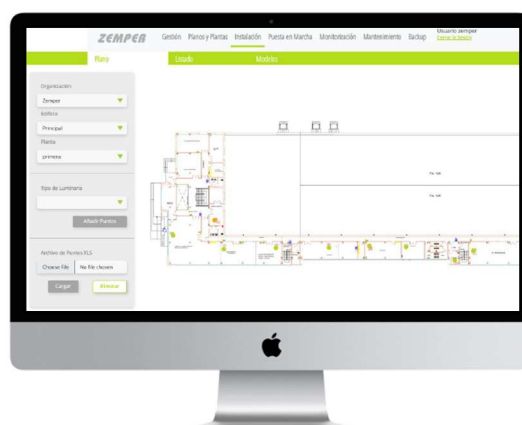


Manual System



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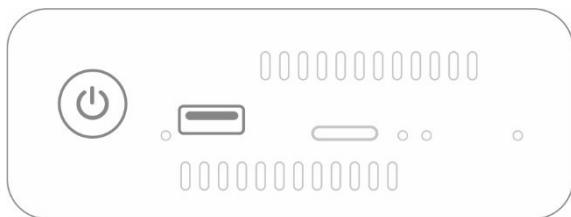
1 EQUIPMENT.

The CSZ003 reference contains the Control Center (CSZ002) and the feeder (SAI002).

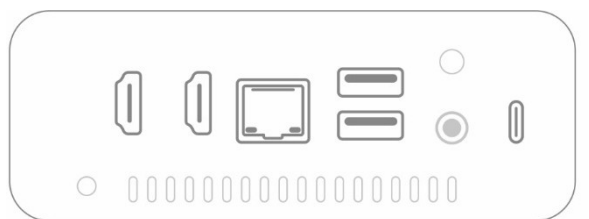
The CSZ004 reference contains the Control Center (CSZ002), the power supply (SAI002) and the Touch Screen.

1.1 Equipment. CSZ003 (CSZ002 Central and SAI002 Feeder).

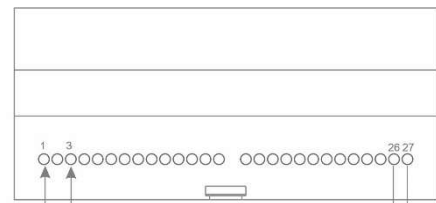
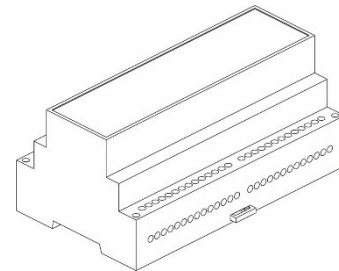
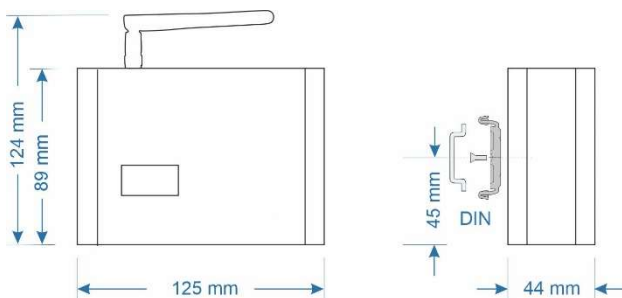
CSZ002 Control Center SAI002 Battery Power Supply (Additional Module)



Power button 1 x USB2.0

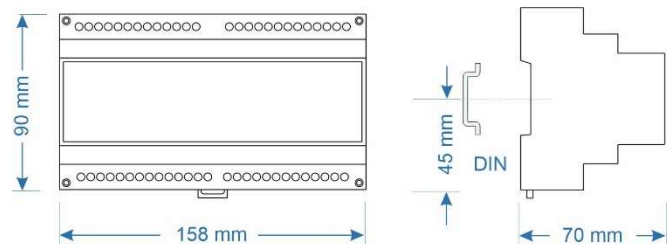


2 x Full-size HDMI Ethernet 2 x USB2.0 USB-C 5V Power In / OTG



Entrada/Input/Entrée
230V AC

Salida/Output/Sortie
+5 V DC



The CSZ003 reference contains the Central (CSZ002) and the feeder (SAI002).

1.1.1 CSZ003. Features.

The CSZ003 reference contains the Control Center (CSZ002) and the feeder (SAI002).

1.1.1.1 CSZ002 - Features (Central).

Electrical Features

Food:	5 Vdc – 4A USB Type-C
Consumption:	20W
Battery:	SAI002 Additional Accessory
Interfaces:	1 x RJ45 (Ethernet) 3 x USB 2.0 1 x USB C Power
Working temperature:	0°- 40 °C
Protection Class:	III
Dimensions (mm):	89 x 125 x 44
Weight:	350-400 g
Assembly:	Surface / DIN rail

Technical Features

Connectivity by Touch Screen, Ethernet, Wi fi or SIM card (with additional dongle not included).

Autonomous operation with battery. (SAI002).

Client-Server Architecture (Webserver):

The control panel allows you to upload installation drawings, multiple configuration of test programming, multiple operating modes (luminaires, installation), adaptive design. Multi-interface display (tablets, smartphones, laptops, PCs), remote control without any extra modules (ethernet), automatic updates (drawings, databases, firmware, etc.) via ethernet or USB connection, record of events and exportable test results, sending by email of configurable fault list, possibility of working with multiple languages, advanced configuration options (maintenance date, configuration of digital I/O, etc...).

System Features

Control System:	SmartZ®
Communication:	Wireless
Operating frequency:	2.4 GHz
Certification - Standards:	CE ENEC CIVIL DEFENSE UKCA

1.1.1.2 SAI002 - Features (Battery Charging Module).

Electrical Features

Food:	230 Vac
Output voltage:	5 Vdc - 4A
Consumption:	25 mA – 6W
Battery:	6.4V-1.5Ah LFP
Working temperature:	0°- 40 °C
Protection Class:	IP20
Dimensions (mm):	90 x 157 x 70
Weight:	350 gr
Assembly:	Surface / DIN rail

1.2 Equipment. CSZ004 (Central, Feeder, with Screen)

The CSZ004 reference contains the Control Center (CSZ002), the power supply (SAI002) and the Touch Screen.

CSZ004: Set composed of 3 teams.

CSZ002 (Central de Control)
SAI002 (Feeder)
Touch Screen

The basic set (CSZ003) of the SmartZ control center does not have a display screen.

Central + SAI

With this new touch screen assembly (CSZ004), the Smartz System management software integrated in the Control Panel can be viewed locally.

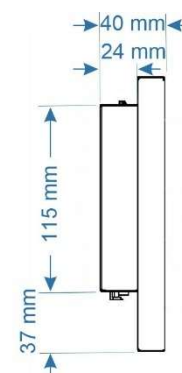
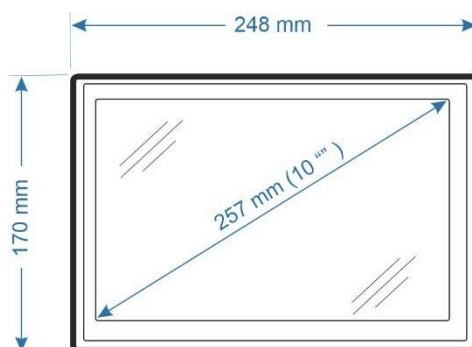
Central + UPS+ Touch Screen

In addition to this local connection, the Central can be connected via ethernet and the management software can be viewed on remote computers.

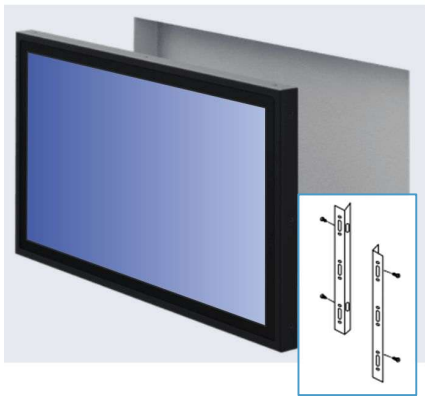
CSZ002 Control Center SAI002 Battery Power Supply (Additional Module)



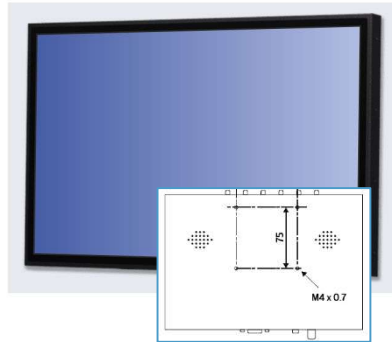
Touch screen



Recessed



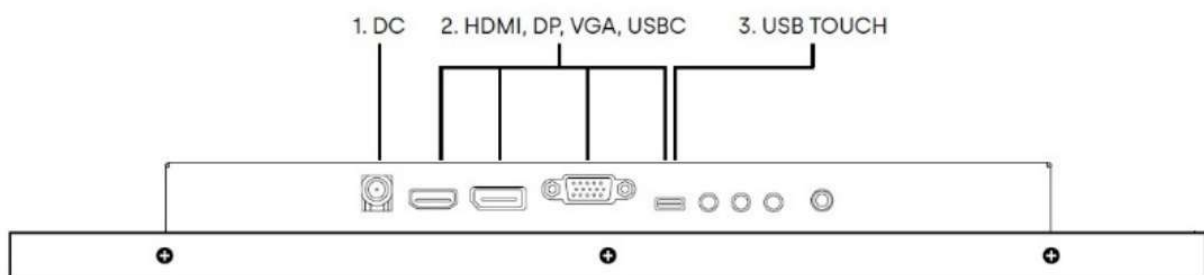
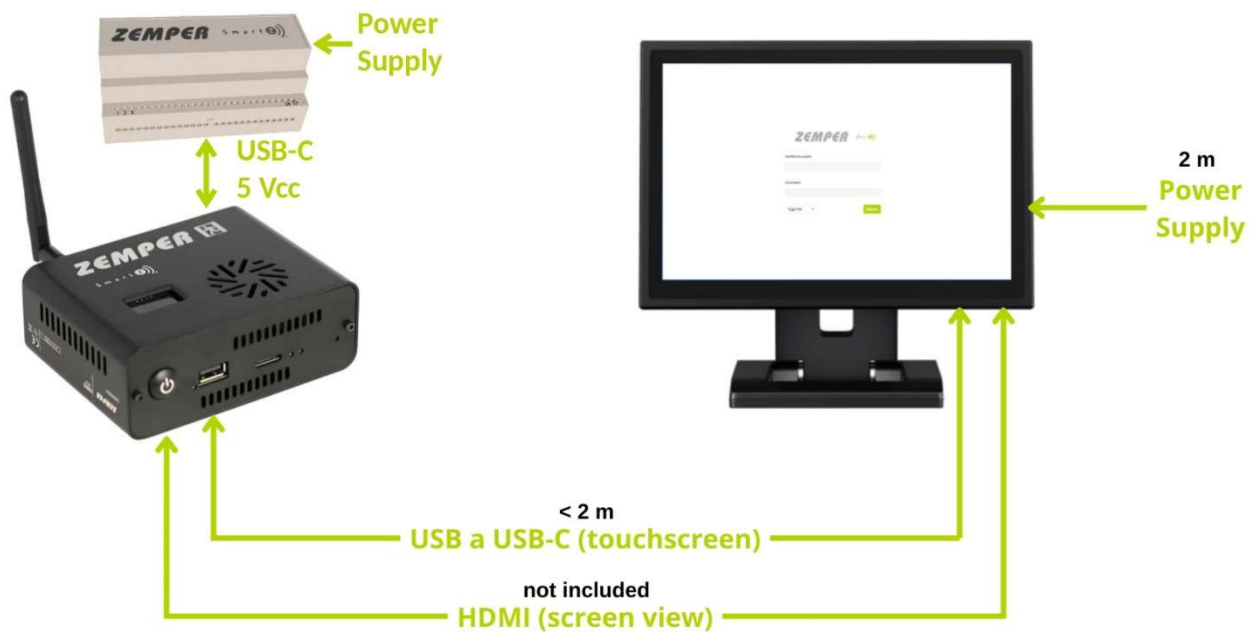
Pared VESA75x75 mm Universal



Support



Maximum installation distance between the Control Panel and the touch screen: **2 meters.**



1.2.1 CSZ004. Features

1.2.1.1 CSZ002 – Features (Central). See previous page.

1.2.1.2 SAI002 – Features (Battery Charging Module). See previous page.

1.2.1.3 Touch Screen:

SUPPORTED OPERATING SYSTEMS

Display: 10" Touch Screen
 Windows: Windows 8, 10, 11
 Chrome: All versions

PANEL

Panel Type: IPS-LCD
 Resolution: 1900x1200
 Pixels: 224 PPI
 System: PAL/NTSC/SECAM
 Backlight: LED
 Viewing angle: 178°
 Touch Technology: Capacitive, multi-touch (10-point)
 Touch Control: Stylus, hand, glove.

CONNECTIONS

Connections: HDMI, Display Port, VGA, USBA-C, USB-A, Entrada AUX, Salida AUX

SIZE WEIGHT

Size (without stand): 249x170x40 mm
 Weight: 1.6 Kg

OPERATION

Audio: Integrated Audio
 Ignition: Automatic ignition with electric current/video signal

DISPLAY POWER

Input Voltage: 9-36 VDC
 Consumption: 11W (Encendido), 0.4W (standby)
 Power Adapter: Input 100-240Vac Output: 19VDC – 1.5A
 Output Connector: 2.1mm x 5.5mm DC cylindrical connector

SURROUNDINGS

Operating Temperature: 0°- 40 °C
 Operating Time: 24/7

COMPLIANCE

Degree of protection: IP20

SCREEN MOUNTING:

Assembly:	Recessed	(Mounting side bars, included)
	Wall	VESA75x75 mm (Universal Stand Ready)
	Support	(Surface-desk mount bracket, included)

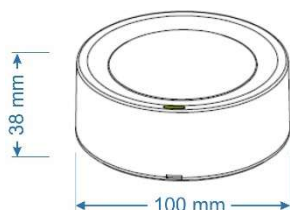
1.3 Optional Equipment. BSZ01 - GPIOZ01

BSZ01 – SmartZ Signal Repeater Module

It allows the SmartZ communications signal to be amplified between the different luminaires, where communication does not reach.

For those areas where the (insulated) luminaires cannot communicate due to excessive distance or obstacles, this module is added to be able to communicate the isolated luminaires.

- Serial number. It is discovered as if it were just another luminaire in the System.
- The operation is like a SmartZ luminaire, but without the emergency lighting part.
- Possibility of installation on: Ceiling/wall surface. Recessed ceiling (with installation accessory).



GPIOZ01 - Module with Inputs / Outputs

Equipment (External additional) that allows you to perform actions automatically on luminaires, such as changing pictogram scenarios, actions on luminaires, 2 ways:

- ALIOTH luminaires: By uploading a template or Excel file
- Luminaires: Marking the action and target luminaires, in the GPIOs Menu

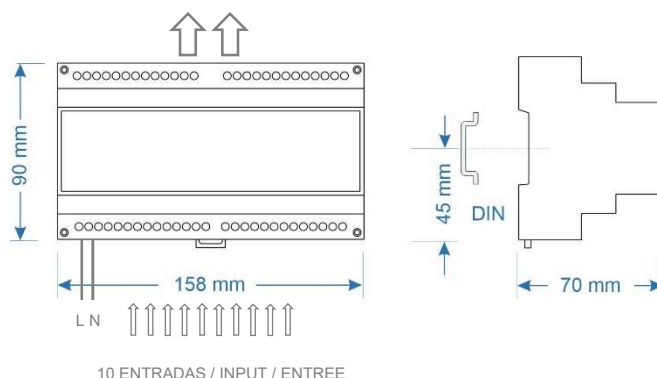
With each ACTIVE ENTRY, a Scenario Changes. Outputs and Inputs (configurable).

