

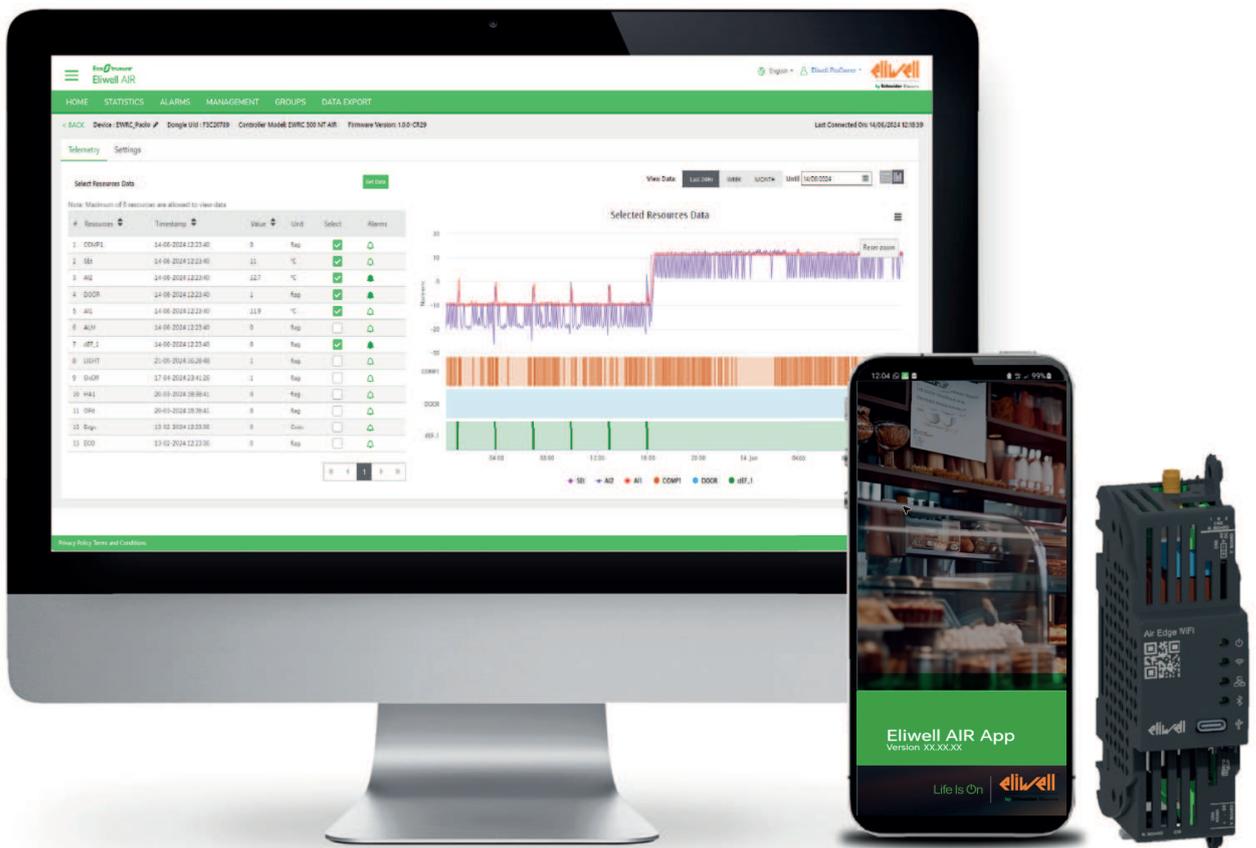
# Eliwell AIR

## Eliwell AIR Silent Guardian

### User manual

E\_AIR-03EN

01/2026



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# Safety Information

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## Important information

Read these instructions carefully and visually inspect the equipment to familiarize yourself with the controller before installing it and/or putting it into operation or servicing it. The following warning messages may appear anywhere in this documentation or on the equipment to warn of potential dangers or to call attention to information that can clarify or simplify a procedure.



The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety warning symbol. It is used to warn the user of the potential dangers of personal injury. Observe all the safety warnings that follow this symbol to avoid the risk of serious 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 potentially dangerous situation which, if not avoided, **could result in minor or moderate injury**.

### **NOTICE**

**NOTICE** used in reference to procedures not associated with physical injuries.

## Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric and Eliwell for any consequences arising out of the use of this material. An authorized person is someone in possession of the skills and knowledge applicable to the structure, to the operation of the electrical equipment and to its installation, and who has received safety training in order to recognize and avoid the risks involved.

## Personnel qualification

Only personnel with suitable training and an in-depth knowledge and understanding of the contents of this manual and any other documentation relevant to the product are authorized to work on and with this product. Qualified personnel must be capable of identifying any dangers which may arise from the parameterization or changing of parameter values, and from the use of mechanical, electric and electronic equipment in general. Plus, they must be familiar with the personal safety laws, provisions and regulations which must be observed during system planning and implementation.

## Eliwell AIR APP related information

IT IS INTENDED THAT THE MOBILE APPLICATION FULL COMPATIBILITY WITH ANY SMART DEVICE AVAILABLE ON THE MARKET AT ANY TIME CANNOT BE GRANTED BY SCHNEIDER ELECTRIC SO IT IS UNDER THE USER'S RESPONSIBILITY TO VERIFY SUCH COMPATIBILITY BEFORE USING THE MOBILE APPLICATION.

MOBILE APPLICATION IS NOT A TOOL ABLE TO SUBSTITUTE HANDS-ON TRAINING, SAFETY MEASURES OR INSTRUCTIONS FOR COMMISSIONING, USE OR MAINTENANCE OF THE COOLER AND/OR THE ELECTRONIC CONTROLLER. IT IS INTENDED TO BE USED AS SUPPLEMENTAL REFERENCE BY A COMPETENT SERVICE TECHNICIAN WHO IS FULLY TRAINED IN THE CARE, OPERATION AND MAINTENANCE OF THE INSTALLED ELECTRONIC CONTROL.

ALTHOUGH REASONABLE CARE HAS BEEN TAKEN TO PROVIDE ACCURATE AND AUTHORITATIVE INFORMATION, SCHNEIDER ELECTRIC ASSUMES NO RESPONSIBILITY FOR ANY CONSEQUENCES ARISING OUT OF THE USE OF THIS MOBILE APPLICATION. SCHNEIDER ELECTRIC CAUTIONS YOU THAT MAINTENANCE AND DIAGNOSTIC OPERATIONS SHALL BE CARRIED OUT ONLY BY QUALIFIED MAINTENANCE PERSONNEL. FAILURE TO DO SO CAN RESULT IN SERIOUS PERSONAL INJURY, PROPERTY DAMAGE, OR DEATH.

FOR A PROPER USE OF THE MOBILE APPLICATION, USER MUST REFER TO AND STRICTLY FOLLOW ALL SAFETY INSTRUCTIONS DEFINED AND ANY REGULATION APPLICABLE TO THE COOLER AND THE ELECTRONIC CONTROLLER IN CONNECTION WITH WHICH THE MOBILE APPLICATION IS USED.

Schneider Electric reserves the right but is not obligated to, at any time, update or upgrade the current version of the Mobile Application and its Documentation so as to enhance current functionalities, add or remove functionalities of the Mobile Application and/or to create temporary or permanent conditions or limitations to the use of the Mobile Application.

Any such update or upgrade to the Mobile Application and its Documentation will be published online by Schneider Electric. Schneider Electric recommends that every User, including returning Users, carefully review the following website [air.eliwell.com/terms](http://air.eliwell.com/terms) or the Mobile Application stores' web-page(s) that make the Mobile Application available for download. It is the User's responsibility to visit such website or pages prior to each use of the Mobile Application. The User's continued use of the Mobile Application after any such update or upgrade to the Mobile Application is published by Schneider Electric, shall be deemed as the User's acceptance of such update or upgrade and the User's agreement to use the updated or upgraded Mobile Application in accordance with these Terms of Use (or any then-current, revised Terms of Use).

If the User does not consent to such updates or upgrades, the User shall have the immediate obligation to cease any use of the Mobile Application and to delete or expunge the Mobile Application from all computers, hard disks, servers, tablets, smart phones or other mobile devices to which the User downloaded the Mobile Application, with the effect that the legal agreement formed between the User and Schneider Electric by the User's acceptance of these Terms of Use shall be deemed immediately and automatically terminated.

## EW AIR EDGE Disposal

For security reasons, before removing the controller, we recommend to reset the **EW AIR EDGE** to the default value (see 'Restore default values').

### **NOTICE**

#### **DISCLOSURE OF APPLICATION DATA**

Reset the controller to the default values to help prevent data disclosure.

**Failure to follow these instructions can result in equipment damage.**



The equipment (or product) must be subjected to separate waste collection in compliance with local legislation regarding waste disposal.

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# About the document

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## Document Scope

**Silent Guardian** is a service of **Eliwell AIR Cloud** platform for monitoring and create reports of refrigeration equipment.

The **Eliwell AIR APP** enables configuration, diagnostics, and data logging via Bluetooth or WiFi, while the **Silent Guardian** service provides remote monitoring, alarm management, and HACCP report scheduling. **EW AIR EDGE** ensures secure data transfer and supports DIN-rail or panel mounting. The solution is compatible with various Eliwell controllers, offers multilingual support, and works on iOS, Android, and major browsers. Key features include remote parameter control, telemetry visualization, grouping of devices, and integration with third-party cloud services for comprehensive fleet management.

## Validity note

The characteristics of the products described in this document are intended to match the characteristics that are available on [www.eliwell.com](http://www.eliwell.com). As part of our corporate strategy for constant improvement, we may revise the content over time to enhance clarity and accuracy. If you see a difference between the characteristics in this document and the characteristics on [www.eliwell.com](http://www.eliwell.com), consider [www.eliwell.com](http://www.eliwell.com) to contain the latest information.

## General Cybersecurity Information

In recent years, the growing number of networked machines and production plants has seen a corresponding increase in the potential for cyber threats, such as unauthorized access, data breaches, and operational disruptions. You must, therefore, consider all possible cybersecurity measures to help protect assets and systems against such threats.

To help keep your Schneider Electric products secure and protected, it is in your best interest to implement the cybersecurity best practices as described in the [Cybersecurity Best Practices](#) (English document).

Schneider Electric provides additional information and assistance:

- Subscribe to the Schneider Electric [security newsletter](#).
- Visit the [Cybersecurity Support Portal](#) to:
  - Find Security Notifications
  - Report vulnerabilities and incidents
- Visit the [Schneider Electric Cybersecurity and Data Protection Posture](#) to:
  - Access the 'cybersecurity posture'
  - Learn more about cybersecurity in the cybersecurity academy
  - Explore the cybersecurity services from Schneider Electric

## Available Languages of this Document

This document is available in these languages:

- English (E\_AIR\_03EN)

## Related documents

Publication title	Reference document code
Instruction Sheet EW AIR EDGE WIFI (-ETHERNET) TTL SD	9IS64898 (6L)
Cybersecurity Best Practices	Refer to <a href="#">Cybersecurity Best Practices</a> (English document)

To find documents online, visit the Eliwell website: [www.eliwell.com](http://www.eliwell.com)

## Environmental Data

For product compliance and environmental information refer to the Schneider Electric [Environmental Data Program](#).

## Information on non-inclusive or insensitive terminology

As part of a group of responsible and inclusive companies, we are currently updating our communications and products that contain non-inclusive terminology. Nevertheless, until we have completed this process, our content may still include standardized industry terminology which may be considered inappropriate by our customers.

## Product related information

### **DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, FIRE OR ARC FLASH**

- Disconnect all power from all equipment including connected devices prior to removing any covers or doors, or installing or removing any accessories, hardware, cables, or wires except under the specific conditions specified in this hardware guide.
- Always use a properly rated voltage sensing device to confirm the power is off where and when indicated.
- Before restoring the power supply, replace and secure all covers, accessories, hardware, cables, and wires and confirm that a proper ground connection exists.
- Use only the specified voltage when operating this equipment and any associated products.

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

### **DANGER**

#### **HAZARD OF EXPLOSION**

- Use the EW AIR EDGE exclusively with compatible Eliwell instruments.
- Install the EW AIR EDGE inside the refrigeration unit, in an inaccessible location.

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

### **WARNING**

#### **UNINTENDED EQUIPMENT OPERATION**

- Do not use this equipment for safety-critical functions.
- Do not disassemble, repair, or modify this equipment.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

### **NOTICE**

#### **INOPERABLE DEVICE**

- Disconnect all the equipment before installing/dismantling cables or wires.
- Position and adequately fix the device to prevent cable disconnection.
- The TTL cable must be routed separately from the power cables.
- Verify the length of the TTL cable, referring to the datasheet of the compatible Eliwell AIR device.

**Failure to follow these instructions can result in equipment damage.**

### **NOTICE**

#### **UNINTENDED EQUIPMENT OPERATION DUE TO ELECTROSTATIC DISCHARGE OR DURING INSTALLATION**

- Keep the device in the protective packaging until ready for installation.
- When handling sensitive equipment, use an earthed protective device against electrostatic discharge.
- Before handling the device, always discharge the static electricity from the body by touching an earthed surface or type-approved antistatic mat.

**Failure to follow these instructions can result in equipment damage.**

## Flammable refrigerant gases

This equipment is designed to operate in non-hazardous areas and where applications which generate - or could potentially generate - hazardous atmospheres have been isolated. Install this equipment only in areas and with applications known to be constantly free from hazardous atmospheres.



### HAZARD OF EXPLOSION

- Install and use this equipment in non-hazardous locations only.
- Do not install or use this equipment in applications which could generate hazardous atmospheres, such as those using flammable refrigerants.

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

For information regarding the use of control equipment in applications capable of generating hazardous materials, please contact the regulatory office or the local, regional or national certification authority.

## Before starting

Do not use this product on machines which do not have effective workstation protection.  
A lack of effective workstation protection on a machine may result in serious injury to the machine operator.

### **WARNING**

#### **EQUIPMENT WITHOUT PROTECTION**

Do not use this software or the relative automation equipment on a device lacking protection on the workstation.  
**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

This automation equipment and the relative software are used to control various industrial and commercial processes. Only the user, the machine manufacturer or the system integrator can be up-to-date in terms of all the conditions and factors present when preparing, starting up and servicing the machine and therefore only they are able to determine which automation equipment and corresponding safety devices and interlocks can be used correctly.

When the automation and control equipment and the relative software are selected for a particular application, the applicable local and national standards and regulations must also be taken into consideration. Furthermore, the manual for accident prevention of the National Safety Council (recognized nationally in the United States of America) provides very useful information.

Before putting the equipment into service, make sure that all the safety devices and appropriate mechanical/electrical interlocks relating to the protection of the workstation have been installed. All the interlocks and safety devices relating to workstation protection must be coordinated with the corresponding software programming and automation instruments.

## Start-up and testing

Before using the electric control and automation equipment for normal operation after installation, the system should be subjected to a start-up test by qualified personnel to make sure the equipment is functioning correctly.

It is important to carry out the preparations for this check and that sufficient time is provided in order to completely and satisfactorily perform the test.

