Exiway Smart System

OVA53235 - OVA53238 - OVA53239

User Manual

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www.se.com

Table of contents

1 Safety information

1.1 Important information

Read these instructions carefully and study the device to become familiar with it before attempting to install, operate, repair or maintain it. The following special messages may appear throughout this documentation or on equipment to warn of potential hazards or to draw attention to information that clarifies or simplifies a procedure.

The addition of this symbol to a “Danger” or “Caution” safety label indicates an electrical hazard that may cause personal injury if the instructions are not followed.

This is the safety warning symbol. It is used to alert you to potential risks of personal injury. Follow all the safety messages that accompany this symbol in order to avoid possible injury or death.

⚠ DANGER

DANGER indicates a dangerous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a dangerous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a dangerous situation which, if not avoided, could result in minor or moderate injury.

NOTE

NOTE is used to report practices not related to physical injury.

The electrical equipment must only be installed, used, repaired and maintained by qualified personnel. Schneider Electric assumes no liability for any consequences arising from the use of this material. A qualified person is a person who possesses skills and knowledge relating to the construction and operation of electrical equipment and its installation, and has received safety training to recognise and avoid the hazards involved.

⚠ ⚠ DANGER

ELECTRIC SHOCK, EXPLOSION OR ELECTRIC ARC HAZARD

- Equipment live. Disconnect the power supply before installing or carrying out any maintenance operations on the equipment.
- The equipment must only be installed and maintained by qualified electrical personnel.
- This equipment is not suitable for use in locations where children may be present.

Failure to follow these instructions could result in death or serious injury.

2 Guide contents

The purpose of this guide is to provide users, installers and maintenance personnel with the basic information for the use and maintenance of the Exiway Smart System.

The system consists of the Exiway Smart Hub and one or more Exiway Smart Consoles.

This document refers to the versions of Exiway Smart Hub and Exiway Smart Console shown in the following table:

Commercial reference	Firmware version	Hardware version
OVA53238 EXIWAY SMART HUB	001.000.000 or greater	001.000.000
OVA53239 EXIWAY SMART CONSOLE	001.000.000 or greater	001.000.000
OVA53235 EXIWAY SMART SYSTEM	See OVA53238 and OVA53239	See OVA53238 and OVA53239

The information contained in this guide may be subject to updates and revisions. Schneider Electric strongly recommends that you refer to the latest version of this guide available online on the Schneider-Electric website.

NOTE: The commercial reference OVA53235 refers to the Exiway Smart System product, which includes the references OVA53238 and OVA53239. These allow you to manage up to 128 lamps. If the need of the system requires the management of more than 128 lamps, it is necessary to add a suitable number of Exiway Smart Consoles.

Always update the system to the latest firmware version available.

3 Exiway Smart System

3.1 Introduction

Exiway Smart System is a system for the centralised management of emergency lighting systems.

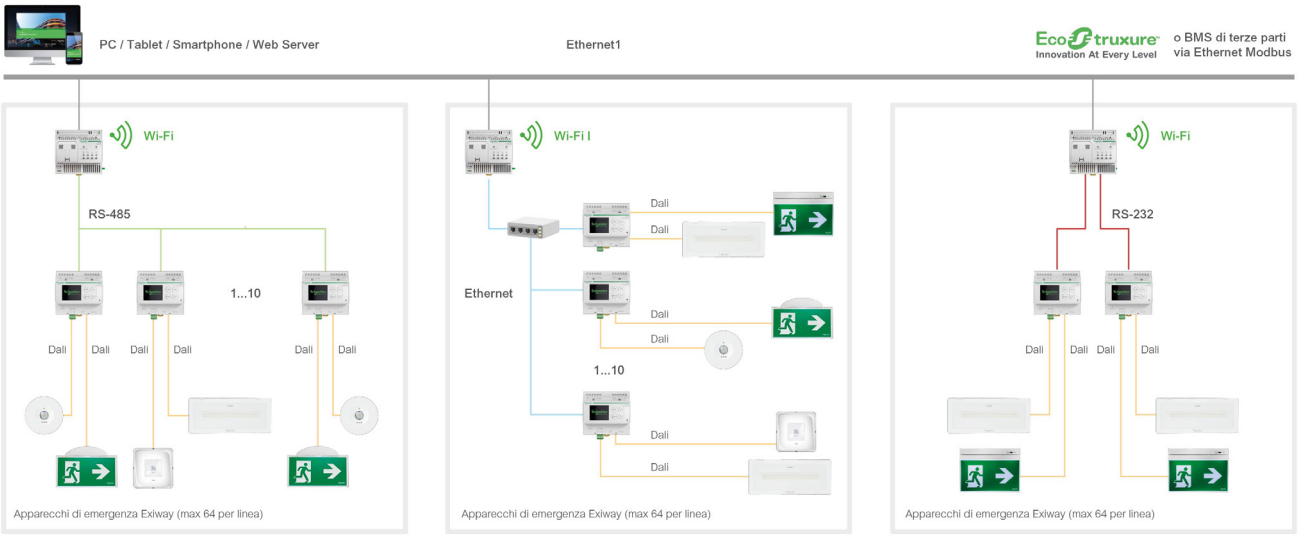
Exiway Smart Hub is an "edge" type control device, which has the task of collecting and managing all the information of the system and provides a web page for access, configuration and monitoring of the system.

Exiway Smart Console is the line controller that implements timely communication with each lighting device.

Exiway Smart System can be integrated within a BMS system (such as Schneider Electric's EcoStruxure Building Automation, or third-party BMS) using the Modbus standard.

3.2 Exiway Smart System Architecture

The following diagram shows the typical Exiway Smart System architecture:



The image shows the possibilities of connection between Exiway Smart Hub, Exiway Smart Console and the BMS in a schematic and aggregated way.

Mixed connections between the Exiway Smart Hub and the Exiway Smart Console are not allowed within the same architecture. Communication can take place via RS-232, RS-485 or Ethernet, but never as a combination of one or more of these modes per single Hub.

The choice of the type of connection between the Exiway Smart Hub and the Exiway Smart Console depends on the installation needs and determines the scalability of the system.

Only lamps from the Schneider Electric DiCube range can be associated with the system. The maximum number of lamps, as well as the maximum number of Exiway Smart Consoles for each Exiway Smart Hub, depending on the type of connection, is indicated in the following table:

Connection between Exiway Smart Hub and Exiway Smart Console	**Maximum of DiCube Emergency Lighting devices**
RS-485	1280
Ethernet	1280
RS-232	256

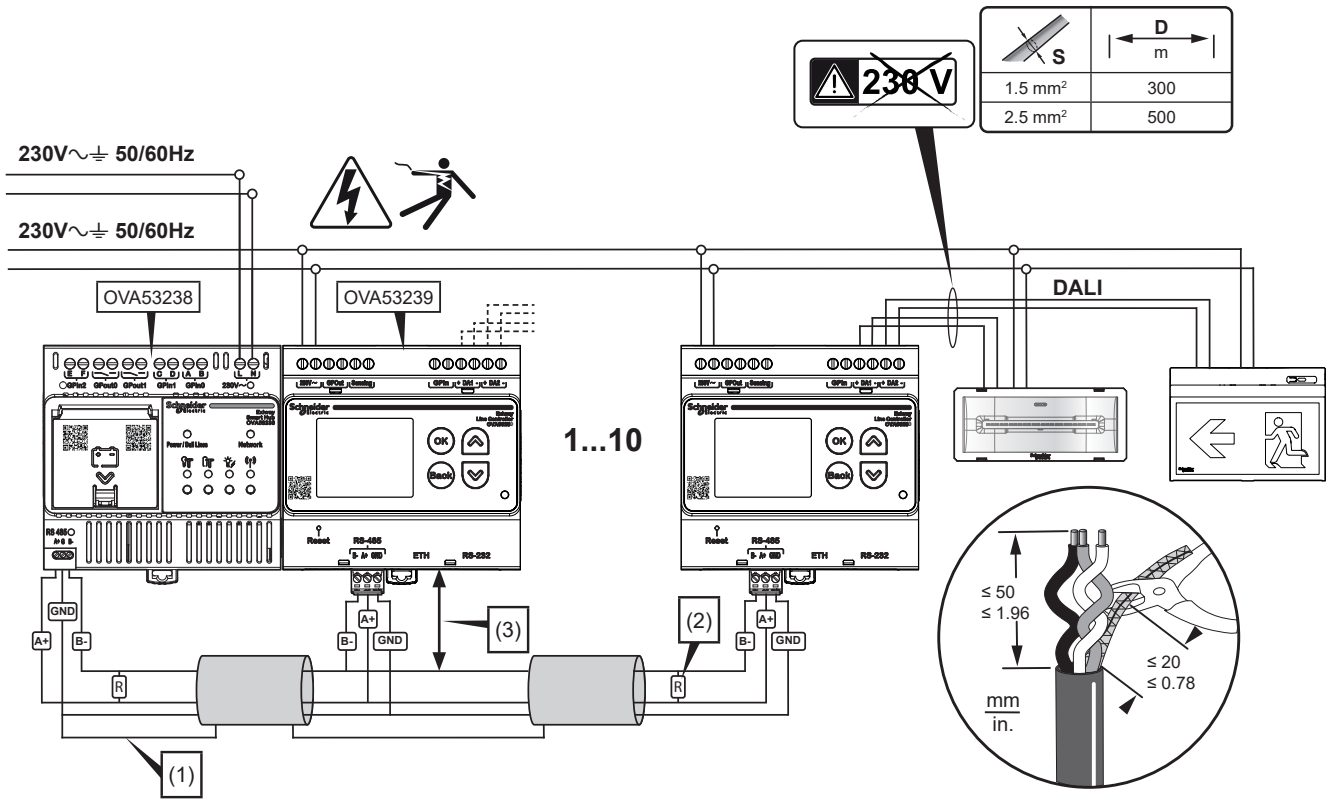
Connection between Exiway Smart Hub –and Exiway Smart Console	**Maximum of Exiway Smart Consoles**
RS-485	10
Ethernet	10
RS-232	2

RS485 connection between Exiway Smart Hub and Exiway Smart Console

This solution allows you to connect the Exiway Smart Hub to the Exiway Smart Console via an RS485 bus.

The configuration is scalable up to a maximum of ten Exiway Smart Consoles, supporting up to 1280 lighting devices on a total of 20 DALI lines.

You must set the RS485 interfacing mode in the Exiway Smart Console before performing any operation on the system.



(1) Connect the cable shield to only one end of the line.

(2) Termination can be activated internally by OVA53239.

(3) The maximum length for the unfinished line (STUB) is 6 m. Do not extend the line beyond this limit.

For the implementation of the RS485 bus, the use of a cable compliant with the EIA RS485 specification is recommended.

The maximum length of the bus, measured linearly from the first to the last device, is 1,200 metres.

It is recommended to connect the cable shield to the first or last device connected on the bus.

The termination resistance (120 Ω ±1%) must only be present at the beginning and end of the bus. In Exiway Smart Console, termination is implemented within the product and can be activated directly from the device menu.

The maximum length of the bus without termination is 6 m.

For the correct configuration and installation of the bus, it is suggested to refer to the EIA RS485 standard. Failure to comply with the provisions of the EIA RS485 standard could compromise the communication of the devices.

WARNING: Pay attention to the connections. An incorrect connection can cause irreparable damage to the system.

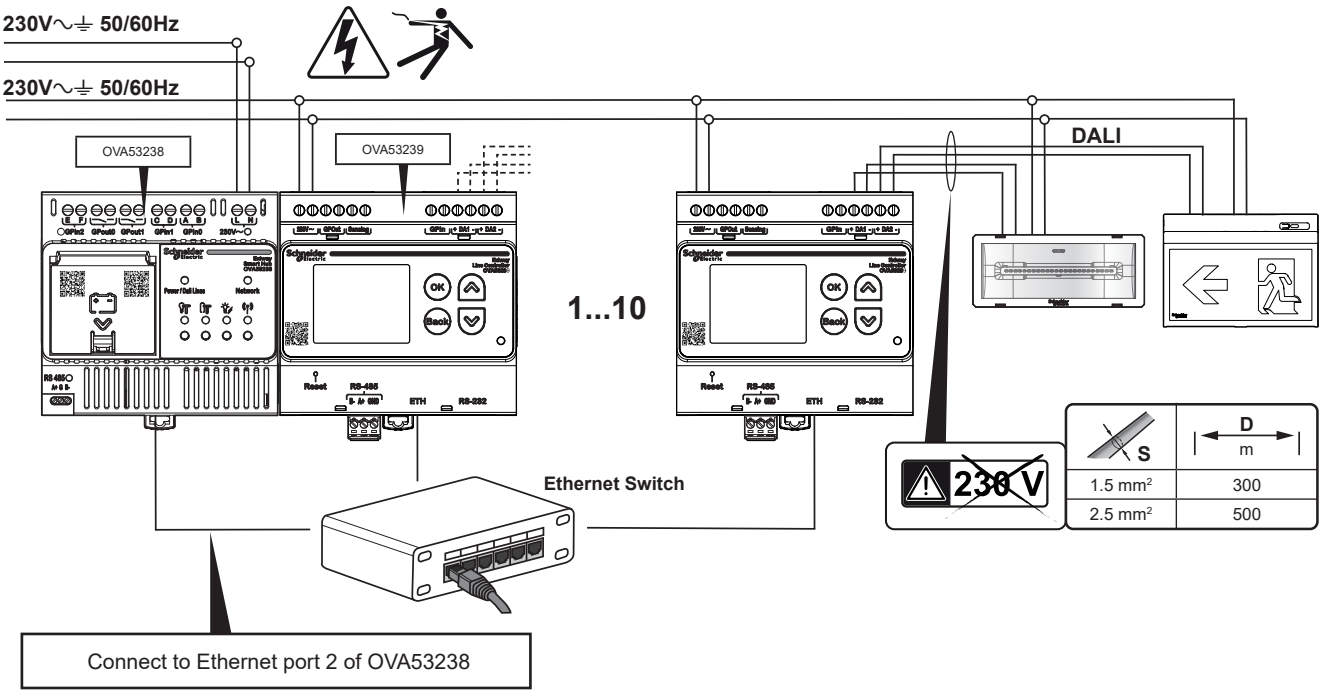
For further details please refer to the product instructions.

Ethernet connection between Exiway Smart Hub and Exiway Smart Console

Alternatively, you can connect the Exiway Smart Hub to the Exiway Smart Console via an Ethernet bus (IEEE 802.3 10/100 BASE-T).

The configuration is scalable up to a maximum of ten Exiway Smart Consoles, supporting up to 1280 lighting devices on a total of 20 DALI lines.

Before performing any operation on the system, the Exiway Smart Console must be configured for this type of connection.



To connect the Exiway Smart Console to the Exiway Smart Hub, only use Ethernet port 2.

Exiway Smart Console only supports static addressing; to configure network parameters access the device menu.

If the router supports a VLAN, it is preferable to place the system within it. If remote access is required, the VPN connection must be used. The IP address of the device must not be made publicly available. Do not use Port Forwarding to access the product from a public Internet network.

WARNING: Pay attention to the connections, as an incorrect connection can cause irreparable damage to the system.