Equipment to carry out the interconnection of the Management Centre with other equipment in the installation.

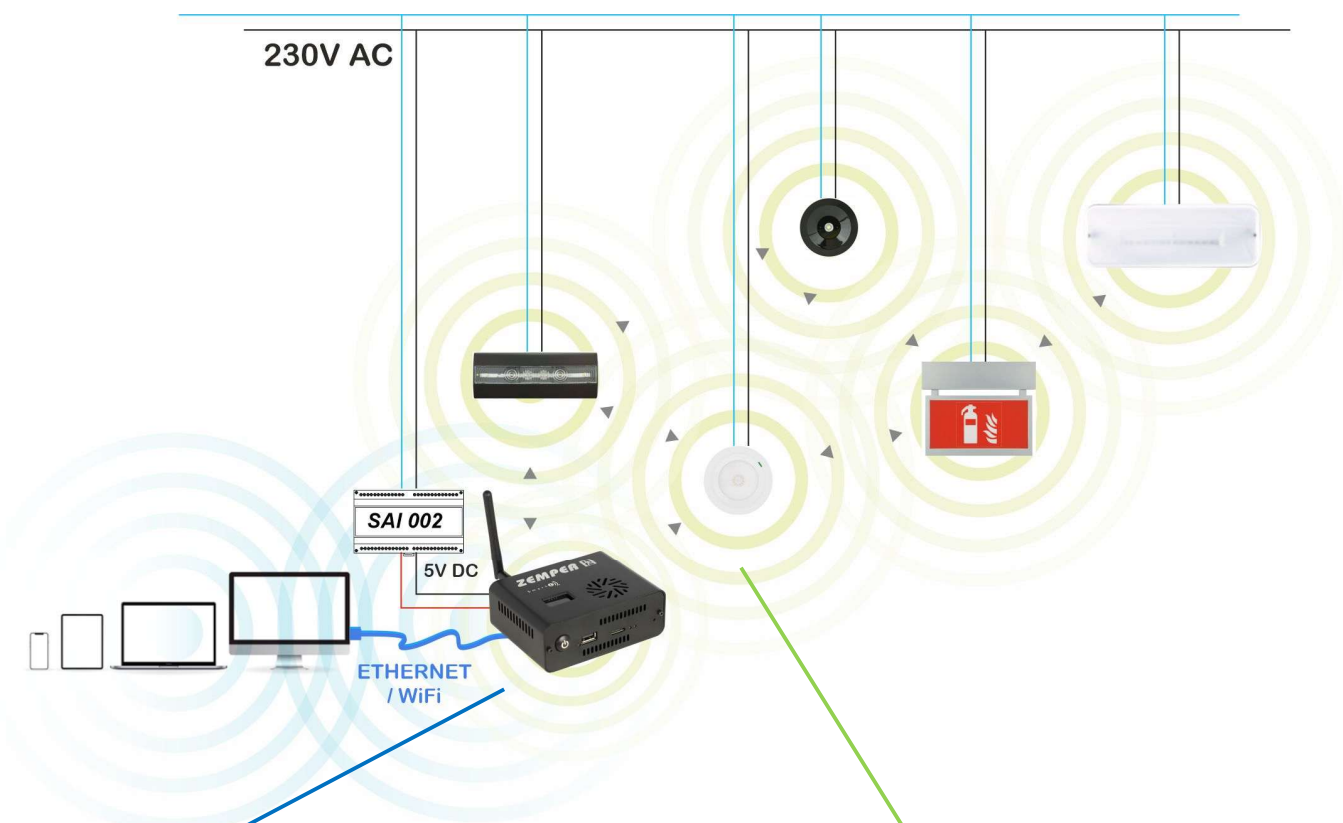
- 2 OUTPUTS. (No voltage – Relay Contact)
If there are errors in the Control Panel. You can send signals from the CSZ002 Management Control Centre to other external equipment in the installation (BMS, Management Centre)
- 10 INPUTS. (No voltage – Relay Contact)
Equipment to receive signals from other equipment external to the CSZ002 Management Centre (Fire Centre, BMS, sensors, actuators, etc.)
- Serial number. It is discovered as if it were just another luminaire in the System.



2 SALIDAS / OUTPUT / SORTIES



1.4 SmartZ® system. Communications.



Central / Devices

2 Communication options with different Devices.
(PC, Tablets, Smartphones):

- Wifi
- Cable Ethernet

Battery Powered Supply

Equipment to power the Central with batteries for sufficient Duration, to have communication with the System, in case of power failure.

Central / Luminaires

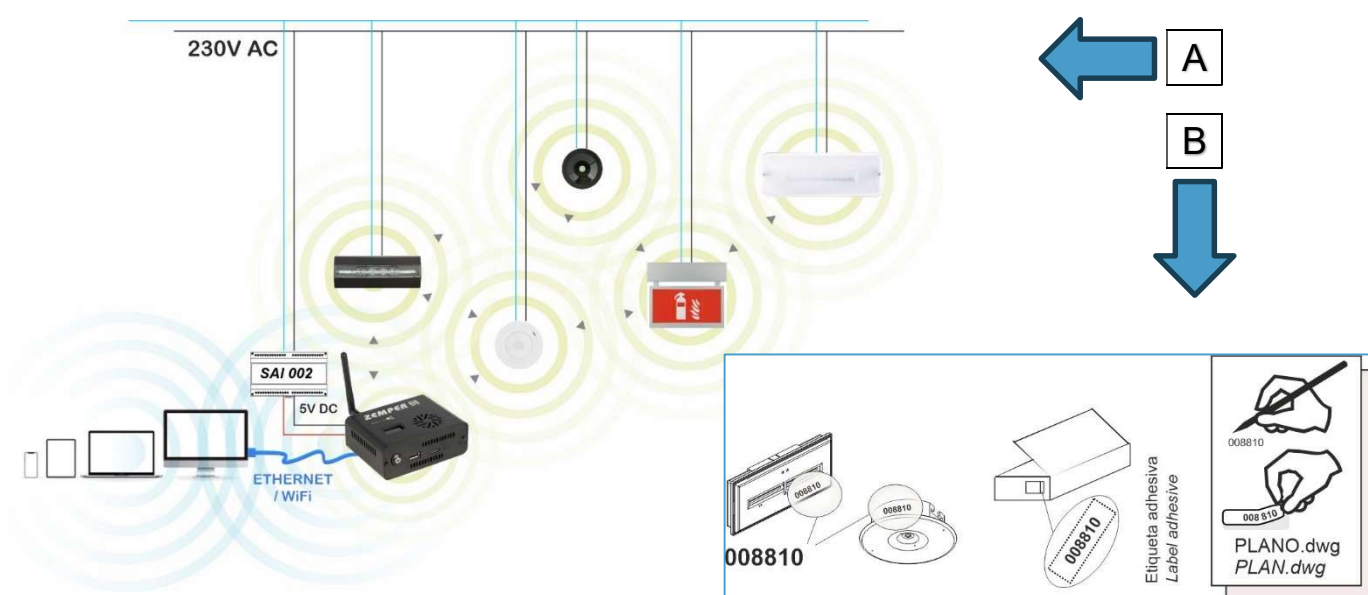
- SmartZ®, Communications System with the most advanced technology. This technology is used to create highly reliable smart meshes.
- It includes multiple features to avoid receiving and emitting interference. Multi-channel system using 40 frequency channels in the 2.4 GHz ISM frequency band.
- Its algorithm allows devices to be operated automatically and connected locally, avoiding the frequencies used by other wireless systems.
- With this technology, communications are fully automatic and locally adaptable, facilitating large-scale installations (other wireless systems need to operate at different frequencies for each location).
- Communication with more than 10,000 luminaires, directly, with a single Central.

1.5 SmartZ® System Installation (Installation Steps).

The communication between the Central (CENTRAL) and luminaires is wireless, " SmartZ® System".

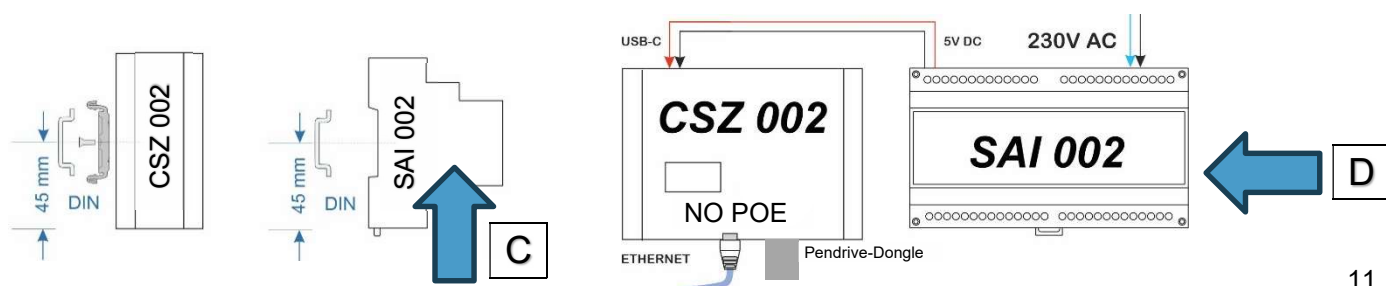
INSTALLATION LUMINAIRES

- A INSTALL the luminaires, connecting them only to mains voltage.** (See "*Luminaires instructions*").
- The luminaires have a label with the serial number. This number is unique for each luminaire.
 - The luminaires communicate (SmartZ System) with the Central and nearby luminaires.
 - Central Distance-Luminaires <30m. Luminaires-Luminaires Distance <30m. (*Distances under standard installation conditions).
 - **There are INSTALLATION EXCEPTIONS.** It is possible that some Areas, due to their architecture, have difficulty in communication. (See next point, with its explanation)
- B WRITE DOWN the Serial Number of each luminaire in plans.**
- Write down the installation plan, the serial number of the installed luminaire and the location of the (Attached: Adhesive label, on the side of the unit box with serial number).
Paste on a paper plane, on the location of the luminaire. Translate these numbers to the final drawing CAD.



CENTRAL INSTALLATION (CSZ002) and BATTERY POWER SUPPLY EQUIPMENT (SAI 002)

- C INSTALL CENTRAL and SAI.** (See videos: <https://zemper.com/producto/central-smartz/Instalación>)
- The Central and Battery Power Supply Equipment must be installed in VISIBLE and ACCESSIBLE places. (On the wall <2m. high), not in isolated rooms.
Install in places with luminaires close <30m. (Technical rooms, Rack).
CSZ002 - Surface Mount, with DIN Rail Mounting Possibility. (2x Bindings)
SAI002 - Surface Mount, with DIN Rail Mounting Possibility.
- D CONNECT CENTRAL.**
- Central CSZ002 – Central:
Connect USB-C cable (included) between, 5VDC (SAI: pos. 26+, pos. 27-), to USB-C input from Central.
Ethernet data connection. (*Change of Network parameters, see "User Interface Manual"*).
Ensure that the Pendrive-DONGLE is mounted on the USB port
 - Power supply-Batteries SAI002: Power at 230Vac. Connect the 230V input. (SAI: pos.1, pos.3)



1.6 EXCEPTIONS for the installation of "SmartZ System" Luminaires.

The Faraday effect means that there are areas of exception for communications.

Faraday Effect:

"When an enclosed enclosure is covered with metal or, failing that, with metal meshes that surround it, the interior of the enclosure is not influenced by external electric fields. Electromagnetic waves or signals are only transmitted from the outside."

Depending on the metal structures, communications can be of greater or lesser quality, even not establishing communication in the most unfavorable case.

There are INSTALLATION EXCEPTIONS: It is possible that some zones or areas, due to their architecture, have difficulty communicating. In the case of installation in these areas, it is recommended to carry out a prior, detailed study of connectivity in these areas.

- **IMPORTANT: It is possible that luminaires installed in EXCEPTION areas do not communicate.**

Zones or Areas with possible communication difficulty between luminaires:

- Areas with specially reinforced walls (concrete).
- Areas with metal structures, roofs, tunnels, technical galleries, industrial areas, ...

For these exception zones or areas, the following actions are recommended:

- Reinforce these areas, adding more luminaires or adding "Repeater" luminaires (reference BSZ01).
- Connect the luminaires with another communications system, with Cable-Bus (ZD+ System) or Autotest Mode.

2 RECOGNITION OF THE INSTALLATION.

The Central automatically recognises all connected luminaires.
By clicking only on a single button: "Activate Device".

Connection to the Central, using the User Interface software:

- In the Chrome/Firefox search bar, enter the IP address that appears on the node display, followed by a colon, with port 3030.

Example of an IP address to enter in the browser's top search bar: 10.0.0.8:3030

Log in (Access with the username and password).

Click on Menu – Start-up – Discovery.

To start the Discovery click on: "Activate Device".

To End or pause the Discovery click on: "Deactivate Device".

Results of the examination, see List: click on Menu – Start-up – List.

Results of the examination, see Graphs: click on Menu – Start.

For a better follow-up of all the processes, click on: "Start Tutorial".

3 APPLICATION – MENUS (User Interface).

Software and System Purpose:

- Management of multiple buildings or floors, with the same Central.
- Recognize all installed luminaires and visualize, in real time, the status of each luminaire.
- It also allows multiple operations to be carried out on the System's luminaires.
- Main operations:
 - o Visualise the position of each luminaire and its condition, on plans of the installation.
 - o Generate reports with the current status and the tests carried out.
 - o Sending alerts by email, with possible errors.
 - o Sending commands to luminaires or groups of luminaires (On/Off, Test, Reset...).
 - o Management of Alioth System luminaires (adaptive pictograms).

The different menus in the user interface are explained below.

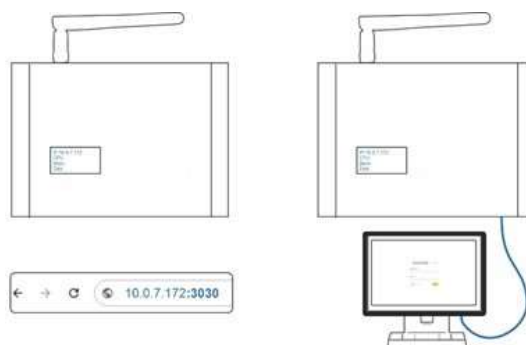
The user interface allows you to connect to a Central, to manage the status of an installation.

3.1 Communication between the Central and the User Interface.

Communication of the Central with the User Interface (UI).

No additional software is needed, the device is configured as a Web Server:

- View the IP address that appears on the Central Display.
- In the browser window (Chrome or similar), enter the IP that appears on the display of the Central, followed by ":" and port 3030 (example: 10.0.7.172:3030).
- Another option is connecting the Touch Screen (Optional Accessory or Equipment, not included)



3.2 Main Menu.

Select: Language.

Introduce: Username and Password. (by default, *user: manager password: zemper*)

From the login page, the user can change the language of the interface to the selected language. (Spanish, English, Français, Deutsch, Italian, Nederlands, Arabic)



3.3 Menu selection line

Show the interface management menus.

The screenshot shows the top navigation bar of the ZEMPER interface. It includes the ZEMPER logo, a navigation menu with items like Home, Management, Commissioning, Monitoring, Maintenance, Backup, and Alioth, and a user profile section on the right. The user profile section shows the user name 'User zemper', a 'Log Out' button, a 'Refresh' button, and a 'Actions' button. Below the user profile, there is a dropdown menu with options: 'Start Tutorial', 'Refresh without cache', and 'Restart'.