### **WARNING**

#### **DANGER WHEN STARTING-UP THE EQUIPMENT**

- Verify that all installation and preparation procedures have been completed.
- Before performing the operating tests, remove all the locks or other temporary retaining devices used when shipping the device components.
- Remove any tools, measuring instruments and debris from the equipment.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Perform all the start-up tests recommended in the equipment documentation. Conserve all equipment documentation for future consultation.

**The custom software must be tested in a simulated environment as well as in the real environment.**

Check that the completed system is free of short circuits and that the temporary earth system is not installed in compliance with local standards (for example the National Electrical Code in the US). If it is necessary to perform high potential voltage tests, comply with the recommendations provided in the equipment documentation in order to avoid damaging the device.

Before powering the equipment:

- Close the door in the equipment casing.
- Remove all the temporary earth systems from the incoming power supply lines.
- Perform all the start-up tests recommended by the manufacturer.

## Terminology Derived from Standards

The technical terms, terminology, symbols and the corresponding descriptions in this manual, or that appear in or on the products themselves, are generally derived from the terms or definitions of international standards. In the area of functional safety systems, drives and general automation, this may include, but is not limited to, terms such as safety, safety function, safe state, fault, fault reset, malfunction, failure, error, error message, dangerous, etc.

Among others, these standards include:

Standard	Description
IEC 61131-2:2007	Programmable controllers, part 2: Equipment requirements and tests.
ISO 13849-1:2015	Safety of machinery: Safety related parts of control systems. General principles for design.
EN 61496-1:2013	Safety of machinery: Electro-sensitive protective equipment. Part 1: General requirements and tests.
ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction.
EN 60204-1:2006	Safety of machinery - Electrical equipment of machines - Part 1: General requirements.
ISO 14119:2013	Safety of machinery - Interlocking devices associated with guards - Principles for design and selection.
ISO 13850:2015	Safety of machinery - Emergency stop - Principles for design.
IEC 62061:2015	Safety of machinery - Functional safety of safety-related electrical, electronic, and electronic programmable control systems.
IEC 61508-1:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems: General requirements.
IEC 61508-2:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems: Requirements for electrical/electronic/programmable electronic safety-related systems.
IEC 61508-3:2010	Functional safety of electrical/electronic/programmable electronic safety-related systems: Software requirements.
IEC 61784-3:2016	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions.
2006/42/EC	Machinery Directive.
2014/30/EU	Electromagnetic Compatibility Directive.
2014/35/EU	Low Voltage Directive.

In addition, terms used in the present document may tangentially be used as they are derived from other standards such as:

Standard	Description
IEC 60034 series	Rotating electrical machines.
IEC 61800 series	Adjustable speed electrical power drive systems.
IEC 61158 series	Digital data communications for measurement and control – Fieldbus for use in industrial control systems.

Finally, the term zone of operation may be used in conjunction with the description of specific hazards, and is defined as it is for a hazard zone or danger zone in the Machinery Directive (2006/42/EC) and ISO 12100:2010.

**NOTE:** The aforementioned standards may or may not apply to the specific products cited in the present documentation. For more information concerning the individual standards applicable to the products described herein, see the characteristics tables for those product references.

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# Before first use

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## Contents

This section includes the following topics:

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Eliwell AIR Cloud activation .....	15

## Silent Guardian

Before installing the system, carefully read this chapter. It lists the actions required to complete the initial start-up procedure.

**Silent Guardian** is a service on the **Eliwell AIR Cloud** platform designed to simplify monitoring and reporting for refrigerant cabinets.

### Requirements

- A stable Internet connection with a strong signal
- The **Eliwell AIR APP** is installed (see [Eliwell AIR APP installation](#))
- A user account is activated on the **Eliwell AIR Cloud** website (see [Eliwell AIR Cloud activation](#))

### Description

By registering at <https://air.eliwell.com> and using the **Eliwell AIR APP**, you can easily associate **EW AIR EDGE** WiFi/Ethernet with Eliwell controllers, making it accessible from your **Eliwell AIR Cloud** account.

**Note:** Each **EW AIR EDGE** WiFi connects directly to one Eliwell device. This removes the need for communication wiring between instruments and allows quick installation thanks to its compact 2-DIN design and integrated switching power supply. Multiple AIR EDGE units can be registered under the same **Eliwell AIR Cloud** account, where they are all visible and managed together.

The **Silent Guardian** service allows you to:

- Remotely monitor the system status and settings
- Configure alarm rules for sending notifications
- Generate automatic reports for data analysis

### Solution components

- **Eliwell AIR APP**
- **Eliwell AIR Cloud**
- **EW AIR EDGE** WiFi/Ethernet
- Compatible devices (such as EWRC, LKDNext, IDNext, EWNNext, TelevisIn, TelevisOut, etc.)

### Silent Guardian Usage Plans

There are two available plans:

- **Lite:** Always Free of charge. Available with the purchase of an **EW AIR EDGE** WiFi/Ethernet device.
- **Plus:** Free for the first year after Cloud registration; an annual fee applies thereafter.

**Note:** If not renewed, the **Plus** plan will revert to the **Lite** plan.

The differences between the two plans are:

Function	Lite plan	Plus plan
Number of monitorable resources:	8	8
Data logging interval:	Every 1 hour (fixed)	Every 5 minutes (minimum)
Historical data:	Display and download 1 year of Historical data with simplified performance charts	Display and download 1 year of Historical data with simplified performance charts
Alarm notifications:	Email only	Email and real-time in-app notifications
Automatic report sending:	No	Yes

# Eliwell AIR APP installation

## Requirements

A stable Internet connection with a strong signal.

## Procedure to install Eliwell AIR APP

The **Eliwell AIR APP** can be downloaded in two ways:

- A. Directly from App Store (iOS) or Google Play (Android)
- B. From the Eliwell website

### NOTICE

#### INOPERABLE DEVICE

- Make sure you install this application (Eliwell AIR) only from a trusted source, such as the Google Play Store or Apple App Store.
- Do not install Schneider Electric applications downloaded from any other website.

**Failure to follow these instructions can result in equipment damage.**

#### A. Download from App Store or Google Play

1. Open the App Store or Google Play
2. Search for '**Eliwell AIR**'
3. Select the application.
4. Follow the setup wizard.

#### B. Download from Eliwell Website

1. Verify that your mobile device has a QR code scanner APP installed. If not, download one.
2. Scan the image shown in the figure below or on the **EW AIR EDGE** WiFi/Ethernet.
3. Allow your mobile device to open the Eliwell website: <https://www.eliwell.com/en/App/EliwellAIR.html>
4. On the webpage, select the appropriate store (App Store or Google Play).
5. Follow the setup wizard.



## Eliwell AIR Cloud activation

Before installing **Silent Guardian**, carefully read this chapter. It lists the actions required to complete the initial startup procedure.

### Requirements

A stable Internet connection with a strong signal.

### Procedure to activate a User on Eliwell AIR Cloud

The **Eliwell AIR Cloud** user can be activate in three ways:

- A. Directly from the **Eliwell AIR APP** after launch
- B. Inside the **Eliwell AIR APP** on the **EW AIR EDGE** page
- C. Via browser at [air.eliwel.com](http://air.eliwel.com)

#### A. Activation via Eliwell AIR APP after launch

1. Launch the **Eliwell AIR APP**
2. On the first page (\*), select '**Login to Eliwell Air**'
3. Tap '**Register Here**' to create a new account
4. Enter a valid Email
5. Validate the Email with the verify code received
6. Enter the following information:
  - A. First and Last Name
  - B. Location
  - C. Account password
7. Tap '**Next**' to complete account creation or '**Return to login**' to cancel registration

(\* **Note**: you can also reach to this page from the 'Device List' page by tapping menu button (  ) and selecting '**Login**', or by using the device's back key.

#### B. Activation on Eliwell AIR APP into the EW AIR EDGE page

1. Launch the **Eliwell AIR APP**
2. Select the **EW AIR EDGE** device to pair with the mobile device
3. In '**Cloud Register with**' section, select WiFi or Ethernet depending on connection. The **Eliwell AIR APP** will open the [air.eliwel.com](http://air.eliwel.com)
4. In the '**Your Privacy**' pop-up windows, enable the necessary cookies
5. Tap '**Register Here**' to create a new account
6. Enter the Email
7. Enter the email verify code received on the email inserted
8. Enter the following information:
  - A. First and Last Name
  - B. Location
  - C. Account password
9. Tap '**Next**' to complete account creation or '**Return to login**' to cancel registration

### C. Activation via Browser

1. Open a browser
2. Go to [air.eliwell.com](https://air.eliwell.com)
3. In the '**Your Privacy**' pop-up window, enable the necessary cookies
4. Tap '**Register Here**' to create a new account
5. Enter the Email
6. Enter the email verify code received on the email inserted
7. Enter the following information:
  - A. First and Last Name
  - B. Location
  - C. Account password
8. Tap '**Next**' to complete account creation or '**Return to login**' to cancel registration

**NOTE:** Store the password in a safe place.

**NOTE:** If the password is lost, on the home page tap '**Password Forgot**'. The procedure requires access to the user's email or phone.

**NOTE:** a secure password is one that has not been shared with or given to unauthorized personnel, and does not contain personal or otherwise obvious information. For further information see "[Operating System Password](#)" section.

**NOTE:** Minimum password security criteria. For more information, please refer to the Microsoft website (<https://learn.microsoft.com/en-us/windows/security/threat-protection/security-policy-settings/password-must-meet-complexity-requirements>):

- Minimum 8 characters
- 1 numerical digit (0, 1, ... , 9)
- 1 uppercase letter (A, B, ... , Z)
- 1 lowercase letter (a, b, ... , z)
- 1 special character (| | ' ! " \$ % ^ & \* ( ) \_ + - = [ ] { } ; : ' @ # ~ < > , . / ?)

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# Product Information

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## Overview

### Silent Guardian

**Silent Guardian** is a service of **Eliwell AIR Cloud** platform for monitoring and create reports of refrigeration equipment. With the registration on **Eliwell AIR Cloud** and using **Eliwell AIR APP** and **EW AIR EDGE** gateway, the pairing with Eliwell controllers became quick and allows monitoring via Cloud account.

The service permits to:

- Settings alarm rules to send advise or email
- Remote monitoring of status and functioning of refrigeration equipment
- Create and send automatic reports with Historical data

Note: **EW AIR EDGE WiFi** model permits Eliwell controller settings directly from **Eliwell AIR APP**.

### Eliwell AIR APP

The Mobile Application is a diagnostic, maintenance and software management tool targeted at Original Equipment Manufacturers, Installers and End Users of Commercial Refrigeration coolers and related to the Eliwell Air electronic control solution for commissioning and maintenance / troubleshooting scenarios under the brand “Eliwell by Schneider Electric”.

The Mobile Application has been developed to be connected with “Eliwell by Schneider Electric” electronic compatible controllers using a Bluetooth Low Energy connection with a HACCP Module or with an AIR Edge Bluetooth / WiFi Ethernet.

The Mobile Application can be used to perform the following tasks:

- Easily connect via Bluetooth to compatible Eliwell controllers with **Eliwell AIR APP**.
- Read and write all device parameters, with smart grouping for easier navigation.
- Protect configurations using the same password system integrated in the controllers.
- Save and open configuration files for quick setup.
- Share configurations across controllers using **Eliwell AIR APP**.
- Monitor key system resources such as alarms, temperature, humidity, and digital outputs.
- Send commands manually such as defrost activation.
- Configure data logging by selecting up to 8 resources, with a minimum logging interval of 5 minutes.
- View recorded history within the HACCP Module.
- Enable the Silent Guardian monitoring service via **EW AIR EDGE WiFi** directly from the app, with no IT skills required.

### Eliwell AIR Cloud

It is a CLOUD platform that, after activating the user account, allows you to:

- Display the geographic deployment and general status of the coolers
- Access the single cooler to verify the history of the stored data (table or plot)
- Activate threshold alerting messaging for each variable of the cooler
- Parameter management: Ability to easily and securely read and modify controller parameters
- Alarm history: Complete view of alarms recorded over the last year for analysis and traceability
- Simplified navigation: Group registered Edge devices for faster and more intuitive management
- Automated reports: Configure periodic reports to be sent to selected recipients, with fully customizable content.

# Silent Guardian

## Description

**Silent Guardian** is a service for the food preservation sector.

The system can be used by refrigeration technicians for:

- Configuration of compatible instruments using a smartphone with **Eliwell AIR APP** installed
- Remote maintenance of refrigeration equipment connected to **Eliwell AIR Cloud** and access to the telemetries of the specified equipment

The system can be used by the refrigeration instruments owners:

- Temperature recording
- Alarm notifications via email and mobile app

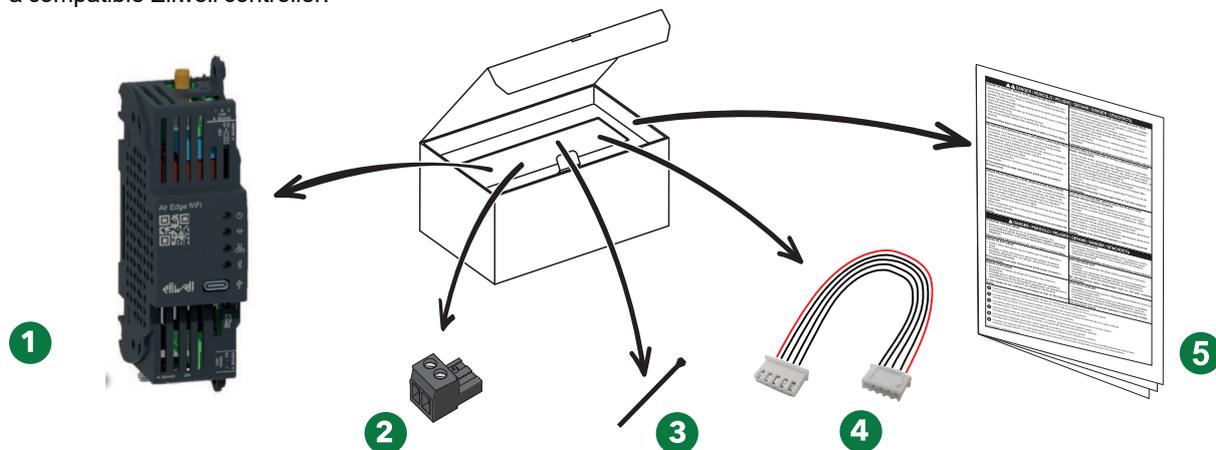
## Components

To enable the Silent Guardian service you need:

- 1x **EW AIR EDGE**
- 1x **Eliwell AIR APP**
- 1x **Eliwell AIR Cloud**
- 1x AIR compatible controller

## EW AIR EDGE

It is the WiFi / Ethernet gateway that allows data transfer from the AIR compatible controller to the **Eliwell AIR Cloud** in a secure manner, certified by Schneider Electric's cybersecurity standards. It is supplied with a cable and the power-supply terminal. The cable is a TTL communication cable, which must be used to connect the AIR EDGE unit to a compatible Eliwell controller.



Label	Description
1	EW AIR EDGE device.
2	Plug-in terminal for Power Supply.
3	Tool for pressing BT PAIR / RESET button on the EW AIR EDGE.
4	TTL cable for connecting EW AIR EDGE with Eliwell controller.
5	EW AIR EDGE Instruction Sheet

## Eliwell AIR APP

Mobile application for easy controller configuration and enabling data recording on the **Eliwell AIR Cloud** portal.

