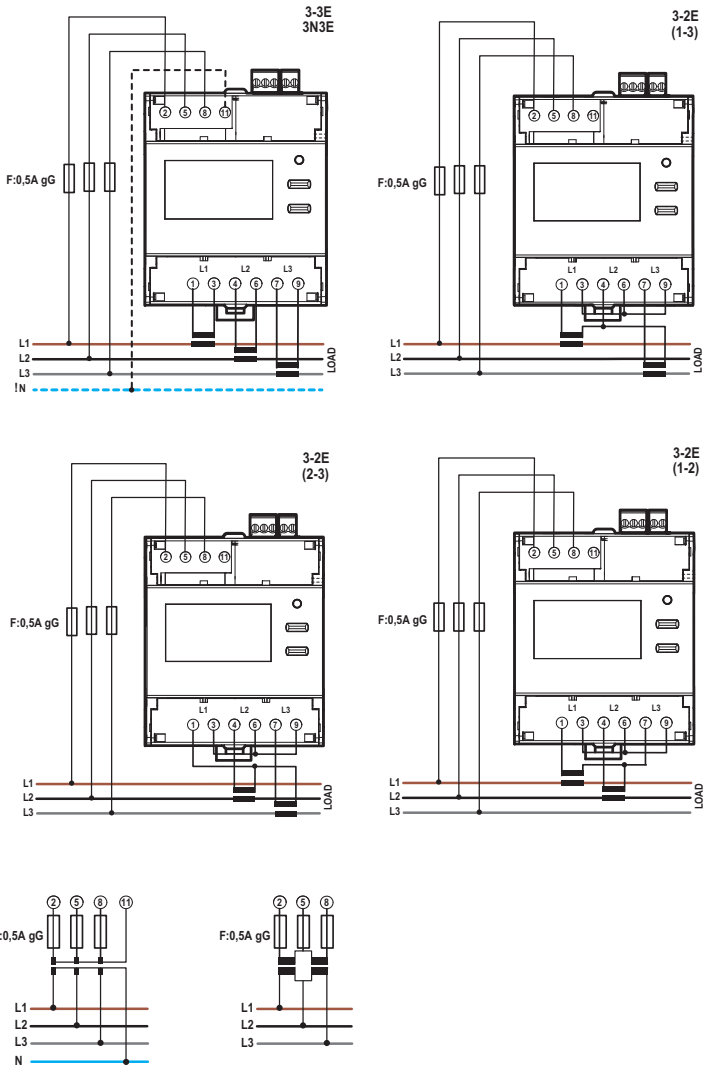
Cat.Nos	Energy meter direct connection
4 120 41	Standard version

Bidirectional active and reactive energy meter (4 quadrants) with direct connection.
The device, in 2 DIN modules, is self-powered and is equipped with ModBus communication or pulse output and double tariff input.

TECHNICAL CHARACTERISTICS

Starting current (Ist): 0,02 A
Min. current (Imin): 0,25 A
Basic current (Ib): 5 A
Max. current (Imax): 63 A
Short-time overcurrent: 30 Imax/10 ms
Power consumption: 1,5 W / 4 VA
Reference single-phase voltage: 230 V ± 10%
Reference frequency: 50-60 Hz (tolerance 49÷51-59÷61 Hz)
Nominal voltage: Taken from measurement (self-supplied)
Accuracy active energy kWh EN50470: cl. B
Accuracy reactive energy kWh EN/IEC62053-21: cl. 2
Display: Backlit Graphic display LCD (Inch Display 1")
Energy resolution 9999999,99 KWh
Housing: 2 module DIN 43880 (35mm)
Housing material: self-extinguishing policarbonate >PC<
Classification: V2 in accordance with standard UL94
Protection degree IP20 terminals/ IP54 front frame
Cable with lag output: - max 1 mm^2 / input - max 16 mm^2
Flexible cable output: - max 2,5 mm^2 / input - max 10 mm^2
Nominal temperature range: -25÷55 °C
Limit range for storage and transport: -40÷70 °C
Max.power dissipation: ≤4 W
Contact range: 27 Vd.c./a.c. – 50 mA
Assignable energy: active or reactive
Pulse weight selectable: 1 Wh/varh÷10 kWh/kvarh
Pulse duration selectable: 50÷500 ms
Protocol: Modbus RTU, Standard RS485-3-wire
Impedance: 120 Ohm (setting by menù)
Baud rate selectable 4800÷38400 bit/s
Contact characteristics 12-24 Vd.c. -10 mA
Management Double tariff T1-T2 or pulse from external contactors (selecting pulse measurement unit)

Schematic diagram



DRIVIA: Connected contactor

Cat.Nos	Connected contactor
4 121 71	Connected silent contactor with Netatmo - multifunction 20 A, 100-240 Va.c. - 1 module

Allows remote control (ON/OFF) of loads (such as: water heater, swimming pool pump, radiators, vehicle charging sockets
electric, etc.). This connected version also offers functions of:

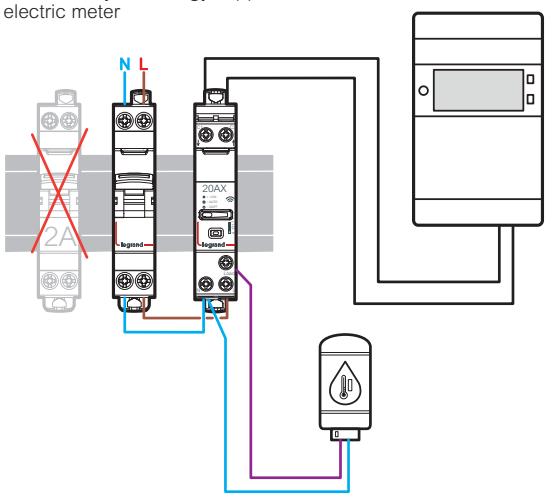
- measurement: automatically reports the consumption of the circuit to which it is wired.
- planning: set up automatic scenarios for opening and closing the circuit (day of the week/time slots)
- Connected monostable electronic contactor with dry contact control via smartphone and/or push button front face.
- Integrated "Zero crossing" technology: keeps contact wear to a minimum when switching under load.

TECHNICAL CHARACTERISTICS

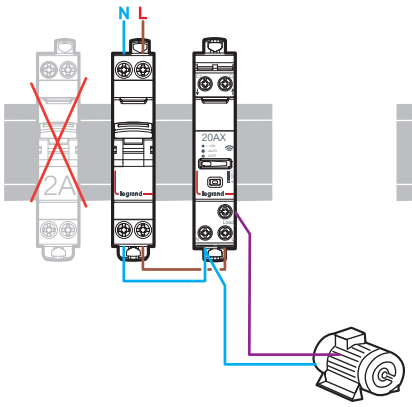
Rated voltage: 100-250 V
Rated frequency: 50-60 Hz
Degree of impact strength (IK) IK04
Protection degree: IP41
Operating / setting temperature: 0-55 °C
Storage temperature: -40-70 °C
Terminals capacity: 1.5-3 mm^2
Mounting method: DIN rail
Dimensions: 17.8x86x88 mm

Schematic diagram

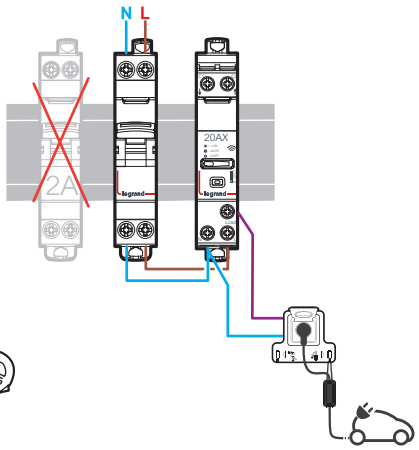
Controled by the energy supplier
electric meter



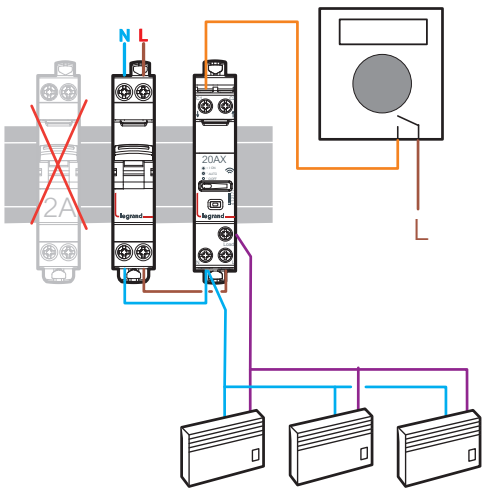
Swimming pool pump
and anothers motors



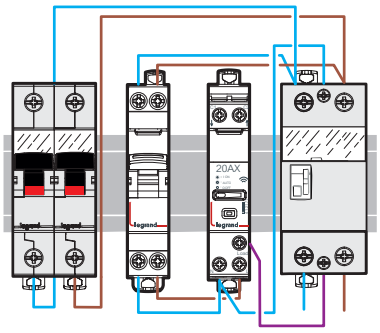
EV plug remote



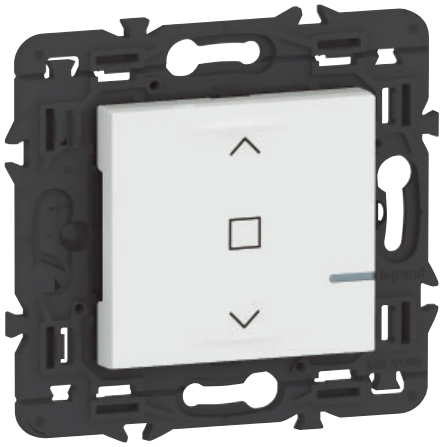
Control of heaters through
an installed central remote



Control of a power
single line contactor
by a connected contactor *



Connected shutters switch



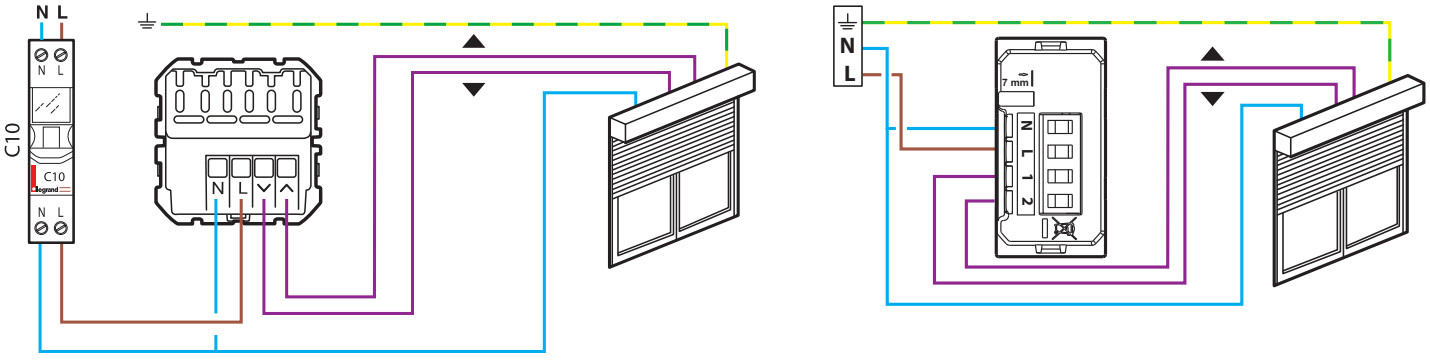
Cat.Nos	Connected shutter switch
	Connected switch for rolling shutters and sunshades adjustable, delivered with finger and protection construction site. Equipped with LED indicator (configuration) and RESET button (hidden) used to return to mode factory. To be fitted with a finishing plate.
5 742 04	Arteor - White
5 742 22	Arteor - Magnesium
5 742 31	Arteor - Champagne
5 742 13	Arteor - Soft Alu
0 677 26A	Celiane - White
0 677 76A	Celiane - Titanium
0 648 96A	Celiane - Graphite
7 418 07A	Valena Next - White
7 418 37A	Valena Next - Aluminium
7 418 67A	Valena Next - Black
0 777 06L	Mosaic - White
0 777 06LA	Mosaic - White
6 000 86A	Doxie - White
6 001 86A	Doxie - Aluminium

Allows you to control a rolling shutter or an adjustable sunshade remotely and locally. Can be associated with one or more shutter controls
wireless rolling wheels. Can be installed in place of an existing roller shutter switch in a minimum 40 mm depth flush-mounted box.
The Mosaic with Netatmo solution is compatible with rolling shutters and adjustable sunshades with mechanical or electromechanical stops, controlled by a classic wired switch for roller shutters.
Caution: Connection to neutral is necessary.
Not compatible with radio-controlled roller shutter motors. Screw fixing.
Automatic calibration function allowing management of
shutter opening level. BSO adjustable sunshades control function.

TECHNICAL CHARACTERISTICS

Rated voltage: 110-230 V
Rated current: 2 A
Frequency: 50/60 Hz
Maximum power: 500 W
Standby consumption: 0.1 mA
Storage temperature: 0 °C to + 45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP21
Materials: PC mechanism case, PA 6.6 support + Galfan steel
Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Schematic diagram



Connected socket

Connected socket controllable by wireless lighting control and/or remotely by smartphone.
Built-in electrical overload protection for added safety.
Installation in box depth 40 mm minimum, in place of a standard power outlet.
Claw and/or screw fixing.
One-piece mechanism (support + mechanism).

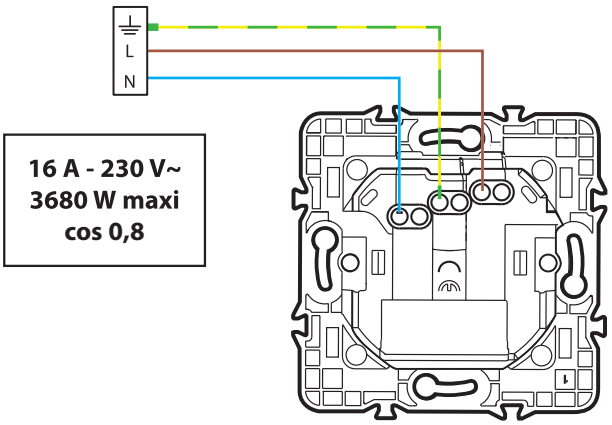
TECHNICAL CHARACTERISTICS

Rated voltage: 110-230 V
Rated current: 16 A
Frequency: 50/60 Hz
Maximum power: 3680 W
Standby consumption: 0.1 mA
Storage temperature: 0 °C to +45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP41
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Cat.Nos		Connected socket German/French standard
German	French	2P+E socket connected, with protective clips. With LED activity and tracking indicator and button network. Delivered with construction site protection. To be fitted with a finishing plate
0 648 30	0 677 25	Celiane - White
0 648 37	0 677 75	Celiane - Titanium
0 648 38	0 648 95	Celiane - Graphite
7 521 94	7 521 93	Valena Life - White
7 522 94	7 522 93	Valena Life - Ivory
7 523 94	7 523 93	Valena Life - Aluminium
7 525 94	7 525 93	Valena Allure - White
7 526 94	7 526 93	Valena Allure - Ivory
7 527 94	7 527 93	Valena Allure - Aluminium
7 528 94	7 528 93	Valena Allure - Black
7 529 94	7 529 93	Valena Allure - Pearl
7 418 11	7 419 11	Valena Next - White
7 418 41	7 419 41	Valena Next - Aluminium
7 418 71	7 419 71	Valena Next - Black
0 777 13L	0 777 11LA	Mosaic - White
-	6 003 91	Doxie - White
-	6 004 91	Doxie - Aluminium

1 mod.	2 mod.	Connected socket British standard
5 742 56	5 742 66	Arteor - White
5 742 57	5 742 67	Arteor - Soft Alu
5 742 58	5 742 68	Arteor - Magnesium
5 742 59	5 742 68	Arteor - Champagne

Schematic diagram



16 A - 230 V~
3680 W maxi
cos 0,8

Connected dimmer

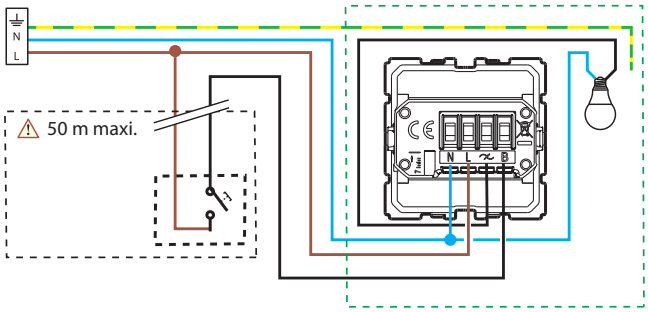
Cat.Nos	Connected dimmer
	Used to connect lights with a ceiling box installation. Can be controlled by one or more wireless light switches and/or mechanical push-buttons ON/OFF switch 150 W LED, wired
0 677 97	Celiane - White
0 677 98	Celiane - Titanium
0 677 99	Celiane - Graphite
7 521 66	Valena Life - White
7 522 66	Valena Life - Ivory
7 523 66	Valena Life - Aluminium
7 525 66	Valena Allure - White
7 526 66	Valena Allure - Ivory
7 527 66	Valena Allure - Aluminium
7 528 66	Valena Allure - Black
7 529 66	Valena Allure - Pearl
7 418 14	Valena Next - White
7 418 44	Valena Next - Aluminium
7 418 74	Valena Next - Black
0 777 08L	Mosaic - White
6 000 90	Doxie - White
6 001 90	Doxie - Aluminium

Switch connected with neutral with dimmer option, configured by default ON/OFF. Can be combined with one or more wireless lighting controls and/or one or more mechanical push buttons. Allows you to control your lighting locally or remotely. Easily installs in place of a standard switch in a box depth 40 mm minimum.
Claw and/or screw fixing.