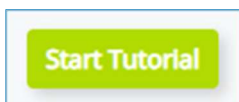
Bell: Notifies you of active GPIO inputs/outputs.
 Log Out: Logs out, changes user, selects language.
 Refresh: Refreshes the screen (browser cache).
 Actions: Start/Finish Tutorial (guides you through setting up an installation).
 Refresh without Cache: Refreshes the screen without clearing the cache.
 Restart: Restarts the Central. (Wait 10 minutes)
 Version: Version of the application installed on the Central.

The screenshot shows the main menu of the ZEMPER interface. It is organized into several categories: 'Home', 'Management' (with sub-items: Users, Organizations and Buildings, Email and alerts, Central Configuration, Upgrade, High Availability, Zemper), 'Commissioning' (with sub-items: Drawings Management, Discovery, Drawing, List, Groups of Luminaires, Integration, GPIOs, BACNet), 'Monitoring' (with sub-items: Drawing, List, Test, Results, Reports, Schedule programming), 'Maintenance' (with sub-items: List, Actions), 'Backup', and 'Alioth' (with sub-items: Scenarios, List, Custom pictograms).

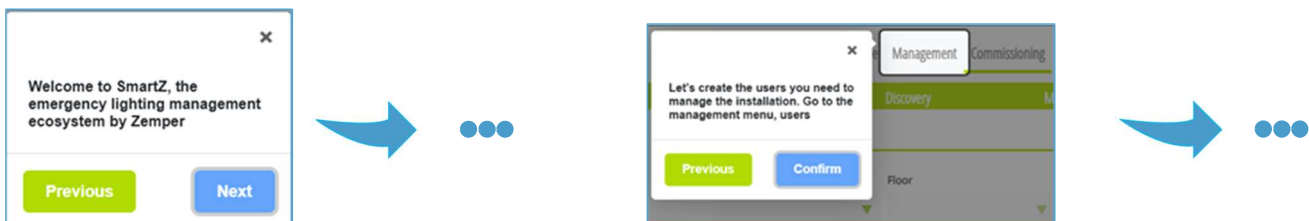
3.4 Tutorial.

The application has a tutorial, which will guide, step by step, to create an installation from scratch, with all the necessary steps for each menu.

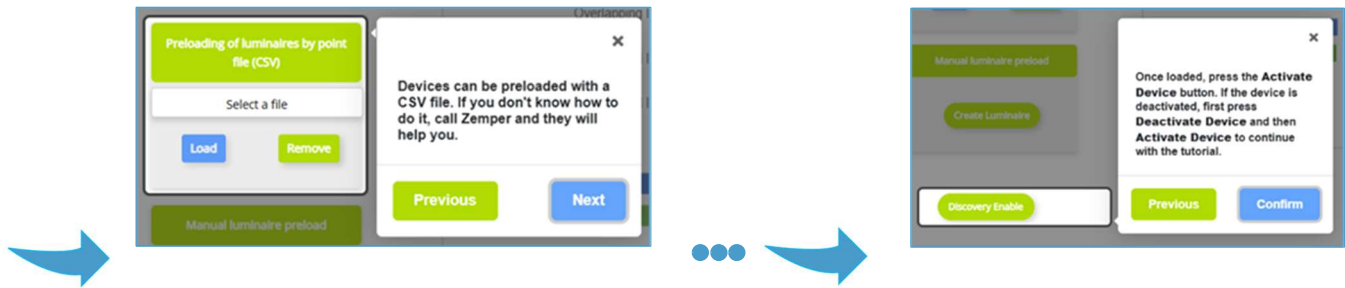
Start Tutorial:



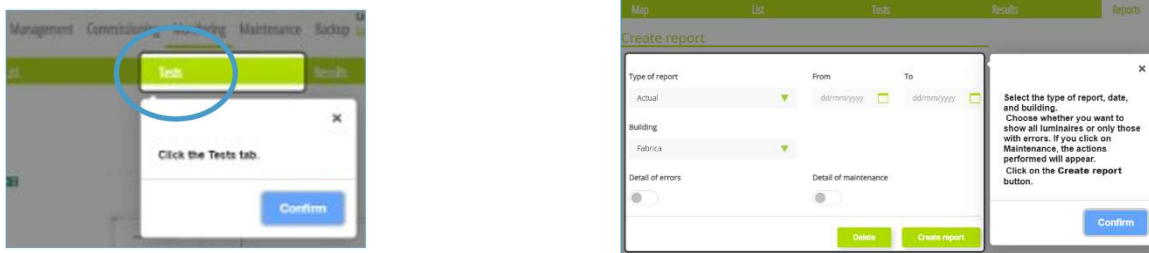
When you press this key, the tutorial starts, indicating the menus that must be completed to have any installation created from scratch.



The tutorial has the "Previous" and "Next" buttons to go back or forward in the tutorial.

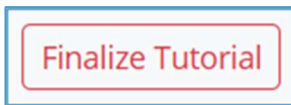


Also, you can follow the tutorial, clicking on any menu and it tells you what to do in that selected menu.



End Tutorial:

Pressing "End Tutorial" closes the system wizard.



3.5 Home Menu.

Information screen with the summary of the status of the installation.

Correct luminaires:	Number of luminaires, recognized and error-free.
Luminaires to check:	Number of failed luminaires that need to be checked.
Luminaires in the installation:	Total number of luminaires in the installation.

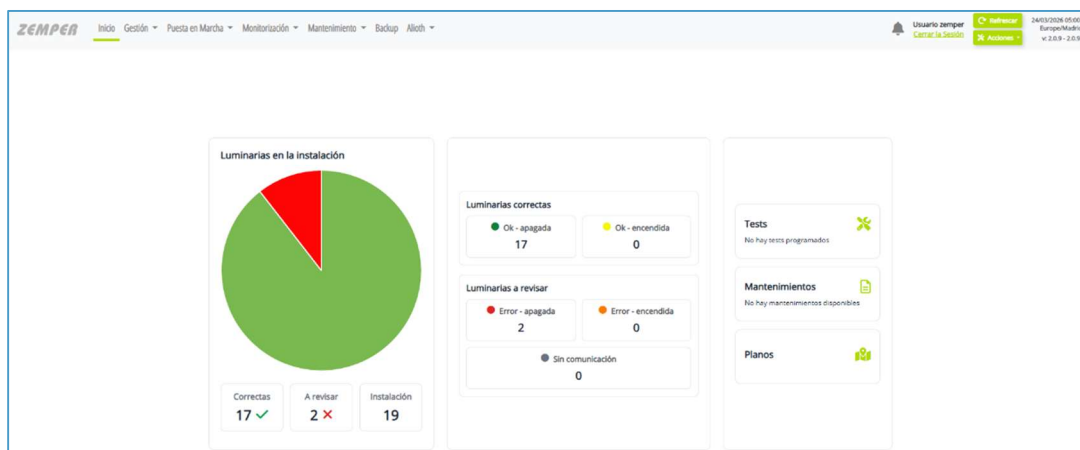
In addition, there is summary information on the next tests to be carried out; of the latest maintenance carried out and shortcuts for tests, maintenance and drawings.

A bell symbol, appears at the top, to indicate if a GPIO scenario is enabled.

(GPIO: External equipment, to connect inputs/outputs to or from other Facility Management equipment)

Example of connection in the GPIO Input: Receive Signal from Fire Station.

Example of connection in the GPIO Output: Send signal from our Central to a BMS.



3.6 Management Menu.

In this menu are the configuration options of the User Interface, Users, Facility Buildings, SMPT Server and Email-Alerts Configuration, Center Connection (Cable, Wifi, SIM), Updates, High availability (Configure Master or Slave Centrals).

3.6.1 Users.

Users are configured in this menu. You can create and delete the users that each customer needs to manage the emergency lighting system.

There are 4 different roles to manage the system:

- Administrator: You have rights to navigate through all the tabs in the app.
- Manager: Same as Administrator, but you will not be able to delete the Administrator user.
- Installer: You will be able to see information necessary for the realization of an installation.
- Operator: You will be able to view the information, schedule tests and write down maintenance.

To create a user, click on the "Create User" button and enter the information requested by the application *(It is necessary to have created the buildings or floors of the facility to be managed, in order to be able to give permissions, which buildings are allowed access)*.

Created profiles can be edited or deleted by clicking on the icons in the "Actions" column.

The screenshot shows the 'Users' management page with a table of users and an 'Edit User' modal form.

User	Name	E-mail	Status	Role	Building	Actions
zemper	zemper user	zemper@zemper.com	Active	Administrator	All	[Edit] [Delete]
manager	manager user	manager@zemper.com	Active	Manager	All	[Edit] [Delete]
admin	admin admin	admin@admin.com	Active	Administrator	All	[Edit] [Delete]
gestor	gestor gestor	gestor@gestor.com	Active	Administrator	Showroom	[Edit] [Delete]
instalador	instalador instalador	instalador@instalador.com	Active	Administrator	Showroom	[Edit] [Delete]
operador	operador	operador@operador.com	Active	Operator	Showroom	[Edit] [Delete]

The 'Edit User' modal form for the 'operador' user is shown below the table. It includes fields for Name, New password, First Surname, Second Surname, E-mail, Role (set to Operator), Building (set to Showroom), and a toggle for 'Alioth' (which is currently turned on).

Activate Alioth Menu: This menu grants the user permission to manage the Alioth System's luminaires. If not activated, the Alioth menu will not appear in the menus. Activating it will display the Alioth menu.

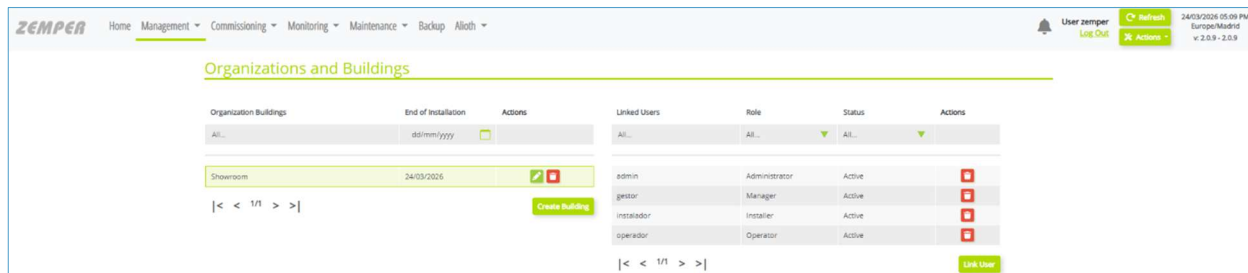
3.6.2 Organizations and Buildings.

The Central manages luminaires installed in a building, therefore, it is necessary to have a building associated with the installation. A Central can manage different buildings.

In this menu "Organizations and Buildings" you create the building(s), adding the (existing) users necessary for its control.

To create a building", click on the "Create Building" button and enter the information requested by the application. Buildings can be modified or deleted, as well as associated users.

IMPORTANT: By deleting the building, all building information, luminaires, plans, configuration are deleted.



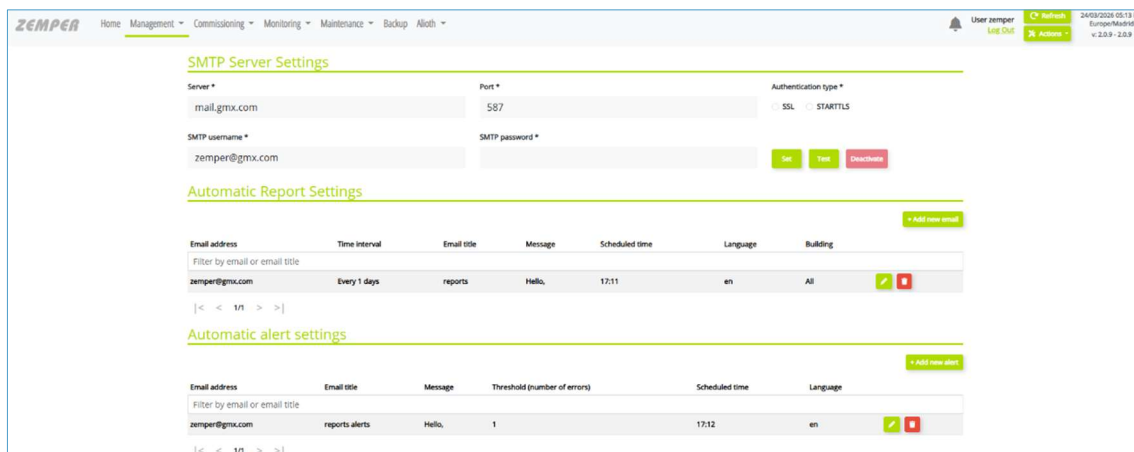
3.6.3 Email and alerts.

The Central automatically sends alerts and reports on the status of the luminaires in the installation, by email, to the designated persons.

For automatic sending of email notifications, SMTP server configuration is required. The system allows the generation of two types of notifications:

- Automatic alerts: These are sent when the Central exceeds a predefined (configurable) error threshold.
- Automatic reports: They are generated and sent periodically (configurable frequency) with the status of the Central or installation. Configurable Language.

Automated emails can be sent to multiple addresses.



3.6.4 Central Configuration.

The Central can be controlled locally or remotely (webserver). Remote access can be: Central Network Settings

- Wiring: Configuration in the Central for connection via Ethernet network (cable).
IP Change: Manual – (New IP, Mask, Gateway) – Update configuration

- Wireless: Setting up the building's Wi-Fi network for wireless connection.
IP Change: Manual – (New IP, Mask, Gateway), DNS, SSID, Password – Update configuration
- SIM (Requires SIM and external USB dongle, **NOT INCLUDED**): Configuration of the SIM connected to the Central by USB through the dongle for cellular communication.

Time Zone:

The date and time of the Central are configurable manually or automatically.

Location Configuration:

("Square" icon indicating the Central Unit's location)

Define the Central Unit's location on the corresponding plan. (When creating the Central Unit on a plan, press edit mode to modify the Central Unit's location.)

The screenshot shows the ZEMPER web interface. The top navigation bar includes Home, Management, Commissioning, Monitoring, Maintenance, Backup, and Alloth. The user is logged in as 'User zemper' with a 'USB Stick' icon and a 'Refresh' button. The date and time are 24/03/2024 05:19 PM, and the location is Europe/Madrid, v. 2.0.9 - 2.0.9.

The main content area is divided into two sections:

- Central Network Settings:** This section contains fields for MAC, MAC WiFi, IP Ethernet (eth0), IP WiFi (wlan0), Gateway Ethernet, Gateway WiFi, DNS, Method, IP, Mask, and Gateway. There are buttons for 'Wired', 'Wireless', and 'SIM', and an 'Update configuration' button.
- Time zone:** This section has a 'Time zone' dropdown menu set to 'Europe/London', a checkbox for 'Automatic date and time' (checked), and a 'Set date and time manually' option. There is a 'Save' button.
- Location configuration:** This section has a 'Central name' field set to 'Bicha', a 'Building' dropdown menu set to 'Showroom', and a 'Floor' dropdown menu set to 'S-SmartZ'. There are 'Delete location' and 'Add location' buttons.



3.6.5 Upgrade.

This menu allows system update. You can select the file with software image (new version) and press update.

Also, at the bottom of the screen you can see the software versions of the system-related artifacts.

3.6.6 Menú High Availability (MASTER – SLAVES)

This menu is used to configure which Centrals are MASTER and which are SLAVE.

For very large installations requiring more than one Central, we have the option to configure them as Master or Slave. The management software for the entire installation is installed on a single Central (MASTER). The Master Central communicates with the other Centrals (SLAVE), reporting information and status for all the luminaires in the entire installation.