The **Eliwell AIR APP** can be downloaded from the:

- Eliwell website ([www.eliwell.com](http://www.eliwell.com)) using the links to the '**APP store**' or the '**Play store**'
- **APP store** for iOS operating system (version 12.0 or greater)
- **Play store** for Android operating system (version 11.0 or greater).

For information regarding the cables to use with the **EW AIR EDGE**, please contact your local Eliwell representative.

**Note:** Update the '**Eliwell AIR APP**' to the latest available version.

## Eliwell AIR Cloud

Web portal for monitoring connected devices, creating and recording alarms, and remotely controlling controller parameters.

The **Eliwell AIR Cloud** is accessed remotely via a web browser (see [Browser compatibility](#)) without requiring the installation of additional software.

## Main features

### EW AIR EDGE

- BLE (Bluetooth), WiFi and Ethernet connectivity
- Internal memory for Data storage (user does not lose data in case of power outage)
- SMPS 100-240 Vac power supply (insulated)
- External antenna (optional)
- TTL interface vs controllers
- WiFi dual band (2.4 GHz and 5 GHz) - IEEE 802.11b/g/n
- Bluetooth low energy 5.2
- Four LEDs to display ON/OFF status and WiFi/Ethernet/Bluetooth connection
- FW upgrade via Micro SD
- DIN-Rail mounting or panel mounting with 2x cap screws
- WiFi / Ethernet configuration through the mobile APP
- Image present on the **EW AIR EDGE** case and product label to scan for accessing the section dedicated to **Eliwell AIR APP** on the Eliwell website



### Eliwell AIR APP

- Different profile access levels. Access is protected by the same password credentials used for the controller.
- Alarms push notification
- Display of the last 30 alarm events recorded in the Cloud history.
- Adjustable log sampling up to 5 minutes
- Wizard to configure connection between **EW AIR EDGE** and **Eliwell AIR Cloud**

### Eliwell AIR Cloud

- User self registration
- Ability to read and modify the controller parameters in a simple and secure way.
- Complete visualization of all alarms history over the past year for analysis and traceability.
- Advanced and Fast Remote Control
- Alarms notification via email and **Eliwell AIR APP** notification
- Coolers fleet sorting and grouping
- Configuration of HACCP report delivery and content
- Connector vs third party Clouds

## EW AIR EDGE models

Below is the list of available models:

Reference	Description	Communication Ports	Connectivity	Power Supply	Web Page
<b>AEBW00T0001100</b>	EW AIR Edge WiFi TTL SD 100...240 V	TTL	<ul style="list-style-type: none"> <li>WiFi</li> </ul>	100...240 Vac	<b>A</b> 
<b>AEBWE0T0001100</b>	EW AIR Edge WiFi-Ethernet TTL SD 100...240 V	TTL	<ul style="list-style-type: none"> <li>WiFi</li> <li>Ethernet</li> </ul>	100...240 Vac	<b>B</b> 

**A** = <https://www.eliwell.com/en/Partnumber/AEBW00T0001100.html>

**B** = <https://www.eliwell.com/en/Partnumber/AEBWE0T0001100.html>

## Compatibility

**Eliwell AIR APP** and **Eliwell AIR Cloud** are compatible with all Eliwell controller that includes 'AIR' in the description or one of the Eliwell compatible families listed below:

- IDNext 9\*\* series
- IDNext 1\*\*\* series
- IDNext Panel
- EWNNext 9\*\* series
- EWNNext 1\*\*\* series
- EWRC (Coldface)
- LKDNext
- TelevisIn
- TelevisOut
- etc.

**Note:** In case of doubt, please contact a Eliwell by Schneider Electric representative for further information regarding the compatible controllers that can be used.

 **DANGER**

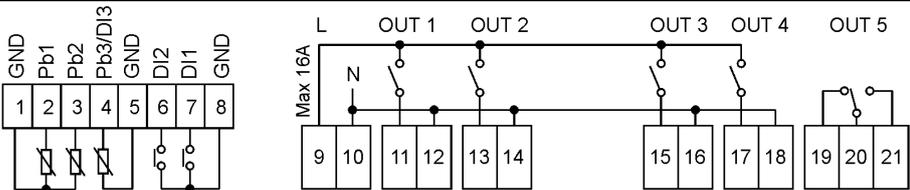
**HAZARD OF EXPLOSION**

- Use the EW AIR EDGE exclusively with compatible Eliwell instruments.
- Install the EW AIR EDGE inside the refrigeration unit, in an inaccessible location.

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

### Example of AIR compatible controller

The description is present on the controller or package label. See example below:

<b>COLDFACE</b>		<b>EWRC 500 NT AIR</b>		 Eliwell Controls srl IT 32016 Alpagò	
<b>RCNA3UDRX2E700</b>					
		EU - max 250 Vac		USA - max 240 Vac	
 OUT1		12(8)A		12FLA 72LRA	
 OUT2 / OUT4		8A		8FLA 48LRA	
 OUT3		8(4)A		8A res 4.9FLA 29.4LRA	
 OUT5		NO 8(4)A		NO 8A res 4.9FLA 29.4LRA	
		NC 6(3)A		NC 6A res	
Supply 230V~±10% 50/60Hz 11VA					-5T50 (EN 60730-1)
					

## Languages supported

The languages currently supported by the software are as follows:

- Italian
- English
- Spanish
- German
- French
- Russian

**Note:** additional languages may be made available in the future.

## Browser compatibility

### Browsers supported

Platform	Browser	Minimum version
Personal Computer	Google Chrome	98
	Microsoft Edge	98
	Safari	15.4
Tablet/Smartphone	Android browser	116
	Google Chrome per Android	116
	Safari per iOS	15.4

### Browsers not supported

Platform	Browser	Minimum version
Personal Computer	Firefox	94
Tablet/Smartphone	Firefox per Android	116
	Samsung Internet	18
	Opera mobile	73

### Updating the application

The cache settings can/may influence the loading process of the new system version.

### **NOTICE**

#### **INOPERABLE DEVICE**

Following an application update, clear the browser history used to access the system.

**Failure to follow these instructions can result in equipment damage.**

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# Cybersecurity

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## Contents

This section includes the following topics:

Overview .....	26
Defense in Depth .....	27
Security hardening guidelines .....	28
Secure disposal guidelines .....	28
Secure operation guidelines .....	30
Account management guidelines .....	31

## Overview

This Eliwell product includes functions that enable Information security. These functions come as default and can be configured according to your own installation requirements.

**NOTE:** deactivating or changing the settings for these individual functions can positively or negatively affect the overall posture of the device security.

It is also necessary to observe best practices in order to guarantee advanced system protection and help ensure the security of the system as a whole.

For more information, please refer to: "[Cybersecurity Best Practices](#)" (English document).

Eliwell adheres to industry best practices in the development and implementation of control systems. This includes a Defense-in-Depth approach which protects the controller by limiting access exclusively to authorized personnel and protocols.

### **▲ WARNING**

#### **UNAUTHORISED ACCESS AND SUBSEQUENT NETWORK INTRUSION**

- Assess whether the room or the machines are connected to the critical infrastructure and, if so, take suitable preventative measures, based on "defense-in-depth" strategy, before connecting the automation system to any network.
- Minimize the number of devices connected to a network.
- Isolate your industrial network from other networks within the company.
- Protect any network from unintentional access using firewalls, VPNs or other proven security measures.
- Prevent direct access or direct connection to the devices concerned by unauthorized individuals or unauthorized actions.

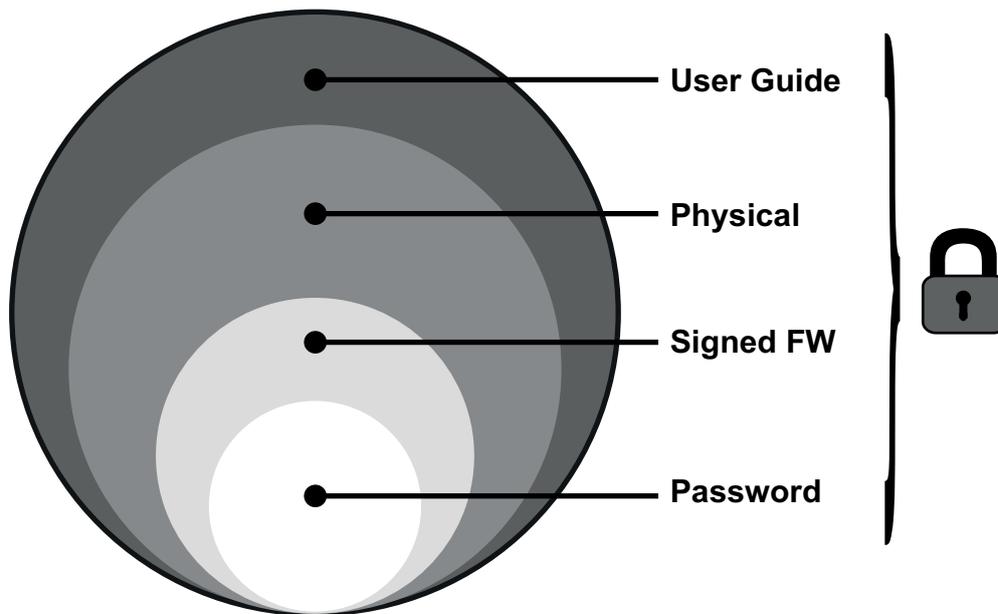
**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

# Defense in Depth

## Overview

The protection levels of the device are:

1. User Guide
2. Physical
3. Signed firmware
4. Password



### 1. User Guide

This document with their Safety Messages, Recommendations, etc.

### 2. Physical

Make sure to install the **EW AIR EDGE** in a place accessible only by authorized personnel and protect the access to the communication ports.

### 3. Signed firmware

The **EW AIR EDGE** can only be update using Schneider Electric or Eliwell signed FW upgrade (see 'Security hardening guidelines' section).

The **Eliwell AIR APP** is update only via App Store or Google Play that provided the protection.

### 4. Password

Protection is provided by:

- **EW AIR EDGE** requires a direct connection and physical access to establish a connection with the **Eliwell AIR APP**.
- The **Eliwell AIR APP** is protected by the mobile device. The mobile device (phone or tablet) secure access to the **Eliwell AIR APP** using password-based authentication or biometrics like fingerprint and face recognition.
- The **Eliwell AIR Cloud** is protected by a username and password during normal use, and requires multi-factor authentication during account creation or after an expired period.

## Security hardening guidelines

### Recommendations

**⚠ DANGER**

**HAZARD OF EXPLOSION**

- Use the EW AIR EDGE exclusively with compatible Eliwell instruments.
- Install the EW AIR EDGE inside the refrigeration unit, in an inaccessible location.

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

Allow access to the device only to authorized and qualified personnel (see '**Personnel qualification**' section)

## Secure disposal guidelines

### Procedure

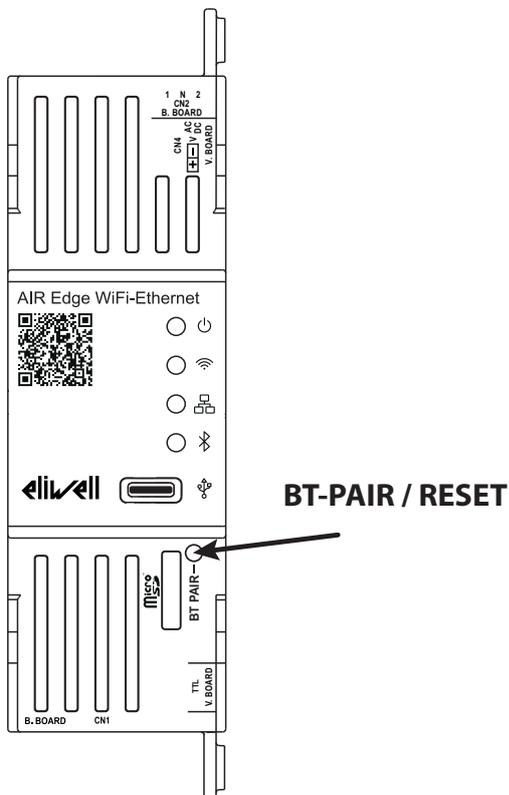
The guidelines for removing the **EW AIR EDGE** and help prevent potential data disclosure are:

1. Restore default value (see '**Restore default values**' section)
2. Remove the device (component/system) from its intended environment
3. Recycle the device properly (see '**EW AIR EDGE Disposal**' section)

### Restore default values

When necessary, you can restore the default value.

To do so, press and hold the BT-PAIR / RESET key with the provided tool for more than 10 seconds (see 'Restore default values' section)..



## EW AIR EDGE Disposal

For security reasons, before removing the controller, we recommend to reset the **EW AIR EDGE** to the default value (see 'Restore default values').

### **NOTICE**

#### **DISCLOSURE OF APPLICATION DATA**

Reset the controller to the default values to help prevent data disclosure.

**Failure to follow these instructions can result in equipment damage.**



The equipment (or product) must be subjected to separate waste collection in compliance with local legislation regarding waste disposal.



## Secure operation guidelines

### EW AIR EDGE upgrade

Firmware Upgrade Procedure for **EW AIR EDGE** is:

- Download the authenticated file
- Copy the file on the root directory of a Micro SD card
- Insert the Micro SD card into the dedicated slot on the **EW AIR EDGE**
- Open the **Eliwell AIR APP** on your mobile device
- Tap the name of the desired **EW AIR EDGE**
- Tap the  icon in the upper-right corner to launch the Firmware Update
- Turn off and restart the **EW AIR EDGE** (after restarting the application).

The controller can be upgraded only with authenticated Schneider Electric or Eliwell files. In case the authenticity check fails the **EW AIR EDGE** continue to work with the previous firmware version.

### **NOTICE**

#### **UNINTENDED EQUIPMENT OPERATION**

Use authenticated Schneider Electric or Eliwell files only.

**Failure to follow these instructions can result in equipment damage.**

### Eliwell AIR APP upgrade

The procedure to upgrade the **Eliwell AIR APP** is:

- Wait for the operating system to deliver the update notification, or manually open the App Store or Google Play and verify for available updates.
- Tap the **Eliwell AIR APP** icon to start the software update
- Wait until the installation process is complete

### Personnel qualification

Only personnel with suitable training and an in-depth knowledge and understanding of the contents of this manual and any other documentation relevant to the product are authorized to work on and with this product.

Qualified personnel must be capable of identifying any dangers which may arise from the parameterization or changing of parameter values, and from the use of mechanical, electric and electronic equipment in general. Plus, they must be familiar with the personal safety laws, provisions and regulations which must be observed during system planning and implementation.

# Account management guidelines

## Recommendations

Protect the **EW AIR EDGE**, **Eliwell AIR APP** and **Eliwell AIR Cloud** access.

### Password

#### EW AIR EDGE

Not applicable. Device pairing requires a direct connection and physical access to establish a connection with the **Eliwell AIR APP**.

#### Eliwell AIR APP

The Eliwell AIR APP is protected by the mobile device. The mobile device (phone or tablet) secure access to the **Eliwell AIR APP** using password-based authentication or biometrics like fingerprint and face recognition.