TECHNICAL CHARACTERISTICS

Rated voltage: 230 V
Rated current: 0.7 A
Frequency: 50/60 Hz
Storage temperature: 0 °C to +45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP41
Materials: Thermoplastic Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Schematic diagram



Connected curtain/roller blind micromodule

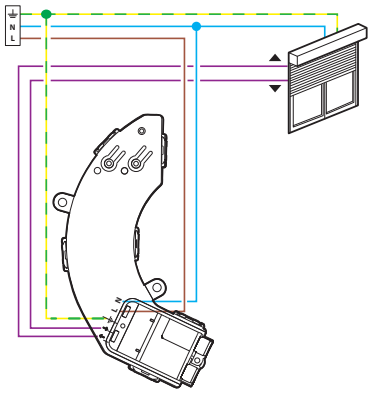
Connected micromodule for local or remote shutter control rollers and adjustable sunshades. Can be combined with one or more roller shutter controls wireless. Compatible with roller shutters with mechanical or electronic stops. Caution: Connection to neutral is necessary. Not compatible with radio-controlled roller shutter motors. Installs in the attic or in the shutter box. Automatic calibration function allowing level management opening of the shutter. BSO adjustable sunshade control function.

Cat.Nos	Connected curtain/roller blind micromodule
	For local and remote control of a 230 VA roller blind (raise/lower/stop functions and level management) Compatible with roller blinds with mechanical or electronic stop, not compatible with radio-controlled roller blinds. Can be paired with one or more roller blind wireless switches. To be installed in the ceiling box or roller blind box to connect a new or existing roller blind
0 676 97	Arteor

TECHNICAL CHARACTERISTICS

Rated voltage: 110-240 V
Rated current: 2 A
Frequency: 50/60 Hz
Maximum power: 500 VA
Standby consumption: 0.1 mA
Storage temperature: -10 °C to +70 °C
Operating temperature: -5 °C to +50 °C
Protection against shocks: IK 02
Protection degree: IP44
Materials: Polycarbonate
Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Schematic diagram



Connected socket outlet module

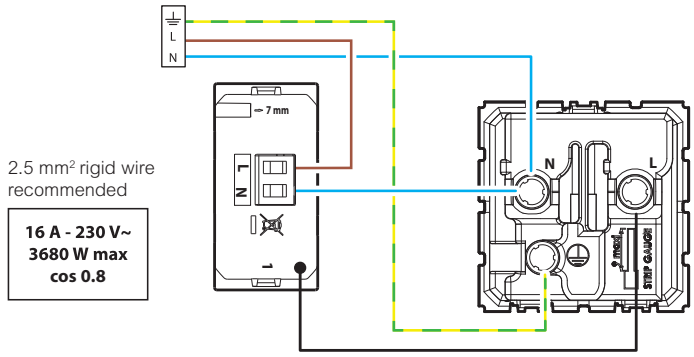
Cat.Nos	Connected socket outlet module
	Mechanisms supplied with cover plates, to be equipped with support frames and plates Allows to create a connected socket outlet for integration into the connected installation To be wired to a traditional socket outlet Connected socket outlets can be controlled by one or several wireless light switches Compatible with any electrical appliance or large household appliance. A - 230 VA - 3680 W, 1 module
5 742 00	Arteor - White
5 742 28	Arteor - Magnesium
5 742 37	Arteor - Champagne
5 742 19	Arteor - Soft Alu

Connected socket module which can be controlled by a wireless lighting control and/or remotely via a smartphone, tablet or computer.
Can be used to measure instantaneous and total consumption of the connected device. Built-in protection against electrical overloads, for increased safety.
Installation in box 40 mm deep (minimum), instead of a standard socket outlet.

TECHNICAL CHARACTERISTICS

Rated voltage: 230 V
Rated current: 16 A
Frequency: 50/60 Hz
Maximum power: 500 W
Standby consumption: 1.8 mA
Storage temperature: 0 °C to +45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP41
Materials: Thermoplastic Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Schematic diagram



2.5 mm² rigid wire recommended

16 A - 230 V~ 3680 W max cos 0.8

Connected light switches

Connected switch with neutral (with dimmer option), configured by default as ON/OFF. Can be combined with one or more wireless lighting controls and/or mechanical pushbuttons. For local or remote control of your lighting. Easy to install in place of a standard switch in a box 40 mm deep (minimum).

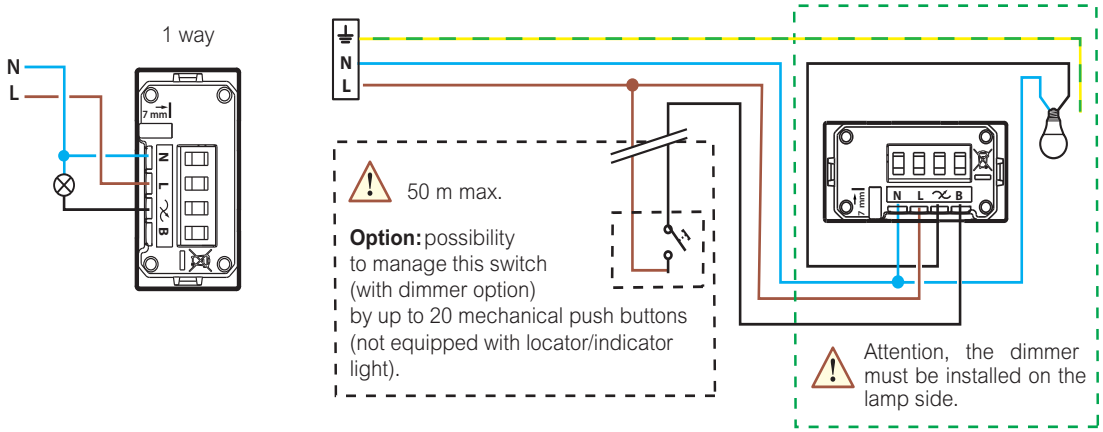
TECHNICAL CHARACTERISTICS

Rated voltage: 110-230 V
Rated current: 0.7 A
Frequency: 50/60 Hz
Maximum power: 150 W
Standby consumption: 3.7 mA
Storage temperature: 0 °C to +45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP21
Materials: PC mechanism case, PA 6.6 support + Galfan steel
Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Cat.Nos		Connected light switches
1 mod.	2 mod.	
5 743 40	5 743 30	Arteor - White
5 743 41	5 743 31	Arteor - Soft Alu
5 743 42	5 743 32	Arteor - Magnesium
5 743 43	5 743 33	Arteor - Champagne

Switch with neutral, 150 W LED, with dimmer option, wired. Mechanisms supplied with cover plates, to be equipped with support frames and plates
For local or remote ON/OFF or dimming control of lighting. an be controlled by one or several wireless light switches and/or mechanical push-buttons without neon.

Schematic diagram



Connected micromodule switches with neutral

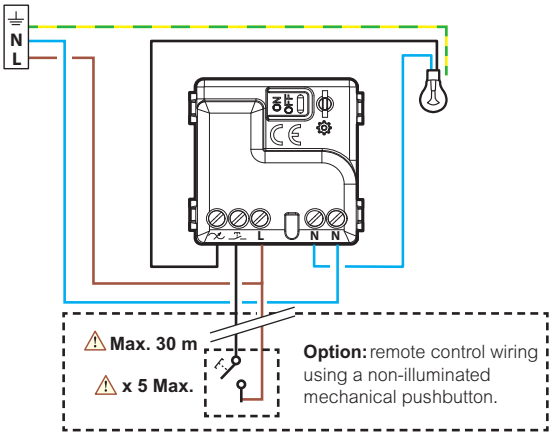
Cat.Nos	Connected micromodule switches with neutral
5 742 43	Used to connect lights with a ceiling box installation Can be controlled by one or more wireless light switches and/or mechanical push-buttons ON/OFF switch 100 W LED, wired Compatible with all loads: - LEDs and CFL lamps: 100 W LED - Incandescent and halogen lamps: 300 W - ELV halogen and CFL lamps with separate ballast: 250 VA

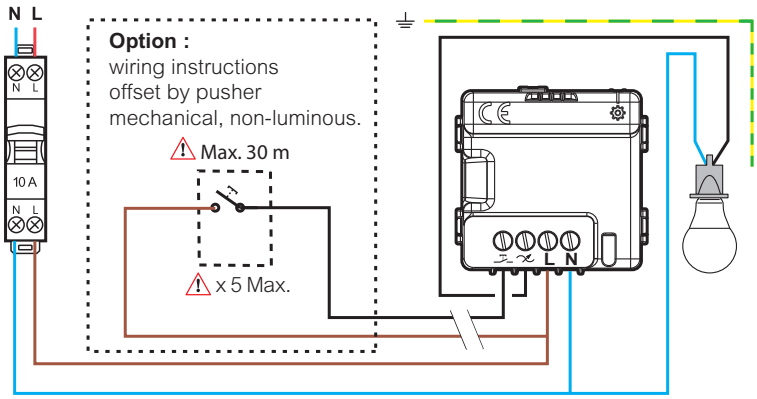
Connected lighting micromodule switch.
Can be used to create a one-way switch, 2-way switch or remote switch function without pulling wires.If replacing an existing remote switch, the wired pushbutton control runs can be retained.
Its receiver function allows it to be combined with 1-gang or 2-gang radio control units (wireless transmitters), IR detectors. For installation in a ceiling light, wall lighting strip or in a panel. Can be combined with one or more wireless lighting controls

TECHNICAL CHARACTERISTICS

Rated voltage: 110-240 V
Rated current: 1.3 A
Frequency: 50/60 Hz
Maximum power: 100 or 150 W
Standby consumption: 2.2 or 0.7 mA
Storage temperature: 0 °C to +45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP20
Materials: Thermoplastic Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

Schematic diagram





Connected cable output

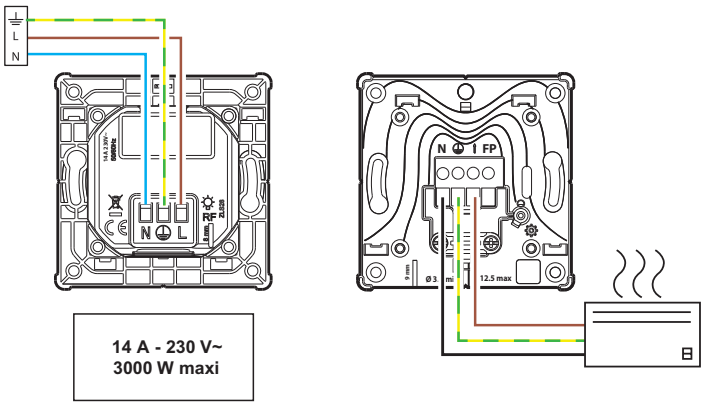
Cat.Nos	Connected cable output
	Celiane cable outlet delivered complete. Equipped with an LED indicator (configuration). Hidden reset button used to return to factory mode.
0 648 79	White
0 648 82	Titanum
0 648 83	Graphite
0 648 51	Pearl
0 648 63	Ivory
0 648 47	Black
0 648 98	Aluminium

This product is a connected accessory which first requires the purchase and installation of the "... with Netatmo" connected starter pack.
Can be installed in place of an existing cable outlet in a minimum 40 mm depth flush-mounted box.
One-piece mechanism (support + mechanism).
Screw fixing.

TECHNICAL CHARACTERISTICS

Rated voltage: 110-230 VA
Rated current: 14 A
Frequency: 50/60 Hz
Maximum power: 3000 W
Standby consumption: 1.5 mA - 0.2 W
Storage temperature: 0 °C to +45 °C
Operating temperature: +5 °C to +45 °C
Protection against shocks: IK 04
Protection degree: IP21
Color: White, Ivory, Titanium, Graphite, Aluminium, Black, Mother-of-pearl: Satin-look painted
Materials: ABS + metal, PC mechanism case, PC support loaded with 20% fiberglass
Halogen-free, UV resistant
Self-extinguishing 850° C/30 s for insulating parts now in place the parts under tension 650° C/30 s for other parts ininsulating materials
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: <100 mW
Range: 200 m in open field, 10 m between products indoors

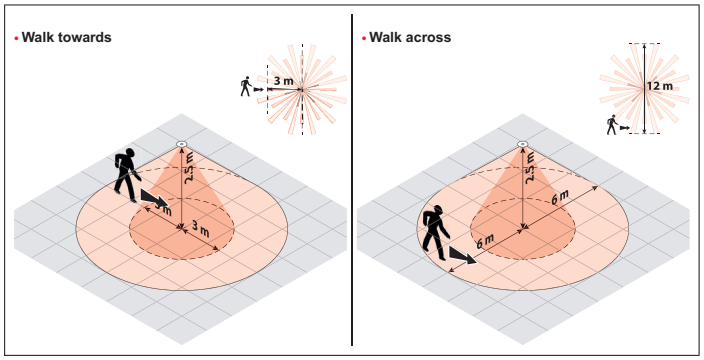
Schematic diagram



Light Up: occupancy sensors

Cat.Nos	Occupancy
0 485 51	ON/OFF detector Presence and dimming sensor (DALI 2 certified)
0 485 52	DALI
0 485 55	DALI 3 zones

Occupancy detection zone



A flexible range of sensors for all types of application
Adapts the lighting to the presence and the luminosity
Wireless master-slave function to extend the detection zone by associating a slave detector with the detector connected to the light.
Possibility of combining a wireless batteryless light switch and a connected outlet.
Allows the management and control of 3 distinct lighting zones depending on daylight (+ Offset function)
Configuration with Close Up App.