IMPORTANT: An Ethernet connection is required for all Centrals.

Configuration: In this section, you can configure a high-availability Central network, specifying which Central is the MASTER (only one Central) and which is a SLAVE (multiple Centrals).

MASTERS: Define Building, Floor, Name, Role (Master-Slave), and IP address of the Master Central.

SLAVES: Define Building, Floor, Name, Role (Master-Slave), and IP address of the Master Central. Define Priority: 1 to 100. In case of Master failure, the probability that the Slave will become the Master (100 being the highest probability).

Central Name, Building, and Floor Plans for icon placement on the floor plan.

Reassign: Configure the current Central as the Master (IP address of the Central to which we are connected).

Leave Network: Delete the high-availability configuration (Masters and Slaves). You can create a new network of Centrals.

Location: In this section, you can add, modify, and delete Central icons on the plan. This does not configure the high-availability network; it only displays the icon on the corresponding plan.

Central Icon: You can edit or delete Centrals from the plans.

Device Status: Indicates the role (master or slave) of the Central you are connected to.

Network Status: List of Centrals in the network, showing which are master or slave and whether there is a connection to them.

Example configuration: 4 Centrals in the same installation (1 Master, 3 Slaves)

Connect to the Central (IP 10.10.10.10), which will be the MASTER.

Configure it as MASTER (Click "Configure"), specify Building, Floor, Name (place Icon), and IP address.

Connect one by one to the remaining 3 Centrals (IP 10.10.10.11, ..., 12...13), which will be the SLAVES.

Configure them as SLAVES (Click "Configure Central", specify Building, Floor Plan, Name (place Icon)).

Specify the IP address of the Master Central and its Priority (In case of Master failure, specify which unit becomes the new Master). High Priority: 100, Low Priority: 50 (Priority values from 100 to 1)

3.7 Commissioning menu (Start-up menu).

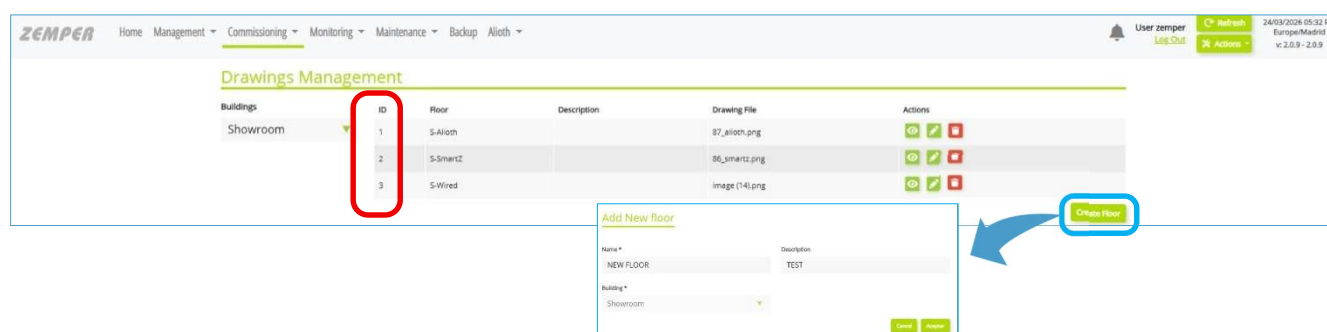
In the "Commissioning" menus you will find all the functions necessary for **the commissioning of the system**. The available menus are: Plan Management, Discovery, Drawings, Luminaire List, Luminaire Group, Integration.

3.7.1 Plan Management.

This menu loads the plans or drawings of the building. The load is done by "Floor" (or level). The drawings formats supported by the app are: SVG and PNG.

To upload the drawings:

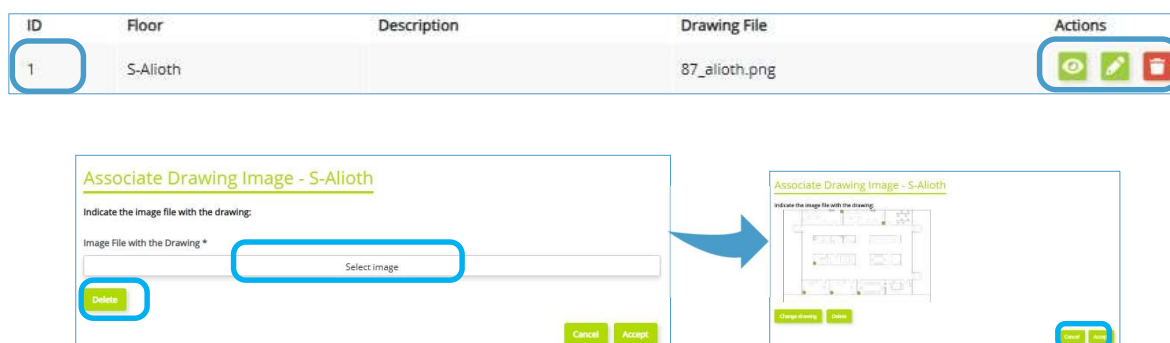
- A.- Select the building, to which the corresponding plans (floors) are going to be loaded.
- B.- Click "Create floor", and enter the name of the floor.



C.- Options to load, modify and delete plans appear.

UPLOAD DRAWING: Press **Select File**, **Upload** (preview), **OK** (load plan in Central).

To modify or change the plan, click on "Change map", and select a new drawing.



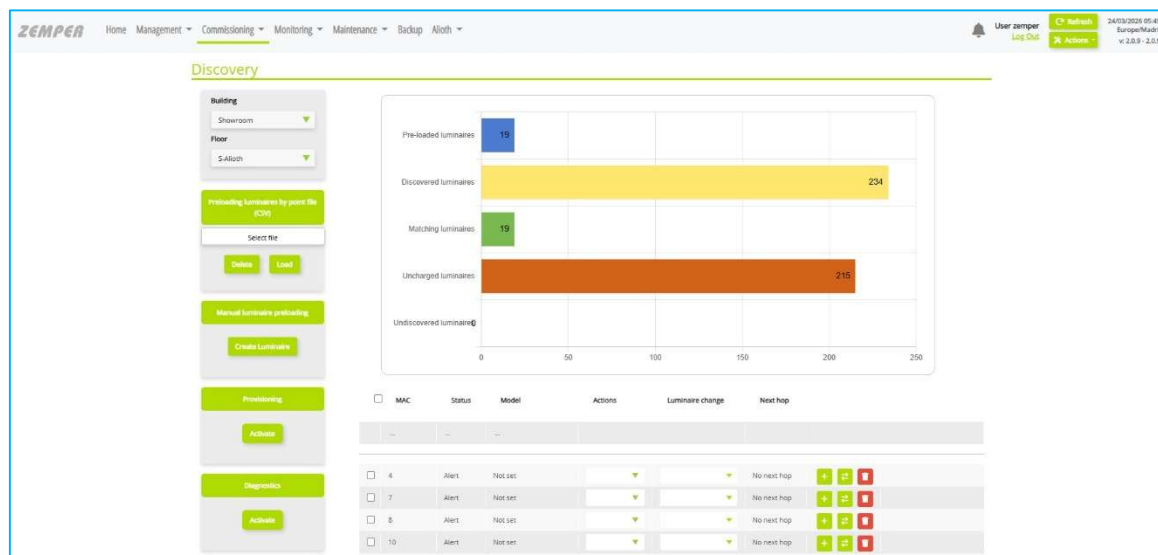
Important: the "Plan ID" is a number generated by the application every time we upload a drawing. Each plan/drawing has a different identity. The ID is required for bulk charging of luminaires. It must be annotated in the CSV template to relate the luminaires to each drawing.

Actions that can be performed in this menu:

- (EYE Icon) Change the drawing. Click to Change drawing, for new drawing.
- (PENCIL Icon) Modify the drawing: Click to change the name of the drawing, change the building.
- (TRASH Icon) Delete the drawing: Tap to delete the drawing.
Note: When you delete plan/drawing, the luminaires in that drawing are removed from the system.

3.7.2 Discovery.

In this menu you can perform the following actions:



- A.- Massive pre-loading of luminaires in the Central.
- B.- Manual pre-loading of luminaires (one by one, on the selected plan/drawing).
- C.- Graph-Summary, with the different states of the luminaires of the Central.
- D.- **"Activate Device" Start the discovery of the installed luminaires in the Central.**

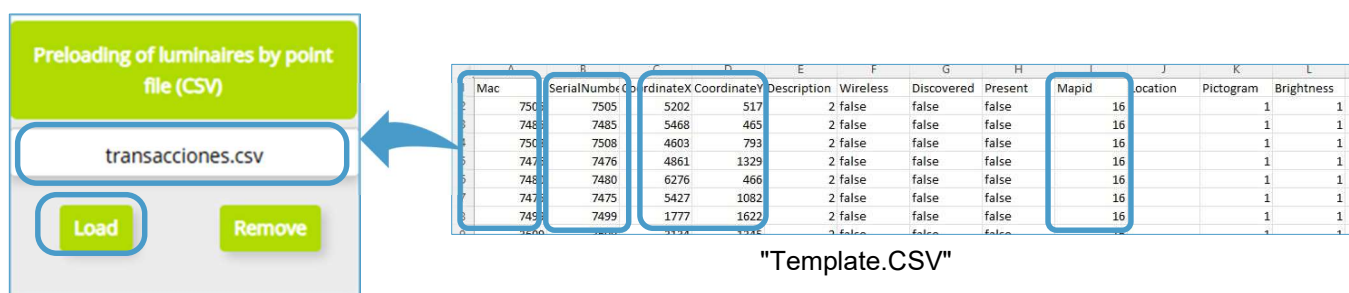
A.- Pre-loading of luminaires by file (CSV).

This function is used to charge all luminaires in a system at once (serial numbers, location coordinates on the drawing).

An Excel template is used for the charging of luminaires: **"Template.CSV"** (it is prepared in advance before charging at the Central).

It is prepared from data extracted from AutoCAD or entered manually. Process:

- 1/ The serial numbers are extracted from each plan/floor (serial and MAC numbers, it is the same value).
- 2/ The coordinates of these serial numbers are extracted (clean and format extracted data).
- 3/ These data, of **"serial numbers"** and **"coordinates"** are added to the "template. CSV".
- 4/ The "Plan ID" is added to the template, the identity of each drawing of the installation (see these IDs, in the menu-Commissioning-Drawing Management).
- 5/ Other columns of the "template. CSV", are not modified.



B.- Manual pre-loading of luminaires (one by one).

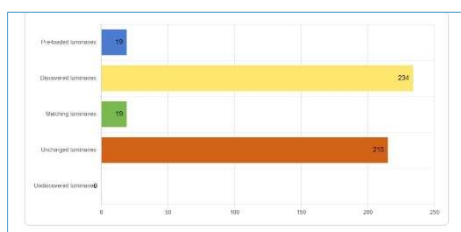
This function is used to add luminaires, individually, to the Central. The plan/drawing where the luminaires are to be added must be previously selected (Select Building and Floor).

When creating the new luminaire, in the corresponding plan, you add it in the upper left (coordinates 0.0).



C.- Graph of the condition of the luminaires.

- Pre-charged luminaires: Number of luminaires loaded with the template or manually.
- Luminaires discovered: Number of luminaires discovered by the Central.
- Matching luminaires: Number of luminaires that coincide in "charged" and "uncovered".
- Uncharged luminaires: Number of luminaires "uncovered", but not pre-loaded (new).
- Undiscovered luminaires: Number of pre-charged luminaires, but they have not been discovered.
- Bottom List (Not Loaded): New. Luminaires Installed-Discovered, but localized, Not plan/drawing.



- Bottom List (Not Loaded): New. Installed/Discovered Luminaires, but not shown on the Plan. These luminaires have been recognized by the Central Unit, but their location is unknown.
 Send commands: Select them from the dropdown menu and send actions to them to try to locate them in the installation.
 Add luminaires to the plan: Click the + icon and add them to the corresponding plan.
 Delete luminaires: If they do not exist in the installation, they can be deleted.
 Swap Luminaries: Change their location on the plan.
 (replace the new one with an existing one from the plan)

☐	MAC	Estado	Modelo	Acciones	Cambio de luminaria	Siguiente salto
☐	4	Not set				Sin siguiente salto
☐	7	Not set				Sin siguiente salto
☐	8	Not set				Sin siguiente salto
☐	10	Not set				Sin siguiente salto
☐	11	Alerta	Eya Proto			Sin siguiente salto

Next HOP: This indicates the nearest existing luminary to the new one (its position on the plan is unknown). The objective is to determine the possible location of luminary near the new one). To do this, press the "Diagnostics" button and select "Activate" to identify the nearest existing luminary to the new one.



D.- Activate the start-up.

- Press PROVISIONING "**ACTIVATE DEVICE**" for **Start discovery** of the installed luminaires.



The Central begins the process of searching for luminaires for the installation. The duration of the recognition process will depend on the number of luminaires installed, and the jumps between them. Normally, all luminaires will be added to the Central within minutes.

The result of the recognition can be seen in three places:

- 1/ **Discovery menu** graphic.
- 2/ **List** of luminaires in the Commissioning menu.
- 3/ **Plans/drawings** of the Start-up menu.

At the end of the recognition, you must click on the "**DEACTIVATE DEVICE**" button to **finish** the discovery of the installed luminaires. This is done to close the telecommunication mesh, not to add more luminaires and for safety reasons; to protect the installation from external access.

Discovery Disabled

3.7.3 Drawing.

In this menu we can view the drawings of the Building, with the luminaires positioned in their place and in the color that corresponds to their condition.

Prior process to view the drawing: in order to view the drawings, you must previously upload the drawings in SVG or PNG format, in the menu "Commissioning – Plan Management." See point 3.5.1.



The Luminaries are color-coded to indicate their status:

GREEN: "Correct" status (Communicating and without errors).

RED: "Error" status (Communicating but with an error).

GRAY: "No communication" status (No communication with the Central).

Each team in the System has a Symbol to differentiate them from one another:

	LUMINARY
	LUMINARY ALIOTH (Dynamic Pictogram)
	CENTRAL ("M" MASTER)
	GPIO (Device Input/Output)

Filter: Select Buildings and Floor

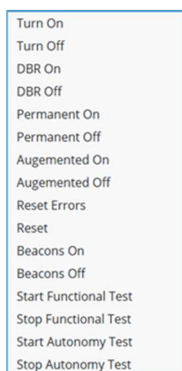
Scale: (Autoscale zoom in drawing) You can modify the display size of the luminaire icon.

Actions: At the bottom right, there is a drop-down with commands. The selected command will be executed on the luminaire or luminaires, previously selected on the drawing.

To select more than one luminaire, press the CTRL key.

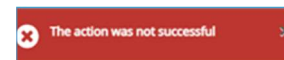
If you double-click on the icon of any luminaire, a window will open with information and a drop-down command to execute them on that luminaire.

When executing the command, message with the execution "Performed" or "Not Performed".



← Actions or Commands on the selected luminaires

Response to the executed command ↓



Edition: By clicking on the "Edit" icon ("eye icon"), you can move the luminaire(s) position.
Legend: Pressing this button will show you the serial number of each Luminary.



Edit Icon
(Move luminaires on the plan)

3.7.4 List.

This menu displays a list of luminaires associated with the Central. You can filter by any of the columns in the list.

The list shows information and the status of each luminaire.

In addition, you can perform the following actions:

Actions: Send commands to one or more luminaires

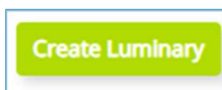
Edit: Edit the luminaire's description

Delete: Delete the luminaire from the Central

Locate: Locate luminaires on the plan.