#### Eliwell AIR Cloud

The Eliwell AIR Cloud is protected by a username and password during normal use, and requires multi-factor authentication during account creation or after an expired period.

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# Mechanical installation

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## Contents

This section includes the following topics:

Before starting .....	33
Disconnecting Power .....	33
Operating environment .....	34
Installation Considerations .....	34
Mechanical dimensions EW AIR EDGE .....	35
Panel mounting installation EW AIR EDGE .....	36
Din-Rail mounting EW AIR EDGE .....	37
Antenna configuration via jumper .....	38

## Before starting

Read and understand this chapter before beginning the installation of your system.

Pay particular attention in conforming to any safety information, different electrical requirements, and normative standards that would apply to your machine or process in the use of this equipment.

The use and application of the information contained herein require expertise in the design and programming of automated control systems. Only you, the user, machine builder or integrator, can be aware of all the conditions and factors present during installation and setup, operation, and maintenance of the machine or process, and can therefore determine the automation and associated equipment and the related safeties and interlocks which can be effectively and properly used.

When selecting automation and control equipment, and any other related equipment or software, for a particular application, you must also consider any applicable local, regional or national standards and/or regulations.

### **WARNING**

#### **REGULATORY INCOMPATIBILITY**

Be sure that all used equipments and designed systems comply with all applicable local, regional and national regulations and standards.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## Disconnecting Power

All options and modules should be assembled and installed before installing the control system on a mounting rail, to a mounting plate or in a panel. Remove the control system from its mounting rail, mounting plate or panel before disassembling the equipment.

### **DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION, FIRE OR ARC FLASH**

- Disconnect all power from all equipment including connected devices prior to removing any covers or doors, or installing or removing any accessories, hardware, cables, or wires except under the specific conditions specified in this hardware guide.
- Always use a properly rated voltage sensing device to confirm the power is off where and when indicated.
- Before restoring the power supply, replace and secure all covers, accessories, hardware, cables, and wires and confirm that a proper ground connection exists.
- Use only the specified voltage when operating this equipment and any associated products.

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

## Operating environment

This equipment is designed to operate in non-hazardous areas and where applications which generate - or could potentially generate - hazardous atmospheres have been isolated. Install this equipment only in areas and with applications known to be constantly free from hazardous atmospheres.

### **DANGER**

#### **HAZARD OF EXPLOSION**

- Install and use this equipment in non-hazardous locations only.
- Do not install or use this equipment in applications which could generate hazardous atmospheres, such as those using flammable refrigerants.

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

For information regarding the use of control equipment in applications capable of generating hazardous materials, please contact the regulatory office or the local, regional or national certification authority.

In addition to the 'Technical Data' section, please refer to the Product Information at the beginning of this document for important information regarding installation in hazardous areas for this specific equipment.

### **WARNING**

#### **UNINTENDED EQUIPMENT OPERATION**

Install and use this equipment in compliance with the conditions described in the "Technical data" section of this document.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## Installation Considerations

### **WARNING**

#### **UNINTENDED EQUIPMENT OPERATION**

- Use appropriate safety interlocks where personnel and/or equipment hazards exist.
- Power line and output circuits must be wired and fused in compliance with local and national regulatory requirements for the rated current and voltage of the particular equipment.
- Do not use this equipment in safety-critical machine functions.
- Do not disassemble, repair, or modify this equipment.

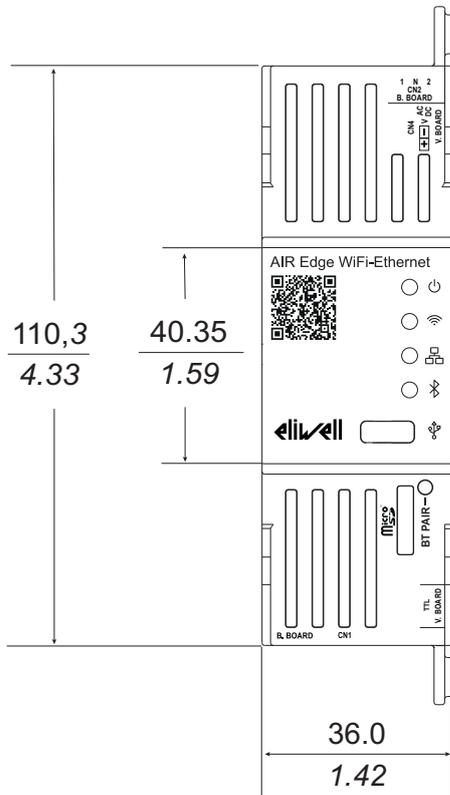
**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

For the mechanical dimensions, refer to "[Mechanical dimensions](#)".

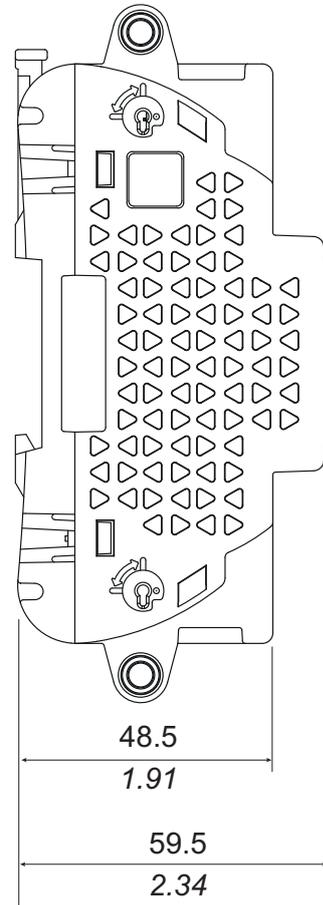
## Mechanical dimensions EW AIR EDGE

The mechanical characteristics of **EW AIR EDGE** are:

- Length: 36.0 mm (1.42 in.)
- Height: 110.3 mm (4.33 in.)
- Depth: 59.5 mm (2.34 in.)



mm - in.



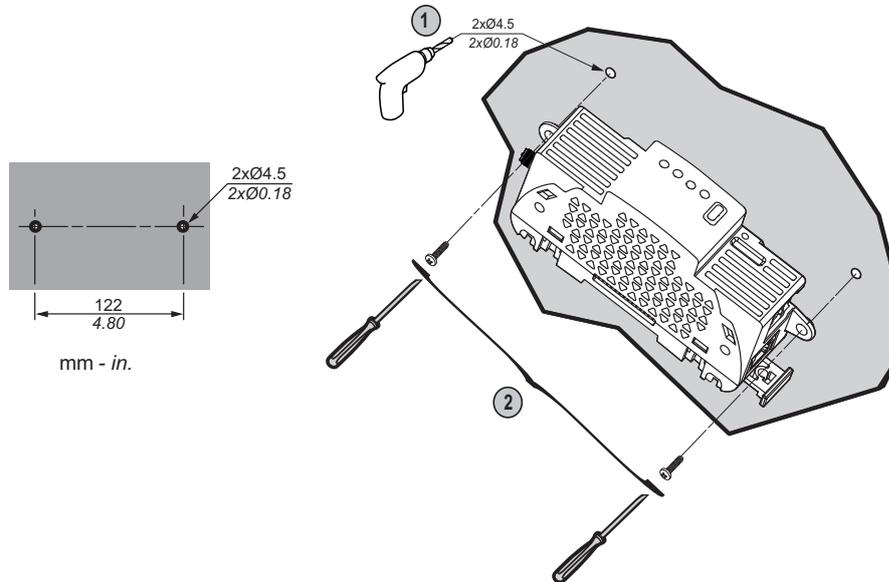
## Panel mounting installation EW AIR EDGE

EW AIR EDGE is intended for panel-mounting (on a flat surface).

**Note:** EW AIR EDGE is only suitable for indoor use. DO NOT install it outdoors.

### How to install/uninstall the controller

To install, secure the device to the panel with 2 screws (not supplied) in line with the holes illustrated in the figure below



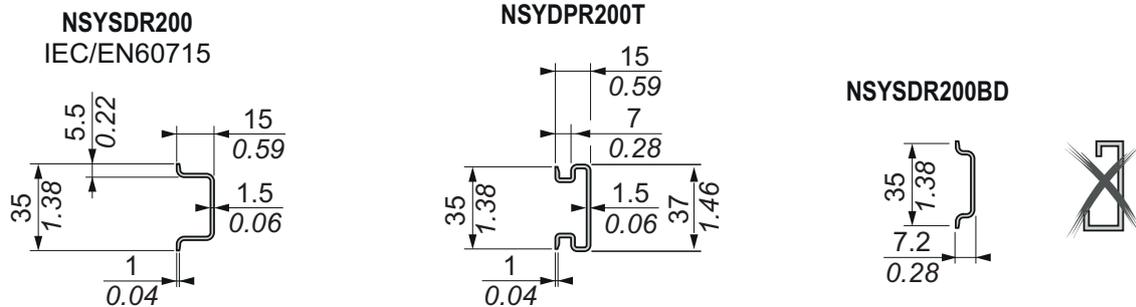
**Note:** use cap screws only.

**Note:** leave the area around the slits clear to allow air recirculation and device cooling.

## Din-Rail mounting EW AIR EDGE

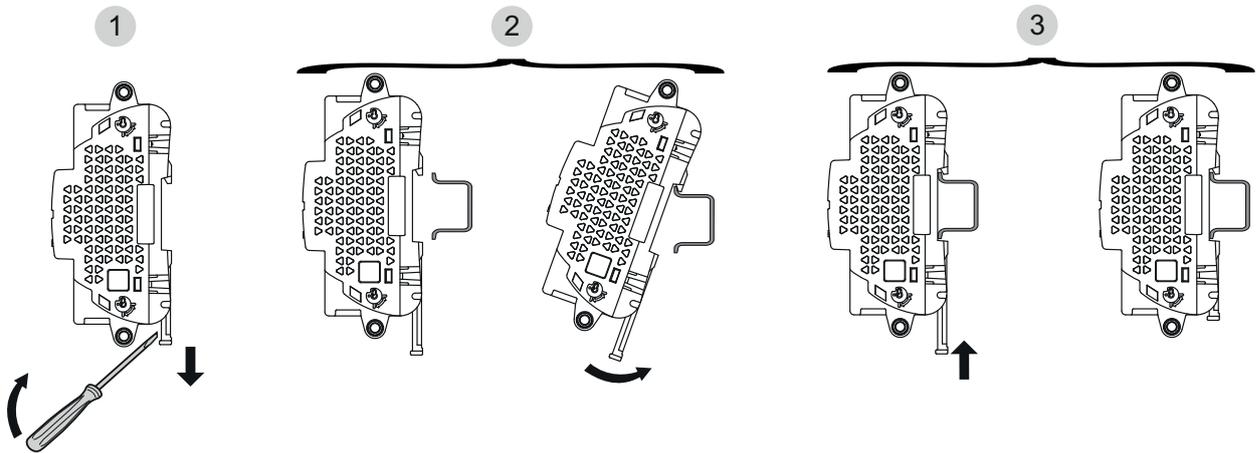
### Top Hat Section Rail (DIN Rail)

You can mount the **EW AIR EDGE** on a 35 mm (1.38 in.) top hat section rail (DIN rail). It can be attached to a smooth mounting surface or suspended from a EIA rack or mounted in a NEMA cabinet. The following illustration show the top hat section rails (DIN rail) for the mounting range:



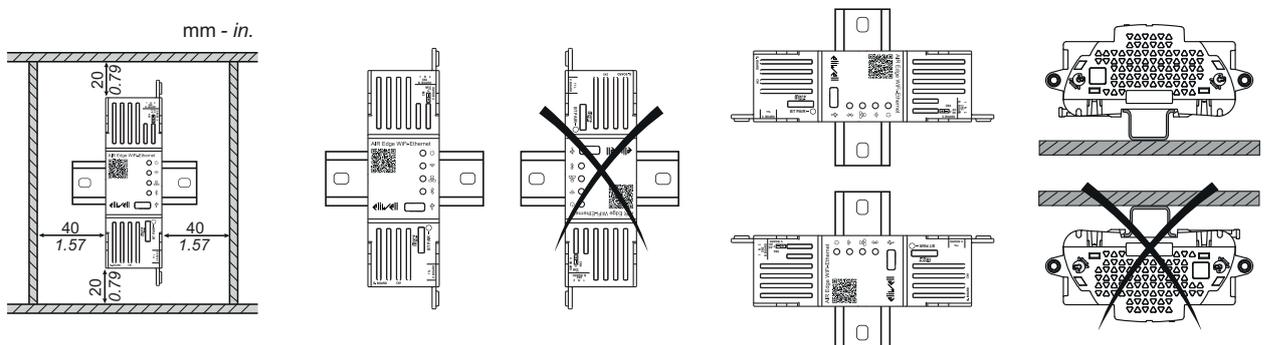
### How to install/uninstall the controller

The following illustration show the mounting method:



### Mounting positions

The controllers can be mount as display in figure:

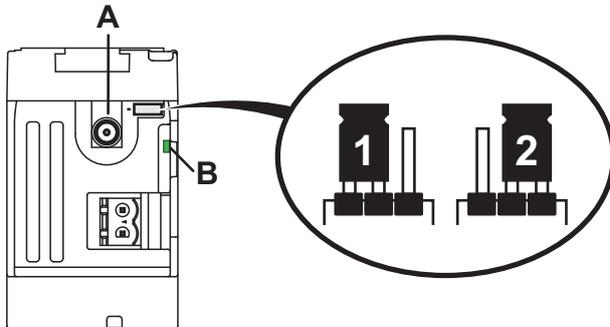


## Antenna configuration via jumper

Antenna configuration takes place via jumper \*:

- **Position 1:** the external antenna is set.  
**Note:** the external antenna must be fitted to connector A.
- **Position 2:** the internal antenna is set.  
**Note:** if set, LED B will light up.

\* **Note:** in the absence of a jumper, the external antenna is active



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# Electrical connections

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## Contents

This section includes the following topics:

Wiring Best Practices .....	40
Installation .....	42
Hardware EW AIR EDGE .....	43
Connection example .....	44

## Wiring Best Practices

### Warnings

The following information describes the guidelines for wiring and the practices to follow when using the device.

 <b>DANGER</b>
<b>HAZARD OF ELECTRIC SHOCK, EXPLOSION, FIRE OR ARC FLASH</b> <ul style="list-style-type: none"> <li>• Disconnect all power from all equipment including connected devices prior to removing any covers or doors, or installing or removing any accessories, hardware, cables, or wires except under the specific conditions specified in this hardware guide.</li> <li>• Always use a properly rated voltage sensing device to confirm the power is off where and when indicated.</li> <li>• Before restoring the power supply, replace and secure all covers, accessories, hardware, cables, and wires and confirm that a proper ground connection exists.</li> <li>• Use only the specified voltage when operating this equipment and any associated products.</li> </ul> <p><b>Failure to follow these instructions will result in death or serious injury.</b></p>

 <b>WARNING</b>
<b>HAZARD OF OVERHEATING AND/OR FIRE</b> Install and use the equipment exclusively in a protected environment, to prevent direct exposure to sunlight and atmospheric agents. <p><b>Failure to follow these instructions can result in death, serious injury, or equipment damage.</b></p>

 <b>WARNING</b>
<b>LOSS OF CONTROL</b> <ul style="list-style-type: none"> <li>• The system designer must consider the potential failure modes of the control circuit and, for some critical control functions, provide a means for reaching a safe condition during and after a circuit failure. Examples of critical control functions are the emergency stop and end of travel stop, power supply cut-off and restart.</li> <li>• Separate or redundant control circuits must be provided for critical control functions.</li> <li>• The system control circuits can include communication connections. Keep in mind the implications of transmission delays or sudden connection failures.</li> <li>• Comply with all standards regarding accident prevention and local applicable safety directives <sup>(1)</sup>.</li> <li>• Every implementation of this equipment must be tested individually and completely in order to check its proper operation before it is commissioned.</li> </ul> <p><b>Failure to follow these instructions can result in death, serious injury, or equipment damage.</b></p>

<sup>(1)</sup> For additional information, refer to the standards NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and NEMA ICS 7.1 (latest edition) "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems" or to equivalent standards that regulate your particular location.