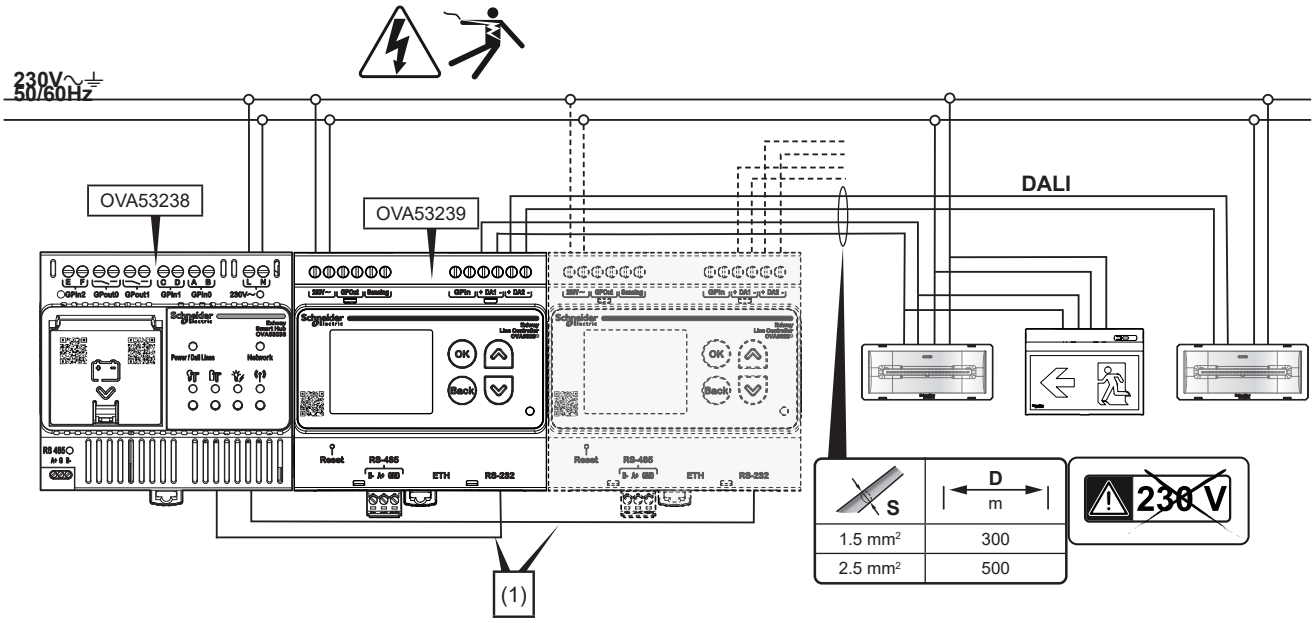
For further details please refer to the product instructions.

RS-232 connection between Exiway Smart Hub and Exiway Smart Console

A maximum of 2 Exiway Smart Console and 256 lighting devices can be connected to RS-232 on a total of 4 DALI lines.

The maximum distance between the Exiway Smart Console and the Exiway Smart Hub is 0.3 m.

The RS232 interfacing mode in the Exiway Smart Console must be configured before performing any operation on the system.



(1) Connect the cable shield to only one end of the line.

The Exiway Smart Console is compatible with the OVA53166 and reproduces all the features of OVA53168.

WARNING: Pay attention to the connections, as an incorrect connection can cause irreparable damage to the system.

For further details please refer to the product instructions.

⚠ ⚠ DANGER

ELECTRIC SHOCK, EXPLOSION OR ELECTRIC ARC HAZARD

- Equipment live. Disconnect the power supply before installing or carrying out any maintenance operations on the equipment.
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Failure to follow these instructions could result in death or serious injury.

3.3 Exiway Smart System Web Server

The main user interface of the Exiway Smart System is the web server associated with the Exiway Smart Hub. By accessing it, it is possible to put the emergency lighting system into operation and perform all the operations necessary for the correct management of the emergency lighting system.

Access to the web server is guaranteed by password protection, in line with the highest cybersecurity standards.

The main activities that can be performed with the web server are:

- Configuring the connection to the system (Ethernet 1 and Ethernet 2, RS-232, RS-485, Wi-Fi).
- Viewing data and events in real time.
- Viewing the position of the lamps inside the buildings after uploading images to the web server that reproduce the plans of the buildings themselves.
- Viewing historical data trends.
- Exporting a system report.
- Managing reports by e-mail.
- Managing the programming functions.
- Configuring the inputs and outputs.

3.4 BMS integration

The EcoStruxure Building Operation (or third-party BMS) can be connected to the Exiway Smart Hub via Modbus TCP to collect device data. EcoStruxure Building Operation is an integrated building management system that provides the information needed to manage and optimise building control, improve engineering efficiency and meet cybersecurity needs.

4 Exiway Smart Hub

4.1 Introduction

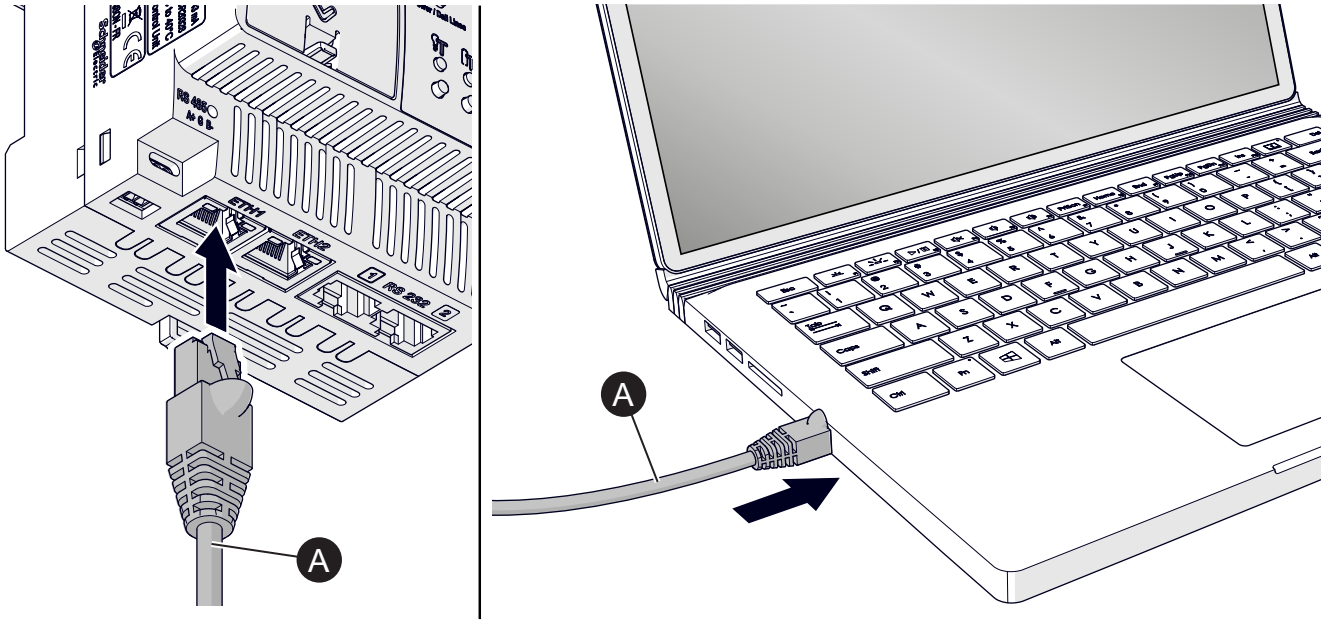
The Exiway Smart Hub has the following features:

- Advanced web server based on simple user interface.
- Buttons for the main functions.
- LED on the front for an immediate display of the status.
- 3 configurable inputs to which functions can be associated.
- 2 outputs with a relay, whose configuration can be linked to the management of alarms.
- Access to the web server in two ways:
  - Through Ethernet port from a PC through a standard browser.
  - Via Wi-Fi (Access Point enabled) from a PC, a table or a smartphone, always using a standard browser.
- Connection to EcoStruxure Building Operation or third-party BMS can be connected via TCP/IP Modbus.
- Installation data updated and visible through the web server pages.
- Association of graphic maps, such as images, to locate emergency lamps inside the building.
- Data logging.
- Display of the system status through exportable reports.
- Import and export of system configurations.
- Alarm email notifications.
- Firmware updating of the Exiway Smart Hub and all Exiway Smart Consoles connected directly from the web server.

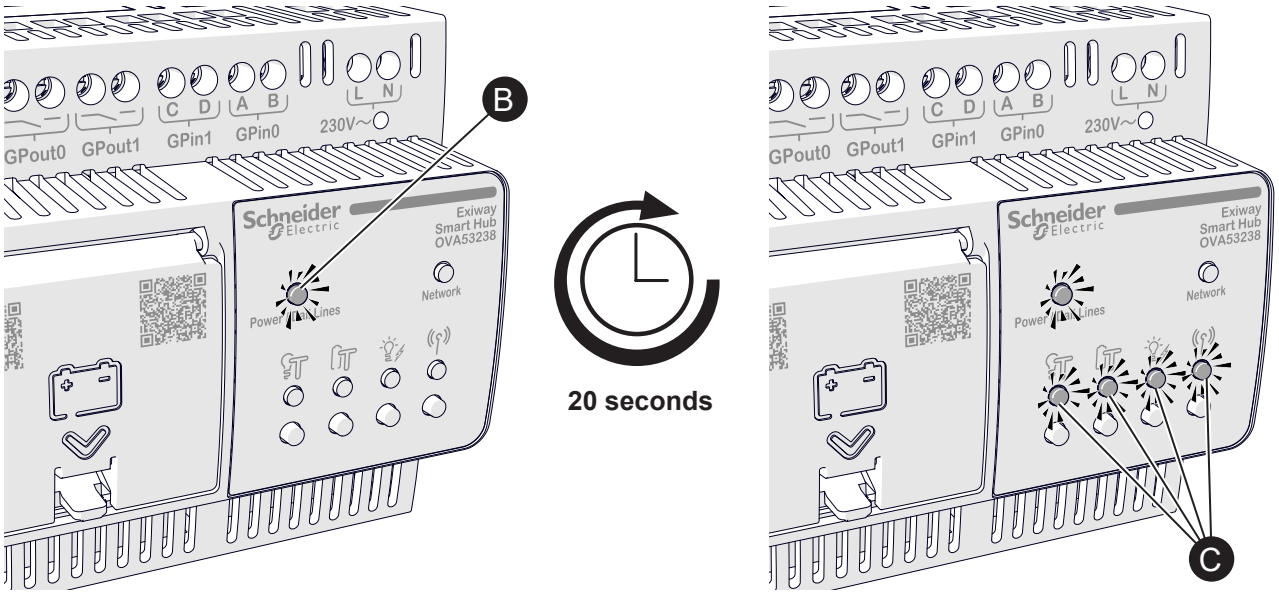
4.2 Connection to Exiway Smart Hub

4.2.1 Connection via Ethernet port

Connect an Ethernet cable **(A)** between the Eth1 port of the Exiway Smart Hub and the Ethernet port of the PC and follow the procedure below.



1. Connect the Exiway Smart Hub to the power supply (see wiring instructions). The LED **(B)** turns on and, after 20 seconds, the LED group **(C)** turns on. The Exiway Smart Hub is on and ready to be configured.



2. Exiway Smart Hub has the following factory settings:
   - **IP Address:** 192.168.0.55
   - **Subnet mask:** 255.255.255.0
   - **Gateway:** 192.168.0.1

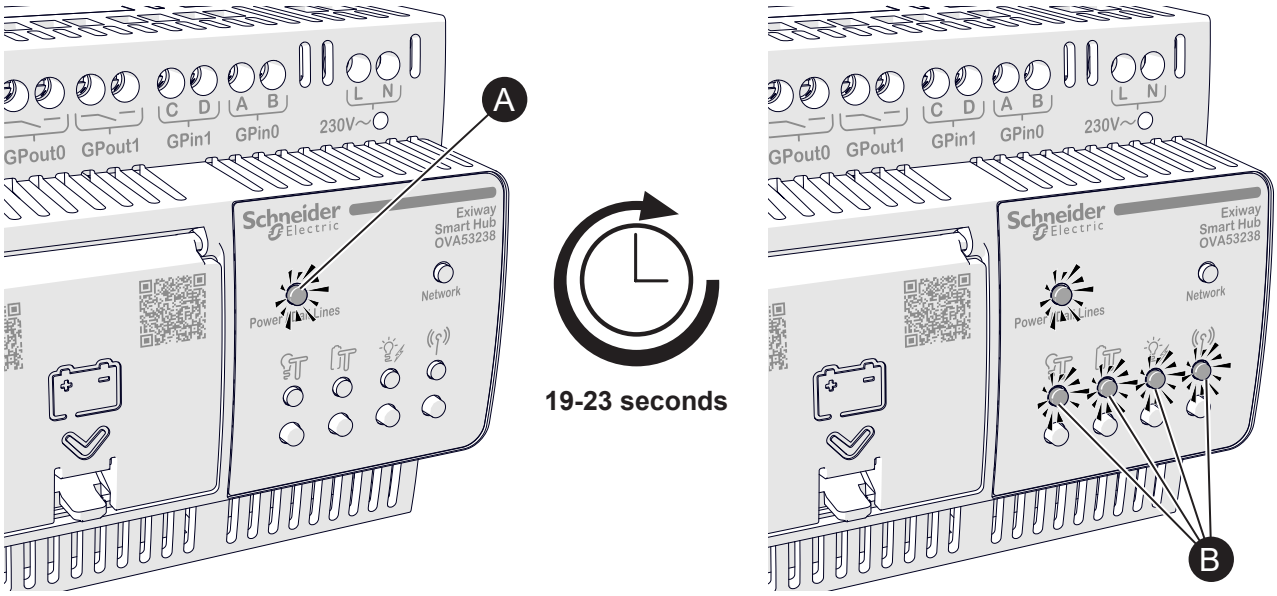
   Change the network properties of the PC to be able to connect to the Exiway Smart Hub, as in the example below:
   - **IP Address:** 192.168.0.56
   - **Subnet mask:** 255.255.255.0
   - **Gateway:** 192.168.0.1
3. Open any browser and type the Exiway Smart Hub IP on the address bar to access the main screen.
4. Type the following user name and password (default):
   - **user name:** admin
   - **password:** Schneider2025!
5. **Change user name and password and log in again:** it is possible to change the network settings of the Eth1 port, from the web page: ***Settings > Network configuration > Wi-Fi***

NOTE: The PING command cannot be run at the set network address.

4.2.2 Wi-fi connection

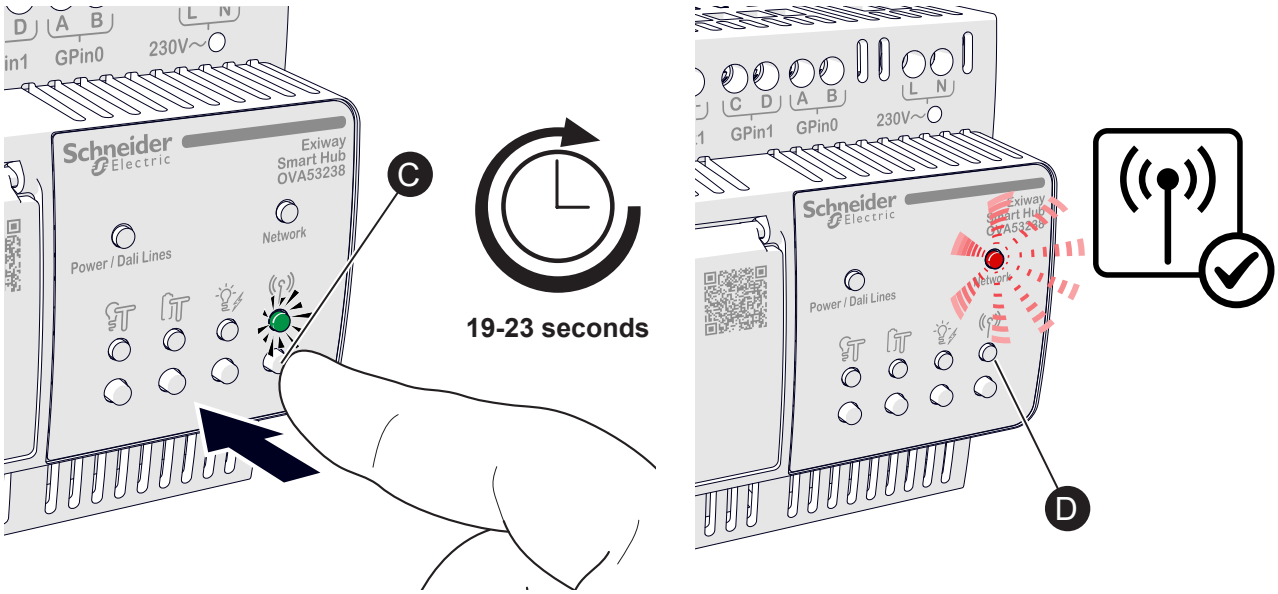
To access the Exiway Smart Hub web server with Wi-Fi via PC or Smartphone, you must enable the Exiway Smart Hub Access Point by following the procedure below:

6. Connect the Exiway Smart Hub to the power supply (see wiring instructions).
   The LED **(A)** lights up and, after 19-23 seconds, the group of LEDs **(B)** lights up.
   The Exiway Smart Hub is on and ready to be configured.