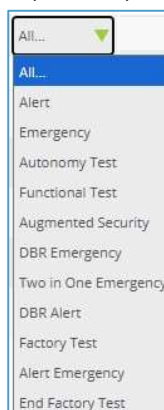
Just like we did in the "Discovery" menu, here we can also add luminaires to the mesh individually.

The icons available in this menu are:



- 1/ **Create luminaire:** Menu to add luminaires, individually, to the Central.
- 2/ **Icons:** Edit luminaire data, Delete luminaire or Locate luminaires on the drawing.
- 3/ **Filter:** Selection of the list to be viewed.

- Selection:** White box that allows you to select or deselect luminaires. If you click on the table title box, all luminaires will be selected/deselected.
- Model:** Reference of the installed luminaire.
- MAC/Serial:** Unique number that identifies each luminaire (cannot be repeated). This number appears on the packaging and on each luminaire.
- Description:** Location information for the luminaire (Level, Room, Rack, etc.)
- Quality:** Signal strength received by the luminaire (225 Maximum, 0 Minimum)
- Uncovered:** Luminaire recognized by the Central (Uncovered or not Uncovered).
 Uncovered: Luminaire detected by the Central.
 Not Uncovered: Luminaire not detected by the Central.
- Connected:** Luminaire connected. Luminaire loaded and recognized by the Central.
 Luminaire Unconnected: Luminaire loaded but not recognized by the Central.
- Floor:** Name of the floor where the luminaire is located.
- Battery:** Reference of the luminaire's battery.
- Temperature:** Internal temperature value of the battery (0°C, Older model, No temperature sensor)
- Order:** Manufacturing order reference (traceability)
- State:** Luminaire status. Normally On alert (Correct).



Error type: If the luminaire has any errors, its icon changes to RED. Types of errors:

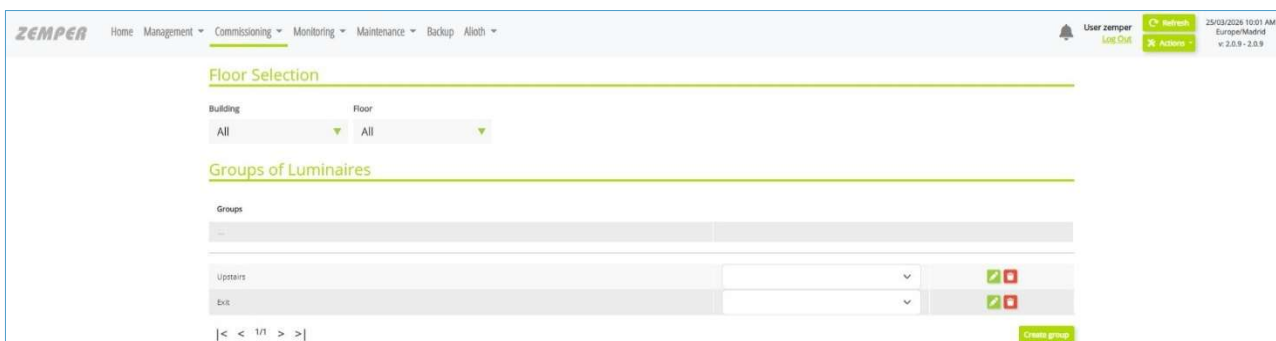
• autonomy2In1Error: ●	2in1 autonomy:	Duration lower than nominal. (2in1 models)
• autonomyError: ●	Autonomy:	Duration lower than nominal.
• battery2In1Error: ●	2-in-1 battery:	Battery failure. (2in1 models).
• batteryError: ●	Battery:	Battery failure.
• powerError: ●	Power:	Not Power Supply.
• functionalError: ●	Functional:	Luminaire failure.
• batteryLevel: -	Battery Level:	Battery voltage.

Actions: Commands to control the luminaires.

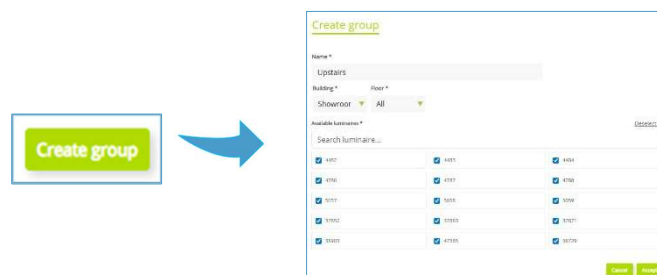
- Turn on
- Turn off
- DBR On
- DBR Off
- Permanent On
- Permanent Off
- Augmented On
- Augmented Off
- Reset Errors
- Reset
- Beacons On
- Beacons Off

3.7.5 Group of Luminaires.

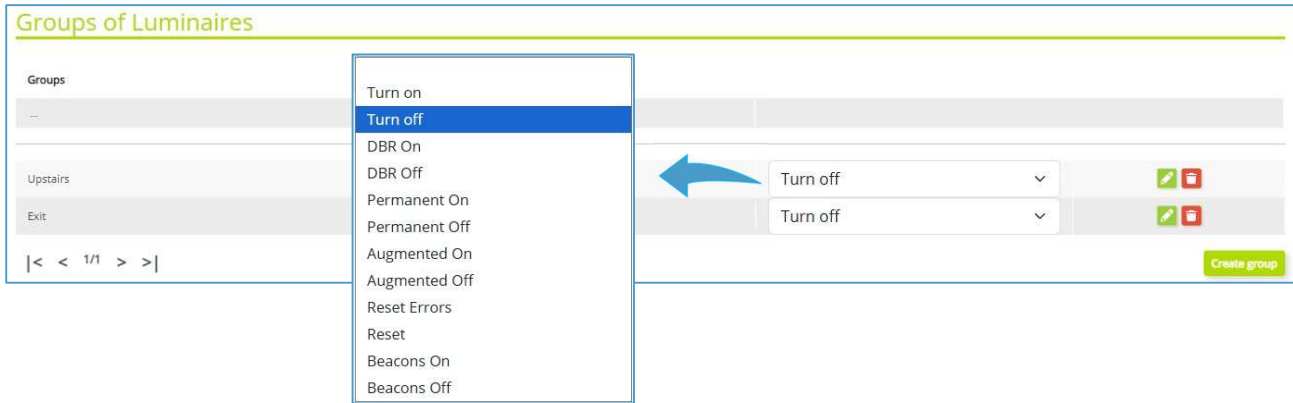
This menu is used to make groups of luminaires. The objective is to have the possibility of sending the same command or programming tests to a group of luminaires that does not have to be a floor of a building.



To create a group, click on the "Create group" button. A new window will appear, where we select the luminaires that will become part of the group. You must select them individually or all and then click on the "Accept" button.



Commands or actions can be sent to groups of luminaires.



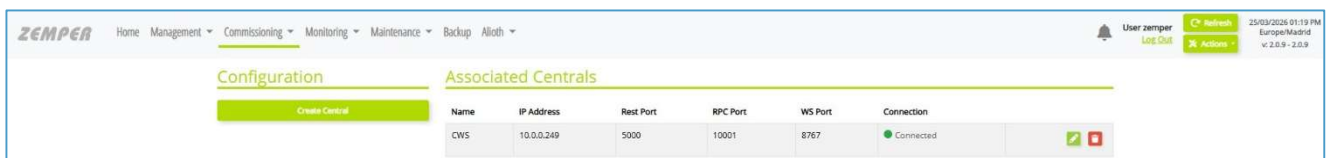
3.7.6 Integration

Luminaires from other Zemper Emergency Systems, can be integrated or visualized using this unique management software application.

This menu is for adding exchanges of the previous version (CWS8125W), it is necessary that the Centrals have an ethernet connection and a fixed IP address.

CWS8125W: ZD+ luminaires

CWS8125W: ZDW Wireless Luminaires



Click on "Create Central", to configure the Building and Floor where the CWS8125W Central is located, as well as the IP address that the Central has.

Ports are optional, for protocols and methods of communication between computer systems, which required port configuration.



3.7.7 GPIOs

Menu for configuring GPIO devices.

External (add-on device) that allows automatic actions on luminaires, such as changing pictogram scenarios and performing other actions on luminaires, in two ways:

- ALIOTH Luminaires: By loading a template or Excel file, With Scenarios configuration.
- Luminaires: By selecting the action and target luminaires in the GPIOs Menu

With each ACTIVE INPUT, a Scenario Changes.

Outputs and Inputs (configurable).

Equipment for interconnecting the Management Unit with other equipment in the installation.

- **2 OUTPUTS.** (No voltage – Relay Contact)
If there are errors in the Central, it can send signals from the CSZ002 Management Central to other external equipment in the installation (BMS, Management Center).
- **10 INPUTS.** (No voltage – Relay Contact)
Equipment for receiving signals from other external equipment in the installation to the CSZ002 Management Central (Fire Alarm Central, BMS, sensors, actuators, etc.).

INPUTS: (10 possible inputs or actions)

Select the serial number of the GPIO to be controlled. (There can be several GPIOs per installation.)

Input: Select the command to be executed when each input of that GPIO is activated.

Targets: Previously defined luminaires or groups to which the actions will be executed.

Click on "Send Configuration" to save the configuration.

Possibility to delete settings.

The screenshot shows the 'GPIO action configurator' interface with the 'Inputs' tab selected. At the top, there's a 'Select Device (GPIO Master)' dropdown set to '56729'. Below this are 'Send configuration' and 'Delete configuration' buttons. The main table lists 10 inputs with columns for Input, Action, Targets (Luminaires/Groups), Status, Modified, and Actions. Inputs 1-3 are configured with 'Turn on' actions and specific target IDs. Inputs 4-9 are inactive with 'Select devices...' as targets. Input 10 is configured with 'Turn off' action and a list of target IDs.

Input	Action	Targets (Luminaires/Groups)	Status	Modified	Actions
Input 1	Turn on	4483, 4484	Configured		
Input 2	Turn on	5057, 5058, 5059	Configured		
Input 3	Turn on	4786, 4787, 4788	Configured		
Input 4		Select devices...	Inactive		
Input 5		Select devices...	Inactive		
Input 6		Select devices...	Inactive		
Input 7		Select devices...	Inactive		
Input 8		Select devices...	Inactive		
Input 9		Select devices...	Inactive		
Input 10	Turn off	4483, 4484, 4786, 4787, 4788, 5057, 5058, 5059	Configured		

OUTPUTS: (2 possible outputs or actions)

Select the serial number of the GPIO to be monitored. (There can be multiple GPIOs per installation)

Output: Select the "Number of System Errors" threshold at which the output is activated.

Output activation type: "Pulse" and duration in milliseconds. (Activated only during this time period)

Output activation type: Level (always active during the error threshold)

Click "Send Configuration" to save the configuration.

Configurations can be deleted.

The screenshot shows the 'GPIO action configurator' interface with the 'Outputs' tab selected. At the top, the 'Select Device (GPIO Master)' dropdown is still '56729'. Below are 'Send configuration' and 'Delete configuration' buttons. The main table lists 2 outputs with columns for Output, Error count, Type, Duration (ms), Status, Modified, and Actions. Output 1 is configured with an error count of 10, 'Pulse' type, and 2000 ms duration. Output 2 is inactive with an error count of 50 and 'Level' type.

Output	Error count	Type	Duration (ms)	Status	Modified	Actions
Output 1	10	Pulse	2000	Configured		
Output 2	50	Level		Inactive		

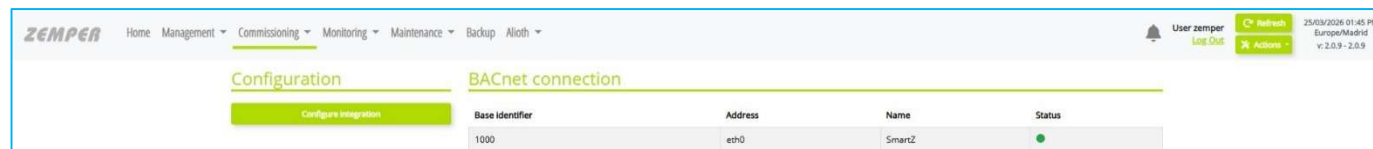
3.7.8 BACnet

Menu for configuring the parameters necessary to communicate between the Central and other devices.

Communication Protocol: BACnet

Parameterization parameters are required.

IMPORTANT: Request from Zemper the file containing the data necessary for integrating and configuring the Management Central with other devices using the BACnet protocol.



3.8 Monitoring menu.

This menu is used to **carry out the MAINTENANCE of the installation**. Within the menu you can access the following windows: Drawing, List of luminaires, Test, Results, Reports.

This menu is very similar to the "Start-up" menu, but depending on the user profiles, one or the other will be displayed.

3.8.1 Drawing

It is the same menu as the "Start-up - Drawings", see the explanation in section: [3.7.3](#).

3.8.2 List

It is the same menu as the "Start-up – Listed", see the explanation in section: [3.7.4](#).

3.8.3 Test

This menu is used to set up and schedule the tests of the luminaires. The application, once programmed, makes the maintainer comply with the guidelines established in the regulations for the performance of tests and maintenance.

Types of Tests:

There are two types of tests to be carried out on emergency luminaires:

- **Autonomy Test** (Duration of the test, 1h, or 2h, or 3h, or 5h):
An autonomy test is a test to determine how long an emergency luminaire can operate with its own power source (battery) in the event of a power outage.

Essentially, it is checked whether the luminaire can provide the necessary illumination for the time specified by the safety regulations (1h, 2h, 3h, 5h).

- **Functional test** (Duration of the test, 5 minutes):
Check the correct general operation of the luminaire.
Basically, it checks whether the luminaire turns on and works as it should when needed.

The result of the tests is recorded on the luminaire. This information is transmitted to the Central each time it updates its information.

UNE-EN 50172 Standard: "Emergency lighting systems". This European standard specifies the requirements for emergency lighting systems, including the characteristics of luminaires, batteries and control equipment. It also establishes the guidelines for the performance of tests and maintenance.

Test periods:

In compliance with the UNE-EN-50172 standard. "Security emergency lighting systems".

It obliges:

- Annual review of Duration (battery life).
- Monthly review of the operation of the luminaire.

"Autonomy test"
"Test funcional"

ANNUAL
MONTHLY

Test List:

The list that appears on the right side of the screen are the tests that have already been scheduled. In the table, it is possible to edit the retake parameters, disable the tests or even delete them.

Schedule Test (Multiple Tests can be created):

- Filter: Select the building and floors using the filter (usually filter ALL).
- Test Name: Name to identify the Test.
- Type of Test: Autonomy or Functional.
- Repeat interval: Period in days to retake the Test automatically.
- Enable Test: Allow e, test to run (or Disable not to perform it).
- Odd/Even: (Only possible in Autonomy Test)
When selecting, the test is carried out, on the date set, to the "Even" luminaires, and after 24 hours, it automatically tests "Odd" luminaires.
The objective of this option is not to leave an installation, with the batteries discharged in all its luminaires.
- Start date: Date to start the test.
- Group selection: Run tests on luminaires of the selected group(s).
- Luminaire selection: Run tests on selected luminaires.
- Send: Save the Test for execution (added to the list of tests to be executed).
- Erase: Delete the data entered.

3.8.4 Result.

This menu is used to check the results of the tests performed.

The screenshot shows the ZEMPER Monitoring interface. At the top, there's a navigation bar with 'ZEMPER' logo and menu items: Home, Management, Commissioning, Monitoring (active), Maintenance, Backup, and Alloth. On the right, there's a user profile 'User zemper' with 'Log Out', 'Refresh', and 'Actions' buttons, along with the date '25/03/2026 03:04 PM' and location 'Europe/Madrid'.