<b>NOTICE</b>
<b>INOPERABLE DEVICE</b> <ul style="list-style-type: none"> <li>• Disconnect all the equipment before installing/dismantling cables or wires.</li> <li>• Position and adequately fix the device to prevent cable disconnection.</li> <li>• The TTL cable must be routed separately from the power cables.</li> <li>• Verify the length of the TTL cable, referring to the datasheet of the compatible Eliwell AIR device.</li> </ul> <p><b>Failure to follow these instructions can result in equipment damage.</b></p>

## Wiring guidelines

Observe the following standards when wiring the device:

- Verify that the operating conditions and surroundings comply with the specification values.
- Use wires of the correct diameter and suited to the voltage and current requirements.
- Use copper conductors (required).

## Specific considerations for handling

When handling the equipment, take care to avoid damage caused by electrostatic discharge. In particular, the unshielded connectors are extremely vulnerable to electrostatic discharge.

### **WARNING**

#### **UNINTENDED EQUIPMENT OPERATION DUE TO ELECTROSTATIC DISCHARGE**

- Store the equipment in the protective packaging until ready for installation.
- Before handling the equipment, always discharge the static electricity from the body by touching an earthed surface or type-approved antistatic mat.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Before any operations, check that the device is connected to a suitable external power supply. Please refer to "[Technical Data](#)".

## Installation

The **EW AIR EDGE** device has the following communication ports:

- 1x RJ45 Ethernet port (CN1)(depending on the model)
- 1x USB C port (not used)

Take extra care when performing serial line connections.

**Note:** the connection between the **EW AIR EDGE** and the controller should be performed using the appropriate TTL cable supplied with the **EW AIR EDGE**.

**Note:** before power-on the system, verify that all the connections for the communication between the devices are correct.

### NOTICE

#### UNINTENDED EQUIPMENT OPERATION

- For power supply connection, use cables no longer than 10 m (32,80 ft).
- For Ethernet connection, use cables no longer than 100 m (328 ft).

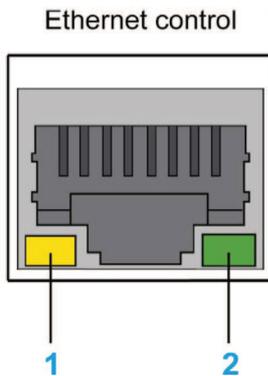
**Failure to follow these instructions can result in equipment damage.**

### Ethernet port (RJ45)

The Ethernet connection is used by **EW AIR EDGE** to communicate on an Ethernet network via TCP/IP protocol. The main Ethernet features are:

- Protocol: Modbus TCP/IP
- Type of connector: RJ45
- Driver: 10 M / 100 M with auto-negotiation
- Cable type: shielded

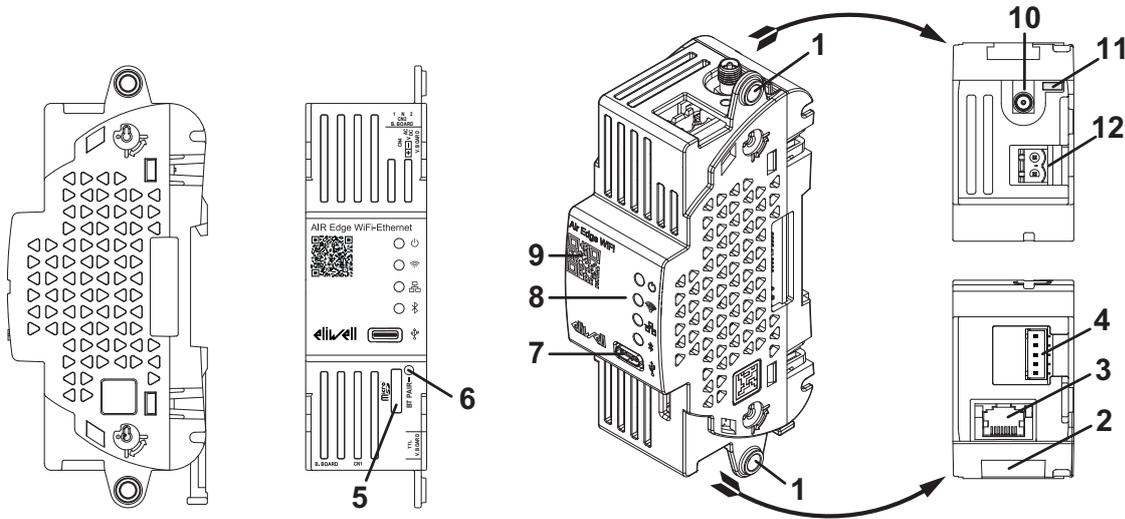
The Ethernet RJ45 LEDs indicate:



Label	Signal	LED		
		Color	Status	Description
1	Ethernet activity	Yellow	Off	No activity
			Flashing	Activity
2	Ethernet link	Green	Off	No Link
			Green LED On	Linked

## Hardware EW AIR EDGE

EW AIR EDGE components are as follows:



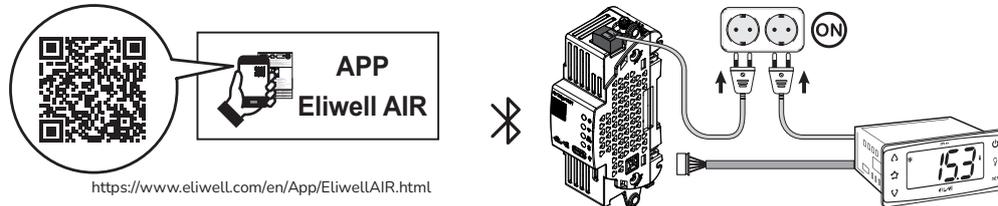
Number	Description
1	Fixing hole. Use screws with nominal diameter: 3.9...4.2 mm (0.15...0.17 in.).
2	Clip-on lock for DIN rail
3	(CN1) Ethernet serial port (depending on model)
4	TTL serial port
5	Slot for memory card (Micro SD)
6	BT PAIR / RESET key (refer to the <a href="#">First connection</a> section)
7	USB port: not used
8	Operating LEDs <ul style="list-style-type: none"> <li>•  (Green) = On-Off</li> <li>•  (Amber) = WiFi connectivity</li> <li>•  (Amber) = Ethernet connectivity</li> <li>•  (Blue) = Bluetooth</li> </ul>
9	Image to scan for accessing the section dedicated to <b>Eliwell AIR APP</b> on the Eliwell website
10	Connector for external antenna (not supplied) <sup>(1)</sup>
11	(CN2) Antenna configuration Jumper + LED (refer to the relative section)
12	(CN4) Power supply terminal block

(1) The Antenna can be ordered using code **AEBWA00A030000** (AIR EDGE Antenna WiFi BLE adhesive, length = 3 m).

## Connection example

**EW AIR EDGE** and compatible device must be connected on TTL port using a cable with conductors with cross-section 0,5 mm<sup>2</sup> (see "**Best wiring practices**").

See below a connection example:



In the example were used:

- 1x **Eliwell AIR APP**
- 1x **EW AIR EDGE**
- 1x Compatible device

Signal propagation in an Ethernet network depends on bus traffic, making access nondeterministic and potentially influencing **EW AIR EDGE** access time to the resources with possible No-Link.

### **NOTICE**

#### **UNINTENDED EQUIPMENT OPERATION**

If the connection is difficult, verify if the correct profile is assigned to the network; if not, change it.  
**Failure to follow these instructions can result in equipment damage.**

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# Technical specification

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## Contents

This section includes the following topics:

Technical Data .....	46
FCC USA and IC Canada .....	47

## Technical Data

Feature	Description
The product complies with the following harmonized Standards:	EN 62368-1
Product group:	Built-in component
Classification of use by:	Qualified person
Equipment mobility:	DIN-rail mounting or Panel mounting with screws
Mounted method:	see <a href="#">Mechanical Mounting</a>
Pollution degree:	2
Overvoltage category:	II
Insulation class:	II
Power supply:	100...240 Vac 50/60 Hz ±10 %
Consumption:	5 W
Supply connection type:	Permanent connection
Considered current rating of protective device:	20 A; Location: building
Ambient operating conditions:	Temperature: -20...55 °C (-4...131 °F) Humidity (non-condensing): 5...95 % RH
Transportation and storage conditions:	Temperature: -30...70 °C (-22...158 °F) Humidity (non-condensing): 5...95 % RH
Manufacturer's specified Tma (°C):	60 °C (80 °F)
Power supply system:	TN - TT
IP protection class:	IPX0
Installation:	DIN rail or panel mounting
Wireless technology:	<ul style="list-style-type: none"> <li>• WiFi dual band (2.4 GHz and 5 GHz) - IEEE 802.11b/g/n</li> <li>• Bluetooth low energy 5.2</li> </ul>
Operating frequency:	<ul style="list-style-type: none"> <li>• WiFi: 2412...2462 MHz and 5180...5240 MHz, 5260...5320 MHz, 5500...5720 MHz, 5745...5825 MHz</li> <li>• Bluetooth: 2402...2480 MHz</li> </ul>
Ethernet maximum speed:	100 Mbit/s
Maximum output power:	20 dBm
Maximum transmission range:	10 m (32,81 ft) in the absence of obstacles
Altitude during operation (maximum):	2000 m (6562 ft)
Mass of equipment:	< 1 kg

### WARNING

#### UNINTENDED EQUIPMENT OPERATION

Do not exceed any of the nominal values specified in the environmental and electric characteristics tables.  
**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## FCC USA and IC Canada

### Compliance Statement / Déclaration de conformité

English	French
<p>This device complies with the following requirements:</p> <ul style="list-style-type: none"> <li>FCC (Federal Communications Commission) - Part 15</li> <li>ISED (Industry Canada) RSS-102 and RSS-247 and RSS-Gen</li> </ul> <p>Operation is subject to the following two conditions:</p> <ol style="list-style-type: none"> <li>This device may not cause harmful interference, and</li> <li>This device must accept any interference received, including interference that may cause undesired operation of the device.</li> </ol> <p>Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.</p> <p>The sensor is designed for use at least 200 mm (7.87 in.) away from the operator in normal operating conditions.</p> <p>FCC ID: 2AMLEEDGEWIFI IC: 9727A-EDGEWIFI</p>	<p>Cet appareil est conforme avec les exigences suivantes:</p> <ul style="list-style-type: none"> <li>FCC (Federal Communications Commission) - Partie 15</li> <li>ISED (Industry Canada) RSS-102 and RSS-247 and RSS-Gen</li> </ul> <p>L'operation est sujet aux deux conditions suivantes:</p> <ol style="list-style-type: none"> <li>Cet appareil ne peut pas causer d'interference nuisable, et</li> <li>Cet appareil doit accepter n'importe quelle interference reçu, incluant l'interference qui pourrait causer une operation indesirée du dispositif.</li> </ol> <p>Les changements ou modifications non approuvés expressément par la partie responsable de la conformité pourrait annuler l'autorité de l'utilisateur à utiliser l'équipement.</p> <p>Le capteur est conçu pour être utilisé, dans les conditions de fonctionnement normales, à plus de 200 mm (7.87 in.) de l'opérateur.</p> <p>FCC ID: 2AMLEEDGEWIFI IC: 9727A-EDGEWIFI</p>

### FCC further information

#### Code of Federal Regulations (CFR) - §15.105 (a) Information to the user / Information à l'utilisateur:

English	French
<p><b>NOTE:</b> This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.</p>	<p><b>REMARQUE:</b> Cet équipement a été testé et jugé conforme aux limites d'un appareil numérique de classe A, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles lorsque l'équipement est utilisé dans un environnement commercial. Cet équipement génère, utilise et peut émettre de l'énergie radiofréquence et, s'il n'est pas installé et utilisé conformément au manuel d'instructions, peut causer des interférences nuisibles aux communications radio. L'utilisation de cet équipement dans une zone résidentielle est susceptible de causer des interférences nuisibles, auquel cas l'utilisateur sera tenu de corriger les interférences à ses propres frais.</p>

## ISED further information

### According to clause 6.4c of ISED RSS-GEN / Selon la clause 6.4c du RSS-GEN d'ISED

English	French
<p>The instructions related to the restrictions mentioned in the section 6.4c, are:</p> <ul style="list-style-type: none"> <li>the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;</li> <li>for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;</li> <li>for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate;</li> <li>where applicable, antenna type(s), antenna models (s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.</li> </ul>	<p>Les instructions sur les restrictions mentionnées à la section 6.4c, sont :</p> <ul style="list-style-type: none"> <li>les dispositifs fonctionnant dans la bande de 5150 à 5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;</li> <li>pour les dispositifs munis d'antenne amovibles, le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5250 à 5350 MHz et de 5470 à 5725 MHz doit être conforme à la limite de la p.i.r.e.;</li> <li>pour les dispositifs munis d'antenne amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée, selon le cas;</li> <li>lorsqu'il y a lieu, les types d'antenne (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués.</li> </ul>

### According to clause 6.8 of ISED RSS-GEN / Selon la clause 6.8 du RSS-GEN d'ISED

English	French				
<p><b>NOTE:</b> This radio transmitter 9727A-EDGEWIFI has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.</p> <table border="1" data-bbox="225 1211 823 1301"> <thead> <tr> <th>Antenna types</th> </tr> </thead> <tbody> <tr> <td>Phoenix WSA.2458 Dual Band WiFi I-Bar 2.4/5.8GHz Antenna with 1M RG-174 RP-SMA(M)</td> </tr> </tbody> </table>	Antenna types	Phoenix WSA.2458 Dual Band WiFi I-Bar 2.4/5.8GHz Antenna with 1M RG-174 RP-SMA(M)	<p><b>REMARQUE:</b> Le présent émetteur radio 9727A-EDGEWIFI a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.</p> <table border="1" data-bbox="847 1234 1445 1323"> <thead> <tr> <th>Types d'Antenne</th> </tr> </thead> <tbody> <tr> <td>Phoenix WSA.2458 Dual Band WiFi I-Bar 2.4/5.8GHz Antenna with 1M RG-174 RP-SMA(M)</td> </tr> </tbody> </table>	Types d'Antenne	Phoenix WSA.2458 Dual Band WiFi I-Bar 2.4/5.8GHz Antenna with 1M RG-174 RP-SMA(M)
Antenna types					
Phoenix WSA.2458 Dual Band WiFi I-Bar 2.4/5.8GHz Antenna with 1M RG-174 RP-SMA(M)					
Types d'Antenne					
Phoenix WSA.2458 Dual Band WiFi I-Bar 2.4/5.8GHz Antenna with 1M RG-174 RP-SMA(M)					