7. Enable the access point by pressing the front button **(C)**.
   Release the button when the LED **(D)** corresponding to the button is lit solid green.
   Enabling of the Access Point activates after 19-23 seconds, and is confirmed by the red slow flashing of the Network LED.

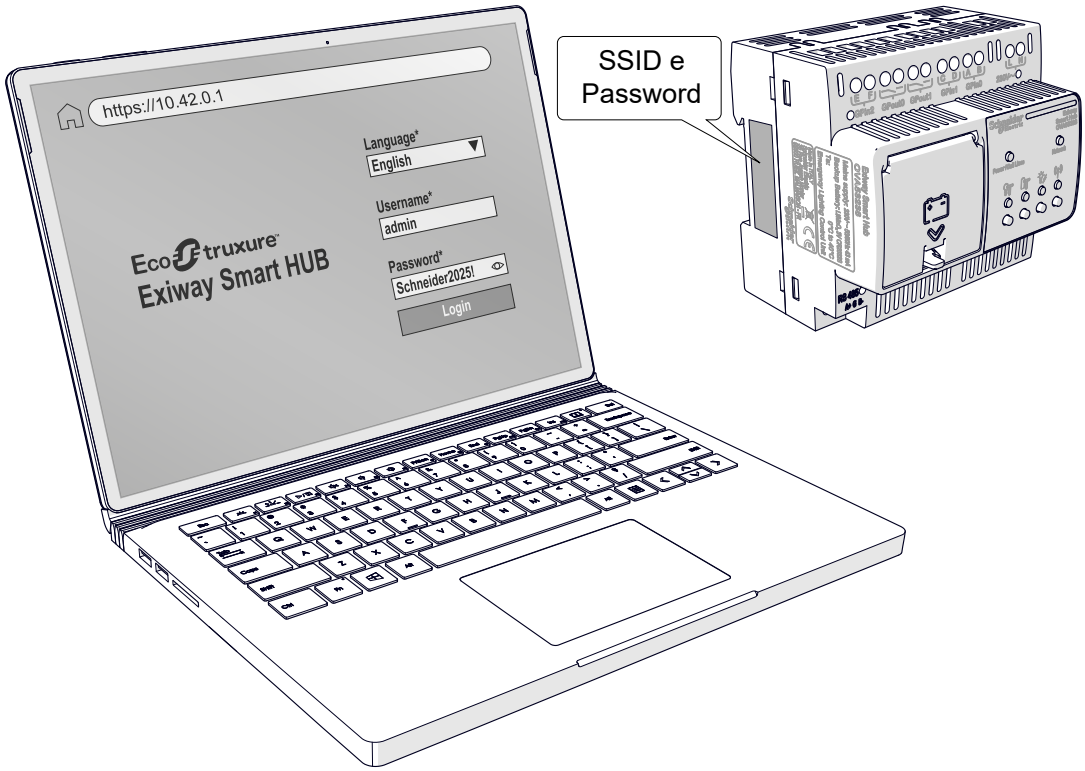
NOTE: The Access Point is automatically disabled if there are no connections for more than 30 minutes.



To make the connection:

- with a smartphone, scan the Wi-Fi QR code on the front of the Exiway Smart Hub.

- with a PC, use the SSID and Password indicated on the side label applied to the controller.



To connect to the webpage access the address https://10.42.0.1

It is always possible to modify the configuration of the Access point from the following web page: ***Settings > Network configuration > WI-FI configuration.***

4.2.3 Connection with EcoStruxure Building Operation

The Exiway Smart Hub can communicate with the EcoStruxure Building Operation or third-party BMS via Modbus TCP over an Ethernet protocol. The available system information is specified in paragraph 8.2.

The port to be used in the Exiway Smart Hub is Ethernet 1.

The settings to be used for the Modbus TCP connection are:

- Modbus Server
- Exiway Smart Hub Slave ID = 1
- Exiway Smart Hub port = 502

These parameters can be modified by going to the web server page:
Settings > Network Configuration > Interface Settings > BMS Interface.

4.2.4 RS-485 connection between Exiway Smart Hub and Exiway Smart Console

The Exiway Smart Hub can be connected to one or more Exiway Smart Consoles (maximum 10) using serial RS-485 communication.

The RS485 bus address must be defined in both the Exiway Smart Hub and the Exiway Smart Console.

To configure the Exiway Smart Console, go to the display and select
Settings > Interface > RS485 > configure.

Choose device bit rate and address (1-10).

To configure the system in the Exiway Smart Hub, you must access the following web server pages:

Settings > Network Configuration > Interface Settings > RS485 Console Interface

From this page you can perform the following operations:

- Enable/Disable communication.
- Provide communication parameters: Speed, Parity, Bit Stop used in the Exiway Smart Console (default: parity value: Even, bit stop: 1).

Settings > Exiway Smart Console

From this page you can perform the following operations:

1. Select Connection > RS485.
2. Set the address of the Exiway Smart Console (1-10).
3. Add additional Exiway Smart Console (if necessary).

4.2.5 Ethernet connection between Exiway Smart Hub and Exiway Smart Console

The Exiway Smart Hub can be connected to one or more Exiway Smart Consoles (maximum 10) using only Ethernet port 2 communication.

For each Exiway Smart Console you must define the network address (IP address, Subnet mask, Gateway) both in the Exiway Smart Hub and in the Exiway Smart Console.

To configure the Exiway Smart Console, go to the display and select
Settings > Interface > Ethernet > configure.

Choose the IP address. subnet mask, IP gateway (the same set on the Smart Hub) and port 502.

To configure the system in the Exiway Smart Hub, access the following web pages of the web server:

Settings > Network configuration > ETH2

From this page you can perform the following operations:
- Set IP, subnet mask, gateway of the Eth2 port of the Exiway Smart Hub.
- Enable communication.

Settings > Network configuration > Interface setting > ETH console interface

From this page you can perform the following operations:
- Enable the Eth2 port.
- Set the Timeout: waiting time before providing the alarm of no communication between the Exiway Smart Hub and the Exiway Smart Console.

Settings > Exiway Smart Console

From this page you can perform the following operations:
- Select Connection > Ethernet.
- Set the IP address of the Exiway Smart Console for each Exiway Smart Console (The "New" button allows you to add an additional Exiway Smart Console).

4.2.6 RS-232 connection between Exiway Smart Hub and Exiway Smart Console

The Exiway Smart Hub can be connected to one or two Exiway Smart consoles using RS-232 communication only.

The RS-232 configuration must be defined in both the Exiway Smart Hub and the Exiway Smart Console.

To configure the system, access the following web server pages from the Exiway Smart Hub:

Settings > Exiway Smart Console > Connection > RS232

(The "New" button allows you to connect a maximum of 2 Exiway Smart Consoles).

4.3 Exiway Smart Hub inputs

The Exiway Smart Hub has 3 digital inputs that can be configured to provide commands to individual or groups of system devices.

To configure the various inputs, you must access the following web server page: ***Settings > Input / Output Management***.

The first three lines are dedicated to the configuration of the inputs. Click on the three points of the entrance to be used.

In the edit entry page it is possible to:

- Associate a Name, Description of the input.
- Enable the input.
- Select whether the entrance is normally open or closed.
- Select the input type: Switch (held) or Button (toggle).
- Enable and associate the command if the input is open or closed.

4.4 Exiway Smart Hub outputs

The Exiway Smart Hub has 2 outputs with a NO/NC contact which can be used to interface with other devices.

To configure the outputs, you must access the following page of the web server: ***Settings > Input / Output Management***.

The last two lines are dedicated to this function. Click on the three points of the output to be used.

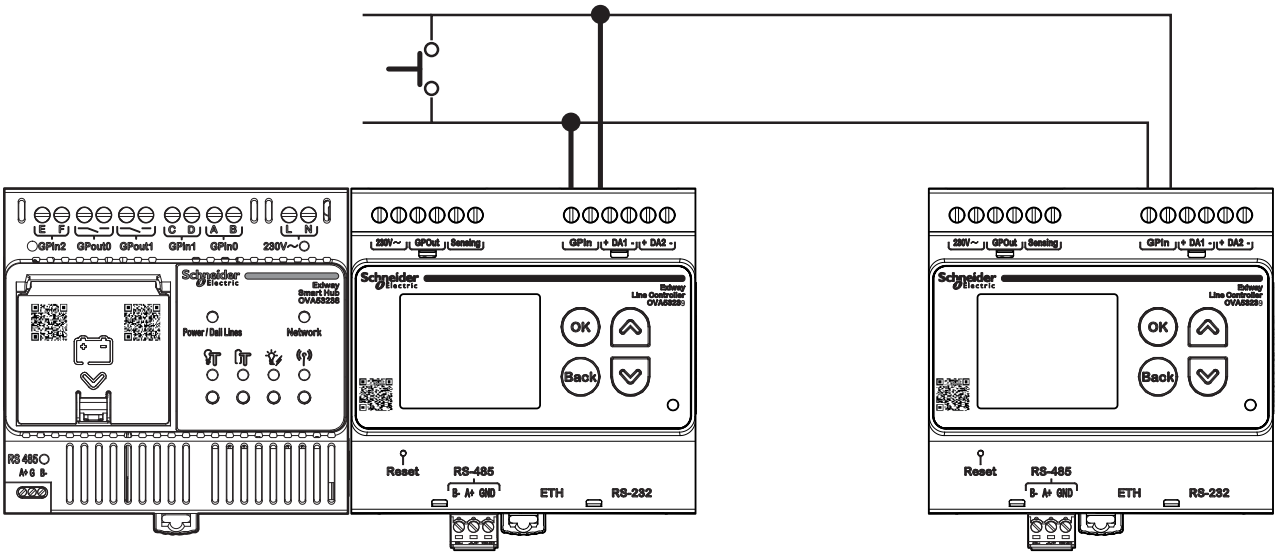
In the edit exit page it is possible to:

- Associate a Name and Description with the output.
- Enable the output.
- Select whether the output is normally open or closed.
- Associate the output with a predefined state of an emergency device.
- By activating the "recover" function you can decide the status of the output at the restart of the Exiway Smart Hub.

4.5 Connection to the fire prevention system with Exiway Smart Hub and increased visibility

For some countries (e.g. France) the increased visibility function is required in conjunction with the fire alarm signal.

1. Connect Exiway Smart Hub to Smart Console via 485 or Ethernet.
2. Selecting the country during Exiway Smart Hub initialisation will prepare the increased visibility function. This command will only be effective if sent to lamps that support this function.
3. Connect the GPIn input of the Exiway Smart Console to the NC contact of the fire prevention system.
4. From the Exiway Smart Console menu, set the GPIn input to "Fire alarm" mode.



When the GPin contact is opened, the fire alarm command will be sent to all devices connected to the Exiway Smart Console and will be displayed on the Exiway Smart Hub web pages.

The fire alarm signal remains on the Exiway Smart Hub and on the web page for one hour from the opening of the contact.

To reset the alarm, you can use the front buttons of the Exiway Smart Hub, its web page, or by acting individually on each Exiway Smart Console device.

4.6 Exiway Smart Hub Web Server Overview

The Exiway Smart Hub web server provides the possibility to operate and monitor the emergency lighting system.

From the Exiway Smart Hub web server you can:

- Configure system connections (Ethernet 1/2, RS-232, RS-485, Wi-Fi).
- Commission all DiCube Emergency lamps connected to the system.
- View data and events in real time with visualisation of texts and maps.
- Generate and export system reports and product functional data log files.
- Set parameters for email notifications.
- Manage the programming of test functions of emergency equipment groups.
- Configure the inputs and outputs.

To access the Exiway Smart Hub Web Server home page, you must type the default Exiway Smart Hub address in the address bar of any browser.

NOTE: Incognito mode is recommended.

In the login phase to the web server it is necessary to:

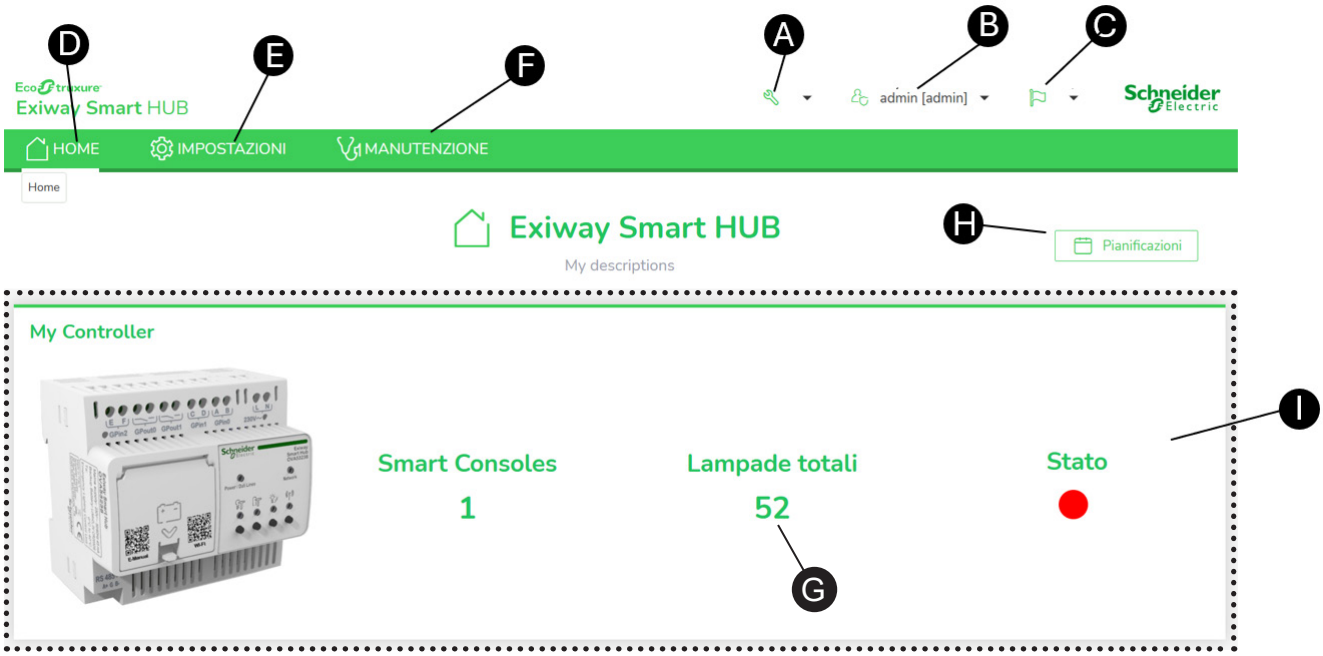
- Select the language.
- Enter the user name and the password.

At the first access you will be prompted to change the default data with custom user name and password.

- In the following accesses it will be possible to:
  - Enter custom user name and password parameters
  - Click on "Password forgotten" to reset the password, sending a temporary code (OTP) to the registered email address to be entered for password update

The automatic disconnection of the pages occurs after one hour of inactivity.

4.7 User interface layout



A. Restart
B. User
C. Language
D. Home screen
E. Settings screen
F. Maintenance screen
G. List of Exiway Smart Console devices managed by the Exiway Smart Hub
H. Screen displaying the dates of the tests performed, those scheduled for subsequent tests and the Safe Time (time slot in which the tests can be performed)
I. Display of the Exiway Smart Console devices connected to the Exiway Smart Hub, with details of the devices associated with each Exiway Smart Console and an overall summary of their status

Menu (**A**) has the following items:

- **Restart:** Exiway Smart Hub will reboot after a confirmation request.
  - The LEDs flash as indicated by the LED signals table.
  - Exiway Smart Hub switches off and back on.
- **Licenses:** The libraries and their licenses are displayed.

The menu (**B**) shows the information of the user currently connected to the Exiway Smart Hub. From this menu it is possible to disconnect the user via the Logout command. You must log in again by entering user name and password to access the web server.

The menu (**C**) allows you to choose the language in which to display the Web pages.

On all pages, the time provided by the Exiway Smart Hub and the version of the software you are using are indicated at the bottom left.