Below the navigation bar, there's a 'Filters' section with dropdown menus for 'Building' (All), 'Floor' (S-SmartZ), 'Luminary' (dd/mm/aaaa --:--), 'From' (dd/mm/aaaa --:--), 'To' (dd/mm/aaaa --:--), and 'Status'. Below this is a 'List of results' table with columns 'Name', 'Type Test', and 'Date of execution'. The table contains one row: 'Funcional', 'Funcional', and '25/03/2026 15:04:00'. At the bottom, there's a pagination control showing '< < 1/1 > >'.

3.8.5 Reports.

This menu is used to generate reports on the status of the luminaires in the installation. Reports can be exported in PDF format and can be sent by email.

Create Report

The screenshot shows the ZEMPER Reports interface. At the top, there's a navigation bar with 'ZEMPER' logo and menu items: Home, Management, Commissioning, Monitoring, Maintenance (active), Backup, and Alloth. On the right, there's a user profile 'User zemper' with 'Log Out', 'Refresh', and 'Actions' buttons, along with the date '25/03/2026 03:14 PM' and location 'Europe/Madrid'.

Below the navigation bar, there's a 'Create report' form. It has a 'Building' dropdown (Showeroom), a 'Language' dropdown (English), and a 'Maintenance' checkbox (checked). There are 'Create' and 'Erase' buttons. To the right, there's a 'Reports' section with 'General data' including 'Building name', 'IP', 'User', 'Report date', and 'Installation date'. A box on the right contains a PDF icon and an email icon.

Building: Select the part of the installation you want to add to the report.

Language: Report generation language.

Luminaires with and without errors:

By default, it generates reports with "error" luminaires, but it also allows you to add error-free luminaires to the report, which is very useful if you want to record the proper functioning of the installation for audits.

Maintenance: The annotated tasks are added to the report in the Maintenance menu.

Crear report: Generate the report, create it in PDF, once generated, click to download it.

Erase: Delete the data entered.

Export to PDF:

Click to download the PDF.

Report Sending Email:

Window to configure the sending of installation reports by email.

The Central allows alerts and reports to be sent on the status of the installation's luminaires., by sending automated emails to the people indicated.

It is necessary to configure the SMPT mail server, for the automatic sending of emails.

Automatic alerts: When the Central exceeds an error threshold (configurable), it sends an alert email.

Automatic reports: Periodically (configurable) send emails with the status of the Central or installation.

See mail configuration section: [3.4.3](#)

3.8.6 Schedule Programming

In this menu, we have the option to program only, automatic switching on and off of the selected luminaires. To do this, we select the luminaires to receive the command, day or days of the week and time. Once the automation is scheduled, there is the possibility to disable it, by pressing the "status" button, or delete the automation with the "delete" button.

Schedule programming

Search by name, time, luminaire or days

Name	Time	Action	Luminaire / Group	Days	Status
Noname	20:00	On	4482, 4483	Mon, Tue, Wed, Thu, Fri	On
Noname1	00:00	Off	Exit	Sat, Sun	On

Time schedules *

Time * Action * Turn on Delete

Days of the week *

Mon Tue Wed Thu Fri Sat Sun

Clear Submit

3.9 Maintenance.

3.9.1 List.

This menu shows the record of preventive and corrective maintenance carried out on the installation's luminaires.

The **UNE-EN 50172** standard establishes the need to keep records of inspections and tests carried out on emergency lighting systems (in manual or digital format).

Minimum information must be included, such as the date and time of the inspection or test, the identification of the equipment tested, the result of the test and the person who performs it.

Filters

Building: Showroom Floor: S-SmartZ Luminary *: 4482

Maintenance List

MAC	User	Date	Type	Action	Description
---	---	dd/mm/yyyy	All...	All...	---
4482	zemper user	22/09/2026 - 12:00	Corrective Action	Battery replacement	Testing

Create Maintenance

Filters:

Filter: Select the building and floors using the filter (usually filter ALL).
Luminary: Luminaire, on which the action is carried out.

Maintenance List:

List of maintenance actions carried out.

Create maintenance:



Create Maintenance

Edit Maintenance

Date * 16/03/2026 12:00 PM ×

Operator zemper user - Administra ▼

Type * Corrective Action ▼

Action * Battery replacement ▼

Description Testing

Cancel Accept

<u>Date:</u>	Date of action.
<u>Operator:</u>	Profile of the operator performing the action.
<u>Type:</u>	Action taken (Corrective, Preventive, Modification, Others).
<u>Action:</u>	Drop-down, with the Task completed. (Predefined actions or tasks, in the "Actions" menu).
Description:	Detail the action carried out, through a more complete description.

There is a list of predefined actions, which the application displays by default. This list serves to have a base of actions that can be selected. If the action you want to carry out is not within the predefined ones, you must click on the "Create Action" button and add it to the database.

The actions can be filtered by, Corrective, Preventive, Modifications or Others.

ZEMPER Home Management Commissioning Monitoring Maintenance Backup Alloth

User zemper Long Run Refresh Europe/Madrid v.2.0.9 - 2.0.9 Actions

List of Actions

Type	Action	
All	--	
Corrective Action	Battery replacement	
Corrective Action	Communications board replacement	
Corrective Action	Main board replacement	
Corrective Action	Luminary replacement	
Corrective Action	Hub reset	
Corrective Action	Hub board replacement	
Corrective Action	Central unit replacement	
Corrective Action	Software update	
Corrective Action	Connection box replacement	
Corrective Action	Central/Connection box replacement	
Modification		
Modification		
Modification		
Modification		
Modification		
Modification		

< > 1/1 >

Edit Action

Type: Corrective Action

Action: Others

Create Action

3.10 Backup.

In this menu you can generate or import Backups of the installation.

"Export to CSV"

Export Current Settings (Template.csv)

By pressing the "Export to CSV" button, it generates an Excel file with the luminaires of the installation (Template.csv)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Mac	SerialNumber	CoordinateX	CoordinateY	Description	Wireless	Discovered	Present	Mapid	Location	Pictogram	Brightness
2	1399	1399	#####	#####	Fabrica	true	false	false	1		1	1
3	1392	1392	#####	#####	Fabrica	true	false	false	1		1	1
4	1400	1400	#####	#####	Fabrica	true	false	false	1		1	1
5	1318	1318	#####	#####	Fabrica	true	false	false	1		1	1

"Generate backup"

Create a backup of the entire installation and download it to the selected folder.

"Upload backup".

Allows you to import a backup from a selected folder.

Actions:

Update information.

Delete backup.

Download backup to the selected folder.

Manual ALIOTH

Smart 
Leading monitoring wireless systems®



Alioth®
Smart Evacuation System



4 ALIOTH® SYSTEM

Intelligent, adaptive, and dynamic evacuation system.

Evacuation management software, with intelligent algorithm.

Real-time assessment of the status of evacuation routes

By connecting to the building, it identifies and adjusts escape routes to direct people along the safest evacuation route available at any given time.

Change of signage pictogram according to the needs of the building at all times.



What does the Alioth Intelligent Evacuation System provide?

- Interconnection with other systems in the building.
- Optimization in evacuation.
- Evacuation routes are not fixed; They can be changed in real time according to emergency conditions.
- Reduction of crowds and bottlenecks at emergency exits.
- Stress and panic reduction: Clear, visual instructions that help keep occupants calm.
- Sensors distributed throughout the building detect smoke, fire, hazardous gases, and the presence of people. And there is the possibility of generating databases for analysis.
- Smart luminaires can display any type of information and adapt to the building situation. Change in intensity and patterns to guide people through safe routes.
- Smart emergency luminaires are connected to a central system that coordinates information and responses.
- Continuous monitoring of conditions in different areas of the building.
- Low latency (immediate response time), dynamic mesh with optimal channel selection, maintenance of luminaires and centralized devices.



Plans with evacuation routes and visualization of the status of the devices.



Identification of the type of risk and location on the plan.



Component condition monitoring system.
(adaptive luminaires, firefighting system pressure groups, multisensors, etc.)



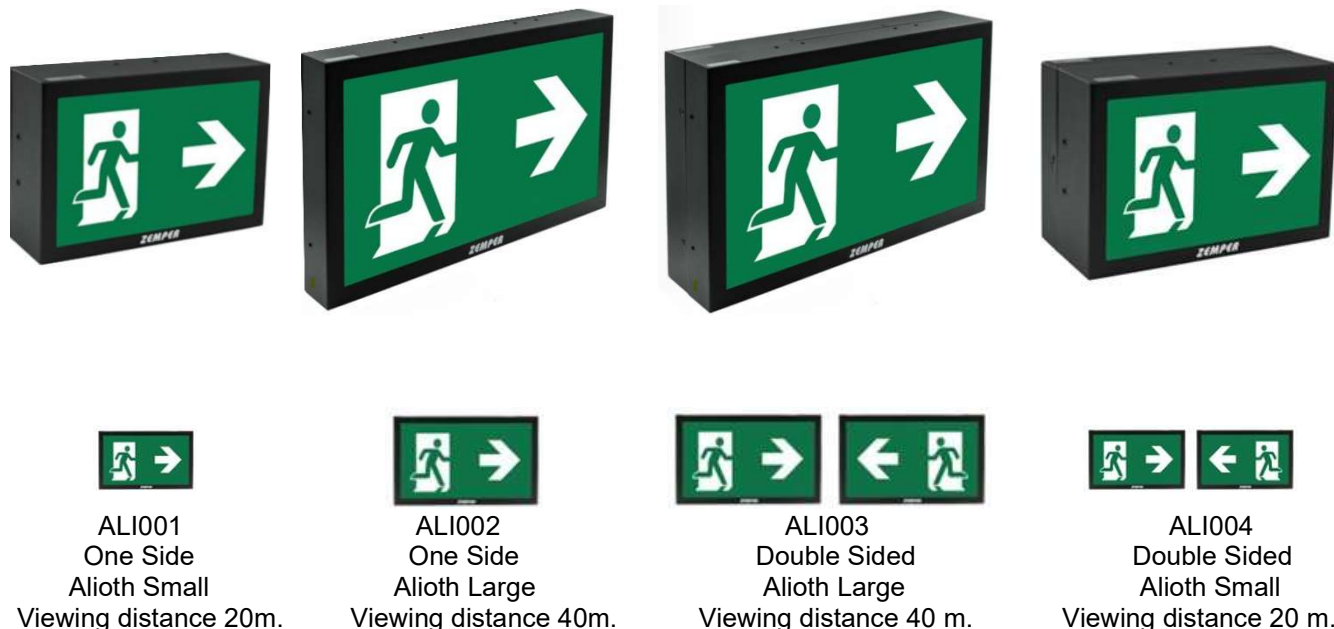
Updating safe evacuation routes



4.1 Equipment

The equipment of the Alioth system is the same as the SmartZ,
A new luminaire with a dynamic pictogram is incorporated, which can change its pictogram according to the evacuation conditions of the building.

Luminaires with dynamic pictogram.



GPIOZ01 - Module with Inputs / Outputs

External (add-on device) that allows for automated actions on luminaires, such as changing pictogram scenarios and performing other actions on the luminaires. There are two methods:

- ALIOTH Luminaires: By loading a template or Excel file.
- Luminaires: By selecting the action and target luminaires in the GPIOs Menu.

With each active input, a scenario changes.

Outputs and inputs are configurable.

Equipment to carry out the interconnection of the Management Centre with other equipment in the installation.

- 2 EXITS. (Non-Voltage – Contact Relay)
If there are errors in the Headquarters. You can send signals from the CSZ002 Management Center to other equipment external to the facility (BMS, Management Center)
- 10 OUTPUTS. (Non-Voltage – Contact Relay)
Equipment to receive signals from other equipment external to the CSZ002 Management Centre (Fire Central, BMS, sensors, actuators, etc.)
- Serial number. It is discovered as if it were just another luminary in the System.

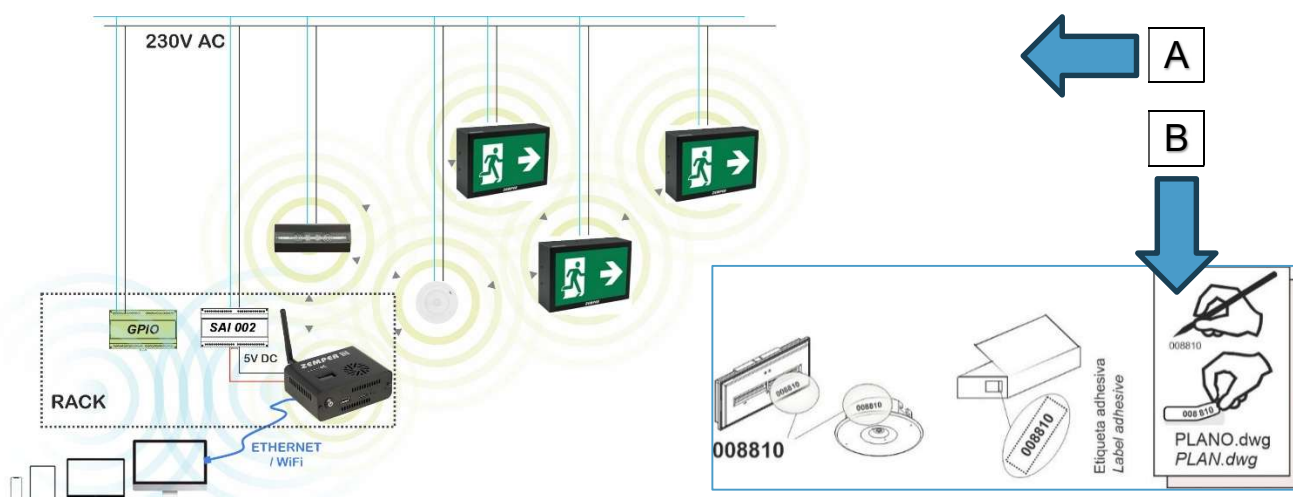


4.2 SmartZ® System Installation (Installation Steps).

The communication between the Central (CENTRAL) and luminaires is wireless, " SmartZ® System".

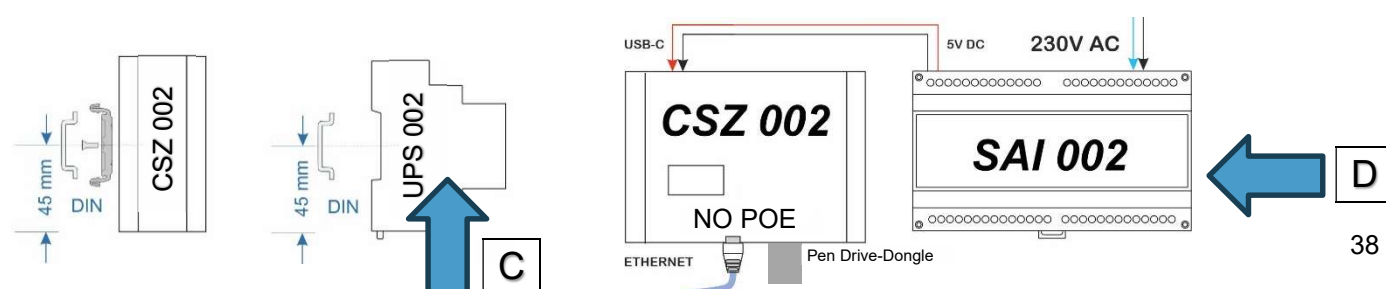
INSTALLATION LUMINAIRES and GPIO (Input/Output Equipment)

- A INSTALL luminaires and GPIOs, connecting them only to mains voltage.** (See "Instructions").
- Luminaires and GPIO. They have a serial number label. This number is unique for each luminaire.
 - The GPIO (as another luminaire) is installed near the Central or in the same rack, Communication with the Central wirelessly.
 - The luminaires communicate (SmartZ System) with the Central and nearby luminaires.
 - Central Distance-Luminaires <30m. Luminaires-Luminaires Distance <30m. (*Distances under standard installation conditions).
 - There are INSTALLATION EXCEPTIONS.** It is possible that some Areas, due to their architecture, have difficulty in communication. (See next point, with its explanation)
- B WRITE DOWN the Serial Number of each luminaire and GPIO on drawings.**
- Write down the installation plan, the serial number of the installed luminaire and GPIO and location. (Attached: Adhesive label, on the side of the unit box with serial number).
Paste on a paper plan, on the location of the luminaire. Translate these numbers to the final plan in CAD.