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# Eliwell AIR APP functions

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## Contents

This section includes the following topics:

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## First access to Eliwell AIR APP

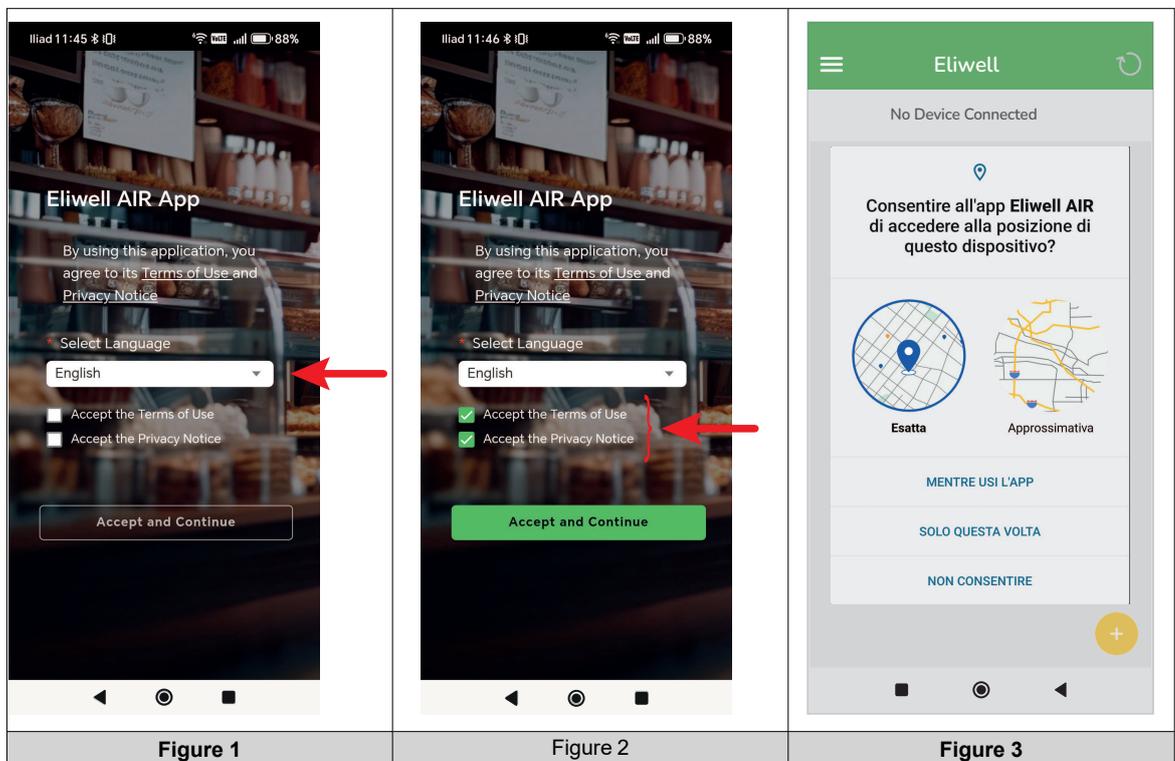
### Requirements

- A stable Internet connection with a strong signal
- The **Eliwell AIR APP** is installed (see [Eliwell AIR APP installation](#))
- A user account is activated on the **Eliwell AIR Cloud** website (see [Eliwell AIR Cloud activation](#))

### Procedure

When launching the **Eliwell AIR APP**, a splash screen will appear for a few seconds. Once the splash screen disappears, you will need to perform a few actions:

1. Accept the application access to device multimedia
2. Select the language to use for User interface (Figure 1).
3. Read and accept "Terms and conditions" and "Privacy Notice" texts by tick the relative box (Figure 2).
4. Accept to receive application notification
5. Accept the application access to GPS position (Figure 3).
6. Verify that the Bluetooth is active



7. Verify that the **Eliwell AIR APP** have the pop-up notifications active and allow all the necessary permissions
8. After completing the above requests, the application opens the device list page with the list of all the devices available for connection.

**Note:** Now you are ready to connect the **Eliwell AIR APP** to the available devices with a single tap.

# First connection to the controller

## Requirements

- Make sure Bluetooth is turned on and the signal is strong.
- The **Eliwell AIR APP** installation is complete (see [APP installation](#) and [First access](#))
- The Eliwell controller is connected to **EW AIR EDGE**. **Note:** If the connection to the compatible controller is not active, the **EW AIR EDGE** LEDs will blink in sequence.

## Procedure

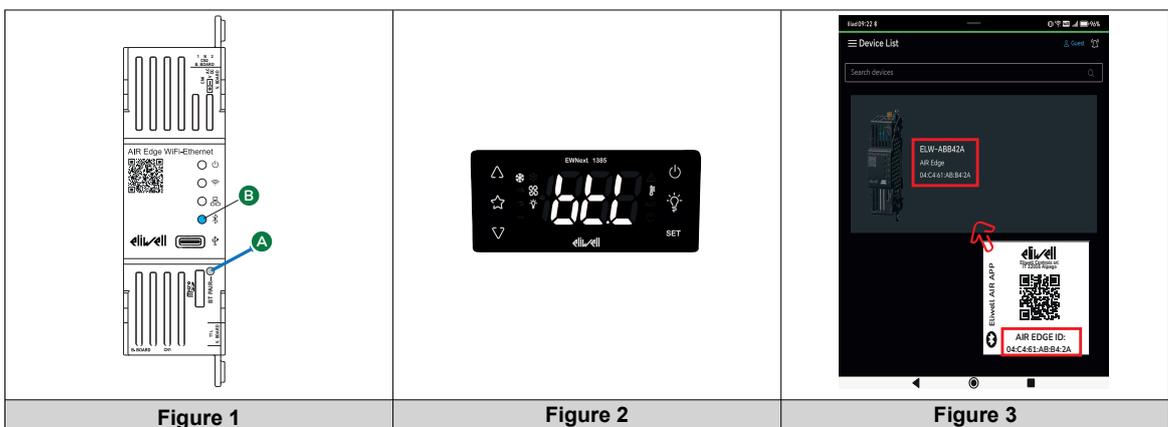
1. Power on the controller and the **EW AIR EDGE**, and wait until the green LED is permanently on
2. Launch the **Eliwell AIR APP**
3. Choose one of the following options:
  - **Login to Eliwell Air:** Create a User account on the **Eliwell AIR Cloud**. Future access to the **Eliwell AIR APP** will skip this selection.
  - **Enter as Guest:** Access the **Eliwell AIR APP** directly. You can link a **Eliwell AIR Cloud** user account later.

**Note:** If the login is not performed, each time you launch the **Eliwell AIR APP** you need to select this option.
4. Press and release the BT PAIR / RESET key (A) on the **EW AIR EDGE** using the tool provided or a paper clip:
  - The blue LED (B) on the **EW AIR EDGE** will start flashing (Figure 1).
  - The **BTL** label will blink on the controller display while the device is in pairing mode (Figure 2).
    1. The Device List page will display a list of device available near your position.
 

**Note:** if a controller is already connected to another **Eliwell AIR APP**, it will not appear in the list until the previous connection ends.
    2. Select the desired controller (tap the name) from the list of available controllers (Figure 3).
 

**Note:** Make sure to select the controller with the same serial number shown on its label.
    3. The **Eliwell AIR APP** will now display the Device Control Center page (Figure 4) with the following information:
      - Device Model
      - IoT Edge Name
      - Edge Model
      - Edge Firmware Version
    4. During this loading phase, the button will display the message: "Preparing Device Manager - Please Wait" (Figure 4). Once the loading is complete, the message will change to "Device Manager" (Figure 5).
 

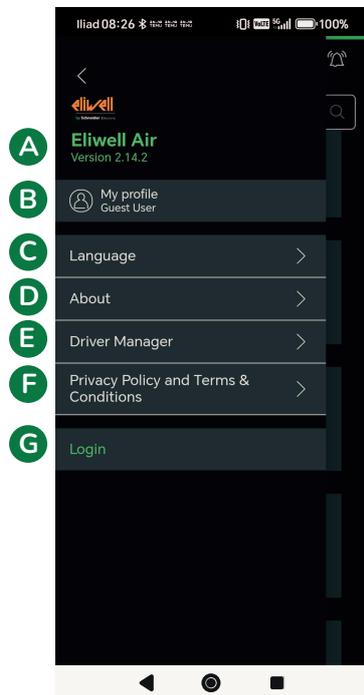
**Note:** On the first connection between the device and the controller, loading the Device Manager may take up to 60 seconds.
5. Access the "Device Manager" page (Figure 6)
6. Now the first connection is complete





## Menu

Tap  to open the application menu.



	Content	Description
<b>A</b>	Header	Displays <b>Eliwell AIR</b> and the application release ( <b>x.xx.xx</b> )
<b>B</b>	My profile	Identifies the user currently logged into the system
<b>C</b>	Language	Sets one of the available languages. <b>Note:</b> Some texts are managed by the operating system and will appear in the language set on your device.
<b>D</b>	About	Displays the <b>Eliwell AIR APP</b> version and a short description of the solution.
<b>E</b>	Driver Manager	Shows the list of installed drivers and allows driver management (upload/update). <b>Note:</b> Tapping a driver name displays all the models that use that driver.
<b>F</b>	Privacy Policy & Term & Conditions	Displays the full text of "Data Protection Notice" and "Term of Use"
<b>G</b>	Login	Opens the browser to access the <b>Eliwell AIR Cloud</b> with the pre-activated user account. If not available, it allows the user to create a new account.

# Controller configuration

## Requirements

- Make sure Bluetooth is turned on and the signal is strong.
- The first connection to the controller is complete (see [First connection](#))

## Procedure

1. Tapping the name of the controller desired to connect with it
2. To access the Device Manager, please wait until the interface has fully loaded.
3. During this loading phase, the button will display the message: "Preparing Device Manager - Please Wait". Once the loading is complete, the message will change to "Device Manager".  
**Note:** On the first connection between the device and the controller, loading the Device Manager may take up to 60 seconds.
4. Tap the "Device Manager" button to open the Device Manager menus to proceed with the controller and Silent Guardian service configuration.
5. The "Device Manager" section will show three main menus
  - **Settings:** (Default) It displays the preset list of Resources, Parameters and Commands with the relative value.  
**Note:** To move between Resources, Parameters and Commands, tap on the relative label.
  - **Open&Save:** permits to export/import device configuration on a .CSV or .xlsx file
  - **History:** permits to configure the datalogging resources. (see [Eliwell AIR Cloud activation](#))
6. The "Device List" page also have the  (three-dot) in the upper-right corner to launch the Firmware Update (see [Firmware Update Procedure](#))

**Note:** only one controller can be selected at a time with **Eliwell AIR APP**

**Note:** In order to work properly, the maximum distance between the mobile device and the **EW AIR EDGE** should be 10 m (32,81 ft), with no obstacles in between. If there is no signal, you will not be able to connect.

## Firmware Update Procedure

Interrupting the firmware update process (for example rebooting, powering off, or power cycling during upload) may result in system outage, requiring device replacement.

### **NOTICE**

#### **HAZARD OF SYSTEM OUTAGE AND/OR DEVICE REPLACEMENT**

- During firmware upload, do not reboot, power off, or power cycle the device.
- Help ensure power supply is stable and protected (for example UPS in place).
- Avoid updates during periods of potential power interruption.

**Failure to follow these instructions can result in equipment damage.**

Before starting the update, make sure that:

- Power supply is stable and protected
- Verify stable and continuous power availability

Taking these precautions is essential to avoid service disruptions and additional costs.

For more details or assistance, please contact Eliwell technical support team.

### 1. Firmware preparation

- Make sure you are using an official version of the **EW AIR EDGE** firmware, downloaded from the "Software" section of the Eliwell website: <https://www.eliwell.com/en/Services/Software-Area.html>.
- Copy the obtained **.rauc** file to a Micro SD.

### 2. Micro SD installation

- Insert the SD card into the dedicated slot on the AIR Edge (the slot is located below the device's USB port).

### 3. Starting the update via the Eliwell AIR APP

- Connect to **EW AIR EDGE** via Bluetooth (BLE) using the **Eliwell AIR APP**.
- Go to the Device Control Center section.
- Tap the  (three-dot) icon in the upper-right corner.
- Select Firmware Update.
- Confirm the start of the update when prompted.

### 4. Update execution

- During the firmware update, the two orange LEDs (WiFi and Ethernet) will blink alternately.
- The process may take up to 5 minutes.
- Do not disconnect the power supply or remove the Micro SD during the operation.

### 5. Update completion

- When finished, the LEDs will return to the previous state they had before the update.
- A notification in the **Eliwell AIR APP** will confirm that the operation was successful.
- Restart the **EW AIR EDGE** to finalize the update.

## Resources configuration

### Requirements

- Make sure Bluetooth is turned on and the signal is strong.
- Confirm that the controller has been paired for the first time (see [First connection](#))

### Procedure to access resources

1. Tap the name of the desired controller
2. Verify that **Device Manager** is active and tap it  
**Note:** only one controller can be selected at a time.  
**Note:** For proper operation, the maximum distance between the mobile device and the controller should be 10 m (32,81 ft) with no obstacles. If there is no signal, you will not be able to access the controller's main page.
3. Tap **Settings** (  ). The page displays the preset list of resources (default).
4. Select one of the following resource types:
  - Resources
  - Parameters
  - Commands
5. Tap the star icon in the upper-left corner to create your own favourite list of resources (resources, parameters, commands)

### Create a favorite list of resources

1. At the first access of each session to the Device Manager section, the **Eliwell AIR APP** automatically opens the 'Settings' menu, with the 'Favorites' filter enabled by default.
2. Select the **Resources** tab desired between Resources, Parameters and Commands.
3. To display all available resources, tap the star icon located in the upper-left corner of the screen. This action disables the Favorites filter and shows the complete list of resources.
4. Add or remove resources by tapping the star icon next to each item. When the star is checked, the resource is added to your Favorites list; tapping it again, removes the resource from the list.
5. Tap again the star icon located in the upper-left corner of the screen to view only the favourite resources.

**Note:** Resources are associated to specific functions (for example, Compressor). Use the group filter near the star or the Search box for manual search.

**Note:** If a resource displays "\*\*\*\*", it means that the measured value is outside the allowed range. This condition typically indicates a error probe or a wiring error.

## Managing selected resources

### RESOURCES tab

Resources are displayed by default. The values shown are read-only.

### PARAMETERS tab

Parameters without password can be modify as described below:

1. Tap a parameter value to edit it. A dialog box will appear where you can change the value.
2. Change the value.
3. Tap **Cancel** to discard changes or **Write** to save the new value.

Parameter with password can be modify as described below:

1. Tap a parameter value to edit it. A dialog box will appear with the option to modify the parameter locked by password.
2. Tap **Unlock**
3. Insert the PIN (password value). The password is the same of the controller connected to the TTL of **EW AIR EDGE**.
4. Tap **Cancel** to discard changes or **Apply** to save the value.
5. Change the value using the '+' and '-' buttons or by selecting from a list of preset values
6. Tap **Cancel** to discard changes or **Write** to save the new value.