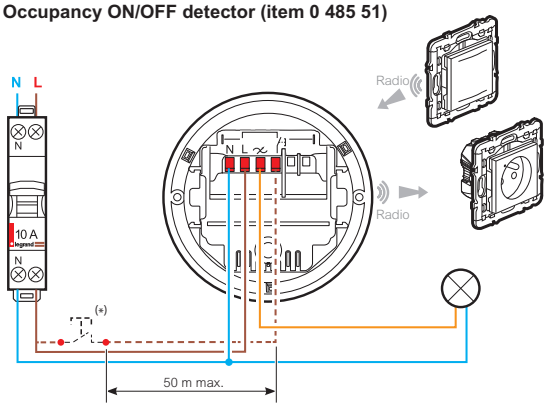
TECHNICAL CHARACTERISTICS

Rated voltage: 110 - 230 Va.c.
Rated frequency: 50/60 Hz
Standby consumption: 0.4 W (charging OFF), 1 W (charging ON)
Screw terminals: 2 x 1.5 mm^2 or 1 x 2.5 mm^2
Drilling diameter: 68 mm
Shock resistance: IK04
Protection degree: IP20
Weight: 140.6 g (product)- 184.8 g (packaged)
Operating temperature: - 10° C to + 30° C
Storage temperature: - 20° C to + 70° C
Infra-red detection diameter: 12 m (for a height of 2.5 m from the ground)
Infra-red detector minimum installation height: 1.7 m
Brightness factory setting: 300 lux
Delay factory setting: 15 minutes
Auto ON/OFF mode with passage mode activated
Bluetooth: from version 5.0 compatible (with smartphone from 4.2)
Bluetooth frequency: 2.4 to 2.483 GHz
Bluetooth power: < 100 mW
Bluetooth range: 10 m
Radio frequency: 2.4 GHz (16 channels)
Radio output power: +8 dBm
Radio data rate: 250 kbit/s
Radio range: 10 m
Security: Self-adaptive and secure mesh wireless network (AES128) in accordance with IEEE 802.15.4 (LR-WPAN)
False ceiling installation

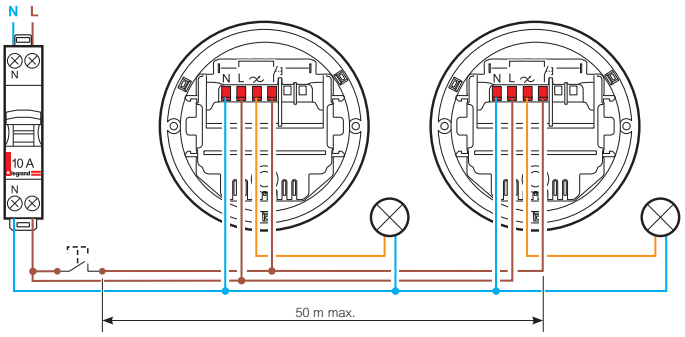
Light Up: occupancy sensors

Schematic diagram

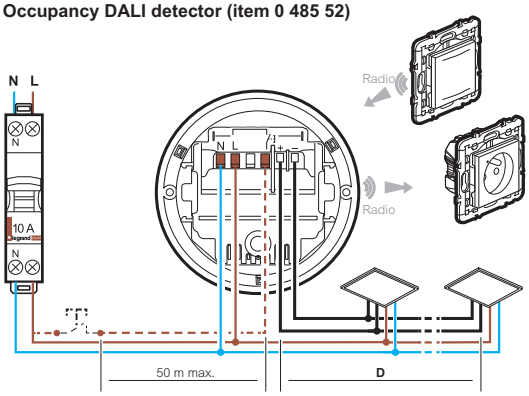
Occupancy ON/OFF detector (item 0 485 51)



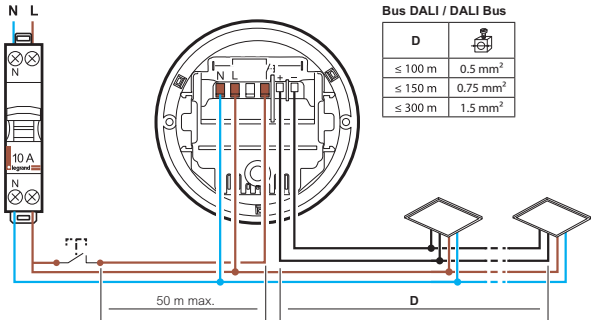
Inputs in parallel



Occupancy DALI detector (item 0 485 52)



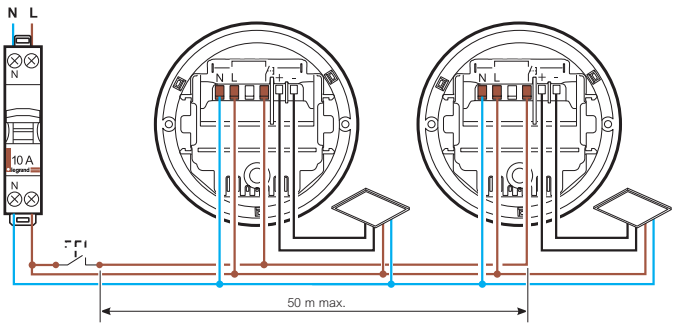
BUS Dali



Bus DALI / DALI Bus

D	
≤ 100 m	0.5 mm²
≤ 150 m	0.75 mm²
≤ 300 m	1.5 mm²

Inputs in parallel



Light Up: corridor sensors

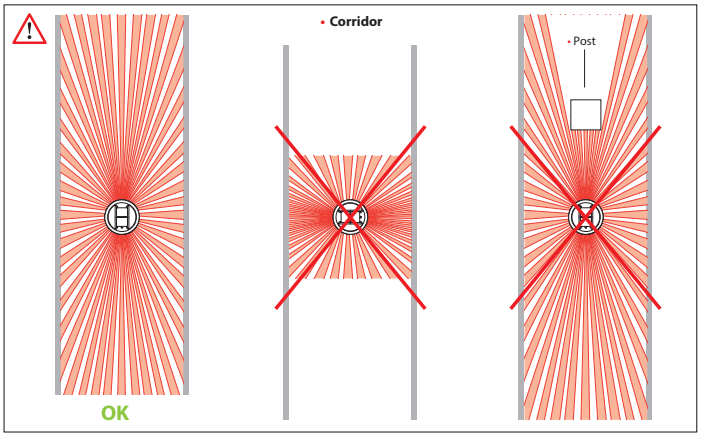
Cat.Nos	Corridor
	Power: < 100 mW -10 °C/ +30 °C Reach: 24 m Daylight sensor
	Presence sensor
0 485 53	ON/OFF detector
	Presence and dimming sensor (DALI 2 certified)
0 485 54	DALI
0 485 56	DALI 3 zones

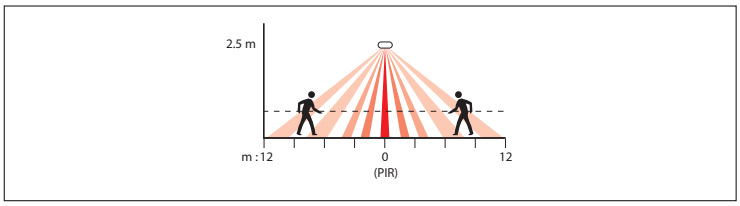
A flexible range of sensors for all types of application
Adapts the lighting to the presence and the luminosity
Wireless master-slave function to extend the detection zone by associating a slave detector with the detector connected to the light.
Possibility of combining a wireless batteryless light switch and a connected outlet .
Allows the management and control of 3 distinct lighting zones depending on daylight (+ Offset function).
Configuration with Close Up App.

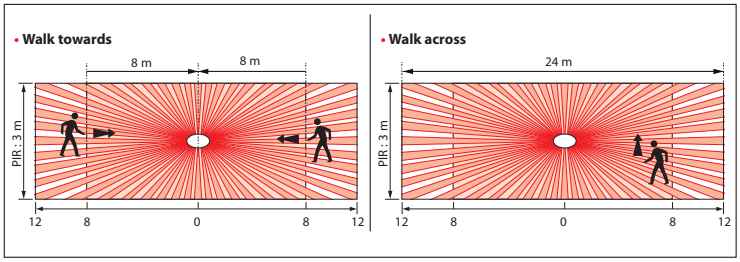
TECHNICAL CHARACTERISTICS

Rated voltage: 110 - 230 Va.c.
Rated frequency: 50/60 Hz
Standby consumption: 0.4 W (charging OFF), 1 W (charging ON)
Screw terminals: 2 x 1.5 mm^2 or 1 x 2.5 mm^2
Drilling diameter: 68 mm
Shock resistance: IK04
Protection degree: IP20
Weight: 140.6 g (product)- 184.8 g (packaged)
Operating temperature: - 10° C to + 30° C
Storage temperature: - 20° C to + 70° C
Infra-red detection diameter: 12 m (for a height of 2.5 m from the ground)
Infra-red detector minimum installation height: 1.7 m
Brightness factory setting: 300 lux
Delay factory setting: 15 minutes
Auto ON/OFF mode with passage mode activated
Bluetooth: from version 5.0 compatible (with smartphone from 4.2)
Bluetooth frequency: 2.4 to 2.483 GHz
Bluetooth power: < 100 mW
Bluetooth range: 10 m
Radio frequency: 2.4 GHz (16 channels)
Radio output power: +8 dBm
Radio data rate: 250 kbit/s
Radio range: 10 m
Security: Self-adaptive and secure mesh wireless network (AES128) in accordance with IEEE 802.15.4 (LR-WPAN)
False ceiling installation

Corridor detection zone



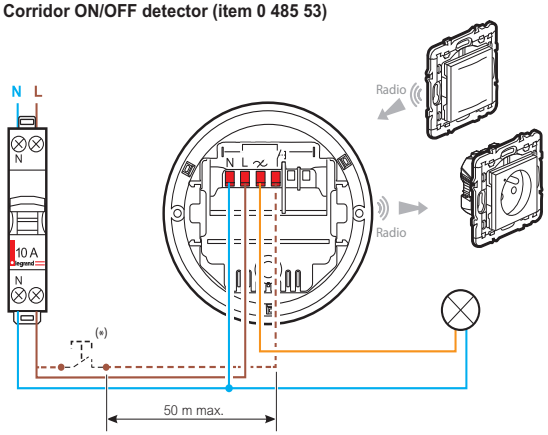




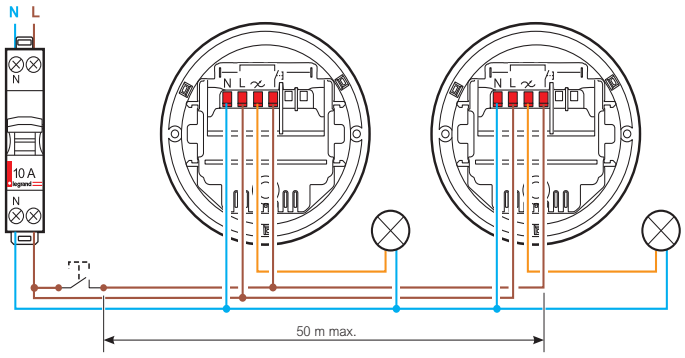
Light Up: corridor sensors

Schematic diagram

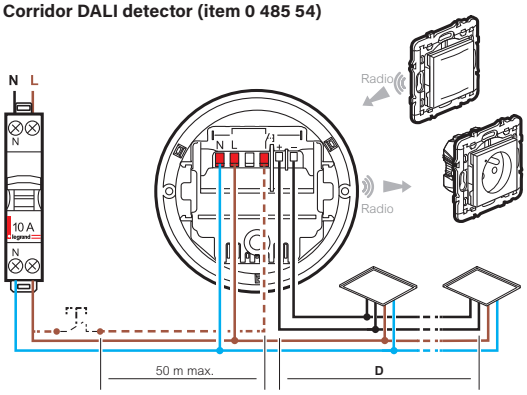
Corridor ON/OFF detector (item 0 485 53)



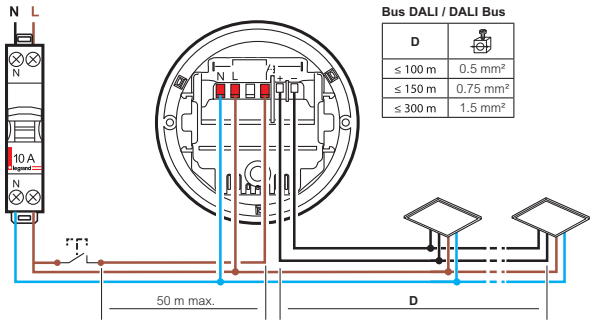
Inputs in parallel



Corridor DALI detector (item 0 485 54)



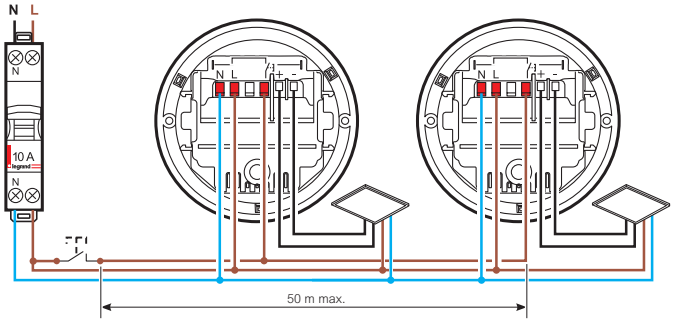
BUS Dali



Bus DALI / DALI Bus

D	
≤ 100 m	0.5 mm²
≤ 150 m	0.75 mm²
≤ 300 m	1.5 mm²

Inputs in parallel



Light Up: multisensors

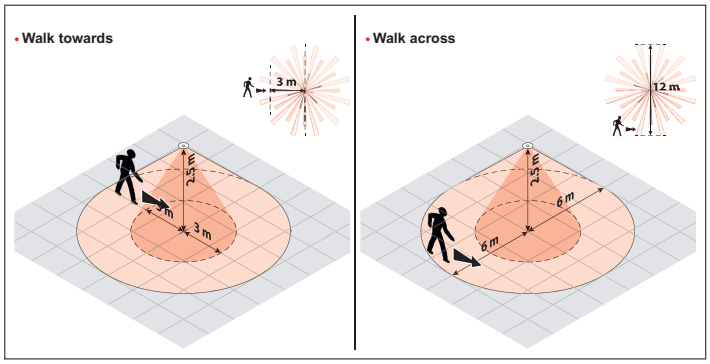
Cat.Nos	Multisensor
	Power: < 100 mW +5 °C/ +30 °C Reach: 12 m ON/OFF Daylight sensor: 5 to 1275 lux Temperature sensor: +0 °C/+50 °C Humidity sensor: 0% to 100% IAQ level : 1.0 to 5.0 (UBA reference) Sound sensor: 35 to 120 dbspl eCO2 : 400 -> 5000ppm
	Presence and dimming sensor (DALI 2 certified)
0 485 71	DALI
0 485 73	DALI 3 zones
	Accessory
	Surface mount back box
0 485 50	Mounting accessory for Light Up surface-mounting false ceiling detectors

A flexible range of sensors for all types of application
Adapts the lighting to the presence and the luminosity
Wireless master-slave function to extend the detection zone by associating a slave detector with the detector connected to the light.
Possibility of combining a wireless batteryless light switch and a connected outlet.
Allows the management and control of 3 distinct lighting zones depending on daylight (+ Offset function).
Configuration with Close Up App.
Measures environmental data : daylight, temperature, humidity, VOC, IAQ, sound...

TECHNICAL CHARACTERISTICS

Rated voltage: 110 - 230 Va.c.
Rated frequency: 50/60 Hz
Standby consumption: 0.4 W (charging OFF), 1 W (charging ON)
Screw terminals: 2 x 1.5 mm^2 or 1 x 2.5 mm^2
Drilling diameter: 68 mm
Shock resistance: IK04
Protection degree: IP20
Weight: 140.6 g (product)- 184.8 g (packaged)
Operating temperature: - 5° C to + 30° C
Storage temperature: - 20° C to + 70° C
Infra-red detection diameter: 12 m (for a height of 2.5 m from the ground)
Infra-red detector minimum installation height: 1.7 m
Brightness factory setting: 300 lux
Delay factory setting: 15 minutes
Auto ON/OFF mode with passage mode activated
Bluetooth: from version 5.0 compatible (with smartphone from 4.2)
Bluetooth frequency: 2.4 to 2.483 GHz
Bluetooth power: < 100 mW
Bluetooth range: 10 m
Radio frequency: 2.4 GHz (16 channels)
Radio output power: +8 dBm
Radio data rate: 250 kbit/s
Radio range: 10 m
Security: Self-adaptive and secure mesh wireless network (AES128) in accordance with IEEE 802.15.4 (LR-WPAN)
False ceiling installation

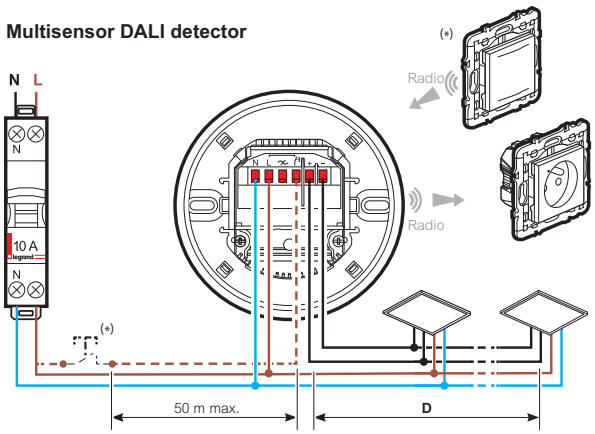
Multisensor detection zone



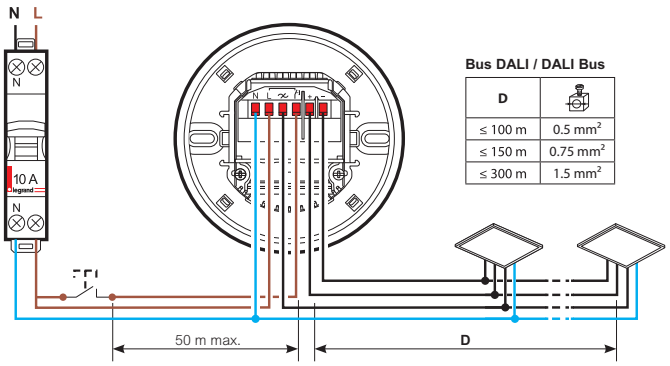
Light Up: multisensors

Schematic diagram

Multisensor DALI detector



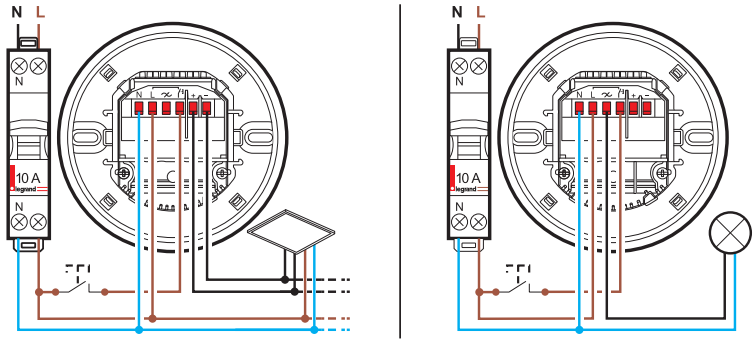
BUS Dali



Bus DALI / DALI Bus

D	
≤ 100 m	0.5 mm²
≤ 150 m	0.75 mm²
≤ 300 m	1.5 mm²

Input in parallel



Light Up: advanced ceiling sensors

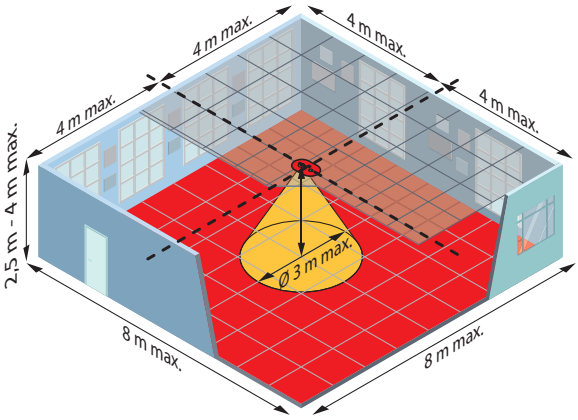
Cat.Nos	Advanced
	Power: < 100 mW +5 °C/ +30 °C Reach: 8 m x 8 m = 64m² ON/OFF Daylight sensor: 5 to 1275 lux Temperature sensor: +0 °C/+50 °C Humidity sensor: 25% to 80% IAQ level : 1.0 to 5.0 (UBA reference) Sound sensor: 38 to 120 dbspl Counting people allows to measure utilisation and capacity rates eCO2 : 400 -> 5000ppm Privacy respected Thermal imager : no video/images taken
	Presence and dimming sensor (DALI 2 certified)
0 485 72	DALI
0 485 74	DALI 3 zones
	Accessory
	Surface mount back box
0 485 50	Mounting accessory for Light Up surface-mounting false ceiling detectors

A flexible range of sensors for all types of application
Adapts the lighting to the presence and the luminosity
Wireless master-slave function to extend the detection zone by associating a slave detector with the detector connected to the light.
Possibility of combining a wireless batteryless light switch and a connected outlet.
Allows the management and control of 3 distinct lighting zones depending on daylight (+ Offset function)
Configuration with Close Up App.
Measures environmental data : daylight, temperature, humidity, VOC, IAQ, sound...