4.8 Home

The Home screen (**I**) lists the Exiway Smart Console devices configured and connected to the Exiway Smart Hub. A set of information is provided for each Exiway Smart Console:

- **Status:** Indicates the general status with a colour:
  - **Grey:** Communication error between Exiway Smart Hub and Exiway Smart Console.
  - **Yellow:** there are warnings.
  - **Red:** Alarms are present.
  - **Green:** the status of the system is okay.
- **Total lamps:** Number of connected devices.

From the Home screen, by selecting "Site Report" you can download a system report in pdf format.

The menus that can be accessed from the Home screen are:

- System status.
- **Maps:** Lets you display the loaded maps and place the commissioned devices on them (listed in the left column).

4.8.1 System Status

"System status" displays for each Exiway Smart Console and for each line associated with the Exiway Smart Console device:

- The status of each device connected to its line. The numbers associated with the X.Y.Z device indicate:
  - X=Number of the Exiway Smart Console.
  - Y= Line number associated with the Exiway Smart Console device (1-2).
  - Z= Device number (1-63) associated with the line.
- **FT status:** the outcome of the last functional test, if it was carried out.
- **DT status:** the outcome of the last duration test, if it was carried out.

4.8.2 System status details

Home > Exiway Smart Hub > Smart Console X

(X= Exiway Smart Console identification number)

The menu allows you to navigate between all the devices that are connected on one or both of the Exiway Smart Console output circuits. The navigation can be carried out with the help of filters that can be set from the appropriate button. You can display the list of devices by filtering them by:

- Line.
- Status:
  - Alarm.
  - Notice.
  - Okay: no notices or alarms.
  - Communication error.
- **Alarms:** Indicates the number of devices connected to the Exiway Smart Console and commissioned that have one of these alarms:
  - Functional Fault.
  - Duration Fault.
  - Battery Fault.
  - Test not carried out after the regulatory period (see paragraph).
  - Lamp in communication error (not in communication with Exiway Smart Console).
- **Notices:** Indicates the number of devices connected to the Exiway Smart Console that have one of these notices:
  - Test under way.
  - Pending test.
  - Emergency.
  - Inhibit.
  - Rest.

The columns that make up the list of devices indicate:

- The device **ID** in the system (absolute number from 1 to the maximum available device number for the number of Exiway Smart Console devices connected to the Exiway Smart Hub).
- **Line:** the line where the device is connected.
- **Device Status:**
  - Okay: no notices or alarms.
- **DALI Address:** Indicates the DALI address assigned to the device.
- **Description:** identifies the device in the system.
- **Information:** shows the detailed information of the device.

4.8.3 Device information

Home > Exiway Smart Hub > Exiway Smart Console X > Device Y

(Y= line number, Z = absolute device number)

When you enter this page, the device information is automatically updated after a few seconds.

From this page you can perform the following operations:

- **Read all the data:** It is possible to force a reading of the information linked to the device.

Send Command

- **Maximum flow access (Recall Max):** if the device has the function of switching on/off the light source, when the mains power supply is present, it is forced to be switched on at maximum flow.
- **Off:** light source off with mains power supply present.
- **Start identification:** the light source of the device toggles on and off to be identified. The device continues to be identified until the "Stop Identification" command is received.
- **Stop Identification:** identification ends.
- **Start functional test:** functional test start command (if the network conditions present and the battery sufficiently charged for this test allow it, the test will start otherwise the device will indicate the waiting test status). The test verifies the switching on of the light source with mains present and the simulation of battery operation for a few seconds.
- **Start duration test:** duration test start command (if the network conditions present and the battery fully charged allow it, the test will start; otherwise the device will indicate the waiting test status). The test verifies the access of the light source by simulating battery operation for the nominal duration.
- **Stop Test:** The functional test or duration test is forced to end. If the device has a test waiting, it is deleted.
- **Inhibit Emergency:** The device does not go into emergency mode when there is no power supply.

  WARNING: The Inhibit command must only be used when the room is out of service to preserve the battery charge. Before restoring the service, this function must be reset with the "Reset Inhibit /Rest Mode" command. Exiway Smart Hub will continue to send this command to the device every ten minutes. Any network outages within this interval will reset the device. If the device does not receive this command for fifteen minutes, it automatically exits this function.
- **Rest mode:** If the device is switched on in an emergency, it can be switched off to preserve the state of charge of the batteries with the room out of service.
- **Reset inhibit/rest mode:** Reset Inhibit/Rest Mode allows you to reset the inhibit and turn on the device previously turned off with the "Rest" command.

This page can also display the following information for each device:

Device

- **Name:** association of the device in the system: X, Y, Z (see System Status paragraph).
- **Location**
- **Date of production:** factory information read by the device, if available.
- **Hardware:** factory information read by the device (if available).
- **Firmware update:** factory information read by the device (if available).
- **Serial number:** factory information read by the device (if available).
- **GTIN/product name:** factory information read by the device (if available).

General

- **Ready:** ready to intervene in an emergency (there are no faults detected in the light source or batteries following the last tests).
- **Lamp on:** SA light source on.
- **Lamp fault:** there is a fault with the light source.
- **Luminous flux fault:** Reserved for future use.

- **Active attenuation phase:** Reserved for future use.
- **Reset Values:** Reserved for future use.
- **Address Missing:** Reserved for future use.
- **Brightness level at start up:** SA status at first start-up (battery connection and mains power supply).

Functions

- **Integrated management unit for emergency mode:** function for emergency lighting.
- **Maintained lamp:** light source always on (it is not possible to turn it off with the mains present).
- **Lamp maintained with switch:** the light source can be switched off (it can be switched off with the mains power present).
- **Adjustable self-test:** (self-test enabled).
- **Adjustable intensity in emergency mode:** not used for DiCube lamps.
- **Hardware inhibit mode:** Reserved for future use.
- **Manual addressing mode:** Reserved for future use.
- **Rest mode terminable via software:** possibility of turning off the light source when the device is in an emergency condition, if the room is not in service, to preserve the battery charge.

Status of emergency lights

- **Active inhibit mode:** the “Inhibit” function is active. The lamp does not switch on in an emergency at the first mains failure to preserve the battery charge when the room is out of service.
- **Functional test completed:** Functional test finished, waiting for the Exiway Smart Hub to recognise this status and reset it to zero.
- **Duration test completed:** Duration test finished, waiting for the Exiway Smart Hub to recognise this status and reset it to zero.
- **Fully charged battery:** battery charged to 100%.
- **Functional test pending:** Functional test command received but the device is in emergency mode or has a non-charged battery to carry out the test.
- **Waiting duration test:** Functional test command received but the device is in emergency mode or has a non-charged battery to carry out the test.
- **Identification active:** the device is being identified (light source turns on and off with the mains present).
- **Manually addressed:** (Signal not used for DiCube lamps).

Faults

- **Faulty circuit:** Fault in the device circuit.
- **Nominal duration not reached:** Nominal autonomy not reached during a duration test.
- **Battery failure:** Possible battery failure.
- **Lamp anomaly detected during emergency mode:** Light source with intensity outside the factory values window.
- **Functional test not performed within the expected time:** Functional test command not received for 28 days or has been received but the device cannot perform the test for at least 7 days.
- **Functional test not performed within the expected time:** Duration test command has not been received for one year or has been received but cannot perform the test for at least 7 days.
- **Functional test failed:** The functional test failed (the lamp does not guarantee emergency ignition).
- **Duration test failed:** The functional test failed (the lamp does not guarantee emergency ignition or turns on but the duration of ignition is less than the rated value).

Functioning Mode

- **Rest mode active:** Light source is off during mains power off.
- **Power supply from the mains power supply active:** Mains power supply present (the battery can be kept charged).
- **Emergency mode active:** No mains power, light source on with battery.
- **Emergency mode still active after the mains power is restored:** Mains power supply present after an emergency but the device still remains for a time in emergency mode (delayed return).
- **Functional test in progress:** Functional test in progress.
- **Running duration test:** Duration test under way.
- **Active hardware inhibit mode:** Reserved for future use.
- **Lamp maintained with switch on:** Reserved for future use.

Additional

- **Battery charge status.**
- **Autonomy test duration:** Autonomy detected at the last duration test.
- **Hours of lamp operation in emergency mode:** This field records the total number of hours in which the lamp has operated in emergency mode (for the norm, the counter is set to 1 hour at the first emergency).
  At 254 hours the counter resets.
- **Total operating hours:** This field records the total number of hours the lamp was switched on, regardless of the mode (normal or emergency).
  (For the norm, the counter is brought to 4 hours at the first ignition).
  At 1016 hours the counter resets.
- **Nominal duration:** Duration of the nominal autonomy in emergency mode.

4.9 Settings

From the main screen you can access all the system settings via the "Settings" button. From the screen that appears next, you can access the following menus:

- **General:** Setting up Device Groups, Test Schedules, Users and Roles, Email Configuration, Notifications, and Time Setting.
- **Network configuration:** Settings for Ethernet, Wi-Fi and Modbus network connection.
- **Quick Configuration:** Guided procedure for quick commissioning of the Smart Hub and installation.
- **Exiway Smart Console:** Configuration of Smart Console and automatic or manual configuration of individual DALI lines and devices.
- **I/O management:** Configuration of the digital and analogue inputs and outputs of the device.
- **Management of maps:** Management of graphic maps (import of .png graphic files and assignment of name and description).
- **Firmware update:** Smart Hub Firmware Update. Firmware update of the Smart Console. Search for updated versions of FW.
- **Backup and restore:** Saving and restoring the system configuration.

4.9.1 General

Settings > General

From the "General Settings" page you can access:

- **Groups:** Configure device groups to simplify management.
- **Schedules:** Configure the schedules for the device management.
- **Users:** Configure users and access level.
- **Email configuration:** Set up SMTP and other email settings.
- **Email notifications:** Enable/disable notifications.
- **Date and time:** Set the Exiway Smart Hub time.
- **Safe time:** Time window in which the tests scheduled by the calendar can be performed. If the start and stop times coincide, the tests can be carried out throughout the day.

Device Groups

Settings > General > Groups

This page can be used to create and manage device groups.

Group0, Group1, Group2 are the groups created by default. After the system is commissioned, Exiway Smart Hub automatically assigns the devices to these groups for the programming of periodic tests. Specifically:

- **Group1:** includes all the devices of the system. The Exiway Smart Hub will use this group to send a functional test to all devices.
- **Group2:** includes all the devices of the system, with an odd number progression. The Exiway Smart Hub will use this group to send a duration test only to these devices.
- **Group3:** includes all devices of the system that have an even number progression. The Exiway Smart Hub will use this group to send a duration test only to these devices.

Only skilled persons should modify the default groups. The default groups guarantee the management of tests in accordance with EN 50172, EN 62034. Any variation may compromise the compliance of the system with the reference standards for Emergency lighting.

With the “New” button it is possible to add a new group and associate the desired commissioned lamps with this group. For each line displayed, we have:

- Name.
- Description.

NOTE: Actions; the symbol with three dots, selectable, allows you to:

- Edit the group:
  - Enter the name of the group
  - Add a group description
  - Select the device from those commissioned that will be part of the group
- Select the entry to be associated with the group.
- Delete the group.

NOTE: Send command (selectable) to the selected group of devices (see the chapter "Device information" on the explanation of the commands).

Schedules

Settings > General > Schedules

The page allows you to create and manage schedules related to groups of devices.

There are 3 default schedules that allow you to carry out:

- a functional test on all devices.
- a duration test for devices with an odd number DALI address.
- a duration test for devices with even number progression.

The "New" button allows you to create a new schedule by entering the "New Schedule" page.

In "Actions" it is possible to edit the schedule or delete it.

New Schedule /Edit Schedule

Settings > General > New Schedule

By accessing this page you can enter the following information related to the schedules:

- **Schedule name:** The name of the schedule.
- **Description:** Detailed description of the schedule.
- **Objective:** Select the group to associate with the schedule.
- **Type:** Specifies the type of schedule among the following:
  - **Functional test:** performs a functional test on the selected group periodically in days.
  - **Duration test:** performs a duration test on the selected group periodically in weeks.
  - **Custom:** you can choose to enable the sending of a custom command to the group by deciding when to send it.
- **Time:** The time at which the schedule is to be executed.
  - At the first commissioning, a functional test will be performed after 20 hours from the time the addressing of the lamps was sent. After 24 hours from the initial addressing, a duration test of the odd-numbered lamps will be performed. After 48 hours from the initial addressing, a duration test of the even-numbered lamps will be performed. After these initial checks, the

tests provided in the calendar will be carried out at the time set in the Time field.

- **Repeat:** Indicates the frequency of repetition of the schedule.
- **Repeat every (for custom schedules only):** The frequency with which the schedule must be repeated (day, week, month).
- **Enabled (for custom schedules only):** Indicates whether the schedule is on or off.
- **Command (for custom schedules):** The action to be performed by the schedule can be chosen from:
  - Inhibit.
  - Reset Inhibit.
  - Switching off the light source.
  - Switching on the light source.
- **Scheduled date and time:** Information on the date and time of the last action performed and the next scheduled action.
  - **Last execution:** The date and time at which the last action was performed.
  - **Next execution:** The date and time on which the next action associated with the group will be performed. This action is independent of the value indicated in the "Time" field. The next action will be scheduled in accordance with the indications in the “Time” and “Repeat” fields. This field is mandatory to start the schedule.

Users

Settings > General > Users

The page allows you to manage the users and levels of access to the pages.

NOTE: Only those with the Administrator profile can access this section to edit the list of users.

For each user row in the list shown, it is possible to perform actions, namely:

- Edit the user information or delete the user line. The changes that can be made are as follows:
  - **Name:** The name of the user.
  - **Role:** The role of the user, which can be:
    - Administrator (has all permissions)
    - User (limited permissions)
    - Visitor (view only)
  - **Email:** The user's email address.
  - **User name:** The user name used for login.
  - **Password:** The password of the user.
  - **Password expiry:** The password expiration date.
- Manage users.

With "New" you enter the entry page of a new user, where you can enter the following information:

- **Name:** Indicates the name of the user.
- **Role:** The user's role or permission level can be:
  - Administrator (has all the permissions and the possibility to create new users).
  - User (has all permissions but cannot create new users).
  - Visitor (view only).
- **Email:** The user's email address.

- **User name:** The user name used for login.
- **Password:** The password of the user.
- **Repeat password:** The password must be repeated for confirmation.

Email configuration

Settings > General > Email Configuration

The page allows you to manage the configuration of an email.

The email can be used to create a new password or to enable the sending of system notifications.

- **SMTP user name:** email address.
- **SMTP password:** email password (in the provider's mail settings, create PW for the Smart Hub application).
- **SMTP server:** address of the smtp server.
- **SMTP port:** SMTP port.
- **SMTP authentication:** (StartTLS, TLS, none).
- **SMTP retries.**
- **SMTP timeout.**

Email Notifications

Settings > General > Notifications

You can choose the events for which a notification email will be sent.

Date & Time

Settings > General > Date and time

The page allows you to manage the Exiway Smart Hub timetable. Through the "Synchronise local time" option; the system acquires the date and time of the computer connected to the web page.

Alternatively, the "Use NTP server" option enables or disables automatic time synchronisation via an NTP (Network Time Protocol) server. If enabled, the system will automatically update the time and date from an NTP server otherwise the clock inside the Exiway Smart Hub is used. It is possible to indicate:

- **Primary NTP server:** The address of the primary NTP server to which the system will connect for time synchronisation.
- **Secondary NTP server:** The address of the secondary NTP server, used as a backup if the primary server is not available.

Settings > General > Safe time

- **Safe Time:** time window in which the tests scheduled by the calendar can be performed. If the start and stop times coincide, the tests can be carried out throughout the day.

4.9.2 Network configuration

Settings > Network configuration

From the "Network Configuration" page you can access the following pages:

- **ETH1:** Configures the main Ethernet port (Eth1 in Exiway Smart Hub) to connect to the LAN network. To be used for viewing Exiway Smart Hub web pages or for connecting a Modbus Client to Exiway Smart Hub (EcoStruxure Building Operation or third-party software).
- **ETH2:** Configures the secondary Ethernet port (Eth2 in the Exiway Smart Hub) to connect to the Exiway Smart Console.
- **WI-FI:** Configures the wireless network for the Exiway Smart Hub Access Point.
- **Interface settings:** Modbus protocol settings.