**Note:** When you unlock a parameter, the unlock action automatically applies to all parameters that use the same PIN.

The parameters remain unlocked until the **Eliwell AIR APP** is open.

After closing and reopening the **Eliwell AIR APP**, parameters with passwords return to being locked.

### COMMANDS tab

Tap a command label (▶) to execute it.

**Note:** The command label turns green (▶) to indicate that the action was successfully executed. If an error occurs, the command label turns red (▶).

## Copy the configuration between controllers

### Requirements

- Make sure you have completed the controller setting procedure (refer to [Controller configuration](#) section)
- Make sure Bluetooth is turned on and the signal is strong.

### Open & Save

1. Connect to the controller to access the "Device Control Center" section
2. Access the Device Manager section
3. Select **Open&Save** (↔) menu
4. Select one of the following operation types:
  - **Save** = Save the controller's parameter configuration on your mobile.
  - **Open** = Load a previously saved parameter configuration (stored on the mobile) into the controller connected to the **EW AIR EDGE**

### Save configuration

1. Select the **Save** tab.
2. Select one of the two download icons:
  - **Save CSV** = allows to save a file in .csv format
  - **Save Excel** = allows to save a file in .xlsx format
3. A dialog box will open
  - Insert a valid file name
  - Tap **Save** to save the file.
  - Wait until the operation is complete. The operation may required a couple of minutes.
  - Select how manage it between:
    - **Share** = you can select how to share it (Email, whatsapp, drive, etc)
    - **View in folder** = open the folder with the exported files
4. Tap **Cancel** to discard operation.

### Open configuration

1. Select the **Open** tab.
2. Tap on **Open Excel/CSV File** icon
3. Select the file to import from the favourite list with the icon  on his right or select the icon  to browse mobile file system to select a file in a different folder
4. A dialog box will show the upload operation progress
5. After the import process is complete, tap on  of the dialog box and the File Manager page

## History - Datalogging setup

### Requirements

- Make sure you have completed the controller setting procedure (refer to [Controller configuration](#) section)
- A user account is activated on the **Eliwell AIR Cloud** website (see [Eliwell AIR Cloud activation](#))
- Make sure Bluetooth is turned on and the signal is strong

### Procedure

1. Connect to the controller to access the "Device Control Center" section
2. Tap on the Device Manager button to access the "Device Manager" section
3. Select the **History** (🕒) menu
4. Tap the icon (+)
5. In the new windows will display the resources selected for datalogging.  
**Note:** the first time the resources are not selected.  
Note: the maximum number of resources selectable is 8.
6. To select/update the list of resources to datalogging tap on **Change Datalogging** icon (☐ )
7. Now you will be able to:
  - Select the Sampling Frequency time (only with **Plus** plan, 60 minutes fixed for **Lite** plan)
  - display a specific group of parameters/resources using the group list in the page
  - Add/remove resources
8. Tap on **Start Datalogging** icon to activate datalogging of selected resources.

## Connecting and recording data in Eliwell AIR Cloud

### Before Starting

- Make sure you have completed the controller setting procedure (refer to [Controller configuration](#) section)
- A user account is activated on the **Eliwell AIR Cloud** website (see [Eliwell AIR Cloud activation](#))
- Make sure to have a Internet connection with a strong WiFi signal

### Connecting the EW AIR EDGE to Eliwell AIR Cloud

**NOTE:** every **EW AIR EDGE** can be connected to one **Eliwell AIR Cloud** user only.

To display the resources storage, you need to access to the **Eliwell AIR Cloud**.

#### A. Via Eliwell AIR APP using WiFi:

1. Access the Device Control Center page
2. Connect to the controller
3. Tap on **WiFi** (  ) icon
4. In the new window insert WiFi setting:
  - **Network Name** = the WiFi network name (from a list of available network)
  - **Password** = the WiFi user password
5. Wait until the system establish the connection
6. The System will open the [air.eliwell.com](http://air.eliwell.com) website (only if the user is logged in as **Enter as Guest**)
  - A. Enter the registered account **Email** and tap **Next**
  - B. Enter the account **Password** and tap **Login**  
**Note:** if you do not remember the password, click "Forgot password?" and a verification code will be sent to your Email

#### B. Via Eliwell AIR APP using Ethernet:

1. Connect the Ethernet cable to the **EW AIR EDGE**
2. Access the Device Control Center page
3. Tap on **Ethernet** (  ) icon
4. In the next window you can select:
  - **Obtain IP address automatically** = the **EW AIR EDGE** require a IP address to the network
  - **Use the following IP address** = you will insert manually the network configuration
5. The System will open the [air.eliwell.com](http://air.eliwell.com) website (only if the user is logged in as **Enter as Guest**)
  - A. Enter the registered account **Email** and tap **Next**
  - B. Enter the account **Password** and tap **Login**  
**Note:** if you do not remember the password, click "Forgot passord?" and a verification code will be sent to your Email

### Recording data in Eliwell AIR Cloud

**Note:** the resources to datalogging can be selected on **Eliwell AIR APP** only. On **Eliwell AIR Cloud** is only possible to display the recorded data (as a table or under graph format)

For the procedure see [History - Datalogging setup](#).

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# Eliwell AIR Cloud functions

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## Home page - List of connected controllers

### Requirements

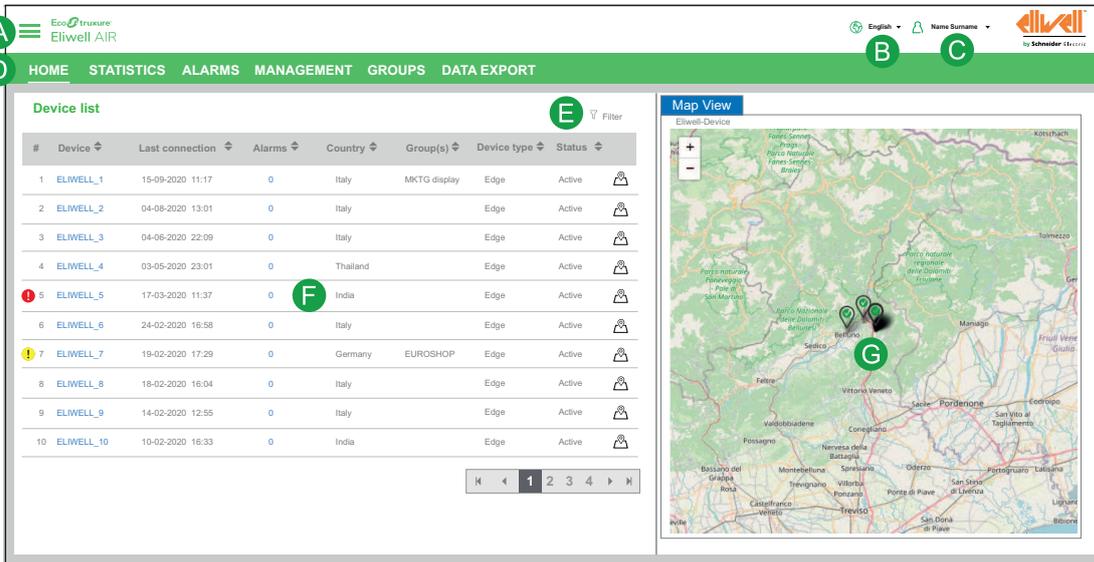
Make sure you have:

- a user account activated on the **Eliwell AIR Cloud** website (see [Eliwell AIR Cloud activation](#))
- registered the **EW AIR EDGE** to **Eliwell AIR Cloud**
- an Internet connection with a strong WiFi signal

### Procedure:

1. Open a browser
2. Access to **Eliwell AIR Cloud** website ([air.eliwell.com](http://air.eliwell.com))
3. Enter the registered account **Email** and tap **Next**
4. Enter the account **Password** and tap **Login**
  - Note:** The same «User Name» and «Password» have to be set inside the **Eliwell AIR APP** application to associate the controller data with the proper Cloud account
  - Note:** if you do not remember the password, click "Forgot password?" and a verification code will be sent to your Email
5. The **Eliwell AIR Cloud** home page will appear and display you the list of associated devices.
  - Note:** If you have not associated any controller, the web page will be empty.
6. Tap  icon to open **Menu (A)**:
  - **Support:** redirects you to the Schneider Electric support page
  - **FAQ's:** redirects to the Schneider Electric FAQs page
  - **Legal:** redirects you to the Schneider Electric web page with Terms&Conditions and Service description
  - **Privacy Policy:** redirects you to the Schneider Electric web page with Terms&Conditions and Service description
  - **Copyright:** redirects you to the Schneider Electric "Legal information"
  - **Version:** version of the cloud
  - **Social:** connects you to available social channels.
7. Tap  icon (**B**) to select the application language: **English, French, Spanish, Italian, German or Russian.**
8. Tap  icon to manage **User (C)**:
  - **Profile Update:** update personal data
  - **Change Password:** update password value
  - **Change Email:** update email address
  - **Logout:** exit from **Eliwell AIR Cloud**
9. Tap on the **header (D)** to access the following menu:
  - **HOME:** home page
  - **STATISTICS:** various graph for device or groups
  - **ALARMS:** alarm rules management and history
  - **MANAGEMENT:** user information and associated mobile
  - **GROUPS:** devices groups management
  - **DATA EXPORT:** HACCP report management
10. Tap the **Filter**  (**E**) to filter the controllers list by one of the displayed information (available on the "Home" header page only)
11. In the **Controller list (F)**, are displayed the following information
  - **#** = progressive number associate to the controller. **Note:** if one or more alarms are present, an icon will be displayed before the number:  for Critical alarm or  for Warning alarm.
  - **Device** = link to open the controller main page
  - **Last Connected** = last connected date
  - **Alarms** = number of active alarms. Click on the number, to display the "[Alarm rules management](#)" page.
  - **Country** = country where the controller was installed
  - **Group(s)** = group(s) of the device
  - **Device type** = device type (Edge, Bluetooth, etc.)

- **Status** = device status
  -  = displays the geolocation of the device on the map.
12. In the Map view (G), are displayed devices location on the map and the presence of alert for each device:
-  : no active alarm;
  -  : low severity active alarm;
  -  : high severity active alarm.



The screenshot displays the Eliwell AIR web interface. At the top, there is a navigation bar with 'HOME', 'STATISTICS', 'ALARMS', 'MANAGEMENT', 'GROUPS', and 'DATA EXPORT'. The 'ALARMS' tab is active. On the right, there are settings for 'English' and 'Name Sumame'. The main content area is split into two panels:

- Device list (E):** A table with columns: #, Device, Last connection, Alarms, Country, Group(s), Device type, and Status. It lists 10 devices (ELIWELL\_1 to ELIWELL\_10). Device 5 (ELIWELL\_5) is highlighted with a green circle (F) and a red dot in the Alarms column. Device 7 (ELIWELL\_7) has a yellow dot in the Alarms column. All devices are 'Active'.
- Map View (G):** A map showing the geographical location of the devices. A green circle (G) is overlaid on the map, indicating the location of a device with no active alarm.

# Telemetry of a connected controller

## Requirements

Make sure you have:

- accessed the **Eliwell AIR Cloud** (refer to [Home page](#) section)
- activated the datalogging in **Eliwell AIR APP** (refer to [Connection in Eliwell AIR Cloud](#) section).

## Procedure:

1. Tap on the controller device name from the list of connected controllers on the Home page.
2. The header displays information about controller (Device name, **EW AIR EDGE** Uid name, Controller model and Firmware version).
3. Click on the icon  if you want to update the device name.
4. **Last Connected On** displays you the last connection date and time with data upload.
5. On the left, the windows displays the list of resources (active and inactive) saved (maximum 8 active resources).
 

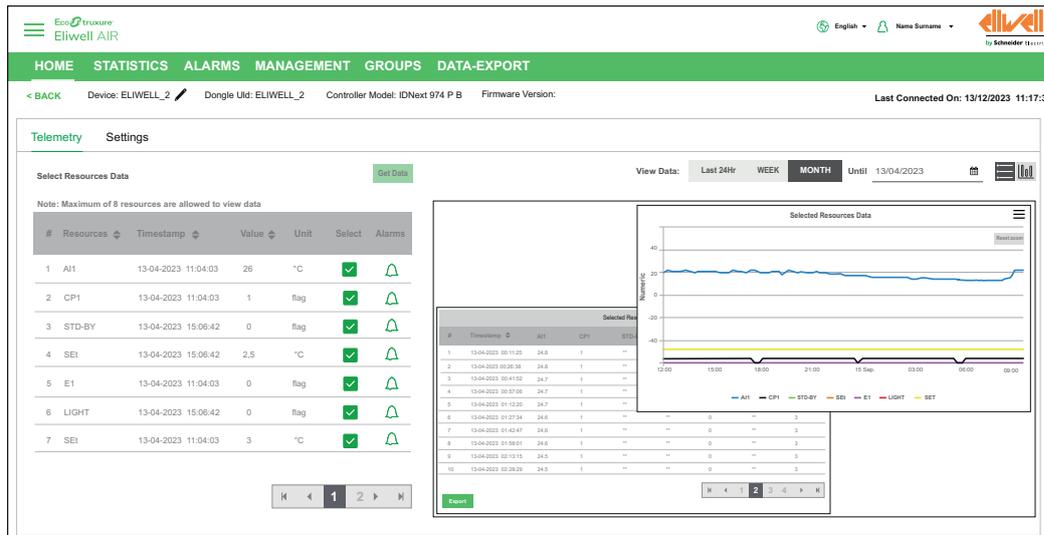
**Note:** The list of resources, displays all selected resources on **Eliwell AIR APP**.

  - **#:** progressive number associate with the controller.
  - **Resources:** label of the resources.
  - **Timestamp:** date and time of the last data upload.
  - **Value:** the current value uploaded.
  - **Unit:** the unit of measurement.
  - **Select:** allows you to select () / deselect () a resource. This operation regenerates the table containing the data history displayed (on the right side of the window), along with its corresponding graphical visualization
  - **Alarms** (): allows you to add a new 'Cloud Alarm' related to the resources (see [Add Cloud Alarm](#)).
6. On the right, the windows displays the uploaded data in the selected period as a table or a graph.
 

**Note:** The windows only displays data of active resources.

  - **View Data:** allows you to select the period for data display from one of the following: last 24 hours, week or month.
  - **Until:** set the last data to be displayed. The "View Data" starts to count from this point backwards.
  - : allows you to select the visualization as a table:
    - **Rows:** identify date and time when data was acquired.
    - **Column:** identify the resources selected and the respective value for each date and time.
    - **Export:** allows to export a **.xlsx** file with data displayed and save it to the PC.
  - : allows you to select the visualization as a graph:
    - **x-axis:** displays the resources uploaded time.
    - **y-axis:** displays the selected resources value.
    - : Allows to select the option listed below:
      - view the graph in full screen.
      - print chart displayed.
      - download PNG image of the graph.
      - download JPEG image of the graph.
    - **Reset Zoom:** Allows to reset zoom of the current view.
    - **Legend:** Displays the list of resources with the associated color. Click on each resource to display / hide relevant trend line.