TECHNICAL CHARACTERISTICS

Rated voltage: 110 - 230 Va.c.
Rated frequency: 50/60 Hz
Standby consumption: 0.4 W (charging OFF), 1 W (charging ON)
Screw terminals: 2 x 1.5 mm² or 1 x 2.5 mm²
Drilling diameter: 68 mm
Shock resistance: IK04
Protection degree: IP20
Weight: 140.6 g (product)- 184.8 g (packaged)
Operating temperature: - 10° C to + 30° C
Storage temperature: - 20° C to + 70° C
Infra-red detection diameter: 12 m (for a height of 2.5 m from the ground)
Infra-red detector minimum installation height: 1.7 m
Brightness factory setting: 300 lux
Delay factory setting: 15 minutes
Auto ON/OFF mode with passage mode activated
Bluetooth: from version 5.0 compatible (with smartphone from 4.2)
Bluetooth frequency: 2.4 to 2.483 GHz
Bluetooth power: < 100 mW
Bluetooth range: 10 m
Radio frequency: 2.4 GHz (16 channels)
Radio output power: +8 dBm
Radio data rate: 250 kbit/s
Radio range: 10 m
Security: Self-adaptive and secure mesh wireless network (AES128) in accordance with IEEE 802.15.4 (LR-WPAN)
False ceiling installation

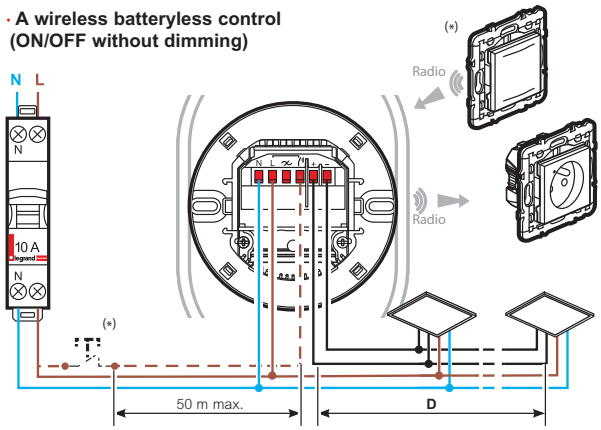
Advanced detection zone



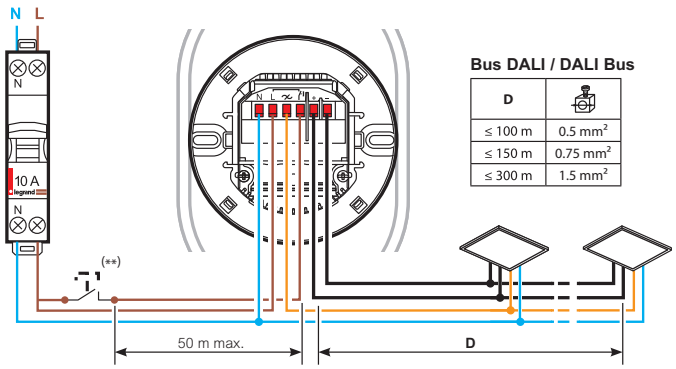
Light Up: advanced ceiling sensors

Schematic diagram

· A wireless batteryless control (ON/OFF without dimming)



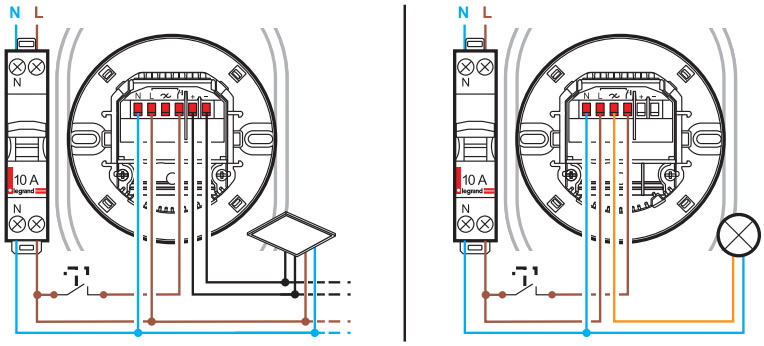
· Type of load "DIMMING"



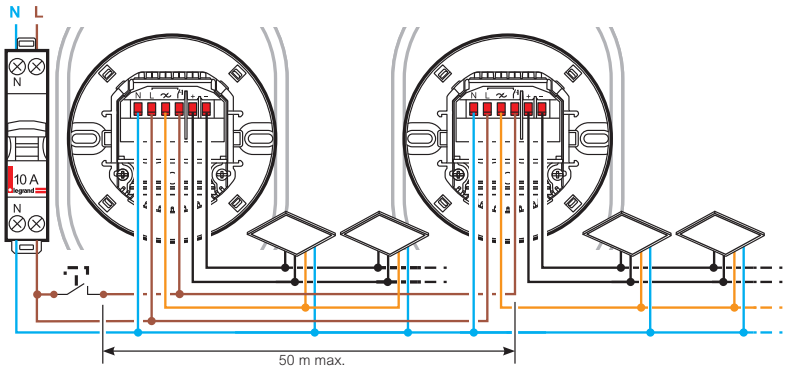
Bus DALI / DALI Bus

D	
≤ 100 m	0.5 mm²
≤ 150 m	0.75 mm²
≤ 300 m	1.5 mm²

· Type of load "NO DIMMING"



· Auxiliary parallel input



CATALOGUE

Area Manager solution

Area Manager

0 485 84

One year of portal access for supervision
The Area Manager allows you to communicate using the industrial protocols used in your smart building. Indeed, we note that to make of energy savings, it is a simple solution to use but also a solution flexible enough to adapt to the existing one
Communication protocols:
Modbus (RS485) – Z-wave – Zigbee – BLE – Wi-Fi – Ethernet
Architecture Buildroot
Connection via Wi-Fi, Ethernet or mesh network
Application installation (Android + iOS)
Portal access for supervision and statistics
Online and offline functions
Alerts and notifications
Rules management, planning and scenarios
A physical button allows show/hide the access point
Presence of 4 signaling LEDs
4th LED: OS status
3rd LED: Network status
2nd LED: Radio protocols are active (Zibgee and Z-Wave)
1st LED: Wi-Fi access point

Pack	Cat.Nos	Area Manager
1	0 485 84	Power supply: 12Vdc / 24Vdc Maximum number of products connected: + 100 Modbus points Installation method: DIN rails and panels Power Supply: USB-C 5V, DC 12V, PoE Interfaces: RS485, POE, DC 12V, USB-C 5V Communication protocols: Modbus (RS485), Z-Wave, Zigbee, BLE, Wi-Fi, Ethernet Area Manager, building controller of WEOZ™ solution

Area Manager solution

Airzone HVAC

AZAI6ZWEDA1

Pack	Cat.Nos	Aidoo Z-Wave
		Aidoo Z-Wave for inverter/VRF systems Device to manage and integrate units remotely Wireless Z-Wave Plus connection The Aidoo Z-Wave Plus by Airzone operates in any Z-Wave network with other Z-Wave/Z-Wave Plus certified devices and controllers from any other manufacturer Externally powered by the indoor unit As a constantly powered node, will act as repeater regardless of the vendor in order to increase the reliability of the network Features: - Control of the parameters of the unit - Communication errors detection - Integrate with Area Manager through Z-Wave
1	AZAI6ZWEDA1	AIDOO ZWAVE DAIKIN
1	AZAI6ZWEFU2	AIDOO ZWAVE FUJITSU
1	AZAI6ZWEHIT	AIDOO ZWAVE HITASHI
1	AZAI6ZWEMD2	AIDOO ZWAVE MIDEA
1	AZAI6ZWEMEL	AIDOO ZWAVE MITSUBSHI
1	AZAI6ZWEMHI	AIDOO ZWAVE MITSUBSHI HEAVY
1	AZAI6ZWEPAN	AIDOO ZWAVE PANASONIC
1	AZAI6ZWESA2	AIDOO ZWAVE SAMSUNG
1	AZAI6ZWETOS	AIDOO ZWAVE TOSHIBA
1	AIDOO PRO FANCOIL	Allows you to control any number of fan coil units of all types from the same App

Pack	Cat.Nos	AIDOO Pro Fancoil
1	AZAI6WSPFAN	Device to manage and integrate fancoil units Configuration with the Airzone Cloud App (available for iOS and Android) Externally powered at 110/230 Vac Mounted on DIN rail Features: - Control of the parameters of the unit - Communication errors detection - Temperature and operating mode time schedules - 2 relays for control of solenoid valves on demand - 3 relays for control of up to 3 speeds - 3 0-10 V outputs for control of cooling valve, heating valve and fan - 3 digital inputs for open window detection, occupancy detection and Eco mode - 3 analogue probe inputs for measuring room temperature, heating battery temperature and cooling battery temperature Auxiliary heat control Integration with Area Manager through modbus RTU port

Light Up

occupancy and corridor ceiling sensors

0 485 51

0 485 54

A flexible range of sensors for all types of application
Adapts the lighting to the presence and the luminosity
Wireless master-slave function to extend the detection zone by associating a slave detector with the detector connected to the light
Possibility of combining a wireless batteryless light switch (Cat.Nos 5 742 10/39/55, 5 743 24, 0 677 23L/73L/79L, 7 418 13L/43L/73L, 0 770 53L, 6 000 83L and a connected outlet (Cat.Nos 5 742 56/57/58/59, 0 677 25A/75A, 0 648 95A, 7 419 11/41/71, 6 003 91A, 0 697 93/96)
Allows the management and control of 3 distinct lighting zones depending on daylight (+ Offset function)

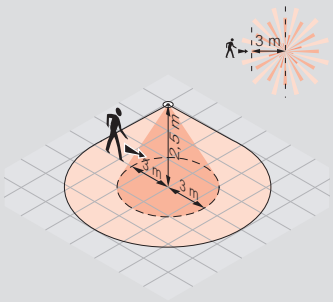
Pack	Cat.Nos	Occupancy
		Power: < 100 mW -10 °C/ +30 °C Reach: 12 m Daylight sensor
		Presence sensor
1	0 485 51	ON/OFF
		Presence and dimming sensors (DALI 2 certified)
1	0 485 52	DALI
1	0 485 55	DALI 3 zones
		Corridor
		Power: < 100 mW -10 °C/ +30 °C Reach: 24 m Daylight sensor
		Presence sensor
1	0 485 53	ON/OFF
		Presence and dimming sensors (DALI 2 certified)
1	0 485 54	DALI
1	0 485 56	DALI 3 zones

Light Up

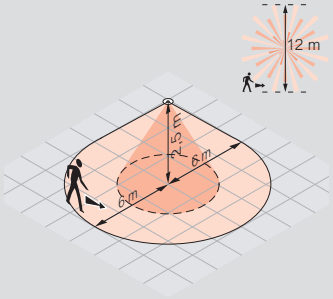
detection zone

Occupancy detection zone

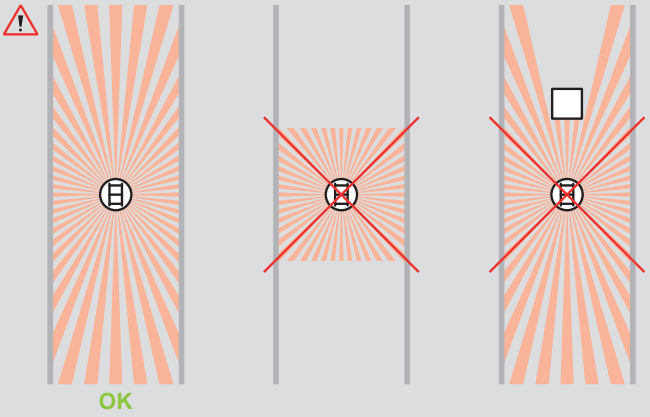
•Walk toward



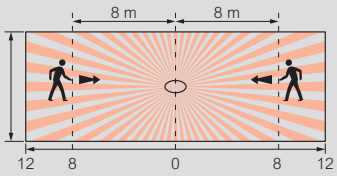
•Walk accross



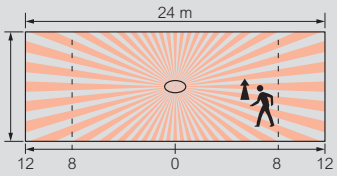
Corridor detection zone



•Walk toward



•Walk accross



Red catalogue numbers: New products

Light Up

multisensors and advanced ceiling sensors

0 485 71

0 485 74

A flexible range of sensors for all types of application
Adapts the lighting to the presence and the luminosity
Wireless master-slave function to extend the detection zone by associating a slave detector with the detector connected to the light
Possibility of combining a wireless batteryless light switch (Cat.Nos 5 742 10/39/55, 5 743 24, 0 677 23L/73L/79L, 7 418 13L/43L/73L, 0 770 53L, 6 000 83L and a connected outlet (Cat.Nos 5 742 56/57/58/59, 0 677 25A/75A, 0 648 95A, 7 419 11/41/71, 0 777 11LA, 6 003 91A, 0 697 93/96)
Allows the management and control of 3 distinct lighting zones depending on daylight (+ Offset function)
Configuration with Close Up App
Measures environmental data : daylight, temperature, humidity, VOC, IAQ, sound...