Primary Ethernet configuration

Settings > Network configuration > ETH1 configuration

The page allows you to configure the main Ethernet port (Eth1) to connect to the LAN network and access the Exiway Smart Hub web pages or to provide the connection to a Modbus Client. On the page it is possible to display:

- **Enabled:** Indicates whether the Ethernet interface is enabled or disabled. If enabled, the network card is active and can communicate with other devices.
- **Status:** The current status of the Ethernet connection, which can be "Connected" or "Disconnected".
- **Connection:** The status of the physical connection to the Ethernet network, which can be "Connected" or "Disconnected".
- **DHCP:** By selecting "Dynamic IP", the IP address, subnet mask, gateway and DNS servers are automatically assigned by a DHCP server in the network. By selecting "Static IP", you must manually enter these parameters.
- **IP Address:** The IP address assigned to the Ethernet interface.
- **MAC Address:** The unique Media Access Control (MAC) address of the network card.
- **Subnet mask:** The subnet mask used to define the size of the network.
- **Gateway:** The IP address of the default gateway, used to communicate with other networks.
- **Primary DNS:** The IP address of the primary DNS, used for domain name resolution.
- **Secondary DNS:** The IP address of the secondary DNS server, used as a backup if the primary server is not available.

Secondary Ethernet configuration

Settings > Network configuration > ETH2 configuration

The page allows you to configure the port to connect to the Exiway Smart Console (Eth2). On the page you can view/edit:

- **Enabled:** Indicates whether the secondary Ethernet interface is enabled or disabled. If enabled, the network card is active and can communicate with other devices.
- **Status:** The current status of the secondary Ethernet connection, which can be "Connected" or "Disconnected".
- **Connection:** The status of the physical connection to the secondary Ethernet network, which can be "Connected" or "Disconnected".
- **IP Address:** The IP address assigned to the secondary Ethernet interface.
- **Subnet mask:** The subnet mask used to define the size of the secondary network.
- **Gateway:** The IP address of the default gateway for the secondary network, used to communicate with other networks.
- **MAC Address:** The unique Media Access Control (Mac) address of the secondary network card.

NOTE: the subnet belonging to ETH2 must be different from that of ETH1. Otherwise, the device disables communication on the port.

WI-FI configuration

Settings > Network configuration > WI-FI configuration

This page allows you to configure the Wi-Fi to allow the Exiway Smart Hub access to an existing wireless network.

- **Wi-Fi enabled:** Enable or disable the Wi-Fi function. If enabled, the device can enable the Exiway Smart Hub Access Point.
- **Status:** The current status of the Wi-Fi connection, which can be "Connected" or "Disconnected".
- **SSID (Service Set Identifier):** Name of the Wi-Fi network to connect to.
- **Password:** Password of the Wi-Fi network to connect to.
- **MAC Address:** The unique Media Access Control (Mac) address of the Wi-Fi network card.
- **Safety:** The type of security used by the Wi-Fi network, such as WPA2 or WEP.
- **Enabled AP and relative status**

Interface settings

Settings > Network configuration > Interface settings

From the screen you can access the following pages:

- **ETH Console Interface:** This option configures the device as a Modbus TCP client if the Exiway Smart Console is connected to the Exiway Smart Hub via Ethernet2. In this mode, the device can send requests (read or write) to the Exiway Smart Console device to obtain or modify data.
- **BMS interface:** This option configures the device as a Modbus TCP server. In this mode, Exiway Smart Hub is able to receive requests from Modbus TCP (EcoStruxure Building Operation and third-party software) clients and provide the requested data or perform the requested actions. It is useful for devices that provide data or functions to other devices (clients) on the Ethernet network.

- **RS485 Console Interface:** This option allows you to change the default RS485 communication parameters if the communication between the Exiway Smart Hub and the Exiway Smart Console is via the RS485 BUS. The same parameter configuration must be present in all Exiway Smart Console devices connected to the Exiway Smart Hub.

ETH Console interface

Settings > Network configuration > Interface settings > TCP Client

The page allows you to configure communication to Exiway Smart Console via Ethernet.

On the page you can view/edit:

- **Enabled:** This check box enables/disables the Modbus TCP Client function. If selected, the device is configured to operate as a Modbus TCP client and can then send requests to the Exiway Smart Console.
- **Port:** This drop-down menu allows you to select the network port used for Modbus TCP communication.
- **Timeout:** This numeric field specifies the maximum timeout (in seconds) that the Modbus TCP client waits for a response from the server.

BMS interface

Settings > Network configuration > Interface settings > TCP Server

The page allows you to configure Modbus TCP server communication for Modbus Client devices (EcoStruxure Building Operation or third-party software). On the page you can view/edit:

- **Enabled:** This check box enables/disables the Modbus TCP Server function. If checked, the device is configured to operate as a Modbus TCP server and can receive requests from Modbus TCP clients.
- **Port:** This numeric field specifies the number of TCP port used for Modbus communication. The standard default value for Modbus TCP is 502.
- **Device address:** This numeric field specifies the address of the Modbus device. In a Modbus network, each device must have a unique address.
- **Modbus Server:** This drop-down menu offers two modes of operation of the Modbus server. With the Exiway Smart System option you can use the Exiway Smart System registries. Another mode is backward compatibility with the addresses used by the previous controller (Exiway Smart Control).

RS485 console interface

Settings > Network configuration > Interface settings > RS485

The page allows you to configure the Modbus RS-485 communication of the Exiway Smart Hub and the serial connection with the Exiway Smart Console. On the page you can view/edit:

- **Enabled:** The "Enabled" check box allows to activate or deactivate the Modbus RTU communication on the RS485 port.
- **Port:** The “Port” drop-down menu specifies which physical port of the device is used for RS485 communication.
- **Fast:** The numerical field "Bitrate" indicates the data transmission speed on the RS485 line.
- **Parity:** The “Parity” drop-down menu specifies the type of parity check used to detect transmission errors. The options available are usually “None”, “Even” and “Odd”.
- **Stop bits:** The “Stopbits” drop-down menu specifies the number of stop bits used to signal the end of a data byte. Common options are 1 or 2.
- **Timeout:** This numeric field specifies the maximum timeout (in seconds) that the Modbus TCP client waits for a response from the server.

WARNING: A timeout of less than 10 seconds is not recommended.

4.9.3 Quick configuration

Settings > Quick configuration

The page allows you to enter the main information needed to start Exiway Smart Hub and to perform a first automatic addressing of the lamps in order to verify the integrity and correctness of the installation.

Selecting **Next** accesses the initial page to start the procedure, and then continue with the following steps:

1. **Site configuration:** In this section you can set:
   a. **Name of the site.**
   b. **Address.**
   c. **City.**
   d. **Postcode:** The postcode.
   e. **Country.**
   f. **Name of contact person:** The name of the contact person.
   g. **Contact person email:** The email address of the contact person.
   h. **Safe time start / Safe time end:** time window in which the tests scheduled by the calendar can be performed. If the start and stop times coincide, the tests can be carried out throughout the day.

   The information can be saved by pressing Save.
2. **Configuration of Exiway Smart Hub:** in this section you can set:
   a. **Exiway Smart Hub name:** associate an identifying name with Exiway Smart Hub.
   b. **Description:** associate a description with Exiway Smart Hub.
   c. **Position:** associate a descriptive position with Exiway Smart Hub.
3. **Select the architecture.**
4. **Exiway Smart Console configuration:** by pressing the keys:
   a. **New:** A new row will be added to enter a new Exiway Smart Console.
   b. **Eth2 settings:** The Ethernet parameters of the Exiway Smart Hub can be set for communication to the Exiway Smart Console.

c. **RS485 settings**
d. The list provides for each Exiway Smart Console:
   - **Name:** The name of the Exiway Smart Console
   - **Description:** A description of the Exiway Smart Console
   - **Status:** The current Exiway Smart Console status, which can be “Connected” or “Disconnected” to the Exiway Smart Hub system
   - The button:
     » **Information:** provides detailed information about Exiway Smart Console
     » **Connection:** you can select whether the Exiway Smart Hub connection to the Exiway Smart Console is RS232 or RS485 or Ethernet and indicate where the address or device number is requested
     » **Command:**
       • Select on which line of the Exiway Smart Console the selected command will be sent to all connected devices (broadcast commands).
       • **Maximum recall:** switching on lamps with permanent operation.
       • **Off:** lamps off with permanent operation.
       • **Start identification:** continuous switching on and off of the devices. The function stops with the “Stop” command.
       • **Rest:** If the device is switched on in an emergency, it can be switched off to preserve the state of charge of the batteries.
       • **Inhibit mode reset/rest mode:** allows you to turn on the device which was previously turned off via the "rest" command.
       • **Clean address:** deletes the addresses of all connected devices.
       • **Three-dot symbol:** to change the properties of the Exiway Smart Console.
         ■ **Controller name:** The name of the Exiway Smart Console
         ■ **Console description:** A description of the Exiway Smart Console

5. **Commissioning:** By pressing "Start" it is possible to start the routing process of all devices connected to Exiway Smart Console:
   ○ All devices that previously had a DALI address will lose it to receive a new one.
   ○ During addressing, you can see the progress of the devices found between the lines.
   ○ The "Stop Commissioning" button allows you to stop addressing.

At the end of the addressing you will have the list of DiCube devices found.

By pressing "End" Exiway Smart Hub will create a functional test schedule, Duration for odd devices, Duration for even devices. (see the chapter "Schedules").

Refer to chapter 5 of this guide for the complete configuration wizard.

4.9.4 Exiway Smart Console

Settings > Exiway Smart Console

The page allows you to configure the connected Exiway Smart Console devices. On this page you can execute commands and view the information of each device.

- **New:** Adds a new Exiway Smart Console to connect to the Exiway Smart Hub system.
- **Eth2 Settings:** Link to access the Ethernet 1 network settings of the Exiway Smart Hub.
- **Table:**
  - **Name:** name associated with Exiway Smart Console.
  - **Description:** Brief descriptive text to be associated with the Exiway Smart Console device. For example, the field might contain a description of the location of the Exiway Smart Console or a description of the part of the system associated with the Exiway Smart Console (e.g. First Floor).
  - **Status:** Indicates whether the connection between Exiway Smart Hub and Exiway Smart Console is active or not. If "not Connected" is indicated, it is necessary to verify that the physical connection between Exiway Smart Hub and Exiway Smart Console is correct and also that the communication parameters between the two devices are aligned and consistent with the physical connection.
- **Information:** Allows you to view more in-depth information about Exiway Smart Console.
- **Connecting:** Sets in the Exiway Smart Hub device the parameters to communicate with the selected Exiway Smart Console:
  - Set the communication protocol to Exiway Smart Console (RS232, RS485, Ethernet).
  - **The address of the device varies according to the type of connection:** it is an IP address if the connection is made via Ethernet, or it is an ID if the connection uses RS485.
- **Command:** Ability to send the following commands to the Exiway Smart Console device on one or both lines:
  - Turning on / off the light source of the device.
  - Identification of the device.
  - Rest state of the device which is powered on in an emergency condition to preserve the battery charge.
  - Reactivation of the device which was previously switched off with the "Rest" command.
  - Deleting the addresses of all the devices that are connected.
  - Modification of the properties of the Exiway Smart Console.
- **Commissioning:** Function to configure the line.
- **Button with three dots:** Change of name, description of Exiway Smart Console and deletion of Exiway Smart Console.

Commissioning

Settings > Exiway Smart Console > Commissioning

This page allows you to add devices to the Exiway Smart Console lines. On the page you can find:

- **Filter:** filters the displayed devices according to the following criteria:
  - **Lines:** one or more lines to which the devices belong.
  - **Status:** list of devices that are in a specific status.
- **Stop Identification:** stops all the identification commands currently in progress.
- **Search and addressing commands**: In this section you can select the type of address, specify the line on which to intervene and choose whether to add new devices, search for those already addressed or redirect them all. The type of command can be:
  - **Automatic:** initiates an automatic addressing procedure, in which it is not possible to choose the address to be associated with the individual devices.
  - **Sequential:** initiates a manual addressing procedure where you can decide to assign the proposed address to the device by selecting it (via laser or button). Exiway DiCube devices only (see instructions for this product).
- **Commissioning:** deletes the addresses of the devices on the line and proceeds with a new addressing, creating a new test schedule.
- **Add new lamp:** assigns the DALI address to a new device added to the line. The test schedule resumes from the moment the new address is added.
- **Lines per page:** adds new devices that already have an address to the line.
- **Line analysis:** option to set the number of lines (devices) to be displayed per page and navigate between the pages that list the devices connected to the lines of the selected Exiway Smart Console.
- Table with Columns:
  - **#:** Device line number.
  - **Device:** Displays the description associated with the device.
  - **Description:** Description of the device.
  - **Line:** Name or identifier of the line where the device is connected.
  - **Status:** Current status of the line (**OK**, in alarm, etc.).
  - **Commissioned:** Indicates whether the device has been commissioned.
  - **DALI Address:** Address assigned to each connected device.
- **Actions:**
  - **Three points:** The description associated with the device can be added / edited.
  - **Identification:** Sends an identification command to the device.
  - **Delete address:** Deletes the DALI address of the device.
  - Allows you to modify the DALI address of an already addressed device.

4.9.5 Alarms / Notices

The page displays devices that have an alarm or notification.

Notices: The priority of the device is indicated with a number and the colour orange:

- Test in progress (functional or duration).
- Test (functional or duration) waiting to be sent.
- Inhibit.
- Rest Mode.
- Emergency (no power supply and operation of the device in emergency mode).

Alarm: The priority of the device is indicated with a number and the colour red:

- Battery alarm (the voltage level is low, the battery is disconnected or out of operating temperature).
- Functional test not passed (possible battery or light source problem outside the factory parameters).
- Duration test not passed (in the first minutes the light source is checked if it is outside the factory parameters) or possible battery problem (see battery alarm) or the emergency autonomy is lower than the nominal one.
- Test (functional or duration) not carried out according to default schedule.
- Device in communication error.

4.9.6 I/O management

Settings > I/O Management

The page displays the list of inputs and outputs available for the Exiway Smart Hub. The page displays:

- **Name:** Identification name for the input or output.
- **Description:** description of the element associated with the input or output.
- **Enabled:** Indicates whether input has been enabled or disabled.
- **Command/Mode:** Shows the command associated with the input or the alarm/notification associated with the output.
- **Actions:** the input / output can be configured.

Modify Input

Settings > I/O Management

The page allows you to configure the selected input.

- **Name:** Name or identifier of the input (e.g. IN 1).
- **Description:** Input description (e.g. Input 1).
- **Enabled:** Indicates whether input is enabled or disabled.
- **Command/Mode:** Not configured / Not configured.

Settings > Input/Output Management > Edit Input

- **Type of input:** Switch or button.
- **Open:**
  - **Enabled:** Indicates whether the "UP" function is enabled or not (checkbox).
  - **Run the command:** When the input is opened, the command will be sent to the associated group of devices.
- **Closed:**
  - **Enabled:** Indicates whether the “DOWN” function is enabled or not (checkbox ticked).
  - **Run the command:** When the input is closed, the command will be sent to the associated group of devices.

If you decide to use the input, set the associated input in the group configuration page.

Modify Output

Settings > Input/Output Management > Edit Output

The page allows you to configure an output to close in the event of an alarm or notification of at least one device.

Configure the corresponding output on the device groups page.

- **Name:** Name or identifier of the output (e.g. OUT1).
- **Description:** Output description (e.g. Output1).
- **Enabled:** Indicates whether the output is enabled or disabled to manage the alarm / notification.
- **Location:** Association of a location.
- **Inverted:** Indicates whether the output is inverted or not:
  - Inverted **No:** Then the output closes if at least one device has the associated alarm or warning. The output is normally open.
  - Inverted **Yes:** Then the output opens if at least one device has the associated alarm or warning. The output is normally closed.