CENTRAL INSTALLATION (CSZ002) and BATTERY POWER SUPPLY EQUIPMENT (SAI 002)

- C INSTALL GPIO-SAI-CENTRAL.** (See videos: <https://zemper.com/producto/central-smartz/instalación>)
- GPIO, Central and Battery Feeder Equipment, must be installed in VISIBLE and ACCESSIBLE places. (On the wall <2m. high), not in isolated rooms.
Install in places with luminaires close <30m. (Technical rooms, Rack).
- | | |
|---------|---|
| CSZ002 | - Surface Mounting, with DIN Rail Mounting Possibility. (2x Bindings) |
| SAI002 | - Surface Mounting, with DIN Rail Mounting Possibility. |
| GPIOZ01 | - Surface Mounting, with DIN Rail Mounting Possibility. |
- D CONNECT CENTRAL.**
- Central CSZ002 – Central:
Connect USB-C cable (included) between, 5VDC (UPS: pos. 26+, pos. 27-), to USB-C input from Central.
Ethernet data connection (NO POE!!). (Change of Network parameters, see "User Interface Manual").
Ensure that the IoT Pendrive-DONGLE is mounted on the USB port
 - SAI002 Battery Feeder: Power at 230Vac. Connect to 230V input. (SAI: pos.1, pos.3)



5 ALIOTH (Management Software)

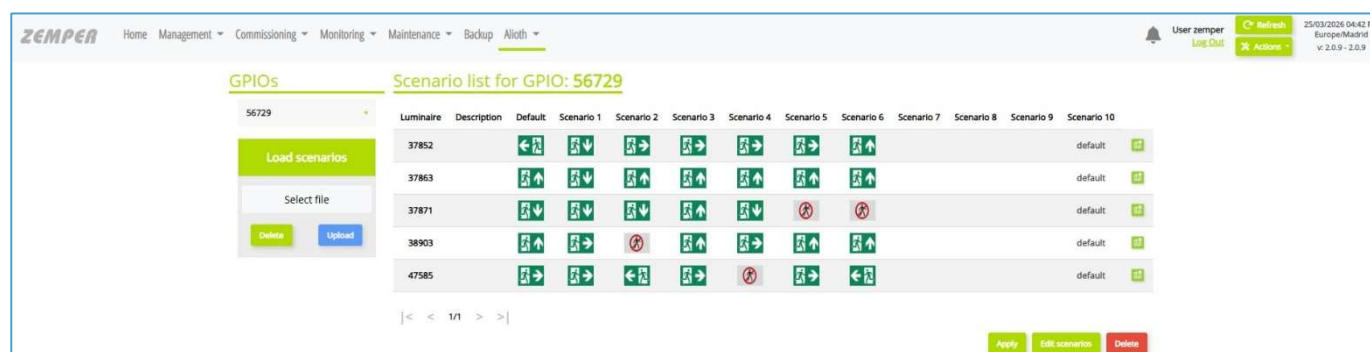
Activate ALIOTH Menu beforehand in: User Management – User (Edit) “Activate ALIOTH”.

In this menu of the SmartZ Luminaire Management application, the configuration of Alioth's luminaires is carried out (Luminaires - Screens with Dynamic Pictogram).

5.1 SCENARIOS

(Activation-Change of Pictogram BY GROUPS of luminaires)

GPIO: Selecting the GPIO to Display or "ALL" GPIOs of the installation.



The information for each GPIO is imported from an Excel file or template.

- SCENARIO LOADING: "Select File" **Template Excel.csv**, information with the pictogram that comes with each scenario.

IMPORTANT:

Previously, a study of the different situations of evacuation of the building must be carried out. Analyse the different evacuation routes and define which pictogram each Alioth luminaire should show, depending on the danger or alarm situation, which may occur at different points in the building. It is only possible to have 10 scenarios, which will be activated with 10 inputs to the GPIO. With this information, complete the "Template Excel.csv"

GPIO serial number (each computer has a serial number)
Luminaire serial number. The luminaires that we want to change their pictograms when using the inputs in this GPIO.
Selected pictogram for each luminaire, on each stage.

8 possible pictogram options: Empty, Default, Up, Down, Right, Left, No, Custom

10 possible SCENARIOS, are the 10 possible INPUTS of the GPIO equipment.

GPIO

ALL

Load scenarios

Select file

Upload Delete

	A	B	C	D	E	F	G	H	I	J	K	L
1	GPIOZ Serial	Luminaire S	Scenario 01	Scenario 02	Scenario 03	Scenario 04	Scenario 05	Scenario 06	Scenario 07	Scenario 08	Scenario 09	Scenario 10
2	44483	38895	default	no	up	left	left	no	no	up	right	
3	44483	38907	default	no	left	no	left	up	no	default	left	
4												

- **Process to ACTIVATE the 10 GPIO Inputs:** (For example:GPIO 56729)

When you press-activate INPUT 1 GPIO 56729 – The luminaires associated with this GPIO, display on their screen the pictogram defined in scenario 1, the default pictogram.

When you press-activate INPUT 2 GPIO 56729 – The luminaires associated with this GPIO display on their screen the pictogram defined in scenario 2.

When you press-activate INPUT 3.....10 GPIO 56729 – The luminaires associated with this GPIO display on their display the pictogram defined in scenario 3.....10.

Scenario 10: The default pictograms of each luminaire are set "default" (Initial State)

Scenario 1-9: The pictogram that will be displayed is put on when activating these entries.



When loading the Excel template with the different SCENARIOS, we can click on the following options:

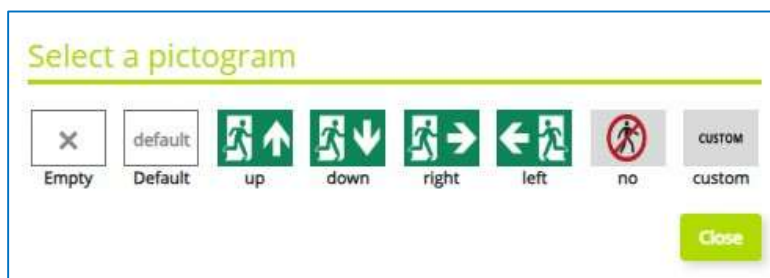


Apply: Upload the information to the Central.

Eliminate: Delete uploaded scenarios.

Export: Export, in Excel format. CSV, the scenarios of each luminaire and each GPIO.

Edit: Allows you to change the pictograms of each luminaire. Click on stage of the luminaire to be edited.



Within this EDIT menu, we can check the scenarios (we must be connected to the MASTER Central to test the scenarios; this is not possible from Slave Centrals).

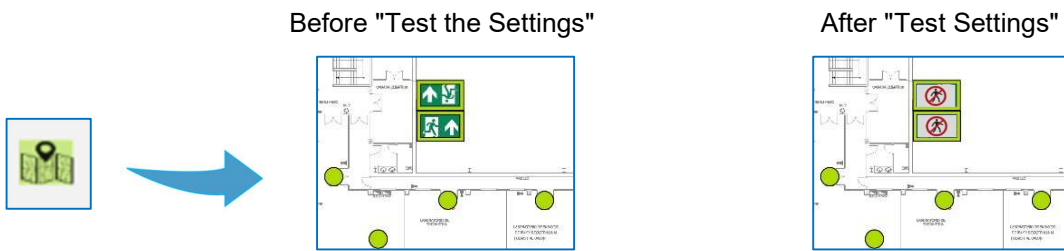
By clicking on "Launch Scenario" (you can choose from scenario 1 to 10), we can:

- In Luminaires, load/change the desired scenarios on the luminaires. (Change from "Current" state)
- In the floor plan, we can verify that the pictograms have changed according to the loaded scenario.
- Test Scenario 10: load/change the pictograms on the luminaires to their default (initial state)

When "Launch Stage" or when GPIO inputs are activated, the "bell" icon turns RED (warning).



Click on View plans to check which pictogram each luminaire has.



5.2 LIST (Activation-Change of INDIVIDUAL Pictogram of luminaires)

In this menu it allows us to change the pictogram of each Alioth luminaire, individually.

ZEMPER Home Management Commissioning Monitoring Maintenance Backup Alioth User: zempert Log Out 26/03/2026 08:37 AM Europe/Madrid v.2.6.9 - 2.6.9																																																																					
Floor Selection Building: Showroom Floor: S-Alioth																																																																					
List of Luminaires <table> <tr> <th>Mac</th><th>Description</th><th>Status</th><th>Brightness in 'Alert'</th><th>Temperature</th><th>Default pictogram</th><th>Pictogram</th><th>Custom pictogram</th><th>Double</th><th>Actions</th></tr> <tr> <td>37852</td><td></td><td>Alert</td><td>100%</td><td>0 °C</td><td></td><td></td><td></td><td></td><td> </td></tr> <tr> <td>37863</td><td></td><td>Alert</td><td>25590%</td><td>0 °C</td><td></td><td></td><td></td><td></td><td> </td></tr> <tr> <td>37871</td><td></td><td>Alert</td><td>25590%</td><td>0 °C</td><td></td><td></td><td></td><td></td><td> </td></tr> <tr> <td>38903</td><td></td><td>Alert</td><td>100%</td><td>0 °C</td><td></td><td></td><td></td><td></td><td> </td></tr> <tr> <td>47585</td><td></td><td>Alert</td><td>25590%</td><td>0 °C</td><td></td><td></td><td></td><td></td><td> </td></tr> </table>										Mac	Description	Status	Brightness in 'Alert'	Temperature	Default pictogram	Pictogram	Custom pictogram	Double	Actions	37852		Alert	100%	0 °C						37863		Alert	25590%	0 °C						37871		Alert	25590%	0 °C						38903		Alert	100%	0 °C						47585		Alert	25590%	0 °C					
Mac	Description	Status	Brightness in 'Alert'	Temperature	Default pictogram	Pictogram	Custom pictogram	Double	Actions																																																												
37852		Alert	100%	0 °C																																																																	
37863		Alert	25590%	0 °C																																																																	
37871		Alert	25590%	0 °C																																																																	
38903		Alert	100%	0 °C																																																																	
47585		Alert	25590%	0 °C																																																																	
< > 1/1																																																																					

By pressing the "LOCATE" icon, it does not display the position of the luminaire in the plane.

By clicking on the "EDIT" icon we can make the following configurations:

Edit Luminaire

MAC: 37852
Status: Alert
Description:

Default pictogram: **Left**
Current pictogram: **No exit**

Default brightness: 100%
Brightness in 'Alert': 100%

☐ Enable default value changes

Custom pictogram:
☐ Double

- Description: We can assign an identifying name to each light fixture.
- Default pictogram:
Initial pictogram (default).
To modify the default pictogram and brightness, press "Activate change of default values"

- Current pictogram:
 Modify the pictogram (Change the default).
 Modify the brightness in "alert" mode (standby, normally 40% brightness):
 0% Brightness off.
 100% Maximum brightness.
 40% Recommended brightness setting.
- DOUBLE luminaire: Define if a luminaire is a "double shade" (ALI003 - ALI004), indicating the serial number of the other double shade. Match both serial numbers.

☒ Double

MAC to pair
 37864

- Actions: Possible commands to send to the luminaires

Turn on
 Turn off
 DBR On
 DBR Off
 Permanent On
 Permanent Off
 Augmented On
 Augmented Off
 Reset Errors
 Reset

- Custom pictogram: Option to add an image or icon as a pictogram and display it on plans.
 Select the image file to upload (SVG or JPG format).
 This image or icon is only visible in the application and plans; it is not loaded onto the light fixture.
 (To add custom images to light fixtures, you must do so manually for each fixture.)

Custom pictogram

 1/2
 Upload custom pictogram to the system

5.3 Custom Pictogram

Menu to add or remove custom pictograms from the application.

ZEMPER
 Home Management Commissioning Monitoring Maintenance Backup Allot

User zemper Log Out Refresh 25/03/2024 08:44 AM Europe/Madrid v.2.0.9 - 2.0.9

Custom pictograms

Pictogram upload

Upload new pictograms to the system so they can later be assigned to any luminaire.

Select image

Clear Upload

Available pictograms



0514fb8cc1a749c6a5d8953bd3d...

Assigned to 1 luminaires

Delete



ba20abfb90ecc84568372a94328e...

Assigned to 0 luminaires

Delete

2 items

|< < 1/1 > >|

Creation Drawings Templates Commissioning Maintenance



6 CREATION OF DRAWINGS AND LUMINAIRES LOAD TEMPLATE.

The template required for bulk luminaire loading is formatted . CSV, and can be opened and edited using Microsoft Excel.

This template must include the list of all the luminaires available in the installation and that are going to be loaded at the Central.

The installer must write down the SERIAL NUMBERS of the luminaires and extract from the CAD file the COORDINATES of the luminaires on the drawing referenced to coordinates 0.0.

The following points are necessary:

- **FRAME drawing** (AutoCAD), within this frame the drawing or plan is inserted (adjusting the size of the drawing within this frame).

The frame drawing is a predefined frame, with:

Coordinate 0,0 - Frame (Rectangle) with top left corner at coordinate 0,0.

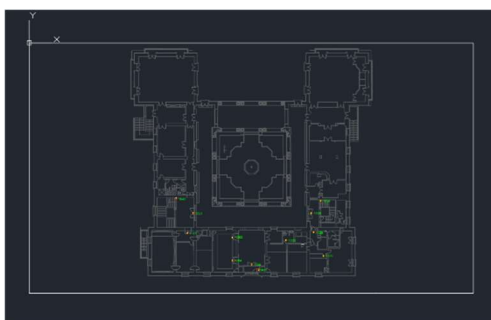
Rectangle size 7680 x 4320.



- **FLOOR drawing** (AutoCAD), with each luminaire positioned on the drawing and with its serial number.

The drawing with the floor drawing has to be placed within the FRAME Drawing (predefined frame).

Copy the floor drawing, inside the Rectangle-Frame (adjust scale, so that it is inside).



- **DATA EXTRACTION**, Obtain the serial numbers and their coordinate.

(Autocad) *Menu-Annotate-Extract Data.*

Select Create Template, Open Template, Include Current Drawing.

Select "Objects" (Object, where the serial number and its coordinate are)
(usually it is Object: "Text" or "TextM").

Select "Object Properties" (Data to extract from the object, number and coordinate)
it is usually Property: "Content" or "Value" and "Position X"-"Position Y").

Export the obtained data to Excel (.xls).

Repeat steps, for other floors or drawings.

- **PROCESSING DATA obtained.** Leave only columns with serial numbers and coordinates.

The exported Excel sheet with data from the drawing, data that is not of interest is deleted.

In the end, the result has to be an Excel, with one column with the serial number and two other columns with the coordinates of each number.