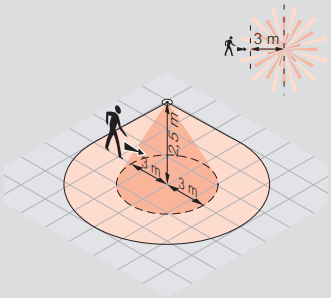
Pack	Cat.Nos	Multisensors
		Power: < 100 mW +5 °C/ +30 °C Reach: 12 m ON/OFF Daylight sensor: 5 to 1275 lux Temperature sensor: +0 °C/+50 °C Humidity sensor: 0% to 100% IAQ level : 1.0 to 5.0 (UBA reference) Sound sensor: 35 to 120 dbspl eCO2 : 400 -> 5000ppm
		Presence and dimming sensors (DALI 2 certified)
1	0 485 71	DALI
1	0 485 73	DALI 3 zones
		Advanced
		Power: < 100 mW +5 °C/ +30 °C Reach: 8 m x 8 m = 64m² ON/OFF Daylight sensor: 5 to 1275 lux Temperature sensor: +0 °C/+50 °C Humidity sensor: 25% to 80% IAQ level : 1.0 to 5.0 (UBA reference) Sound sensor: 38 to 120 dbspl Counting people allows to measure utilisation and capacity rates eCO2 : 400 -> 5000ppm Privacy respected Thermal imager : no video/images taken
		Presence and dimming sensors (DALI 2 certified)
1	0 485 72	DALI
1	0 485 74	DALI 3 zones
		Accessory
		Surface mount back box
2	0 485 80	Mounting accessory for Light Up surface-mounting false ceiling detectors

Light Up

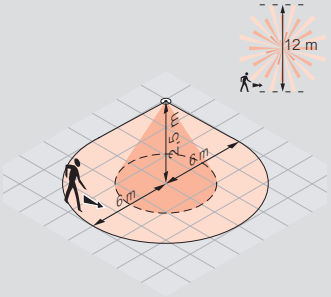
detection zone

Multisensor detection zone

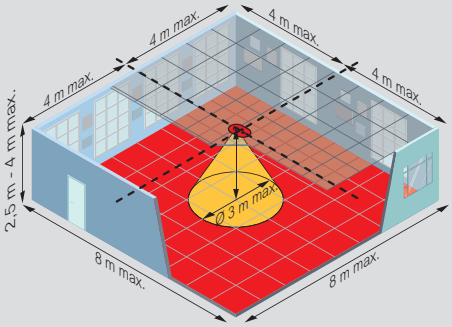
•Walk toward



•Walk accross



Advanced detection zone



Red catalogue numbers: New products

Light Up

opening detector

Pack	Cat Nos	Opening detector
1	0 485 75	Radio-controlled magnetic opening detector which sends its status via a radio frequency command (Greenpower) when there is a change of status: opening or closing Protection against impacts: IK 04 Protection against solid bodies/liquids: IP 20 IP 40 assembled product CR2032 3 VDC Lithium battery Life: 8 years with 25 openings a day Zigbee radio technology: frequency 2.4 GHz to 2.4835 GHz RADIO performance: 150 m min. range in unobstructed space, point to point Power level: < 10 mW Default Zigbee channel: 11 Certified Zigbee PRO technology, Green Power function (two-way communication: not available) IEEE 802.15.4 (LR-WPAN) Usage temperature: +5° C to +45° C Storage temperature: +5° C to +45° C

Arteor™ with Netatmo - International

connected light switches

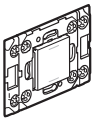
5 743 40

5 743 33

Used to create your connected installation, require prior installation of an Area Manager solution
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected light switches with dimmer option
		With neutral 230 VA, 150 W LED Mechanisms supplied with cover plates, to be equipped with support frames and plates For local or remote ON/OFF or dimming control of lighting Can be controlled by one or several wireless light switches and/or mechanical push-buttons without neon Compatible with all loads: - Dimmable LEDs and CFL lamps: 150 W LED - Incandescent and halogen lamps: 150 W - ELV halogen and CFL lamps with separate ballast: 150 VA Memory level function Can be installed in place of an existing switch in a flush-mounting box depth 35 mm
		1 module
1	5 743 40	○ White
1	5 743 42	● Magnesium
1	5 743 43	● Champagne
1	5 743 41	● Soft Alu
		2 modules
1	5 743 30	○ White
1	5 743 32	● Magnesium
1	5 743 33	● Champagne
1	5 743 31	● Soft Alu

Pack	Cat.Nos	Wireless batteryless switch
		Extra-slim, maintenance-free device without any battery Used to add an extra control for wired switches, micromodules, socket outlets and cable outlets Energy harvesting mechanism that generates by itself the energy required for the switching process Qualified for 1 million cycles Smooth and silent switching Supplied with cover plate, multi-standard support frame (with removable fins) and removable stickers for fixing the control unit on any substrate To be equipped with 2-module plate
1	5 742 39	○ White
1	5 743 24	● Magnesium
1	5 742 55	● Champagne
1	5 742 10	● Soft Alu



Arteor™ with Netatmo - International

connected curtain/roller blind switch

5 742 04

Used to complete your connected installation, require prior installation of an Area Manager solution
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected curtain/roller blind switch 500 VA
		Mechanism supplied with cover plate, to be equipped with support frame and plate For local and remote control of a 230 VA roller blind (raise/lower/stop functions and level management) Compatible with roller blinds with mechanical or electronic stop, not compatible with radio-controlled roller blinds Can be paired with one or more roller blind wireless switches Can be installed in place of an existing roller blind switch in a flush-mounting box depth 35 mm 1 module - with neutral
1	5 742 04	○ White
1	5 742 22	● Magnesium
1	5 742 31	● Champagne
1	5 742 13	● Soft Alu

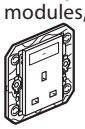
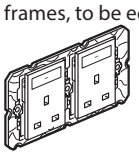
Arteor™ with Netatmo - International

connected socket outlets

5 742 57 + plate

5 742 66

Used to create your connected installation, require prior installation of an Area Manager solution
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected British standard socket outlets, 13 A - 250 V, switched, single pole
		Compact mechanism (22 mm deep) Shuttered for child safety Protected against overloads Conform to BS 1363 Part-2 and IEC 60669-2-5 Socket outlets can be controlled by one or several wireless light switches Compatible with any electrical appliance or large household appliance Connected socket outlets allow to: - remotely control electrical appliances - measure instantaneous power Can be installed in place of an existing socket outlet in a flush-mounting box min. depth 35 mm
		2P+E switched - 1-gang Mechanisms supplied with cover plates and support frames, to be equipped with British standard plates, 3 modules, 1-gang
1	5 742 56	 ○ White
1	5 742 58	● Magnesium
1	5 742 59	● Champagne
1	5 742 57	● Soft Alu
		2P+E switched - 2-gang Mechanisms supplied with cover plates and support frames, to be equipped with special plates
1	5 742 66	 ○ White
1	5 742 68	● Magnesium
1	5 742 69	● Champagne
1	5 742 67	● Soft Alu

Arteor™ with Netatmo - International

connected socket outlet module and mobile socket outlet

5 742 00

5 742 00 + 5 721 04 + plate

Used to complete your connected installation, require prior installation of an Area Manager
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected socket outlet module, 16 A - 230 VA - 3680 W, 1 module
		Mechanisms supplied with cover plate, to be equipped with support frame and plate Allows to create a connected socket outlet for integration into the connected installation To be wired to a traditional socket outlet Connected socket outlets can be controlled by one or several wireless light switches Compatible with any electrical appliance or large household appliance Connected socket outlets allow to - remotely control electrical appliances - measure instantaneous power Can be installed in place of an existing socket outlet in a flush-mounting box min. depth 40 mm
1	5 742 00	 ○ White
1	5 742 28	● Magnesium
1	5 742 37	● Champagne
1	5 742 19	● Soft Alu

Pack	Cat.Nos	Connected mobile socket outlets
		Conform to IEC 60884-2-5 and IEC 60669-2-5 To be plugged directly into an existing socket outlet For control of lights, electrical appliances and large household appliances Can be controlled by one or several wireless light switches - ON/OFF indicator LED function Connected mobile socket outlets allow to - remotely control electrical appliances - measure instantaneous power
1	0 648 89	 13 A British standard connected mobile socket outlet - 3000 W ● Magnesium
1	5 742 54	 16 A German standard connected mobile socket outlet - 3680 W ● Magnesium

Céliane™ with Netatmo

connected switches and socket outlets

0 677 97 + plate

0 677 76A

0 677 25A + plate

0 677 75A + plate

Used to create your connected installation, require prior installation of an Area Manager
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected light switch with dimmer option
		For local or remote ON/OFF or dimming control of lighting Compatible with all loads (dimmable LEDs required if dimmer mode activated) Can be controlled by one or several wireless/wireless batteryless light switches and/or mechanical push-buttons Can be installed in place of an existing switch in a flush-mounting box depth 40 mm Screw fixing. Supplied with worksite protection Multi-gang fixing possible Supplied with cover plate and support frame To be equipped with plate
		With neutral 230 VA, 150 W LED
1		○ White
1	0 677 98A	● Titanium
1	0 677 99A	● Graphite

Pack	Cat.Nos	Connected shutter/roller blind switch
		Enables: - to control a shutter with electronic stop or mechanical - to manage an adjustable, an awning - to manage opening levels Phase + Neutral power supply 230 VA Can be installed in place of an existing shutter switch in flush-mounting box depth 40 mm Not compatible with radio shutters installations Multi-gang fixing possible Supplied with cover plate and support frame To be equipped with plate
1	0 677 26A	○ White
1	0 677 76A	● Titanium
1	0 648 96A	● Graphite

Pack	Cat.Nos	Wireless batteryless switch
		Extra-slim, maintenance-free device without any battery. Used to add an extra control for wired switches, micromodules, socket outlets and cable outlets. Easy pairing by tapping the wired product Supplied with cover plate, support frame and removable stickers for fixing the control unit on any substrate. To be equipped with plate
1	0 677 23L	○ White
1	0 677 73L	● Titanium
1	0 677 79L	● Graphite

Pack	Cat.Nos	Wireless switch
		Used to add an extra control for wired switches, micromodules, socket outlets, cable outlets Easy pairing by tapping the wired product Supplied with CR2032 3V long-life battery for power supply. Easy access to the battery for maintenance LED function for low battery indication Supplied with removables stickers for fixing the control unit on any substrate
		Single switch
1	1 991 63	○ White
1	1 991 73	● Titanium
1	1 991 83	● Graphite
		Double switch
1	1 991 69	○ White
1	1 991 79	● Titanium
1	1 991 89	● Graphite

Pack	Cat.Nos	Connected socket outlets, 16 A - 250 V
		Enables to control electrical devices Can be controlled by one or several wireless/wireless batteryless light switches 16 A socket 3680 W max. (protected against overloads) Compatible with all electrical and large devices home appliance Enables to: - measure the instantaneous power Can be installed in place of an existing socket outlet in a flush-mounting box depth 40 mm Screw or claw fixing Automatic terminals Supplied with worksite protection and claws Supplied with cover plate and support frame To be equipped with plate
		German standard
1	0 648 30	○ White
1	0 648 37	● Titanium
1	0 648 38	● Graphite
		French standard
1	0 677 25A	○ White
1	0 677 75A	● Titanium
1	0 648 95A	● Graphite
		Pack of 3 connected socket outlets, French standard
1	0 676 38A	○ White
1	0 676 39A	● Titanium
1	0 676 45A	● Graphite

Pack	Cat.Nos	Connected cable outlet
		Conform to IEC 60669-2-1 Enables to control electrical devices up to 3000 W max. (protected against overloads) Wiring compatible with pilot wire Can be controlled by one or several wireless/wireless batteryless light switches Functions: - ON/OFF, pilot wire management - instantaneous power measurement Supplied with mounting support, cover plate and worksite protection Multi-gang fixing not possible
1	0 648 79	○ White
1	0 648 82	● Titanium
1	0 648 83	● Graphite
1	0 648 51	○ Pearl
1	0 648 63	○ Ivory
1	0 648 47	● Black
1	0 648 98	● Aluminium

Valena™ with Netatmo

connected switches and socket outlets

7 528 66 + plate

7 523 66 + plate

7 521 94 + plate

7 522 93 + plate

7 419 41 + plate

Used to create your connected installation, require prior installation of an Area Manager solution
Compatible Zigbee 3.0
Mechanisms supplied with cover plates and support frames to be equipped with plates

Connected light switch with dimmer option, with neutral 230 VA, 150 W LED

For local or remote ON/OFF or dimming control of lighting
Compatible with all loads (dimmable LEDs required if dimmer mode activated)
Can be controlled by one or several wireless/wireless batteryless light switches and/or mechanical push-buttons
Can be installed in place of an existing switch in a flush-mounting box depth 40 mm
Screw fixing
Supplied with worksite protection
Multi-gang fixing possible

Pack	Cat.Nos	
		Valena Allure
1	7 525 66	○ White
1	7 526 66	○ Ivory
1	7 527 66	● Aluminium
1	7 528 66	● Black
1	7 529 66	○ Pearl
		Valena Life
1	7 521 66	○ White
1	7 522 66	○ Ivory
1	7 523 66	● Aluminium
		Valena Next
1	7 418 14	○ White
1	7 418 74	● Black
1	7 418 44	● Aluminium

Connected shutter/roller blind switch

Phase + Neutral power supply 230 VA
Can be installed in place of an existing shutter switch in flush-mounting box depth 40 mm
Not compatible with radio shutters installations
Multi-gang fixing possible

Pack	Cat.Nos	
		Valena Next
1	7 418 07A	○ White
1	7 418 67A	● Black
1	7 418 37A	● Aluminium

Wireless batteryless switch

Extra-slim, maintenance-free device without any battery
Used to add an extra control for wired switches, micromodules, socket outlets and cable outlets
Easy pairing by tapping the wired product
Supplied with removable stickers for fixing the control unit on any substrate

Pack	Cat.Nos	
		Valena Next
1	7 418 13L	○ White
1	7 418 73L	● Black
1	7 418 43L	● Aluminium

Connected socket outlets, 16 A - 250 V

Enables to control electrical devices
Can be controlled by one or several wireless/wireless batteryless light switches
16 A socket 3680 W max. (protected against overloads)
Compatible with all electrical and large devices home appliance
Enables to:
- measure the instantaneous power
Can be installed in place of an existing socket outlet in a flush-mounting box depth 40 mm
Screw or claw fixing
Automatic terminals
Supplied with worksite protection and claws

Pack	Cat.Nos	
		Valena Allure, German Standard
1	7 525 94	○ White
1	7 526 94	○ Ivory
1	7 527 94	● Aluminium
1	7 528 94	● Black
1	7 529 94	○ Pearl
		Valena Life, German Standard
1	7 521 94	○ White
1	7 522 94	○ Ivory
1	7 523 94	● Aluminium
		Valena Next, German Standard
1	7 418 11	○ White
1	7 418 71	● Black
1	7 418 41	● Aluminium
		Valena Allure, French standard
1	7 525 93	○ White
1	7 526 93	○ Ivory
1	7 527 93	● Aluminium
1	7 528 93	● Black
1	7 529 93	○ Pearl
		Valena Life, French standard
1	7 521 93	○ White
1	7 522 93	○ Ivory
1	7 523 93	● Aluminium
		Valena Next, French standard
1	7 419 11	○ White
1	7 419 71	● Black
1	7 419 41	● Aluminium

Mosaic™ with Netatmo

connected switches and socket outlets

0 777 08L + plate

0 777 11LA

Used to create your connected installation, require prior installation of an Area Manager
Compatible Zigbee 3.0
Mechanisms supplied with cover plates and support frames to be equipped with plates

Pack	Cat.Nos	
1	0 777 08LA	**Connected light switch with dimmer option** For local or remote ON/OFF or dimming control of lighting Compatible with all loads (dimmable LEDs required if dimmer mode activated) Can be controlled by one or several wireless/ wireless batteryless light switches and/or mechanical push-buttons Can be installed in place of an existing switch in a flush-mounting box depth 40mm Screw fixing Supplied with worksite protection Multi-gang fixing possible With neutral 230 VA, 150 W LED ◯ White
1	0 777 06LA	**Connected shutter/roller blind switch** Enables: - to control a shutter with electronic stop or mechanical - to manage an adjustable, an awning - to manage opening levels Phase + Neutral power supply 230 VA Can be installed in place of an existing shutter switch in flush-mounting box depth 40 mm Not compatible with radio shutters installations Multi-gang fixing possible ◯ White
1	0 777 23LA	**Wireless switches** Used to add an extra control for wired switches, micromodules, socket outlets, cable outlets Easy pairing by tapping the wired product Supplied with CR2032 3V long-life battery for power supply Easy access to the battery for maintenance LED function for low battery indication Supplied with removables stickers for fixing the control unit on any substrate Single switch ◯ White
1	0 777 24LA	Double switch ◯ White

Pack	Cat.Nos	
1	0 770 53L	**Wireless batteryless switch** Extra-slim, maintenance-free device without any battery Used to add an extra control for wired switches, micromodules, socket outlets and cable outlets Easy pairing by tapping the wired product Supplied with removable stickers for fixing the control unit on any substrate ◯ White
1	0 777 11LA	**Connected socket outlets, 16 A - 250 V** Enables to control electrical devices Can be controlled by one or several wireless/ wireless batteryless light switches 16 A socket 3680 W max. (protected against overloads) Compatible with all electrical and large devices home appliance Enables to: - measure the instantaneous power Can be installed in place of an existing socket outlet in a flush-mounting box depth 40 mm Screw or claw fixing Automatic terminals Supplied with worksite protection and claws French standard ◯ White
1	0 777 13L	German standard ◯ White

dooxie™ with Netatmo

connected switches and socket outlets

6 001 90 + plate

6 003 91 + plate

Used to create your connected installation, require prior installation of an Area Manager
Compatible Zigbee 3.0
Mechanisms supplied with cover plates and support frames to be equipped with plates