- **Recover:** Output status at Exiway Smart Hub start-up
  (Restore off = at start-up the Exiway Smart Hub will have the output open,
  Restore on= at start-up the Exiway Smart Hub will have the output closed).
- **Mode:** event to be associated with the output:
  - Last KO functional test.
  - Last KO duration test.
  - Functional test in progress.
  - Duration test under way.
  - Functional test waiting to be performed.
  - Duration test waiting to be performed.
  - Rest mode.
  - Inhibit.

4.9.7 Management of maps

Settings > Management of maps

This menu allows you to load one or more floor plans of the building.

The page allows you to create, import and edit the maps on which to place the devices.

Maps can only be added in .png format with a maximum size of 1Mbyte, for a maximum of 50 images.

The “Add map” button adds a new map with the window:

- **Id**
- **Name:** enter the name associated with the map.
- **Upload map:** drag or load the map image (in “.png” format) from a path.
- **Description:** attach a description of the plan.
- **Notes:** add optional notes.

The table on the page lists the maps loaded.

The "Actions" button allows you to modify and delete the selected map.

Lights map

The page allows you to position the devices on the map. To position the devices on the graphic map, the following steps must be followed:

- In the Current Map drop-down menu: select a floor plan (loaded from the previous menu).
- Select the icon of the device to be placed on the map and drag it onto the image on the right. In the left column you can see all the devices associated with Exiway Smart Hub.

By placing the mouse pointer on the "i" symbol it is possible to know the name that has been associated with the device. By clicking on the "i" the device is highlighted on the map. On the icon located on the map, by clicking with the right button you can:

- View device details. Clicking opens the “Device Information” page (see chapter).
- Remove the device from the map.

Other actions that can be carried out on this page:

- **Zoom reset:** allows you to return to the size of the initial plan if the zoom has been changed.
- **Lamp Zoom In / Lamp Zoom Out:** allows you to enlarge or reduce the lamp icons to adapt their display to the scale of the map.
- **Remove all devices:** deletes all icons that are located in the floor plan.
- **Show devices:** allows you to highlight all the devices positioned.
- **Save:** saves the position of the devices on the floor plan.

4.9.8 Firmware update

Settings > Firmware update

The page allows you to update the firmware of the Exiway Smart Hub and the Exiway Smart Console.

NOTE: Always update the system to the latest version of Firmware available, first performing a REBOOT as described in paragraph 4.7.
To avoid malfunctions in the navigation of the webserver during this operation, browsing in incognito mode is suggested.

Keeping the Exiway Smart Hub up to date ensures access to the latest features and cybersecurity patches. For security reasons, it is not possible to install a firmware version that is older than the already applied security patch.

- Drag the firmware file or select the local folder where it is present.
- Press Next.
- Wait for the transfer and reboot of the Exiway Smart Hub.

To update the Exiway Smart Console firmware, the connection between the Exiway Smart Hub and the Exiway Smart Console must be of the Ethernet or RS485 type. With an RS232 connection, the Ethernet / RS485 is required. (See the chapter on connection).

The Exiway Smart Hub will directly update all connected Exiway Smart Console devices.

- Drag the firmware file or select the local path where the file is located.
- Press Next.
- Wait for the Exiway Smart Console to transfer and reboot.

4.9.9 Backup/Restore

Settings > Backup and Restore

The page allows you to save the current configuration of the system in the Exiway Smart Hub in a file, or to import a previously saved configuration file. From the page, the following commands can be executed:

- **Save:** The current system configuration in the Exiway Smart Hub can be downloaded to a file.
- **Restore:** Allows you to upload a previously downloaded backup file to the Exiway Smart Hub to restore the system configuration. After the restore, the Exiway Smart Hub will be rebooted.

NOTE: Do not use spaces or special characters in the file name.

4.9.10 Maintenance

Displays the number of connected devices and their status cumulatively for each Exiway Smart Console.

The "Alarms" menu provides the list of existing alerts and alarms in chronological order.

The "Stop identification" command allows you to stop all identification processes in progress, preventing them from continuing automatically for one hour.

The "Download" menu allows you to save two types of files:

- A register of Exiway Smart Hub internal event logs.
- Historical data of the devices, with the history of the DALI statuses of the connected devices for the Exiway Smart Console, line and DALI address.

For each Exiway Smart Console you can select circuit 1 or 2 to view the details of each device or replace it in the system, if it is faulty.

Replace device

Maintenance > Replace

From this page you can replace the lamps and the display of the functional details of each device. The table provides the list of devices connected to the selected Exiway Smart Console line. The table is equipped with filters for the partial display of the devices present. More specifically, it is possible to filter the following devices:

- in Alarm.
- with Notice.
- with **OK** status.
- with the communication error in the DALI data bus.
- which are not commissioned.

For each device, the following is displayed:

- **# :** indicates the absolute progressive number of the system device (1-1280).
- **Device:** association of the device for X, Y, Z (X=progressive Exiway Smart Console progressive, Y=progressive Exiway Smart Console line, Z= progressive line device).
- **Description**
- **Line:** specifies the line you are viewing.
- **Status:** the status of the device is displayed, which can be:
  - **OK:** If the device does not have Alarms or Notices as a result of the last checks carried out by the Exiway Smart Hub.
  - **Alarm:** The device has an alarm related to the battery or light source, or a test not performed in the planned period.
  - **Warning:** the device indicates that it:
    - Is in emergency mode (no mains with light source on)
    - Has received the command of a test and is waiting to be able to perform it
    - Inhibit
    - Rest Mode
- **Commissioned:** indicates if the device has been addressed, if it is in the list of devices included in the commissioning of the system and if it is verified by the Exiway Smart Hub.
- **DALI address:** the address associated with the device during commissioning. The value is between 0 and 63.

From the page it is possible to perform actions:

- **Replace:** If you need to replace a DiCube lamp with a new one without an address, pressing this button assigns the new lamp the same address as the old one.
- **Information:** Provides detailed information about the status of the lamp.

5 Exiway Smart Console

5.1 Introduction

Exiway Smart Console is a device for the digital control of lighting devices, it implements a dual communication bus based on DALI standards (IEC62386), it supports up to 128 devices (64 per line).

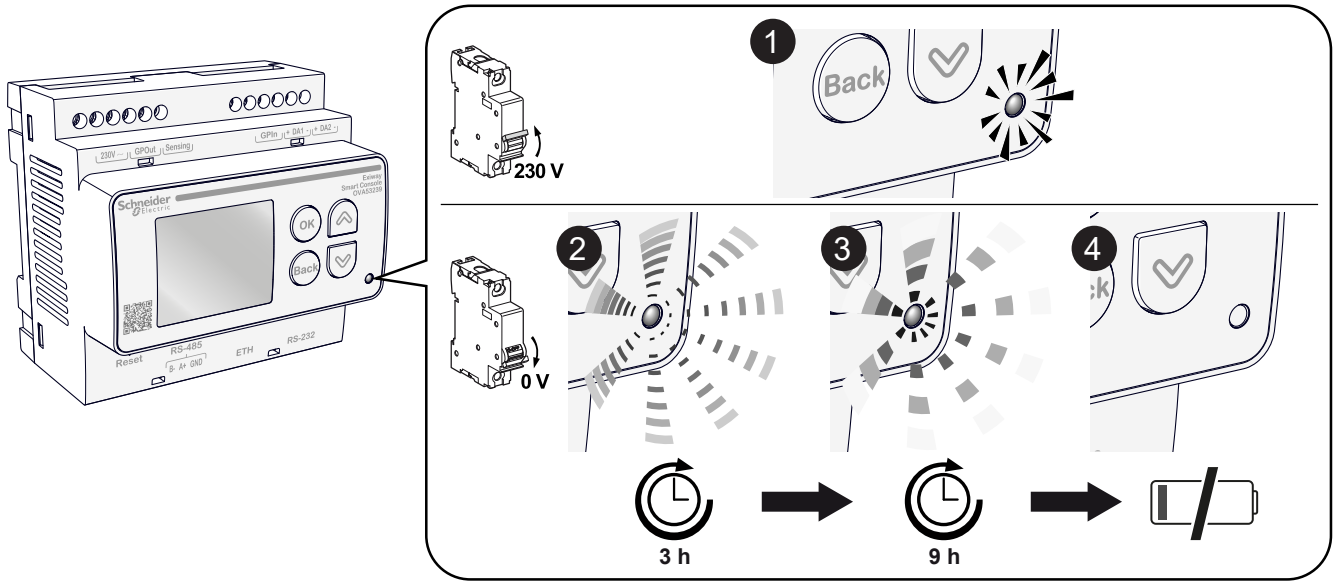
The main features of the Exiway Smart Console are as follows:

- Possibility of connecting the Exiway Smart Hub with three types of interface:
  - RS-485
  - RS-232
  - Ethernet
- There is a programmable Gpin input, a programmable Gpout output and a Sensing input to detect the presence of the local network.
- The Exiway Smart Console is equipped with a battery for operation without power.

When the power is present, the signal LED is on and the Exiway Smart Console is fully operational (*detail **1***).

In the absence of the Exiway Smart Console network, it remains operational for three hours (*detail **2***), maintaining RS-232, RS-485, Ethernet communications and the local interface. In this period the bus can operate in DALI mode or in BMS mode, depending on the configuration.

At the end of the three-hour timer (*detail **3***), only the local interface is kept active until the battery is exhausted (*detail **4***); the bus can be used in DALI mode or in BMS mode depending on the configuration.



	RS-232	RS-485	Ethernet	Local Interface
2	ON	ON	ON	ON
3	OFF	OFF	OFF	ON
4	OFF	OFF	OFF	OFF

The local interface remains active for five minutes after any interaction. After this period, the device enters low power mode and the display turns off. Any pressure on the buttons re-activates the device.

The Exiway Smart Console is equipped with a display that allows you to view information relating to the operating status of the devices connected to it. A series of commands can also be executed on the lines controlled by the Exiway Smart Console.

5.2 Menu

The Exiway Smart Console Menu is described below.

5.2.1 Line Monitor

This section is not available if the selected communication interface is RS232.

General line

Menu > Line Monitor > Line 1(or 2) General

Displays the following information relating to the individual line.

- **Addressed:** number of devices addressed on the line.
- **Active:** number of devices connected and active on the line.
- **Emergency:** number of devices on the line in Emergency status.
- **Functional failed:** number of devices on the line reporting Functional test failed.
- **Autonomy failed:** number of devices on the line reporting Autonomy test failed.

Scroll with ⌃⌄ to the desired field, Back to go back.

Line Alarms

Menu > Line Monitor > Line Alarms

It displays the list of alarms of the devices addressed on the single line.

Press ⌃⌄ to scroll, Back to go back.

Advanced Line

Menu > Line Monitor > Advanced Line

Graphically displays the status of the line. Each box shows the status of the device assigned to the address indicated therein (from 0 to 63):

- **Grey:** Unaddressed device.
- **Green:** device addressed and active.
- **Yellow:** device addressed but not active.
- **Red:** fault on the device (Functional test, Autonomy test, Battery disconnected).
- **Blue:** device in Emergency mode.

By pressing on the box of a certain address, the detailed information of the associated device is displayed.

Scroll with ⌃⌄ to the desired field, OK to select. Back to go back.

5.2.2 Commands

Menu > Commands

The set of commands available in the absence of the mains depends on the selected country, the configuration of the emergency bus and the type of interface set.

The settings for the commands are as follows:

- **Line:** select on which line to send the command.
- **Command:** select the desired command:

  (DALI commands)
  - **OFF:** DALI command OFF.
  - **ON MAX:** device switching on command at the maximum level.
  - **IDENTIFY:** command to identify the devices. Devices receiving the command flash. The action lasts 30 minutes. To stop, use the STOP IDENTIFY command.
  - **ON OFF CYCLE:** the command that toggles the ON and OFF state (this action does not guarantee that the devices will return to the state that preceded the receipt of the command). The action lasts 30 minutes. To stop, use the STOP IDENTIFY command.
  - **STOP IDENTIFY:** command to stop the identification of the devices.
  - **REST:** command to put the devices in the Emergency state in the rest state in the absence of the mains, or interrupts the fire alarm in the presence of the mains (if active).
  - **POWER ON:** command to restore the emergency state of the device.
  - **FUNCTIONAL TEST:** command to perform the functional test.
  - **AUTONOMY TEST:** command to perform the autonomy test.
  - **STOP TEST:** command to stop the execution of a test in progress.
  - **ADDRESS ALL:** command to perform addressing on the line.
  - **ADDRESS NEW:** command to address unaddressed devices.
  - **DELETE ALL:** command to delete all addressing data of the line.
  - **DELETE SINGLE:** command to delete the addressing data of a specific address.
  - **FIND ADDRESSES:** command to acquire the devices with address present on the line.

  (BMS commands)

   ON command on both lines (press to send)

   REST command on both lines (press to send)

  - **REST:** command to put the devices in the Emergency state in the rest state (BAES + BAEH).
  - **SWITCHING ON:** command to restore the emergency state of the device (BAES + BAEH).
  - **BIF REST:** command to put the devices in the Emergency state into the rest state (BAEH).
  - **BIF SWITCHING ON:** command to restore the emergency state of the device (BAEH).

- **Cast:** selects the type of addressing.
  - **ALL:** the command will be sent to all devices on the line.
  - **ONLY ADDRESSED:** the command will be sent only to the devices addressed on the line.
  - **DALI GROUP:** the command will be sent only to the devices belonging to the DALI group indicated in the address field.
  - **SINGLE:** the command will only be sent to the device at the address indicated in the address field.
- **Address:** selects the address to send the command to.

NOTE: Cast and Address may not be available for some commands.

To send the command, select **SEND** and press OK.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm or Back to go back without saving the changes.

5.2.3 Settings

Interface

Menu > Settings > Interface

Allows you to configure the communication mode to the Exiway Smart Hub.

- **RS232:** Communication is set to RS232, connect to (10).
- **RS485:** Communication is set to RS485, connect to (9). By clicking on "Configure" you can change the default settings for this configuration:
  - **Baud:** transmission rate (115200 kbps, 57600 kbps, 19200 kbps, 9600 kbps).
  - **Address:** address of the device.
  - **Termination:** Enables or disables the 120Ohm termination on the bus (9).
- **ETHERNET:** Communication is set to Ethernet, connect to (8). By clicking on "Configure" you can change the default settings for this configuration.

Changes will only be effective by selecting **Save and Restart**.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm. **Back** to go back without saving the changes.

Date & Time

Menu > Settings > Date & Time

Allows you to configure Date and Time on the device.

Date and Time will be configured automatically if the Exiway Smart Hub is connected in RS485 or Ethernet mode.

Scroll with ▲▼ to the desired field, press OK to select, press ▲▼ to edit, OK to confirm. **Back** to go back without saving the changes.

GPout

Menu > Settings > GPout

Allows you to configure GPout options on the device. GPout is automatically disabled in the absence of a network.

- **Disabled:** GPout is disabled (normally open).
- **Input Sensing:** Gpout is active when voltage is detected at the sensing input (4).
- **GPin mode:** Gpout is controlled by GPin (see GPin settings).

Scroll with ⌃⌄ to the desired field, OK to select, ⌃⌄ to edit, OK to confirm or Back to go back without saving the changes.

GPin

Menu > Settings > GPin

Allows you to configure GPin options on the device.

- **Disabled:** GPin is disabled.
- **ON/OFF GPout:** Gpout is piloted according to the GPin status.
- **Toggle Line x:** allows you to alternately send DALI ON and OFF commands on each line or on both when the GPin contact is closed.
- **ON/OFF Line x:** it sends ON and OFF commands on each line or on both respectively on the opening and closing front of the GPin contact.
- **Fire Alarm:** sends the Fire Alarm command on both lines when the GPin contact is opened.
- **Rest/Power on:** Toggles the Rest and Power on command.

Scroll with ⌃⌄ to the desired field, OK to select, ⌃⌄ to edit, OK to confirm. **Back** to go back without saving the changes.

Emergency

Menu > Settings > Emergency

It allows you to configure the communication mode on the bus (5)(6) in the absence of the mains.

- **BMS BUS:** the communication bus implements the BMS commands.
- **DALI BUS:** the communication bus implements DALI frames.
- **BUS DISABLED:** the communication bus is disabled.

NOTE: When the device is in the Emergency state, the communication bus is kept inactive outside the time necessary to send the command.