**Note:** The graph is auto-scaled.



## Display/configure History Datalogging

1. Login to [air.eliwell.com](http://air.eliwell.com) website.
2. Access to Home page
3. Tap on the label of the controller desired
4. Tap on **Telemetry** to display the value of the resources saved
5. Select in the upper-right corner:
  - **View Data:** period to display data (Last 24Hr, Week or Month)
  - **until:** Select the deadline time
  -  icon: allows you to select the visualization as a table
  -  icon: data will be display under graph format

## Controller - Remote reading and writing

### Before Starting

Make sure you have:

- accessed the **Eliwell AIR Cloud** (refer to [Home page](#) section)
- activated the connection to the **Eliwell AIR Cloud** for one or more controllers.

### Procedure:

1. Tap to the controller device name from the list of connected controllers in the Home page
2. Click on **Settings**
3. The Header displays you the information about controller (Device name, **EW AIR EDGE** UId name, Controller model and Firmware version)
4. Click on icon  if you want to update the device name
5. The "**Last Connected On**" displays you the last connection date and time with data upload
6. Select the resources to display using the drop-down menu at the upper left:
  - **All**: display all the resources available
  - **Parameters**: displays parameters only
  - **Resources**: displays resources only
  - **Commands**: displays commands only

### Select Parameters (read and write):

1. To show a parameter at the beginning of the list, on the **Favourites** column, select .
2. To search one or more parameters by label or description, tap **Filter** ()
3. The system will show you:
  - **Favourites**: allows you to select () or deselect () a parameter
  - **Label**: displays the label of the parameter
  - **Description**: displays the description of the parameter
  - **Min**: displays the minimum value that the parameter can assume
  - **Max**: displays the maximum value that the parameter can assume
  - **Current Value**: displays the current value (only after an upload)
  - **Unit**: displays the Unit of measurement
4. To read the parameter value tap the .
5. To update the current value of a parameter:
  - Click on the current value
  - modify it and insert the new value
  - Tap the  icon to save the change.

### Select Resources (read only):

1. To show a resource at the beginning of the list, on the **Favourites** column, select .
2. To search one or more resources by label or description, tap **Filter** ()
3. The system will show you:
  - **Favourites**: allows you to select () or deselect () a resource
  - **Label**: displays the label of the parameter
  - **Description**: displays the description of the parameter
  - **Current Value**: displays the current value (only after an upload)
  - **Unit**: displays the Unit of measurement
4. To read the resources value tap the  icon.

### Select Commands (execute only):

1. To show a command at the beginning of the list, on the **Favourites** column, select .
2. To search one or more commands by label or description, tap **Filter** ()
3. The system will show you:
  - **Favourites**: allows you to select () or deselect () a parameter
  - **Label**: displays the label of the parameter
  - **Description**: displays the description of the parameter
4. To execute a command:
  - Tap the  icon
  - Tap the  icon again to stop the execution

# Alarm rules management

## Before Starting

Make sure you have accessed the **Eliwell AIR Cloud** (refer to [Home page](#) section)

## How-to create an alarm rule

1. Tap to the controller device name from the list of connected controllers on the Home page
2. Click on **Telemetry**
3. Tap on the Alarms icon (  ) of a specific resource
4. In the "**Add Alarm Detail**" window enter:
  - **Alarm Name**: Alarm rule name
  - **Dongle Uid** : dongle type (automatically inserted)
  - **Controller** : controller type (automatically inserted)
  - **Resources** : resource name (automatically inserted)
  - **Limit (Min)**: value below which the alarm condition is active
  - **Limit (Max)**: value above which the alarm condition is active
  - **Alarm Receiver Email**: alarm email destination list.
    -  : every tap on it allow to add an other email to the list
  - **Severity**: alarm severity (warning or critical)
  - **Delay**: alarm activation time delay.
    - The  allow to set the alarm delay (multiple of preset reading period).
    - The  show a help message: "The Delay defines how long the condition must persist before triggering the alarm. Delay must be multiple of the sampling frequency that is configurable via **Eliwell AIR APP**"
5. Tap 'Save and Apply' to save the report or 'Cancel' to exit without creating the rule.

## How-to update an alarm rule

1. Tap to the controller device name from the list of connected controllers on the Home page
2. Click on **Telemetry**
3. Tap on the Alarms icon (  ) of a specific resource
4. On the **Update Alarm Details** page, edit the information inserted during creation of cloud alarm rule.
5. Tap 'Save and Apply' to save the report or 'Cancel' to exit without creating the rule.

## How-to display and manage an alarm rule:

1. Click on **Alarms**
2. Click on **Alarm Rules**
3. The **Alarm Rules** page displays the alarms rules and allows to enable/disable/delete one or more rules.
  - **Search** (  ): filter the alarms rules by name.
  - **Alarm Name**: displays the alarm rules name.
  - **Limit**: displays the alarm rule activation setting (Limit (Min)...Limit(Max)).
  - **Severity**: displays the severity assigned to the alarm rule (warning or critical).
  - **On/Off** (  ): enable/disable an alarm rule
  - **Actions** (  ): delete an alarm rule. A pop-up box appears. Click "**Yes**" to confirm the choice or "**No**" to cancel the operation.

## How-to display alarm history:

1. Click on **Alarms**.
2. Click on **Alarm Information**.
3. The **Alarm Information** page displays the alarms history.
  - **Search** (  ): filter the alarms by name.
  - **Icon**: displays the alarm status (  = alarm ended;  = warning alarm active;  = critical alarm active)
  - **#**: displays a progressive number.
  - **UId**: displays the label of the alarm rule.
  - **Device**: displays the controller name.
  - **Geo Location**: displays where the controller is located.
  - **Start**: displays the activation date and time.
  - **End**: displays the deactivation date and time (only for the ended alarms).
  - **Status**: displays the alarm rule status (active or inactive).
  - **Severity**: displays the severity assigned to the alarm rule (warning or critical).
  - **Rule**: displays rules name. By clicking on it, a box with the Rule settings will appear.
  - **Resource**: displays the resources used by the rules.

# Automatic HACCP Report Setup

## Before Starting

Make sure you have:

- accessed the **Eliwell AIR Cloud** (refer to [Home page](#) section)
- activated the datalogging in **Eliwell AIR APP** (refer to Connection in [Eliwell AIR Cloud](#) section).

## HACCP report:

1. Click on **Data Export**
2. The **Data Export** page will show you:
  - **Report Name:** Displays the name of saved report.
  - **Report Frequency:** Displays the report generation frequency setting (Daily, Weekly or Monthly).
  - **Notified Email To:** Displays the email address for report notifications.
  - **Enable/Disable:** The slide (  ), activate/deactivate the report generation.
  - **Actions:** Allows you to:
    -  : edit the information of the report
    -  : delete the report
    -  : download the reports saved on the cloud
  - **Search:** Allows you to filter the reports. The search is active on all the columns.
  - **Add new report:** Allows you to create a new report.

## How-to create a new report:

1. Click on **Data Export**.
2. Click on **Add new report**. **Note:** all the fields are mandatory.
3. In the window enter:
  - **Report Name.**
  - **Report Frequency :** frequency of report generation (Daily, Weekly or Monthly).
  - **Data Frequency:** data acquisition frequency (One, Two, Three or Four time per day).
  - **Select Device:** device associated to the report.
  - **Resources:** list of resources to enter in the report (maximum 8 resources).
  - **Report Receiver Email:** alarm email destination list.
  -  : every tap on it allow to add an other email to the list
  - **Format:** format of report file (.pdf, .csv or .xlsx).
4. Tap 'Save and Apply' to save the report or 'Cancel' to exit without creating the rule.

## How-to update a report:

1. Click on **Data Export**.
2. Click on the **Action**  icon.
3. In the window, update one or more of the available information fields:
  - **Report Name:** sets the name of the report.
  - **Report Frequency :** sets frequency of report generation (Daily, Weekly or Monthly).
  - **Data Frequency:** sets data acquisition frequency (One, Two, Three or Four time per day).
  - **Select Device:** sets the device associated with the report.
  - **Resources:** list of resources to be included in the report (maximum 8 resources).
  - **Report Receiver Email:** sets alarm the destination Email list.
  -  : each tap allow adding another Email to the list
  - **Format:** sets format of report file (.pdf, .csv or .xlsx).
4. Tap 'Save and Apply' to save the report or 'Cancel' to exit without creating the rule.

### How-to delete a report:

1. Click on **Data Export**.
2. Click on the **Action**  icon.
3. The **Delete Report: <Name>** page will appear.
4. Tap "**No**" to exit without deleting the report and "**Yes**" to delete the report.

### How-to view a report history:

1. Click on **Data Export**
2. Click on the **Action**  icon
3. The **<Name> History** page will appear
4. The windows displays:
  - **Created Date (UTC)**: Displays date and time of report generation.
  - **Actions**: Allows you to download a specific report.
  - **Cancel**: Allows you to exit without download a report.

## Grouping of connected devices

### Before Starting

Make sure you have accessed to the **Eliwell AIR Cloud** (refer to [Home page](#) section)

### Groups:

1. Click on **Groups**
2. The **Device Group** page will show you:
  - **Group Name:** Displays the group name of saved group.
  - **Description:** Displays a description of the controller group.
  - **Create Date (UTC):** Displays the date and time when the group was created.
  - **Actions:** Allows you to:
    -  : displays the information about the group
    -  : allows to update the group datas
    -  : allows to delete the group
  - **Search:** Allows you to filter the reports. The search is active on all the columns.
  - **Create New Group:** Allows you to create a new group.

### How-to create a Group:

1. Click on **Groups**.
2. Click on **Create New Group**.
3. In the window enter:
  - **Name of the Group**
  - **Select Device:** device associated to the group
  - **Add Description:** group description
4. Tap 'Save and Apply' to save the report or 'Cancel' to exit without creating the rule.

### How-to update a Group:

1. Click on **Groups**.
2. Click on the **Action**  icon
3. On the **Edit Group Details** page, edit the information inserted during creation of the group.
4. Tap 'Save and Apply' to save the report or 'Cancel' to exit without creating the rule.

### How-to delete a Group:

1. Click on **Groups**.
2. Click on the **Action**  icon.
3. The **Delete Group: <Name>** page will appear.
4. Tap "No" to exit without deleting the report and "Yes" to delete the report.

### How-to view Group information:

1. Click on **Groups**.
2. Click on the **Action**  icon.
3. The **Group Information** page will appear
4. The windows displays:
  - **Group Name.**
  - **Search:** to filter the devices of the Group.
  - **Device:** the list of the devices associated to the group.
  - **Last Connected:**the last connection date and time
  - **Status:** the devices status (Active/Inactive).
  - **Close:** Close the windows.

# Phone/Tablet management

## Before Starting

Make sure you have accessed to the **Eliwell AIR Cloud** (refer to [Home page](#) section)

## How-to:

1. Click on **Management**
2. The **Phone/Tablet** page will show you:
  - **#**: Displays the progressive number assigned to the User.
  - **Mobile Uid**: Displays the mobile device identification number list.
  - **Mobile Model**: Displays the version of the mobile device model.
  - **Mobile OS | Version**: Displays the version of the mobile device software.
  - **Issued On**: Displays the data and time when the mobile device was registered.
  - **Actions**: Allows you to delete a mobile device (  ).
  - **Search**: Allows you to filter the mobile devices. The search is active on all the columns.
3. Select one **Mobile Uid** and click  to delete it
4. The **Delete device** page will appear.
5. Tap "**No**" to exit without deleting the report and "**Yes**" to delete the report.

**Note:** only the End User can delete a **Mobile Uid** device.

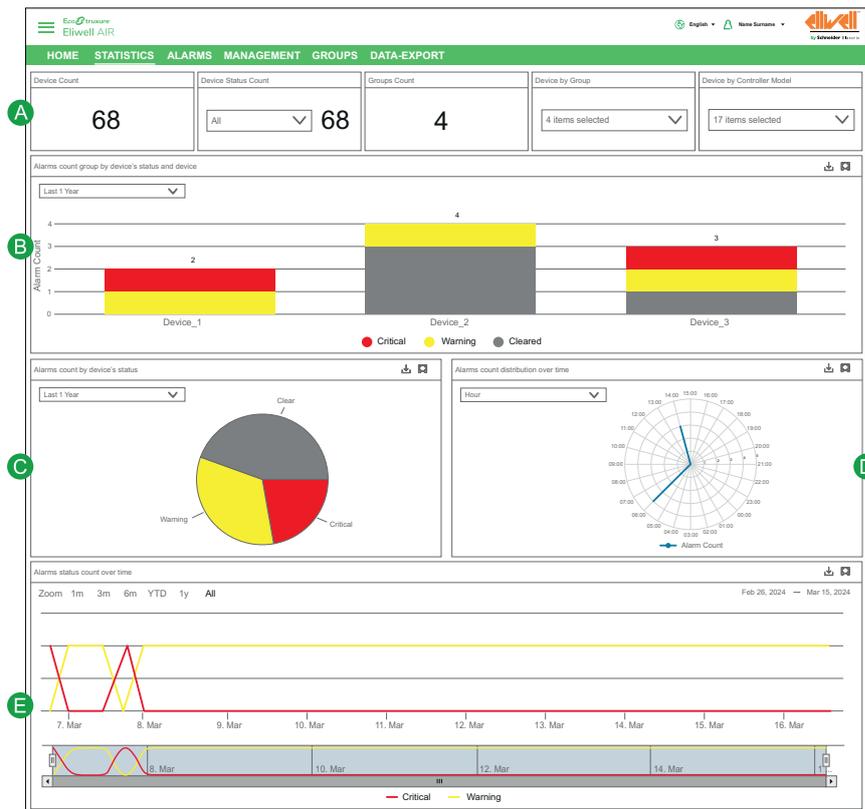
**Note:** For OEM User (read only access), is requested to contact Eliwell Support to create their **Mobile Uid**.

# Statistics

## How-to:

1. Click on **Statistics**
2. The first line displays devices data (**A**):
  - **Device Count**: displays the number of devices registered in **Eliwell AIR Cloud**.
  - **Device Status Count**: allows to select specific devices based on their connection status (online devices, offline devices, all)
  - **Groups Count**: displays the count of selected groups.
  - **Device by Group**: allows to select specific group of devices.
  - **Device by Controller Model**: allows you to select specific type of devices.
3. **Alarms count group by device's status and device (B)**: displays the alarms count (cleared, warning or critical) for each selected device.
4. **Alarms count by device's status (C)**: displays a graph for all selected devices, highlighting the total quantity of alarms (cleared, warning, or critical). Users can select from the following time periods: Day, Last week, Last Month, Last 3 Months, Last 1 Year.
5. **Alarm Count distribution over time (D)**: displays the distribution of alarms across the selected devices by time intervals: last Hour, last day or last Month.
6. **Alarm status count over time (E)**: Allows to:
  - **Zoom**: selects the time interval to display on the graph, including options such as last month (**1m**), last three months (**3m**), last six months (**6m**), from January 1st to today (**YTD - Year To Date**), last year (**1y**), or all alarm recordings (**All**).
  - **Period**: displays interval time selected with the Zoom
  - **Graph**: displays the graph of the alarms in the selected period (only critical and warning alarms)

**Note:** The horizontal scroll bar allows you to view only a portion of the selected interval.





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