Pack	Cat.Nos	Connected light switch with dimmer option
		For local or remote ON/OFF or dimming control of lighting Compatible with all loads (dimmable LEDs required if dimmer mode activated) Can be controlled by one or several wireless/wireless batteryless light switches and/or mechanical push-buttons Can be installed in place of an existing switch in a flush-mounting box depth 40mm Screw fixing. Supplied with worksite protection Multi-gang fixing possible With neutral 230 VA, 150 W LED
1	6 000 90A	○ White
1	6 001 90A	● Aluminium

Pack	Cat.Nos	Connected shutter/roller blind switch
		Enables: - to control a shutter with electronic stop or mechanical - to manage an adjustable, an awning - to manage opening levels Phase + Neutral power supply 230 VA Can be installed in place of an existing shutter switch in flush-mounting box depth 40 mm Not compatible with radio shutters installations Multi-gang fixing possible
1	6 000 86A	○ White
1	6 001 86A	● Aluminium

Pack	Cat.Nos	Wireless batteryless switch
		Extra-slim, maintenance-free device without any battery Used to add an extra control for wired switches, micromodules, socket outlets and cable outlets Easy pairing by tapping the wired product Supplied with removable stickers for fixing the control unit on any substrate
1	6 000 83L	○ White

Pack	Cat.Nos	Wireless switch
		Used to add an extra control for wired switches, micromodules, socket outlets, cable outlets Easy pairing by tapping the wired product Supplied with CR2032 3V long-life battery for power supply Easy access to the battery for maintenance LED function for low battery indication Supplied with removables stickers for fixing the control unit on any substrate
		Single switch
1	1 992 33	○ White
1	1 992 53	● Aluminium

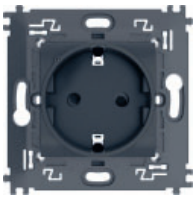
		Double switch
1	1 992 39	○ White
1	1 992 59	● Aluminium

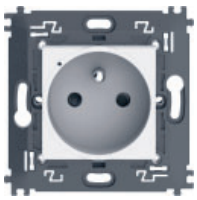
Pack	Cat.Nos	Connected socket outlets, 16 A - 250 V, French standard
		Enables to control electrical devices Can be controlled by one or several wireless/wireless batteryless light switches 16 A socket 3680 W max. (protected against overloads) Compatible with all electrical and large devices home appliance Enables to: - measure the instantaneous power Can be installed in place of an existing socket outlet in a flush-mounting box depth 40 mm Screw or claw fixing Automatic terminals Supplied with worksite protection and claws
		Single socket outlet
1	6 003 91A	○ White
1	6 004 91A	● Aluminium

		Pack of 3 connected socket outlets
1	6 006 98A	○ White
1	6 007 98A	● Aluminium

LivingLight with Netatmo

connected socket outlets and commands


BT-L4141AC


BT-L4141AC


BT-NT4531C


BT-L4027C


BT-N4411CM2

Used to create your connected installation, require prior installation of Area Manager
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected socket outlets, 16 A - 250 V, German standard
		Connected sockets - 2P+E 16 A 250 Va.c. It allows remote control of electric devices and also to monitor their consumption (instantaneous) It is also possible to receive notifications that can be configured Compatible with all the electric devices with power up to 16 A 3680W (with overload protection) Integrated with a 2-module support, it can be installed instead of an existing socket in a 40 mm deep box Screw fixing and connection using automatic clamps It can be associated to one or more wireless light controls Power supply 110-230 Vac
1	BT-L4141AC	● Anthracite
1	BT-N4141AC	○ White
1	BT-NT4141AC	● Tech
1	BT-L4141ACES	● Anthracite
1	BT-N4141ACES	○ White
1	BT-NT4141ACES	● Tech
		Connected socket outlets, 16 A - 250 V, French standard
1	BT-L4142AC	● Anthracite
1	BT-N4142AC	○ White
1	BT-NT4142AC	● Tech
		Connected socket modules
1	BT-L4531C	● Anthracite
1	BT-N4531C	○ White
1	BT-NT4531C	● Tech

Pack	Cat.Nos	Connected shutter switches with neutral
		Connected rolling shutter switch It allows the control of a shutter locally or remotely. Compatible with all standard rolling shutter motors (with a mechanical or electromechanical stop and max power 500 VA) controlled by a wired shutter switch (switching of the same motor power supply) Not compatible with motors for radio-controlled or pulse-controlled roller shutters It can be associated with one or more wireless commands Caution: Must be connected to the neutral Power supply 110-230 Vac
		1 module
1	BT-L4027C	● Anthracite
1	BT-N4027C	○ White
1	BT-N4027C	● Tech
		2 modules
1	BT-L4027CM2	● Anthracite
1	BT-N4027CM2	○ White
1	BT-N4027CM2	● Tech
		Connected dimmers
		Used to connect lights with a ceiling box installation Can be controlled by one or more wireless light switches and/or mechanical push-buttons ON/OFF switch 150 W LED, wired
		1 module
1	BT-L4411C	● Anthracite
1	BT-N4411C	○ White
1	BT-NT4411C	● Tech
		2 modules
1	BT-L4411CM2	● Anthracite
1	BT-N4411CM2	○ White
1	BT-NT4411CM2	● Tech

MatixGO with Netatmo

connected switches and socket outlets


BT-JW4411C


BT-JB4411C


BT-JW4027C


BT-JG4027C


BT-JB4027C


BT-JG4531C

Used to create your connected installation, require prior installation of an Area Manager
Compatible Zigbee 3.0

Pack	Cat.Nos	Connected light switch will dimmer option
		Mechanisms supplied with cover plates, to be equipped with support frames and plates For local or remote ON/OFF or dimming control of lighting Can be controlled by one or several wireless light switches and/or mechanical push-buttons without neon Compatible with all loads: - Dimmable LEDs and CFL lamps: 150 W LED - Incandescent and halogen lamps: 150 W - ELV halogen and CFL lamps with separate ballast: 150 VA Memory level function Can be installed in place of an existing switch in a flush-mounting box depth 35 mm
		With neutral 230 VA, 150 W LED 1 module
1		○ White
1	BT-JG4411C	● Grey
1	BT-JB4411C	● Black

Pack	Cat.Nos	Connected shutter/roller blind 500 VA
		Mechanism supplied with cover plate, to be equipped with support frame and plate For local and remote control of a 230 VA roller blind (raise/lower/stop functions and level management) Compatible with roller blinds with mechanical or electronic stop, not compatible with radio-controlled roller blinds Can be paired with one or more roller blind wireless switches Can be installed in place of an existing roller blind switch in a flush-mounting box depth 35 mm
		1 module - with neutral
1		○ White
1	BT-JG4027C	● Grey
1	BT-JB4027C	● Black

Pack	Cat.Nos	Wireless batteryless switches
		Extra-slim, maintenance-free device without any battery Used to add an extra control for wired switches, micromodules, socket outlets and cable outlets Energy harvesting mechanism that generates by itself the energy required for the switching process Qualified for 1 million cycles Smooth and silent switching Supplied with cover plate, multi-standard support frame (with removable fins) and removable stickers for fixing the control unit on any substrate To be equipped with 2-module plate
		Single switch
1	BT-JW4003CWG	○ White
1	BT-JG4003CWG	● Grey
1	BT-JB4003CWG	● Black
		Double switch
1	BT-JW4003CWDG	○ White
1	BT-JG4003CWDG	● Grey
1	BT-JB4003CWDG	● Black

Pack	Cat.Nos	Shutter/roller blind wireless switch
		Used for remote control or centralization of up to 20 wired smart roller blind switches Pair by tapping the selected roller blind switch(es) Supplied with CR2032 3 V long-life battery for power supply Easy access to the battery for maintenance LED function for low battery indication Can be installed in a flush-mounting box depth 35 mm Supplied with cover plate, to be equipped with support frame and plate
1	BT-JW4027CWG	○ White
1	BT-JG4027CWG	● Grey
1	BT-JB4027CWG	● Black

Pack	Cat.Nos	Connected socket module - 16 A 230 VA -3680 W, 1 module
		Mechanisms supplied with cover plate, to be equipped with support frame and plate Allows to create a connected socket outlet for integration into the connected installation To be wired to a traditional socket outlet Connected socket outlets can be controlled by one or several wireless light switches Compatible with any electrical appliance or large household appliance Connected socket outlets allow to - remotely control electrical appliances - measure instantaneous power Can be installed in place of an existing socket outlet in a flush-mounting box min. depth 40 mm
1	BT-JW4531C	○ White
1	BT-JG4531C	● Grey
1	BT-JB4531C	● Black

Light NOW with Netatmo

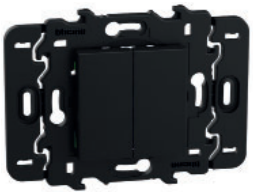
connected socket outlets and commands


YW4411C


YW4027C


YG4411C


YG4142AC


YD4003CWDG


YD4531C

Used to create your connected installation, require prior installation of a gateway pack for connected installation. Zigbee Certified Product

Pack	Cat.Nos	Connected socket outlets, 16 A - 250 V, German standard
		Connected sockets - 2P+E 16 A 250 Va.c. - It allows remote control of electric devices and also to monitor their consumption (instantaneous, daily, monthly). It is also possible to receive notifications that can be configured. Compatible with all the electric devices with power up to 16 A 3680W (with overload protection). Integrated with a 2-module support, it can be installed instead of an existing socket in a 40 mm deep box. Screw fixing and connection using automatic clamps. It can be associated to one or more wireless light controls. Power supply 110-230 Va.c.
1	YW4141AC	White
1	YG4141AC	Stone
1	YD4141AC	Black
		Connected socket outlets, 16 A - 250 V, French standard
1	YW4142AC	White
1	YG4142AC	Stone
1	YD4142AC	Black
		Connected socket module
1	YW4531C	White
1	YG4531C	Stone
1	YD4531C	Black
		Battery less switch
		Battery less wireless light switch with Netatmo
1	YW4003CWG	White
1	YG4003CWG	Stone
1	YD4003CWG	Black
		Battery less wireless double light switch with Netatmo
1	YW4003CWDG	White
1	YG4003CWDG	Stone
1	YD4003CWDG	Black
		Wireless shutter switch
1	YW4027CWG	White
1	YG4027CWG	Stone
1	YD4027CWG	Black

Pack	Cat.Nos	Connected shutter switch with neutral
		Connected rolling shutter switch - It allows the control of a shutter locally or remotely. Compatible with all standard rolling shutter motors (with a mechanical or electromechanical stop and max power 500 VA) controlled by a wired shutter switch (switching of the same motor power supply). Not compatible with motors for radio-controlled or pulse-controlled roller shutters. It can be associated with one or more wireless commands. Caution: Must be connected to the neutral. Power supply 110-230 Va.c.
1	YW4027C	White
1	YG4027C	Stone
1	YD4027C	Black
		Connected dimmer
		Used to connect lights with a ceiling box installation Can be controlled by one or more wireless light switches and/or mechanical push-buttons
		ON/OFF switch 150 W LED, wired
1	YW4411C	White
1	YG4411C	Stone
1	YD4411C	Black

Common accessories

additionnal accessories

0 648 99

Used to create your connected installation, require prior installation of an Area Manager solution
Compatible Zigbee 3.0

Pack	Cat.Nos	
1	0 676 97	**Connected curtain/roller blind micromodule 500 VA - IP 44**  For local and remote control of a 230 VA roller blind (raise/lower/stop functions and level management) Compatible with roller blinds with mechanical or electronic stop, not compatible with radio-controlled roller blinds Can be paired with one or more roller blind wireless switches To be installed in the ceiling box or roller blind box to connect a new or existing roller blind
1	5 742 43	**Connected micromodule switches with neutral** Used to connect lights with a ceiling box installation Can be controlled by one or more wireless light switches and/or mechanical push-buttons ON/OFF switch 100 W LED, wired  Compatible with all loads: - LEDs and CFL lamps: 100 W LED - Incandescent and halogen lamps: 300 W - ELV halogen and CFL lamps with separate ballast: 250 VA

Pack	Cat.Nos	
1	0 648 87	**Connected mobile socket - French standard**  Conform to IEC 60884-2-5 and IEC 60669-2-5 To be plugged directly into an existing socket outlet For control of lights, electrical appliances and large household appliances Can be controlled by one or several wireless light switches ON/OFF indicator LED function Smart mobile socket outlets allow to - remotely control electrical appliances - measure instantaneous power

Plexo™ with Netatmo

connected socket outlet

0 697 93

Use to create your connected installation, required prior installation of Area Manager solution
Compatibe Zigbee 3.0
Supplied complete with non-clipped frame

Pack	Cat.Nos	Connected waterproof power outlet
1	0 697 93	Can be used to measure instantaneous and total consumption of the connected device IP55 weather proofness allows this product in rooms that are humid or dusty (cellar, garage,...) Built-in protection against electrical overloads, for increased safety Automatic terminals To be fixed directly on the wall German standard  ● Grey
1	0 698 82L	French standard  ○ White
1	0 698 72L	● Grey
1	0 698 92L	● Anthracite

Connected meters

connected energy meters and smart load shedder

4 121 70

Used to create your connected installation, require prior installation of an Area Manager solution
Compatible Zigbee 3.0

Pack	Cat.Nos	CX³ with Netatmo connected contactor
1	4 121 71	Multifunction silent contactor (< 10 dB) 20 A, 100 – 240 VA - 50/60 Hz Conforming to standard IEC/EN 60669-2-1 Can be used to control (ON/OFF) any type of load remotely (water heater, heating, swimming pool pump, charging socket for electric vehicle, etc) Peak/off-peak function Self-protected upstream control terminals: no need for protection such as a 2 A circuit breaker or a fuse (remove this circuit breaker if already present when replacing a standard latching relay) Allows insertion of a supply busbar Screw terminals Width: 1 x 17.5 mm module
1	4 121 70	**CX³ with Netatmo connected latching relay** Requires prior installation of a "with Netatmo" connected starter pack, version for 4 rail Cat.Nos 4 121 81/91 or available in the connected wiring accesory ranges: Arteor/Mosaic/Mallia Senses with Netatmo Silent latching relay (< 10 dB) Single-pole, 16 A, 100 - 240 VA - 50/60 Hz Conforming to standard: IEC/EN 60669-2-1 Allows the user via the Legrand Home + Control App. to: - control devices remotely (one-off control or integrated in a scenario with one or more lighting points) - measure and track consumption (kWh) of the controlled circuit - program devices according to a daily and/or weekly schedule Can be controlled by standard wired push-buttons and/or be combined with Arteor/Céliane/Dooxie/ Mosaic/Valena with Netatmo connected wireless switches Self-protected upstream control terminals: no need for protection such as a 2 A circuit breaker or a fuse (remove this circuit breaker if already present when replacing a standard contactor) Allows insertion of a supply busbar Screw terminals Width: 1 x 17.5 mm module

EMDX³ electrical energy meters

4 rail mounting

4 120 91

4 120 65

Measure the electricity consumed by a single-phase or three-phase circuit downstream of the electricity distribution metering
Display electricity consumption in kWh, as well as other values such as current, active energy, reactive energy and power (depending on the catalogue number). Conform to standards IEC 61557-12, IEC 62053-21/23, IEC 62052-11 and IEC 62052-31
MID compliance ensures accuracy of the metering with a view to recharging for the electricity used

Single-phase meters, direct connection

Standard version

Pack	Cat.Nos	Maximum current (A)	Output type	Dual tariff	Number of modules
1	4 120 81	63	RS 485	Yes	2
1	4 120 91	63	RS 485	Yes	4

MID version

Pack	Cat.Nos	Maximum current (A)	Output type	Dual tariff	Number of modules
1	4 120 83	63	RS 485	Yes	2

Three-phase meters, direct connection

Standard version

Pack	Cat.Nos	Maximum current (A)	Output type	Dual tariff	Number of modules
1	4 120 74	125	Pulse and RS 485	Yes	6

MID version

Pack	Cat.Nos	Maximum current (A)	Output type	Dual tariff	Number of modules
1	4 120 93	63	RS 485	Yes	4
1	4 120 75	125	Pulse and RS 485	Yes	6

Three-phase meters, connection via CT

Standard version

Pack	Cat.Nos	Maximum current (A)	Output type	Dual tariff	Number of modules
1	4 120 41	5	RS 485	Yes	4

MID version

Pack	Cat.Nos	Maximum current (A)	Output type	Dual tariff	Number of modules
1	4 120 43	5	RS 485	Yes	4

Pulse concentrator

Pack	Cat.Nos	
1	4 120 65	For collecting and transmitting measurements taken by 12 universal pulse electricity meters Also collects pulses from other meters (gas meters, water meters, etc.) RS485 output 4 modules