Scroll with ⌃⌄ to the desired field, OK to select, ⌃⌄ to edit, OK to confirm or Back to go back without saving the changes.

General

Menu > Settings > General

Allows you to configure the language, country and preset configurations of the device.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm or Back to go back without saving the changes.

Screen

Menu > Settings > Screen

Allows you to configure the Screen settings.

- **Shutdown:** idle time of the navigation buttons after which the screen shuts down.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm or Back to go back without saving the changes.

Security

Menu > Settings > Security

Allows you to configure the security options of the Exiway Smart Console device. When the security options are enabled to access the menu, you must enter the four-digit code set.

To enable the security options, set/enable the function with "ENABLE", set the four-digit code in the PIN field, end the procedure by selecting **Save and Exit**.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm or Back to go back without saving the changes.

Changes will only be effective by selecting **Save and Exit**.

Restart

Menu > Settings > Restart

Allows you to restart the device, all settings will be maintained. In the event of a power failure, the device shuts down.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm or Back to go back without saving the changes.

Restore

Menu > Settings > Restore

Allows you to restore the device to factory settings, all settings will be restored to their initial value. In the event of a power failure, the device shuts down.

Scroll with ▲▼ to the desired field, OK to select, ▲▼ to edit, OK to confirm or Back to go back without saving the changes.

5.2.4 Diagnostics

Menu > Diagnostics

Displays detailed information about the status of the device.

Scroll with  to the desired field.  to go back.

5.2.5 Information

Menu > Information

Allows you to view the product details.

Scroll with  to the desired field.  to go back.

6 Exiway Smart System commissioning

6.1 Pre-commissioning phase

Settings > Quick configuration

For an effective commissioning of the system it is necessary to verify that:

- All lamps are properly connected to the Exiway Smart Console.
- The connection between the Exiway Smart Hub and all Exiway Smart Consoles complies with the instructions of the previous chapters.
- Exiway Smart Hub, Exiway Smart Console and all the lamps are connected to the power supply.

The Exiway Smart system provides tools to detect any installation anomalies, which must be corrected before commissioning.

The identification command can be run from the Exiway Smart Hub web server. Refer to the Smart Hub section within this document.

Alternatively, it is also possible to verify the connection of the devices by means of the Exiway Smart Console:

- Access the commands section: Menu > Commands
- Select the required line
- Select the command IDENTIFY
- Send the command with Send
- Select the command ADDRESS ALL
- Send the command with Send

6.2 Configuration of Exiway Smart Console

Before proceeding with the actual commissioning, it is necessary to activate all the Exiway Smart Console devices present in the installation and configure all the functional parameters in accordance with the Exiway Smart Hub configurations.

Refer to the Exiway Smart Console section within this document for proper configuration.

6.3 Simplified system commissioning

To commission the system, you must connect to the Exiway Smart Hub web server via a local network connection to the Ethernet port 1. Alternatively, you can connect via Wi-Fi Access Point.

Access to the Exiway Smart Hub web server is subject to entering credentials that are set at the factory the first time the device is switched on.

1. Go to **Settings > Quick Configuration > Configuration Wizard.**
2. Select **Next** to access the initial procedure start page.
3. Configure the site by providing the required information:
    - **Name of the site**
    - **Line address**
    - **City**
    - **Postcode**
    - **Country**
    - **Name:** Name of contact person
    - **Email:** Contact person email

- **Setting the safety time interval:**
  - This is the interval accepted by the Exiway Smart Hub to send a functional or duration test to the lamps. Outside this range, the test command will not be sent to the connected devices.

    The information can be saved by pressing **Save**.

4. Configure the Exiway Smart Hub.
   - **Exiway Hub name:** name associated with the Exiway Smart Hub.
   - **Description:** description associated with the Exiway Smart Hub.
   - **Location:** Exiway Smart Hub location description.
5. Select the architecture.
6. Eth2 settings: The Ethernet parameters of the Exiway Smart Hub can be set for communication to the Exiway Smart Console.
7. Configure the Exiway Smart Console:
   - **New:** A new line will be added to add a new Exiway Smart Console device
   - The following information can be displayed and/or edited for each new Exiway Smart Console:
     - **Status:** The status of the Exiway Smart Console, which can be “Connected” or “Disconnected”
     - **Details:** provides device information
     - **Connection:** selects whether the connection between the Exiway Smart Hub and Exiway Smart Console is in RS232, RS485 or Ethernet
     - **Command:**
       - Select the line to send the command to
       - **Send ON/OFF:** to send an ON or OFF to all the lamps connected to the selected line
       - **Send Identification:** sends an Identification command to identify all the lamps connected to the selected line
       - **...:** to change the properties of the Exiway Smart Console device:
         - **Controller name:** The name of the Exiway Smart Console
         - **Console description:** A description of the Exiway Smart Console
         - **Line A description:** A description of line A
         - **Line B description:** A description of line B

8. Ensure that the settings on the Exiway Smart Hub are consistent with the configurations of each Exiway Smart Console made directly on the device.
9. Press **Next** and then the Start button to begin the automatic addressing process for all devices connected to the Exiway Smart Console:
    - All devices that previously had a DALI address will lose it to receive a new one.
    - During addressing, you can see the progress of the devices found between the lines.

At the end of the addressing, you will have a list of the lamps found.

By pressing the "End" button, the Exiway Smart Hub device will create the functional test schedule for all the lamps, the duration test for odd-numbered devices and the duration test for even-numbered devices. (see the Schedules chapter).

6.4 Methods of addressing

Exiway Smart System is an emergency lighting system based on DALI bus, within which each lamp has a unique address.

In addition to the quick configuration mode, there are other system addressing modes. The choice of a mode is based on the installation needs and the size of the system.

a. Automatic addressing of all lamps using the buttons on the front of the Exiway Smart Hub (see Appendix A). In this way all the addresses of the lamps are deleted and reassigned randomly, a new schedule of periodic tests is created **(*)**.
b. Automatic addressing of both lines and use of the identification command to locate lamps and assign a description on the web page **(*)**. This mode can be performed both from the Exiway Smart Hub web server and from the Exiway Smart Console.
c. Automatic addressing of both lines using the VLDP device to read the DALI address and assign a description **(*)**.
d. Sequential addressing in a line in combination with a laser pointer (or mechanical actuator present on the lamps) to select the lamp and to assign an address **(**)**. This mode is only available from the Exiway Smart Hub web server.
e. For each Exiway Smart Console, by selecting one or both lines, it is possible to add lamps already addressed using the "Analyse" command **(**)**. This mode can be performed both from the Exiway Smart Hub web server and from the Exiway Smart Console.
f. For each Exiway Smart Console, you can add unaddressed lamps using the “Add New Lamps” command **(**)**. This mode can be performed both from the Exiway Smart Hub web server and from the Exiway Smart Console.

(*) **WARNING:** with these commands a schedule of periodic tests required by the standard is automatically created. Refer to the ***Settings > General > Edit*** group schedules menu:

- Group1 (functional test every 28 days)
- Group2 and Group3 (duration test every 12 weeks)

○ After commissioning, the lamps will perform a first functional test after 20 hours from addressing.
○ After 24 hours from addressing, the devices with an odd-numbered address will perform a duration test.
○ After 48 hours from addressing, the devices with an even-numbered address will perform a duration test.

(**) **WARNING:** these commands do not automatically create a schedule of periodic tests required by the standard. Check in the ***Settings > General > Edit Schedule*** menu if the group schedules are already present:

- Group1 (functional test every 28 days)
- Group2 and Group3 (duration test every 12 weeks)

alternatively, it is necessary to proceed with the creation of the groups.

(***) **WARNING:** set Date & Time before proceeding with the Addressing

6.4.1 Automatic addressing and identification command

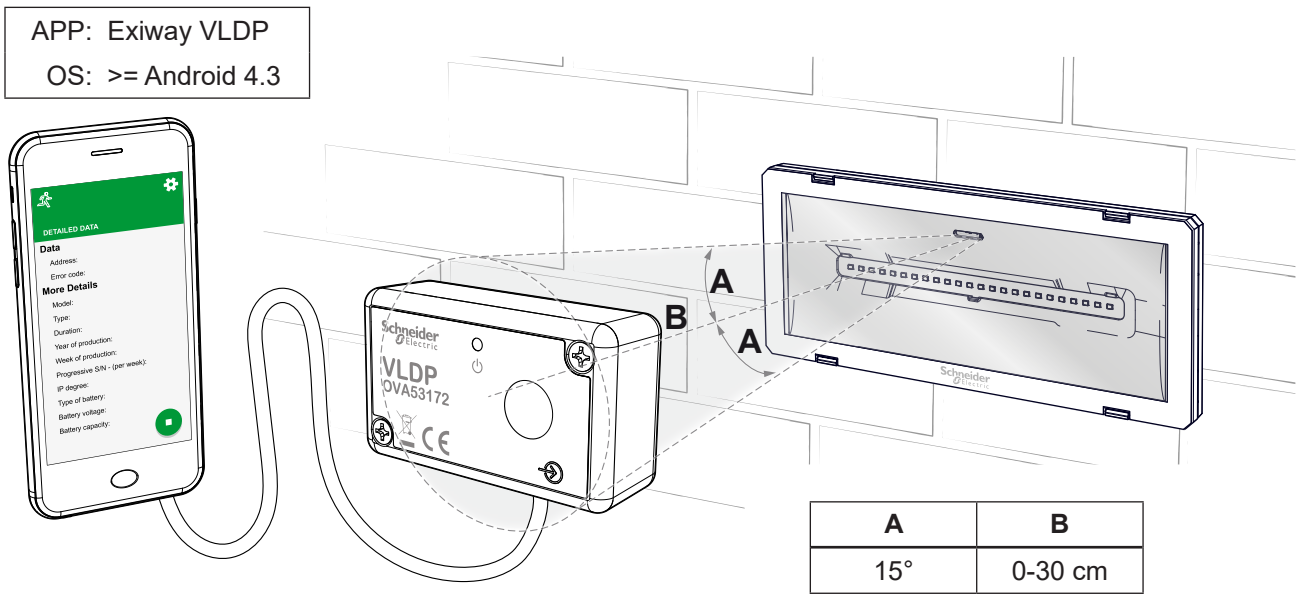
WARNING: Using this mode will result in the deletion and random reassignment of all the lamp addresses of that line (or both lines). The Exiway Smart Hub periodic test schedule will be recreated.

1. From the web server menu, ***Settings > Exiway Smart Console***, select Exiway Smart Console.
2. Select "Commissioning", the line (or both) and send the command.
3. Each addressed lamp will be marked in the Commissioned column.
4. Each lamp can be identified in the system by pressing the Identification key.
5. Assign a possible description of the lamp (see the menu in the chapter Commissioning).
6. You can delete the lamp address with the **Delete Address** button.
7. The address of the lamp can be modified: from the "Diagnostics" menu, select the associated Exiway Smart Console line, click on move and select the new address.

6.4.2 Automatic addressing and VLPD reading

With this mode all the addresses of the lamps of that line (or both lines) will be deleted and reassigned randomly. The Exiway Smart Hub periodic test schedule will be recreated.

1. From the Exiway Smart Hub web server menu, ***Settings > Exiway Smart Console*** , select the Exiway Smart Console.
2. Click on "Commissioning".
3. Select the "Commissioning" menu, the line (or both) and send the command.
4. Each addressed lamp will be marked in the Commissioned column.
5. By reading the information from the lamp using the VLDP device (see OVA53172) and the eCommission Exiway app it is possible to know the DALI address that has been assigned.



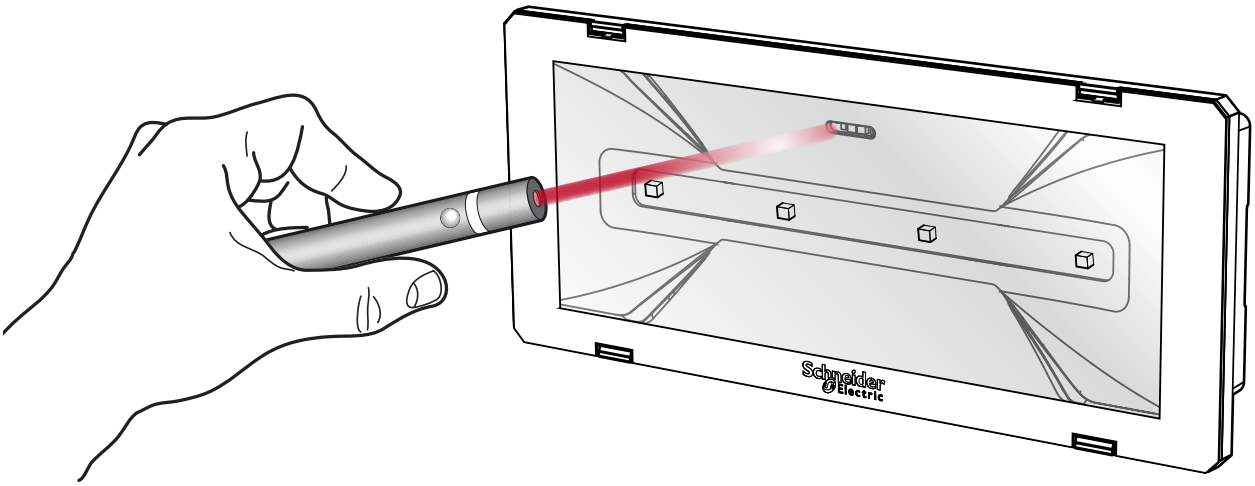
A	B
15°	0-30 cm

6. Knowing the line and the Exiway Smart Console controller to which the lamp is connected, access the page and select the corresponding line to add a description of the lamp (see the menu in the chapter "Commissioning").
7. You can delete the lamp address with the **Delete Address** button.
8. The address of the lamp can be modified: from the "Diagnostics" menu, select the associated Exiway Smart Console line, click on move and select the new address.

6.4.3 Sequential Addressing

See the chapter Commissioning.

This addressing allows you to assign an address to a lamp that has not yet been addressed using a Laser transmitter. (See Exiway lamp instructions).



1. From the Exiway Smart Hub web server menu ***Settings > Exiway Smart Console***, select the Exiway Smart Console.
2. Click on "Commissioning".
3. Select the line where the lamp is connected, select "Sequential" and send the command.
4. Exiway Smart Hub searches for the first free address and, at the lamp, the message "Wait" appears. The lamp selected with the laser (or via the lamp button, pressed for at least 2 seconds) will receive the corresponding address and perform a sequence of identification flashes via the light source. A sequence of flashes of the green status LED will indicate the received address (fast flashes for the tens, slow flashes for the units).
5. By directly selecting the next lamp, you can set the DALI addresses with a value that automatically increases from 0 to 63.
6. You can switch to a new (non-sequential) address by pressing the “Commissioning” function.
7. Assign a possible description of the lamp (see the menu in the chapter "Commissioning").

8. When finished, press “stop” on the web page.
9. Outside the sequential addressing mode you can identify the lamp (Identification key) and delete the lamp address with the **Delete Address** button.
10. The address of the lamp can be modified: From the "Diagnostics" menu, select the associated Exiway Smart Console line, click on move and select the new address.

WARNING: Each time the lamp is addressed, Exiway Smart Hub restarts a 15-minute internal stopwatch. Within this time it is necessary to address at least one lamp otherwise the procedure will end automatically and it will be necessary to restart the sequential addressing to continue. Already addressed lamps will not lose the assigned address.

6.4.4 Add Already Addressed Lamps

The command allows you to add to the line one or more lamps that already have an address but have not yet been acquired by Exiway Smart Hub.

WARNING: Before carrying out this operation in the line, check that there are no lamps with the same address as those to be added and that the line has a number of lamps equal to or less than 64.

1. From the Exiway Smart Hub web server menu ***Settings > Exiway Smart Console***, select the Exiway Smart Console device.
2. Click on "Commissioning".
3. Select the line where the lamp is connected, select and send the command.
4. Each new lamp found in the line will be added is marked as addressed in the Commissioned column.
5. The address of the lamp can be modified: from the Diagnostics menu select the line associated with the Exiway Smart Console device, click on “move” and select the new address.

6.4.5 Adding unaddressed lamps

The command allows you to add one or more lamps that do not yet have an address to the line.