	A	B	C	D	E
1	Total	Nombre	Contenido	Posición X	Posición Y
2		1	TextoM	02159	1975.3222 -351.7954
3		1	TextoM	2167	1252.8411 -716.2130
4		1	TextoM	02223	2055.9292 -288.2243
5		1	TextoM	2224	1990.2154 -834.9063
6		1	TextoM	2229	1270.2265 -998.1728
7		1	TextoM	2231	1270.2265 -831.7978
8		1	TextoM	02251	1771.6056 -290.0434
9		1	TextoM	2252	1988.9867 -998.1728

	A	B	C	D	E	F	G	H	I	J	K	L
1	Mac	SerialNumbr	CoordinateX	CoordinateY	Description	Wireless	Discovered	Present	Mapid	Location	Pictogram	Brightness
2		2159	2159	1975	351	0 true	false	false	1		1	1
3		2167	2167	1252	716	0 true	false	false	1		1	1
4		2223	2223	2055	288	0 true	false	false	1		1	1
5		2224	2224	1990	834	0 true	false	false	1		1	1
6		2229	2229	1270	998	0 true	false	false	1		1	1
7		2231	2231	1270	831	0 true	false	false	1		1	1
8		2251	2251	1771	290	0 true	false	false	1		1	1
9		2252	2252	1988	998	0 true	false	false	1		1	1

Data extracted (processed)

Data processed and placed in the Template to be uploaded to the Central

- **TEMPLATE. CSV with data to be uploaded to the Central.**

Columns with always fixed data, do not change column names are fixed.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Mac	SerialNumbr	CoordinateX	CoordinateY	Description	Wireless	Discovered	Present	Mapid	Location	Pictogram	Brightness

	A	B	C	D	E	F	G	H	I	J	K	L
1	Mac	SerialNumbr	CoordinateX	CoordinateY	Description	Wireless	Discovered	Present	Mapid	Location	Pictogram	Brightness
2		2159	2159	1975	351	0 true	false	false	1		1	1
3		2167	2167	1252	716	0 true	false	false	1		1	1
4		2223	2223	2055	288	0 true	false	false	1		1	1
5		2224	2224	1990	834	0 true	false	false	1		1	1
6		2229	2229	1270	998	0 true	false	false	1		1	1
7		2231	2231	1270	831	0 true	false	false	1		1	1
8		2251	2251	1771	290	0 true	false	false	1		1	1
9		2252	2252	1988	998	0 true	false	false	1		1	1

- Description of the information in the Columns (**MANDATORY**):

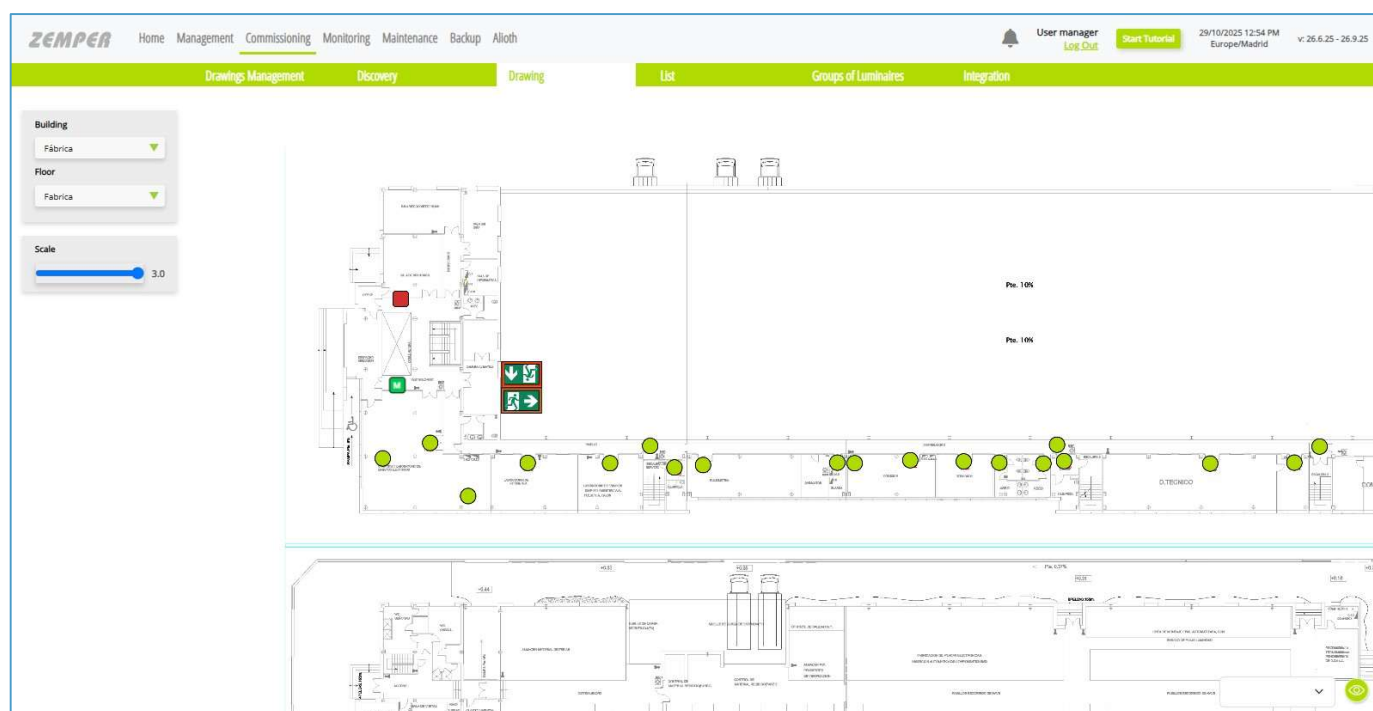
- **MAC and SERIAL NUMBER:** (same number) Paste the Serial Number data (clean, only the number).
- **COORDINATE X, COORDINATE Y:** Paste the coordinate data (in absolute value and integer value, i.e. without negatives and without commas).
- **DESCRIPTION:** Luminaire, Position details, Room, Location.
- **WIRELESS:** Normally "true". value for SmartZ luminaires. ("false" for ZD+ luminaires).
- **DISCOVERED:** Normally "false". Luminaires "Not discovered" by the Central.
- **PRESENT:** Normally "false". Luminaires "Present" at the Central.
- **MAPID:** Normally "1". Value given by the API, for each Drawing uploaded, each drawing an ID.
- **LOCATION:** Location, floor drawing.
- **ICON:** (Alioth Luminaires) Value of the type of pictogram to be displayed.
- **BRIGHTNESS:** (Alioth Luminaires) Value of the brightness of the pictogram.

-DRAWING. SVG to be loaded at the Central.

In addition to loading the template with the numbers and coordinates, it is necessary to upload the drawing where it will automatically place us and luminaire icon, show it on the map in the location of each luminaire.

CONVERT DWG Drawing to SVG Format. (online converter or Zemper program "convierteplanos.exe"). The Central supports SVG or PNG formats.

The drawing that contains the frame and the floor drawing, we convert it to SVG, so that it places the luminaire icons in the same coordinates of the drawinge, so we have extracted the number of the luminaire and its coordinate, so that now the Central can automatically position them on the drawinge loaded at the Central.



7 COMMISSIONING of an installation from the beginning.

A summary of the steps to follow for a start-up are:

1. Drawings with serial numbers.
2. Extract serial numbers from the drawings and coordinates.
3. Make a template to load luminaires in Central or add them manually one by one.
4. Convert drawings to SVG.

7.1 Option 1: Start-up, following the tutorial.

The application has a tutorial, which will guide us through all the menus, step by step. To start the tutorial, click on the "Start Tutorial" button.

Start Tutorial:



When you click, the tutorial starts, indicating the menus that must be completed to have our installation created.

7.2 Option 2: Commissioning.

Prior to commissioning, the following documents must be available:

- Drawings (Autocad.DWG) with luminaire serial numbers, converted to SVG format. (See point 4).
- Template (Excel.CSV) with serial numbers, coordinates. (See point 4).

Start the system management application: by default, *user: manager password: zemper*.

- ✓ Create users:
 - Menu – "Create User" Management (or leave the initial one by default).
- ✓ Create building:
 - Menu – "Create Building" Management (Name of the Facility).
- ✓ Create Building Drawings:
 - Menu – Start-up – Management of drawings "Create floor" (Upload Building Drawings).
 - When creating a drawing, the application generates an "ID" (each drawing will have an ID), this ID, must be added in the "mapID" column of the Excel.CSV template.
- ✓ Load Building Luminaires:
 - a) AUTOMATIC loading of luminaires all in the template, complete installation.
Menu – Start-up – Discover "Select File (Template)" and "Upload".
 - b) MANUAL loading of luminaires, one by one.
Menu – Start-up – Discovery "Create luminaire".
- ✓ Discover luminaires of the Building:
 - Menu – Start-up – Discovery "Activate Device".
 - The discovery of the installation's luminaires begins. When you finish "Deactivate device".
- ✓ Luminaire status:
 - Menu – Start-up – Discovery.
 - Graphic with result of uncovered luminaires.
 - Menu – Start-up – Listing.
 - List with result of discovered luminaires. To Review, Errors, Information, ...
 - Menu – Start-up – Drawing.
 - Drawings with luminaire icons, with result of uncovered luminaires, Errors,...
 - Menu – Home.
 - Graph with the result of uncovered luminaires, to be reviewed.
- ✓ Make a backup copy of the installation:
 - Menu – Backup "Generate backup"

8 INSTALLATION MAINTENANCE.

With the application of the SmartZ system, it is possible to record the preventive and corrective maintenance carried out on the luminaires or system of the installation.

*The **UNE-EN 50172 standard**, a European standard, specifies the requirements for emergency lighting systems, including the characteristics of luminaires, batteries and control equipment. It also establishes the need to keep records of inspections and tests carried out on emergency lighting systems.*

Minimum information must be included, such as the date and time of the inspection or test, the identification of the equipment tested, the result of the test and the person who performs it.

"Emergency lighting systems".

Test periods:

In compliance with the UNE-EN-50172 standard. "Emergency Lighting Systems"

It obliges:

- Annual review of Duration (battery life).
- Monthly review of the operation of the luminaire.

"Autonomy test"
"Test funcional"

ANNUAL
MONTHLY

Perform Maintenance of the installation:

- ✓ Set up periodic TESTS in the Central. (See point 3.8)
Menu – Monitoring – Test.
- ✓ Create Installation Status Reports.
Menu – Monitoring – Reports.
- ✓ Check installation for possible luminaire errors:

2in1 autonomy:	Duration lower than nominal. (2in1 models).
Autonomy:	Duration lower than nominal.
2-in-1 battery:	Battery failure. (2in1 models).
Battery:	Battery failure.
Power:	Power supply
Functional:	Luminaire failure.
Battery Level:	Battery voltage.

"SmartZ System" Maintenance Guide

FAILURE	CAUSES	SOLUTIONS
COMMUNICATION error of all luminaires.	Locked Central.	- Turn the Central off and on. Wait for the Central to update the information (5-10 minutes)
	Faulty Central	- Replace the Central. Upload a backup copy of the installation.
COMMUNICATION failure of a luminaire.	Communication with a luminaire has been momentarily lost due to interference at some point in the communication.	Wait 24 hours and check that the communication failure with that luminaire. - If after a while, the communication failure disappears, it has been due to circumstantial interference. The system is working properly and no additional actions are required. - If the communication failure continues, more than 1 week, communication with that luminaire has been lost (see causes below).
	Communication with a luminaire has been lost due to connection problems	- Check that the luminaire is correctly powered (POWER SUPPLY). - Luminaire reset: Disconnect voltage and battery and reconnect. - If the process ends successfully. OK Luminaire - If the process fails, check the luminaire, number, location. - If the process fails again, the luminaire is damaged. See point "Damaged luminaire"
	Damaged luminaire.	- If after doing the above checks, the communication error persists, replace the luminaire. - Damaged luminaire. - Replace the luminaire with a NEW one - See point "NEW luminaire" - See point "Luminaire ELIMINAR", damaged luminaire.
Luminaire REMOVE		Remove faulty luminaire from the Switchboard: Press "Commissioning – List", select luminaire and press "Delete". The process of eliminating luminaire begins.
NEW Luminaire	- The luminaire has not yet been recognized by the Central or has been erased.	Write down the serial number NEW luminaire. Add NEW luminaire in Central: Click "Commissioning – Discovery – Create luminaire" Position NEW luminaire Central: Press "Start-up - Drawing". Edit drawing and move luminaire to its position, disable Edit drawings. Add to system: Click "Start – Discovery- Activate device", at the end of the process click "Deactivate Device" If OK, added. No OK, Recheck luminaire, numbers. Repeat the process until the new luminaire is added.
Luminaire with FUNCTIONAL failure.	- During the last functional test carried out on the luminaire, the luminaire reports its failure. - This status is indicated on the luminaire by the status LEDs. (error LED flashing).	Carry out a new functional test, only on the luminaires that mark functional failure, in order to ensure that the failure is due to problems with the luminaire and not due to circumstantial causes. "Monitoring - Listing" menu. Select luminaire, choose action: Functional Test. Press send. - If after this test the luminaire corrects the fault, the luminaire is OK. - If after this test, the luminaire continues to show a fault, perform the following steps: Annotate luminaires with errors (Nserie) and location on drawings. - Damaged luminaire. - Replace the luminaire with a NEW one - See point "NEW luminaire" - See point "Luminaire ELIMINAR", damaged luminaire.
Luminaire with AUTONOMY failure.	- During the last Duration test carried out on the luminaire, the Duration was lower than that marked on the luminaire. - This status is indicated on the luminaire by the status LEDs. (Error LED On Fixed)	- Carry out a new autonomy test, only on the luminaires that mark autonomy failure, in order to ensure that the failure is due to real battery problems and not due to circumstantial causes. "Monitoring - Listing" menu. Select luminaire, choose action: Autonomy Test. Press send - If after this test the luminaire corrects the fault, the luminaire is OK. - If after this test, the luminaire continues to show a fault, perform the following steps: Annotate luminaires with errors (Nserie) and location on drawings. Replace the battery of the luminaire with a new one, respecting the characteristics of the battery, indicated in the instructions attached with the luminaire. Disconnect VOLTAGE and Change battery. - Once the battery has been replaced, connect the luminaire to TENSION again. - After at least 24 hours, carry out a new autonomy test on this luminaire. - At the end of the test (1, 2, 3 or 5 hours depending on the model), the autonomy failure is automatically corrected.
	- The luminaire continues to indicate autonomy failure after replacing the battery and after performing the autonomy test.	- Damaged luminaire. - Replace the luminaire with a NEW one - See point "NEW luminaire" - See point "Luminaire ELIMINAR", damaged luminaire.
Luminaire with BATTERY failure.	- Poorly connected or damaged battery. - This status is indicated on the luminaire by the status LEDs. (Error LED On Fixed)	- Connect the battery correctly. - If the battery is already connected, replace the battery with a new one. - Once the battery has been replaced, connect the luminaire to POWER SUPPLY again. - After 5-10 minutes, the battery error will disappear. - If the error is not corrected, the luminaire is damaged. - Damaged luminaire. - Replace the luminaire with a NEW one - See point "NEW luminaire" - See point "Luminaire ELIMINAR", damaged luminaire.
POWER Faulty Luminaire	Luminaire without TENSION.	- Check that the luminaire is correctly powered (POWER SUPPLY). - Once connected and after 5-10 minutes, the errors indicated will disappear.
Luminaria indicates that it has ALL POSSIBLE FAILURES.	- Punctual communication error between the Central and the luminaire.	- If the error indicated by the luminaire is permanently maintained, the luminaire is damaged. - See point "Lighting communication error" - If it continues to indicate errors. Replace the luminaire with a new one. - Damaged luminaire. - Replace the luminaire with a NEW one - See point "NEW luminaire" - See point "Luminaire ELIMINAR", damaged luminaire.