EMDX³ multi-function measuring units

4 rail mounting

4 120 45

4 120 51

4 120 48

Conform to standards:
- IEC 61557-12
- IEC 62053-22
- IEC 62053-23 class 1

EMDX³ - modular measuring units

Pack	Cat.Nos	
		Multi-function measuring unit
1	4 120 45	For mounting on 2 rail Width: 4 modules LCD display Precision class: 1 Connection with current transformers (CT) Measurement of currents, voltages, frequency, active, reactive and apparent power, power factor, active and reactive energy THD voltages and currents RS 485 and pulse output
		Multi-function measuring unit with active digital inputs and programmable alarms
1	4 120 51	For mounting on 2 rail Width: 4 modules LCD display Precision class: 0.5 Connection with current transformers (CT) Measurement of currents, voltages, frequency, active, reactive and apparent power, power factor, active and reactive energy 4 tariff metering: THD voltages, currents and harmonic analysis up to order 25 (available on Modbus COM port) Programmable alarms on all functions RS 485 and pulse output

EMDX³ Easy Connect measuring unit

Pack	Cat.Nos	
1	4 120 48	For mounting on 2 rail Width: 4 modules To be equipped with open, flexible Rogowski coils from 630 to 6300 A, Cat.Nos 4 121 08/09/10/11 For 3-phase networks (3 or 4 cables) LCD display allowing to read the current and voltage phase shifts and visualize the average power load curve and the harmonics diagram (up to rank 15), in addition to the display of main values of an electrical network The fast connection system of the Rogowski coils allow time saving during wiring operations and reduce the risk of errors Measurement of : - Phase and line (phase to phase) voltages - Minimum and maximum voltages - THD voltages (up to rank 15) - Phase current - Neutral current - Average phase current - Average peak phase current MODBUS output

EMDX³ multi-function measuring units

for mounting on door or solid faceplate

4 120 47

4 120 52

4 120 53

4 120 55

Conform to standards:
- IEC 61557-12
- IEC 62053-22
- IEC 62053-23 class 1 for Cat.No 4 120 52 - Class 2 for Cat.No 4 120 53

Pack	Cat.Nos	EMDX³ - Access multi-function measuring units
		Precision class: 1
1	4 120 47	For mounting on door or solid faceplate Dimensions: 96 x 96 x 62 mm LCD display Connection with current transformers (CT) Measurement of currents, voltages, frequency, active, reactive and apparent power and power factor Metering: - Active energy consumed or produced - Reactive energy consumed or produced THD voltages and currents RS 485 communication and Pulse output
1	4 120 52	Precision class: 0.5 For mounting on door or solid faceplate Dimensions: 96 x 96 x 62 mm LCD display Measurement of currents, voltages, active, reactive and apparent power and power factor Metering: - Active energy consumed or produced - Reactive energy consumed or produced - Operating time - Pulses THD voltages, currents, and individual harmonic up to order 25(1) RS 485 communication and Pulse output
		EMDX³ - Premium multi-function measuring unit
1	4 120 53	For mounting on door or solid faceplate Dimensions: 96 x 96 x 62 mm LCD display Precision class: 0.5 Measurement of currents, voltages, active, reactive and apparent power, internal temperature and power factor Metering: - Active energy consumed or produced - Reactive energy consumed or produced - Operating time - THD Programmable alarms on all functions Power quality functions: harmonics (U & I) to 40th, dips, swells, interruption, rapid voltage change and flickers Memory embedded (8 Mb) RTC (real time clock) Can take 4 EMDX³ modules with Cat.No 4 120 55 (communication module) to communicate with the Area Manager
		EMDX³ modules
		Modules for EMDX³ - Premium multi-function measuring units
1	4 120 55	RS485 communication module with Modbus link
1	4 120 56	RS485 memory communication module

1: Available on Modbus COM port

Pack	Cat.Nos	EMDX³ Easy Connect multi-function measuring unit
1	4 120 49	For mounting on door or solid faceplate Dimensions: 96 x 96 x 75 mm To be equipped with open, flexible Rogowski coils from 630 to 6300 A, Item 4 121 08/09/10/11 For 3-phase networks (3 or 4 cables) LCD display allowing to read the current and voltage phase shifts and visualize the average power load curve and the harmonics diagram (up to rank 15), in addition to the display of main values of an electrical network The fast connection system of the Rogowski coils allow time saving during wiring operations and reduce the risk of errors Measurement of : - Phase and line (phase to phase) voltages - Minimum and maximum voltages - THD voltages - Analysis of voltage harmonics - Voltage crest factor - Phase current MODBUS output

EMS CX³ energy management system


4 149 20


4 149 24


4 149 23


4 149 30


4 149 29


4 149 32


4 149 31


4 149 26

Conform to IEC/EN 61131-2 (Programmable controllers)
CX³ energy management system enables to measure, control and visualize the state of 4 rail mounting protection devices (MCBs, RCCBs, RCBOs, etc...) and head equipment (DMX³ and DPX³), locally ("Stand alone") or remotely. All the modules of the system are equipped with two specific communication ports: one at the backside (for communication rail) and one underneath (for communication patch cords). Power supply with specific module Cat.No 4 149 45
Remote configuration possible with the help of the Energy Management Configuration Software, available for free download via E-Catalogue
Communication interface Cat.Nos 4 149 40, F80BIM1, SXI485 required to communicate with Area Manager in Modbus

Pack	Cat.Nos	Measurement modules	Number of modules
		For measuring current, voltage, active/reactive power and other values Conform to IEC/EN 61557-12 Accuracy: class 0.5	
		Direct connection up to 63 A with closed Rogowski coils Allow the passage of prong-type supply busbars (upper side) Supplied with closed Rogowski coils	
1	4 149 18	3 x single-phase measuring module + 3 coils Consumption: 0,418 W - 34,8 mA (12 V =)	1
1	4 149 19[1]	Single-phase measuring module + 1 coil Consumption: 0.409 W - 34.1 mA (12 V =)	1
1	4 149 20[1]	3-phase measuring module + 3 coils Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Direct connection up to 125 A with closed Rogowski coils Allow the passage of prong-type supply busbars (upper side) Supplied with closed Rogowski coils	
1	4 149 21	3-phase measuring module + 3 coils Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Direct connection with open, fexible Rogowski coils Allow the passage of prong-type supply busbars (upper side) Supplied with opened, fexible Rogowski coils and fixing supports for busbars	
1	4 149 22	3-phase measuring module + 3 coils up to 630 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	4 149 24	3-phase measuring module + 3 coils up to 1600 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	4 149 25	3-phase measuring module + 3 coils up to 3200 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	4 149 27	3-phase measuring module + 3 coils up to 6300 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Connection with CT	
1	4 149 23	5 A measuring module connected via current transformers (CT) Consumption: 0.391 W - 32.6 mA (12 V =)	1

Pack	Cat.Nos	Extension kits for Rogowski coils
1	4 149 15	Length: 1 m
1	4 149 16	Length: 3 m

Pack	Cat.Nos	Pulse concentrator	Number of modules
1	4 149 26[1]	For collecting and transmitting measurements taken by universal pulse energy meters (water, gas, etc...) Up to 3 pulse circuits Consumption: 0.288 W - 24 mA (12 V =)	1

Pack	Cat.Nos	State reporting modules	Number of modules
		Auxiliary + fault signalling contact	
1	4 149 29[1]	Indicates the position of the contacts and the fault tripping of its associated device To fit on the left-hand side of DX³ MCBs, RCCBs, RCBOs and isolating switches Consumption: 0.236 W - 19.7 mA (12 V =)	0.5
		Universal signalling module	
1	4 149 30[1]	Equipped with 3 LED lights: green, red and yellow Indicates various type of information, according to selected configuration: contacts position, plugged-in or drawn-out product, etc... Equipped with DIP switches (on the side) allowing product configuration: selection of information type and of the LED behaviour Compatible with 4 rail mounting protection devices or head equipment (DMX³ and DPX³) Consumption: 0.377 W - 31.4 mA (12 V =)	1

Pack	Cat.Nos	Universal control module	Number of modules
1	4 149 32[1]	2 relays: 240 V A - 6 A Enables to remotely control different electrical loads or motorised controls associated to 4 rail mounting protection devices or head equipment (DPX³ MCCBs) Equipped with DIP switches (on the side) allowing product configuration: contact type (NO + NC, 2 NO, etc...) and function (maintained or momentary contact) Consumption: 0.456 W - 38 mA (12 V =)	1

Pack	Cat.Nos	Control and state reporting module	Number of modules
1	4 149 31[1]	For CX³ latchnig relays and 1 and 2-module contactors up to 25 A Indicates the position of the contacts and enables remote control of its associated product Equipped with DIP switches (on the side) allowing product configuration: selection of the main product (latching relay or contactor). To fit on the left-hand side of the CX³ latching relays and contactors Consumption: 0.372 W - 31 mA (12 V =)	1

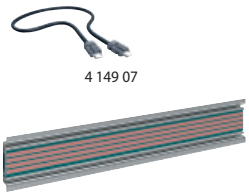
1: Enables upstream busbar connection

EMS CX³ energy management system (continued)

4 149 36

4 149 48

0 046 89



4 149 07

4 149 01 installed on 4 rail

Conform to IEC/EN 61131-2 (Programmable controllers)
CX³ energy management system enables to measure, control and visualize the state of 4 rail mounting protection devices (MCBs, RCCBs, RCBOs, etc...) or head equipment (ACBs, MCCBs, etc...), locally ("Stand alone") or remotely. All the modules of the system are equipped with two specific communication ports: one at the backside (for communication rail) and one underneath (for patch cords)
Power supply with specific module Cat.No 4 149 45
Remote configuration possible with the help of the Energy Management Configuration Software, available for free download via E-Catalogue (giving also access to a 30-day trial version of Energy Management Software Cat.No 4 149 38/39)
Communication interface Cat.Nos 4 149 40, F80BIM1, SXI485 required to communicate with Area Manager in Modbus

Pack	Cat.Nos	Stand alone configuration module	Number of modules
		4 rail mounting Optional module for "stand alone" supervision need Enables to configure, test and control CX³ energy management system and to visualize supervision data No computer or IP connection required Consumption: 0.438 W - 36.5 mA (12 V =)	
1	4 149 36[1]	Menu languages: English, French, Italian, Flemish, Polish, Spanish, German, Portuguese and Turkish	4
		Communication interfaces	
		RS485 / CX³ energy management system	Number of modules
1	4 149 40	RS485 / CX³ energy management system conversion Consumption: 0.344 W - 28.7 mA (12 V =)	1
		RS485 / Ethernet	
1	0 046 89	RS485 / Ethernet conversion (for connection to an IP network)	3
		Power supply module	Number of modules
1	4 149 45	500 mA 12 V = stablized power supply module for CX³ energy management system	1

Pack	Cat.Nos	Connection accessories
		Communication rails To be fitted on 4 rail or spacer Allows data transmission between the different modules of CX³ energy supervision system
1	4 149 01[2]	18 modules
1	4 149 02[2]	24 modules
1	4 149 03[2]	36 modules
		Allows data transmission between the different modules of CX³ energy supervision system Can be used instead of communication rails or to create a link between two rows (individually connected with communication rails)
1	4 149 07	Length 250 mm (10 patch cords)
1	4 149 08	Length 500 mm (10 patch cords)
1	4 149 09	Length 1000 mm (5 patch cords)
1	4 149 10	Enables to extend communication patch cords length by clipping them together Max. length: 3 m
1	4 149 14	Plastic cover for communication rail Must be used for protection of the unused parts of the communication rail Length: 36 modules Can be cut to the required length. Fixing: direct clip on to the rail

1: Enables upstream busbar connection
2: For other lengths, please consult us

CONTO energy meters

MID and standard version for direct and CT connection

CE2DF3DTCI1

CE4DF3DTCL1

CE4TBDTCL1

CE6DT1256

Conto D1

Direct connection for single-phase line up to 45A
Use in supervisory systems
Active and reactive energy
Current / Voltage
Power factor
Active, reactive and apparent power

Pack	Cat.Nos	Line	Ouputs
1	CE11165A4	1L+N	RS485 ModBus RTU/TCP

Conto D2

Direct connection for single-phase lines up to 63A
Use in supervisory systems
Positive and negative active energy
Tariff 1 and tariff 2 active and reactive energy
Indication of the tariff in use
Current/Voltage/Frequency
Power factor
Active, reactive and apparent power
Phase active and apparent power
Average and maximum active power
Programmable hour counter
Display on 9 digits and 4 quadrants
Double tariff or pulse input
Pulse output, M-Bus or RS485 Modbus RTU (depending of the versions)

Pack	Cat.Nos	Line	Type	Ouput
1	CE2DF3DTCL1	1L+N	standard	RS485 Modbus RTU
1	CE2DF3DTMID	1L+N	MID	RS485 Modbus RTU

Conto D4-Pd

Direct connection for three-phase line up to 63A with 3 or 4 wires
Use in supervisory systems
Positive and negative active energy
Tariff 1 and tariff 2 active and reactive energy
Indication of the tariff in use
Current/Voltage/Frequency
Power factor
Active, reactive and apparent power
Phase active and apparent power
Average and maximum active power
Programmable hour counter
Display on 9 digits and 4 quadrants
Double tariff or pulse input
Pulse output, M-Bus or RS485 Modbus RTU (depending of the versions).

Pack	Cat.Nos	Line	Type	Ouput
1	CE4DF3DTCL1	3L / 3L + N	standard	RS485 Modbus RTU
1	CE4DF3DTMID	3L / 3L + N	MID	RS485 Modbus RTU

Conto D4-Pt

Connection via CT for single-phase and three-phase line up to
63A, 3 or 4 wires.
Use in supervisory systems
Positive and negative active energy at the terminals
Primary side active and reactive energy (CT/VT)
Tariff 1 and tariff 2 active and reactive energy
Indication of the active tariff
Current/Voltage/Frequency
Power factor
Active, reactive and apparent power
Phase active and apparent power
Average and maximum active power
Programmable hour meter Visualization on 9 digits and 4 dials
Double entrance fee
M-Bus or RS485 Modbus RTU output (depending on the version)

Pack	Cat.Nos	Line		Ouputs
1	CE4TBDTCL1	100 -110	standard	RS485 Modbus RTU
1	CE4TBDTMID	3L /3L + N	MID	RS485 Modbus RTU

Conto D6-Pd

Direct connection for three-phase network, 4-wires. It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems. For supervision systems, through the model with output RS485 communication Modbus RTU, you can transmitted on the network main electrical parameters in addition to the energy consumption.
Total active and reactive energy (positive)
Partial active and reactive energy (resettable)
Instantaneous current, voltage and frequency
Active and reactive power (three-phase and single phase)
Power Factor
Run hour meter (count start 0.4÷50% rated power)

Pack	Cat.Nos	Line	Type	Ouput
1	CE6DT1256	3L + N	standard	RS485 Modbus RTU
1	CE6DMID56	3L + N	MID	RS485 Modbus RTU

BTDIN connected

connected energy meters and smart load shedder

F20T60A

FC80CC

Pack	Cat.Nos	Connected energy meters single-phase
1	F20T60A	Smart DIN meter. It allows to measure the electrical energy consumption of the entire single-phase system of the house (instantaneous, daily, monthly) and of the single electrical power lines. It allows the reception of notifications in case of reaching the maximum power foreseen by the contract to avoid annoying black-outs. A toroid is supplied to measure the input current. Power supply 100-240 Va.c., rated current 20A, 1 DIN module. (Only for single-phase systems).
1	FC80CC	**Connected contactor with Netatmo** Smart DIN contactor suitable for controlling single-phase loads < 20 A. The smart contactor allows you to remotely control (ON / OFF) loads such as water heaters, swimming pool pumps, induction plates and charging sockets for electric vehicles, from smartphones. Equipped with a meter for the current absorbed by the load. Dimensions 1 DIN module. Power supply 100-240 Va.c. 50/60 Hz, rated current 20A.