WARNING: Before performing this operation on the line, check that the lamps to be added do not have an address and that the number of lamps in the line is less than or equal to 64.

1. From the Exiway Smart Hub web server menu ***Settings > Exiway Smart Console***, select the Exiway Smart Console.
2. Click on "Commissioning".
3. Select the line or both lines where the lamp is connected, select "Add New Lamp" and send the command.
4. Each addressed lamp will be marked in the Commissioned column.
5. The address of the lamp can be modified: From the "Diagnostics" menu, select the associated Exiway Smart Console line, click on “move” and select the new address.

6.5 System display with Maps

To manage lamps within a floor plan, images must be uploaded (in .png format, maximum supported size is 1MB) to the Exiway Smart Hub.

From the Exiway Smart Hub web server page ***Settings > Map Management.***

1. Press **New.**
2. From the menu, select the map to upload.
3. Click the up arrow button to upload the image.
4. Add a description and save.

From the Exiway Smart Hub web server page ***Home > Smart Console > Maps.***

1. From the **Current Map** drop-down menu, select the image.
2. In the list on the left select the lamp icon and drag it onto the image.
3. On the image with the right button you can go to the lamp information menu or remove the icon on the image.
4. **Save** the positioning of the lamps on the image with the save button.

NOTE: Do not use spaces or special characters in the file names.

7 Exiway Smart System Maintenance

Emergency lighting systems in buildings play an essential role in ensuring the safety of the occupants, ensuring visibility and orientation even in the event of a power outage.

The correct implementation of the requirements relating to the verification and maintenance of emergency lighting systems ensures that these systems are always ready to go into operation in an emergency, minimising safety risks.

To ensure the compliance of the system with the requirements of the regulations, it is necessary to ensure the following steps:

1. **Periodic Checks:**
   - Emergency lighting systems must be subjected to periodic checks to ensure that they are working properly. These checks include:
     (1) **functional tests** lasting a few seconds to verify the correct emergency operation of the lamp and switch on the light source via the battery
     (2) **duration test** to simulate emergency intervention and switching on the light source via battery for nominal autonomy
2. **Maintenance:**
   - The maintenance of the systems must be carried out by qualified personnel and must include the replacement of batteries, lamps and other components that could deteriorate over time.
3. **Documentation:**
   - It is mandatory to keep a record of the checks and maintenance carried out. This log must be updated regularly and must include details of all control and maintenance activities carried out.
4. **Automatic Test and Control System:**
   - The Exiway Smart System is an automatic control system that continuously monitors the status of emergency devices and reports any faults or anomalies.

7.1 Programming of functional and autonomy tests

From the Exiway Smart Hub web server: ***Settings > General > Schedules.***

For periodic checks of the emergency lighting system, it is essential to have a configured test schedule.

The functional tests must be scheduled to be carried out at least once a month.

Duration tests must be carried out at least once a year.

The devices are grouped into two groups (even-numbered and odd-numbered devices). To carry out a complete discharge of the system's batteries on alternate days. This ensures that a part of the system is always ready to intervene in an emergency situation.

Groups can be added or modified according to requirements. To create a new schedule, click on "New". You must assign a name, a type and a goal to the schedule. It is also possible to indicate the frequency of the action and the date/time of the first occurrence.

NOTE: If the lamps do not receive the test command, at the end of the month for the functional test or year for the duration test, they indicate with the status LED (red/green flashing) the lack of functional and autonomy tests.
Check that the Date & Time are correctly configured before proceeding with the configuration of the automatic tests.

7.2 Report generation and download

For the register of checks required by the standard, it is possible to download the status of the system at any time with the status of the lamps and any alarms.

From the Smarthub web server: ***Home > Smart Console > Site Report***

The information available:

- System name.
- IP Controller
- Manufacturer
- Location.
- Total installed devices.
- Total number of devices with communication errors (devices that have been addressed but are not communicating with the Exiway SmartHub and the Exiway Smart Console).
- Total devices in autonomy failure (devices that have not passed the nominal duration test in emergency or have the battery voltage below the minimum permitted level).
- Total devices in functional failure (devices that have not passed the functional test for light source brightness level outside the factory range or the battery voltage level is low).
- Total devices waiting for autonomy test (the autonomy test command has been received by the lamp but the battery is not fully charged and the lamp waits for full recharge before performing it).
- Total devices awaiting functional test (the functional test command has been received but the battery has not yet reached the minimum charge level to carry out the test).
- No autonomy test (the lamp has not received the autonomy test command for a year).
- Absence of functional test (the lamp has not received the command of a functional test for a month).
- Total devices with mains power off (devices that are currently in emergency mode).

7.3 Replacing a lamp

It is possible to replace a faulty lamp installed and addressed with a new one, directly associating the same DALI address.

- Remove the faulty lamp.
- Install the new lamp in the DALI line and power it (see lamp instructions).
- From the Exiway Smart Hub web server, enter the ***Diagnostics*** menu.
- Choose Exiway Smart Console and select the line where the previous lamp was installed. In Diagnostics > Move/replace, go to the line corresponding to the old lamp (the ‘communication error’ alarm must appear as the new lamp does not yet have an address).
- Press replace.
- Wait until the lamp appears in the column of the page:
  - **Status:** OK.
  - **Commissioned:** Yes.

The lamp is ready to be checked in the system.

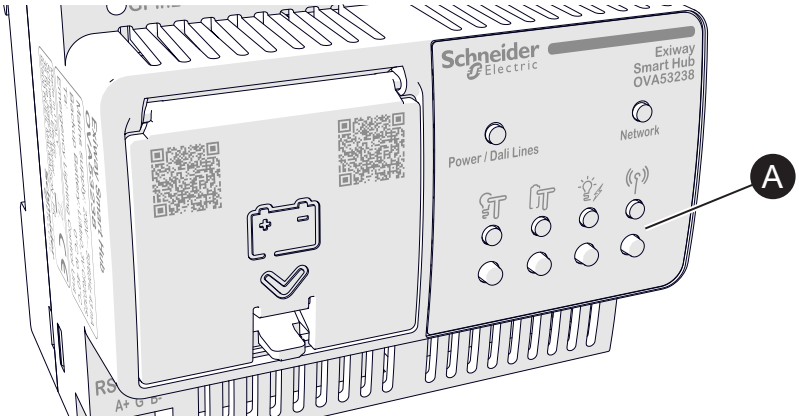
7.4 Lamp information

For each addressed lamp, it is possible to display the factory information, the information exchanged through the DALI protocol and send a list of manual commands.

For details see chapter: Device information.

8 Appendices

8.1 Appendix A: Exiway Smart Hub local signals and manual commands



The following commands can be sent through the front interface (**A**) of Exiway Smart Hub:

Buttons		Command	Warning
	3-7 seconds	Start Functional test.	
	11-15 seconds	Stop tests (functional and duration).	
	19-23 seconds	No command.	
	27-31 seconds	No command.	
	3-7 seconds	Start of even-numbered duration test.	
	11-15 seconds	Start odd-numbered duration test.	
	19-23 seconds	No command.	
	27-31 seconds	No command.	

 Steady on

 Fast flashing

 Slow flashing

Buttons		Command	Warning
	3-7 seconds	Rest mode (lamps off in emergency state).	
	11-15 seconds	Restore (lamps on if previously switched off by Rest in emergency state).	
	19-23 seconds	No command.	
	27-31 seconds	No command.	
	3-7 seconds	No command.	
	11-15 seconds	No command.	
	19-23 seconds	Wi-Fi on and access mode enabled.	
	27-31 seconds	No command.	
	3-7 seconds	No command.	
	11-15 seconds	No command.	
	19-23 seconds	No command.	
	27-31 seconds	No command.	
	3-7 seconds	No command.	
	11-15 seconds	Restarting the device.	
	19-23 seconds	IP reset and factory IP restore.	

Steady on Fast flashing Slow flashing

Buttons		Command	Warning
+	3-7 seconds	No command.	
	11-15 seconds	Reset the addresses of all the lamps and re-addressing.	
	19-23 seconds	Lamp addressing stop.	
	27-31 seconds	No command.	

Steady on Fast flashing Slow flashing

INDICATOR	STATUS	COLOUR	INDICATION
Power / Dali Lines	**STEADY ON**	Green	All configured Exiway Smart Consoles are in communication with the Exiway Smart Hub.
Power / Dali Lines	**STEADY ON**	Red	At least one configured Exiway Smart Console is not in communication with the Exiway Smart Hub.
Network	**SLOW FLASHING**	Green	Ethernet of the Exiway Smart Hub connected to an Ethernet network.
Network	**STEADY ON**	Red	No Exiway Smart Hub network connection (Wi-Fi / Ethernet) is active.
Network	**SLOW FLASHING**	Red	Exiway Smart Hub Wi-Fi in access mode is active.

8.2 Appendix B: Modbus registers

The Exiway Smart Hub can be enabled to operate via port ETH1 as Modbus Server (see configuration chapter). EcoStruxure Building Operation or third-party BMS can connect to the Exiway Smart Hub to access system information using available registers.

8.2.1 Exiway Smart System Mode

It is possible to configure the register addressing mode indicated as Exiway Smart System in the configuration menu: Modbus TCP Server.

For each lamp it is possible to know the data described in these tables by reading the indicated register.

Input Registers

Total devices: **1280**

Modbus command: **0x04 (Read Input Register)**

Modbus Address	Recorded value (16 bit)
5000 + Device Address (0 to 1279)	bit 0 => 1 for communication error bit 1 => 1 Flow rate transmitter fault bit 2 => 1 DT Fault bit 3 => 1 ACTIVE fire alarm (France only) bit 4 => 1 Battery fault bit 5 => 1 FT missing (4 weeks without test) bit 6 => 1 DT missing (52 weeks without test) bit 7-15 => reserved
15000 + Device Address (0 to 1279)	bit 0 => 1 Not used (Dynamic Escape ON) bit 1 => 1 device in Inhibit bit 2 => 1 device in DT pending bit 3 => 1 device Functional Test Failed bit 4 => 1 fully recharged battery bit 5 => Device in emergency condition / 0 devices with mains power bit 6 => 1 device in REST bit 7 => 1 DT in progress bit 8-15 => reserved

Holding Registers

It is possible to send commands to the individual lamps or to the groups consisting of all the devices, those indicated on the web page with an even or odd number.

Total devices: **1280**

Modbus command: **0x06 (Reading input register)**

Modbus Address	Register Value (16 bit)
25000 + Device addresses (0 to 1279)	Command to single device (see Command code table)
26280	Command to all devices (see Command code table)
26281	Command to even-numbered devices (see Command code table)
26282	Command to odd-numbered devices (see Command code table)

Command Code	Description
32768	Switching off permanent lamp: this command is reserved for permanent type lamps that do not have power at the permanent input, but have power at the charging input. If there is no mains supply at the charging input, the lamp will still turn on.
32773	Permanent lamp on: this command is reserved for permanent lamps that do not have power at the permanent input, but have power at the charging input. If there is no mains supply at the charging input, the lamp will still turn on.
34016	Rest Mode: If the lamp is switched on in emergency due to the lack of mains power, the command switches it off. When the mains power returns, the command is cancelled and the lamp will be ready to turn on the next emergency.
34017	Inhibit: The command keeps the lamp off in an emergency. The function does not cancel as in the Rest Mode after the mains power is restored. The tests are not performed if the lamps are in this state. **(Not contemplated for configuration in France)**.
34018	Re-activation / Reset inhibit: the command resets the lamp off during an emergency following a rest mode command or clears the inhibit command.
34019	Functional test: once the command is sent to the lamp, it will perform a short test of operation, at the end the “Lamp Status” and “Fault Status” registers will be updated.

Command Code	Description
34020	Autonomy test: once the command has been sent to the lamp, it will remain in test for its nominal run time, at the end of the test the "Lamp Status" and "Fault Status" registers will be updated.
34021	"Stop Test" the test in progress is forced to be terminated before its nominal duration
34032	Identification: the lamp switches on and off for a few seconds in order to be identified.

8.2.2 Backward Compatible Mode

Exiway Smart Hub provides the possibility to set the Modbus registers used by the Exiway Smart Control (OVA53167) in case it is necessary to proceed with a replacement.

Below is the information implemented by the "Backward compatible mode" configuration.

The lamp information can be read for each address.

Input Registers

Total devices: **256**

Modbus command: **0x04 (Reading input register)**

Modbus Address	Recorded value (16 bit)
0 + 15* Device Address (0 to 255)	Status request
1 + 15* Device Address (0 to 255)	Emergency condition
2 + 15* Device Address (0 to 255)	Failure Status
3 + 15* Device Address (0 to 255)	Emergency mode
4 + 15* Device Address (0 to 255)	Not used
5 + 15* Device Address (0 to 255)	Not used
6 + 15* Device Address (0 to 255)	Not used
7 + 15* Device Address (0 to 255)	Not used
8 + 15* Device Address (0 to 255)	Not used
9 + 15* Device Address (0 to 255)	Not used
10 + 15* Device Address (0 to 255)	Not used
11 + 15* Device Address (0 to 255)	Not used
12 + 15* Device Address (0 to 255)	Not used
13 + 15* Device Address (0 to 255)	Not used

Modbus Address	Recorded value (16 bit)
14 + 15* Device Address (0 to 255)	bit 0 = 1 (in case of communication error or if the Fault Status > 0) bit 1 = 1 if fire alarm is active (France only)

Consider the value of the answers with the further details in the bit position:

Request Status	Emergency condition	Fault Status	Emergency mode
Bit 0 Lamp power supply: “0” = “OK”	Bit 0 Inhibit: “0” = “No”	Bit 0 Circuit fault: “0” = “No”	Bit 0 Active rest mode: “0” = “No”
Bit 1 Lamp fault: “0” = Lamp not faulty	Bit 1 Functional test performed: “0” = “No”	Bit 1 Battery life fault: “0” = “No”	Bit 1 Lamp with mains power present: “0” = “No”
Bit 6 Missing lamp address: “1” = The lamp has been commissioned but is not responding (the communication line between the Exiway Smart Control and the lamp may be disconnected)	Bit 2 Autonomy test performed: “0” = “No”	Bit 2 Battery failure: “0” = “No”	Bit 2 Emergency lamp: “0” = “No”
	Bit 3 Battery fully charged: “0” = “Charge in progress”	Bit 3 Emergency lamp failure: “0” = “No”	Bit 4 Functional test in progress: “0” = “No”
	Bit 4 Functional test required: “0” = “No”	Bit 4 Functional test not performed for more than a month: “0” = “No”	Bit 5 Autonomy test in progress: “0” = “No”
	Bit 5 Autonomy test required: “0” = “No”	Bit 5 Duration test not performed for more than six months: “0” = “No”	
	Bit 6 Active identification: “0” = “No”	Bit 6 Functional test failed: “0” = “No”	
		Bit 7 Autonomy test failed: “0” = “No”	

Holding Registers

For each register it is possible to send to the individual lamp to the groups consisting of all the devices, those indicated on the web page with an even or odd number, by writing the code indicated:

Total devices: **256**

Modbus command: **0x06 (Writing a single register)**

Modbus Address	Recorded value (16 bit)
0 + 5* Device Address (0 to 255)	Command for single device (see Command Code table)
1364	Command for all devices (see Command Code table)
1369	Command for even-numbered devices (see Command Code table)
1374	Command for odd-numbered devices (see Command Code table)

Command Code	Description
32768	Switching off permanent lamp: this command is reserved for permanent type lamps that do not have power at the permanent input, but have power at the charging input. If there is no mains supply at the charging input, the lamp will still turn on.
32773	Permanent lamp on: this command is reserved for permanent lamps that do not have power at the permanent input, but have power at the charging input. If there is no mains supply at the charging input, the lamp will still turn on.
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Command Code	Description
34020	Autonomy test: once the command has been sent to the lamp, it will remain in test for its nominal run time, at the end of the test the "Lamp Status" and "Fault Status" registers will be updated.
34021	"Stop Test" the test in progress is forced to be terminated before its nominal duration
34032	Identification: the lamp switches on and off for a few seconds in order to be identified.

Schneider Electric
35 rue Joseph Monier
92500 Rueil Malmaison
France

+ 33 (0) 1 41 29 70 00

www.se.com

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