BTDIN energy meters

MID and standard version for direct and CT connection


F41TMAN


F40DM63N


F4N300


F4N200


F41DM125


F4N104

Pack	Cat.Nos	BTicino - energy meters, direct connection				
		MID version Positive and negative active energy Current/Voltage/Frequency Power factor Active, reactive and apparent power Phase active and apparent power Average and maximum active power Programmable hour counter Display on 9 digits and 4 quadrants RS485 Modbus RTU				
			Maximum current (A)	Phase	Output	Number of modules
1	F21DM63N		63	1L+N	RS485	2
1	F41DM63N		63	3L+N	RS485	4
1	F41DM125		125	3L+N	RS485	6

Pack	Cat.Nos	BTicino - energy meters, connection via CT				
		CT connection for three-phase line up to 63A with 3 or 4 wires Positive and negative active energy Current/Voltage/Frequency Power factor Active, reactive and apparent power Phase active and apparent power Average and maximum active power Programmable hour counter Display on 9 digits and 4 quadrants RS485 Modbus RTU (depending of the versions)				
			Maximum current (A)	Phase	Output	Number of modules
1	F41TMAN		63	3L+N	RS485	4

		Modules
1	F4N104	Communiication module Modbus RS485
1	F4N105	Memory module

Pack	Cat.Nos	Standard meter control unit for door or full panel installation
		Multifunction electronic metering control unit with data transmission via MODBUS RS485 - LCD display; - usable on single-phase or three fase networks with or without neutral - it measures current, voltage, active, reactive and apparent energy ; - max and minimum values of voltage - average and peak values of the average values for current and power - 4-tariff count; - consumption of active energy (total and partial); - total active energy produced; - consumption of reactive energy (total and partial); - total reactive energy produced; - operating time; - power factor; - total harmonic distortion (THD) rate; - harmonic analysis up to 25th harmonic; - programmable alarms for all functions; - Modbus communication port RS485 integrated
1	F4N200	Mounting on DIN35 rail (4 DIN modules). pulse count on the 2 inputs, output for the control of devices, alarm signalling and pulse count
1	F4N300	Installation on doors or panels (96x96mm window 92x92mm)

EMS Btdin: energy management system

measurement and supervision system

F80BV F80BIM1 F80BCS F80BCR F80BMT F80BI F80BVS F80BC F80BMM63

Conform to IEC/EN 61131-2 (Programmable controllers) EMS BTDIN energy management system enables to measure, control and visualize the state of 4 rail mounting protection devices (MCBs, RCCBs, RCBOs, etc...) and head equipment, locally ("Stand alone") or remotely. All the modules of the system are equipped with two specific communication ports: one at the backside (for communication rail) and one underneath (for communication patch cords). Power supply with specific module SXAA230. Remote configuration possible with the help of the Energy Management configuration Software, available for free download via IME WEB site (giving also access to a 30-day trial version of Energy Management Software)

Pack	Cat.Nos	Measurement modules with Rogowski coils	
		For measuring current, voltage, active/reactive power and other values. Conform to IEC/EN 61557-12. Accuracy: class 0.5. Allow the passage of prong-type supply busbars (upper side). Provided with closed Rogowski coils.	
		Direct connection up to 63 A	N° of modules
1	F80BMT63	3 x single-phase + 3 coils Consumption: 0,418 W - 34,8 mA (12 V =)	1
1	F80BMM63	Single-phase + 1 coil Consumption: 0.409 W - 34.1 mA (12 V =)	1
1	F80BM3M63	3-phase + 3 coils Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Direct connection up to 125 A	1
1	F80BMT125	3-phase + 3 coils Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Direct connection with open, fexible Rogowski coils (supplied with fixing supports for busbars).	
1	F80BMR630	3-phase + 3 coils up to 630 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	F80BMR1600	3-phase + 3 coils up to 1600 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	F80BMR3200	3-phase + 3 coils up to 3200 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	F80BMR6300	3-phase + 3 coils up to 6300 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	F80BMT	Connection with CT 5 A measuring module connected via current transformers (CT) Consumption: 0.391 W - 32.6 mA (12 V =)	1
		Extension kits for Rogowski coils	
1	F80BMKIT1	Length: 1m	
1	F80BMKIT3	Length: 3m	
		Communication rail DIN35	
1	F80BR18	18 modules	
1	F80BR24	24 modules	
1	F80BR36	36 modules	
1	F80BRA	Plastic cover for communication rail	
		Communication patch cords	
1	F80BC250	Kit 10 cables length 250mm	
1	F80BC500	Kit 10 cables length 500mm	
1	F80BC1000	Kit 10 cables length 1000mm	
1	F80BCA	Adapter for joining pre-wired cables	

Pack	Cat.Nos	Pulse concentrator	
			N° of modules
1	F80BI	For collecting and transmitting measurements taken by universal pulse energy meters (water, gas, etc...). Up to 3 pulse circuits Consumption: 0.288 W - 24 mA (12 V =)	1
		State reporting modules	
1	F80BCR	Indicates the position of the contacts and the fault tripping of its associated device. To fit on the left-hand side of DX³ MCBs, RCCBs, RCBOs and isolating switches Consumption: 0.236 W - 19.7 mA (12 V =)	0.5
1	F80BVS	Universal module for light signalling confi-gurable	1
		Interface module RS485	
1	F80BIM1	Interface for converting into Modbus RS485 for integration into supervisory systems and other management systems.	1
		Universal control module	
1	F80BC	2 relays: 240 V A - 6 A Enables to remotely control different electrical loads or motorised controls associated to 4 rail mounting protection devices or head equipment (DPX³ MCCBs) Equipped with DIP switches (on the side) allowing product configuration: contact type (NO + NC, 2 NO, etc...) and function (maintained or momentary contact) Consumption: 0.456 W - 38 mA (12 V =)	1
1	F80BCS	Control module for BTDIN contactors and relays. It allows you to remotely command and monitor the status of the associated relays and contactors. Equipped with 4 DIP switches (on the side) to configure it according to the type of associated device (relay or contactor).	1
		Stand alone configuration module	
1	F80BV	Programming and visualization module. The EMS BTDIN programming and display module allows to access the entire system via the front selector, or via USB connection to a PC.	1
		Power supply module	
1	F80BA	230V/12V power supply with double cable connection or with connectors for base on the back, (500 mA 12 V = stablized power supply module)	1

NEMO multifunction units

modular solutions for DC networks

MF6HT40003

MF6DC4200H

NEMO D4-L+

Connection via CT for single and three-phase network, 3 or 4-wires. Phase sequence correction, diagnostic
It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems. For supervision systems, through the model with output RS485 communication ModbusRTU, you can transmitted on the network main electrical parameters in addition to the energy consumption

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MF6HT40003	1 + 5	80÷480	115 Vac	Pulses + RS485 ModBus RTU/TCP
1	MF6HT40006	1 + 5	80÷480	230Vac	Pulses + RS485 ModBus RTU/TCP
1	MF6HT4000H	1 + 5	80÷480	20÷150 Vdc + 48 Vac	Pulses + RS485 ModBus RTU/TCP

NEMO D4-Dc

Direct voltage input by external adapter up to 1500V Direct Current input or from shunt (selectable)
- Direct input up to 10A direct current
- Input from shunt 60 – 100 – 150mV

It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems. For supervision systems, through the model with output RS485 communication ModbusRTU, you can transmitted on the network main electrical parameters in addition to the energy consumption.

Pack	Cat.Nos	Input (V)	Auxiliary power supply	Ouputs
1	MF6DC4200H	10÷300V	20÷150 Vdc + 48 Vac	Pulses + 2 alarms + RS485 ModBus RTU
1	MF6DC42006	10÷300V	230Vac	Pulses + 2 alarms + RS485 ModBus RTU
1	MF6DC4206H	50÷1500V	20÷150 Vdc + 48 Vac	2 alarms + RS485 ModBus RTU
1	MF6DC42066	50÷1500V	230Vac	2 alarms + RS485 ModBus RTU
1	MF6DC42M66	50÷1500V	230Vac	2 alarms +RS485 Modbus RTU (4-20mA)

NEMO multifunction units

modular solutions for AC networks

MFD45E06

MFD4421

NEMO D4-e

Connection via CT for single and three-phase network, 3 or 4-wires.
Phase sequence correction, diagnostic
It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems.
For supervision systems, through the model with output RS485 communication ModbusRTU, you can transmitted on the network main electrical parameters in addition to the energy consumption.

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply
1	MFD45E06	1 + 5	80÷480	230Vac

NEMO D4-Le

Connection via CT for single and three-phase network, 3 or 4-wires.
Phase sequence correction, diagnostic
It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems.
For supervision systems, through the model with output RS485 communication ModbusRTU, you can transmitted on the network main electrical parameters in addition to the energy consumption.
2 active digital inputs for tariff counting (4 registers) or external pulse counting.

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MFD4421	1 + 5	80÷500	80÷265Vac 100÷300Vdc	RS485
1	MFD44B1	1 + 5	80÷500	80÷265Vac 100÷300Vdc	RS485
1	MFD4422	1 + 5	80÷500	20÷60 Vdc	RS485
1	MFD44B2	1 + 5	80÷500	20÷60 Vdc	RS485
1	MFD4421/ F1500	1 + 5	80÷500 (P-P)	80÷265Vac	RS485
1	MFD4421/ F1501	1 + 5	80÷500 (P-N	80÷265Vac	RS485
1	MFD4422/ F1500	1 + 5	80÷500	20÷60Vac	RS485

NEMO multifunction units

flush mounting multifunction units (96x96mm and 72x72mm)


MF96E06


MF96421


MF72421


MFQ96021


MF96021A


IF96001


IF96012

NEMO 96HDe

Connection via CT for single and three-phase network, 4-wires.
Phase sequence correction, diagnostic
It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems.
For supervision systems, through the model with output RS485 communication ModbusRTU, you can transmitted on the network main electrical parameters in addition to the energy consumption.

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MF96E06	5	500	Self-supplied	RS485

NEMO 96HDLe

Connection via CT for single and three-phase network, 3 or 4-wires.
Phase sequence correction, diagnostic
Can be accessorised with an additional modules.
It makes available active or reactive energy counting of the pulse output to integration of consumption supervision systems.
For supervision systems, through the model with output RS485 communication ModbusRTU, you can transmitted on the network main electrical parameters in addition to the energy consumption.

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MF96421	1 + 5	80÷500	80÷265Vac 100÷300Vdc	RS485
1	MF96422	1 + 5	80÷500	16÷60Vdc	RS485

NEMO 96HD+

Connection via CT for single and three-phase network, 3 or 4-wires.
Phase sequence correction, diagnostic.
Can be accessorised with up to 4 additional modules.

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MF96021A	1 + 5	80÷690	80÷265Vac 100÷300Vdc	up 4 additional modules
1	MF96022A	1 + 5	80÷690	16÷60Vdc	up 4 additional modules

NEMO 96 EA

Quality of the energy:
- Harmonics (U&I) up to 40°
- Overvoltages
- Network interruption
- Quick variation of voltage
- Instability
- Memory included (8Mb)
- RTC (Real time clock)

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MFQ96021	1 + 5	80÷690	80÷265Vac 100÷300Vdc	RS485
1	MFQ96022	1 + 5	80÷690	16÷60Vdc	up 4 additional modules

NEMO 72-Le

Quality of the energy:
- Harmonics (U&I) up to 40°
- Overvoltages
- Network interruption
- Quick variation of voltage
- Instability
- Memory included (8Mb)
- RTC (Real time clock)

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MF72421	1 + 5	80÷500	80÷265Vac 100÷300Vdc	RS485
	MF724B1	1 + 5	80÷500	80÷265Vac 100÷300Vdc	RS485
1	MF72422	1 + 5	80÷500	20÷60 Vdc	RS485
	MF724B2	1 + 5	80÷500	20÷60 Vdc	RS485

Additional modules

		Description
1	IF96001	Module RS485 Modbus RTU/TCP
1	IF96012	Module RS485 Modbus RTU/TCP + memory

NEMO multifunction units

EASYCONNECT multifunction units for three-phase networks

MKD4R63DT

MF96ORFCDT1

Easyconnect BASIC

Multifunction bidirectional analyser for three or four wires three-phase systems. Thanks to the 63A and 125A mini current sensors being fitted with quick connectors, in addition to the display of the main values of an electrical network, the device also allows to reduce wiring times and the possibility of errors. Measurements completed by the device

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MKD4R63DT	3x63A	400V (L-L)	230Vac	RS485
1	MKD4R125DT	3x125A	400V (L-L)	230Vac	RS485
1	MK96R125DT	3x125A	400V (L-L)	Self-supplied	RS485

Universal Easyconnect BASIC

Pack	Cat.Nos	Input (A)	Input (V)	Auxiliary power supply	Ouputs
1	MFD4ORFCDT1	630÷6300A	400V (L-L)	230Vac	RS485
1	MF96ORFCDT1	630÷6300A	400V (L-L)	Self-supplied	RS485

Rogowski open type coils

Cable lenght 2m

Pack	Cat.Nos	Input (A)	Minimum current (A)	Current max (A)	Diameter (mm)
1	ROG630M2	630	12.5	750	50
1	ROG1600M2	1600	32.5	1950	100
1	ROG3200M2	3200	65	3900	150
1	ROG6300M2	6300	125	7500	240

Easyconnect STANDARD

Multifunction bidirectional analyser for three and four wires systems. Thanks to the 630A to 6300A openable current sensors being fitted with quick connectors, in addition to the display of the main values of an electrical network, the device also allows to reduce wiring times and the possibility of errors. Measurements completed by the device. Self-supplied version.

Pack	Cat.Nos	Input (A)	N° of inputs A	Input (V)	Ouputs
1	MFD41ORFCDT	630÷6300A	1	400V (L-L)	RS485
	MFD42ORFCDT	630÷6300A	2	400V (L-L)	RS485
	MF961ORFCDT	630÷6300A	1	400V (L-L)	RS485
1	MF962ORFCDT	630÷6300A	2	400V (L-L)	RS485

Extension cable codes

		Description
1	ROGEXTM1	Length 1 m
1	ROGEXTM3	Length 3 m

NEMO SX: energy management system

measurement and supervision system


SXMMT5


SXMIMP


SXMC02


SXM0C1


SXAA230


SXV01


SXI485


SXMM63

Conform to IEC/EN 61131-2 (Programmable controllers) NEMO SX energy management system enables to measure, control and visualize the state of 4 rail mounting protection devices (MCBs, RCCBs, RCBOs, etc...) and head equipment, locally ("Stand alone") or remotely. All the modules of the system are equipped with two specific communication ports: one at the backside (for communication rail) and one underneath (for communication patch cords). Power supply with specific module SXAA230. Remote configuration possible with the help of the Energy Management configuration Software, available for free download via IME WEB site (giving also access to a 30-day trial version of Energy Management Software)

Pack	Cat.Nos	Measurement modules with Rogowski coils	
		For measuring current, voltage, active/reactive power and other values. Conform to IEC/EN 61557-12. Accuracy: class 0.5. Allow the passage of prong-type supply busbars (upper side). Provided with closed Rogowski coils.	
		Direct connection up to 63 A	N° of modules
1	SX3M63	3 x single-phase + 3 coils Consumption: 0,418 W - 34,8 mA (12 V =)	1
1	SXMM63	Single-phase + 1 coil Consumption: 0.409 W - 34.1 mA (12 V =)	1
1	SXMT63	3-phase + 3 coils Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Direct connection up to 125 A	1
1	SXMT125	3-phase + 3 coils Consumption: 0.418 W - 34.8 mA (12 V =)	1
		Direct connection with open, fexible Rogowski coils (supplied with fixing supports for busbars).	
1	SXMR02	3-phase + 3 coils up to 630 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	SXMR04	3-phase + 3 coils up to 1600 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	SXMR06	3-phase + 3 coils up to 3200 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	SXMR08	3-phase + 3 coils up to 6300 A Consumption: 0.418 W - 34.8 mA (12 V =)	1
1	SXMMT5	Connection with CT 5 A measuring module connected via current transformers (CT) Consumption: 0.391 W - 32.6 mA (12 V =)	1
1	ROGEXTM1	Length: 1m	
1	ROGEXTM3	Length: 3m	
		Communication rail DIN35	
1	SXAR18	18 modules	
1	SXAR24	24 modules	
1	SXAR36	36 modules	
1	SXARC	Plastic cover for communication rail	
		Communication patch cords	
1	SXAC250	Kit 10 cables length 250mm	
1	SXAC500	Kit 10 cables length 500mm	
1	SXAC1000	Kit 10 cables length 1000mm	
1	SXACA	Adapter for joining pre-wired cables	

Pack	Cat.Nos	Pulse concentrator	
			N° of modules
1	SXMIMP	For collecting and transmitting measurements taken by universal pulse energy meters (water, gas, etc...). Up to 3 pulse circuits Consumption: 0.288 W - 24 mA (12 V =)	1
		State reporting modules	
1	SXMC02	Universal module for light signalling configurable	1
		Interface module RS485	
1	SXI485	Interface for converting into Modbus RS485 for integration into supervisory systems and other management systems.	1
		Universal control module	
1	SXM0C1	2 relays: 240 V A - 6 A Enables to remotely control different electrical loads or motorised controls associated to 4 rail mounting protection devices or head equipment (DPX³ MCCBs) Equipped with DIP switches (on the side) allowing product configuration: contact type (NO + NC, 2 NO, etc...) and function (maintained or momentary contact) Consumption: 0.456 W - 38 mA (12 V =)	1
1	F80BCS	Control module for modular contactors and relays. It allows you to remotely command and monitor the status of the associated relays and contactors. Equipped with 4 DIP switches (on the side) to configure it according to the type of associated device (relay or contactor).	1
		Stand alone configuration module	
1	SXV01	Programming and visualization module. The NEMO SX programming and display module allows to access the entire system via the front selector, or via USB connection to a PC.	1
		Power supply module	
1	SXAA230	230V/12V power supply with double cable connection or with connectors for base on the back, (500 mA 12 V = stablized power supply module)	1

NOTE

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