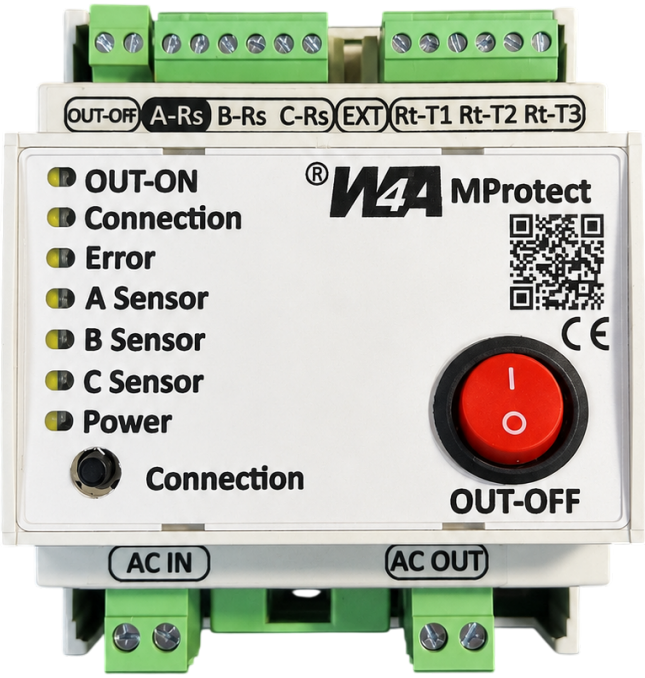
EN

W4A MProtect

User manual



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1. About this manual

1.1. Purpose of the manual

This manual contains the information required for daily use, state checks, control, configuration of user-accessible functions, viewing history and basic troubleshooting of W4A MProtect.

Electrical installation, protection function configuration and technical work are described in the Installation and configuration manual and must only be performed by qualified personnel.

Read and understand these instructions before using the device.

Keep this manual throughout the product's service life and make it accessible to the owner, responsible user and support personnel.

If the equipment is transferred to another owner or installation site, this manual must accompany the product.

1.2. Intended audience

This manual is intended for the person responsible for normal W4A MProtect operation, including:

- checking device state;
- controlling the load, where permitted;
- viewing current and consumption values;
- viewing events and notifications;
- recognising alarms;
- using the app;
- performing the basic checks described in this manual.

The user must not open, modify, repair or change the device's electrical connections.

1.3. Models covered

This manual applies to the following product models and variants:

Product	Model covered
W4A MProtect	S20
W4A MProtect	S50
W4A MProtect	T20
W4A MProtect	T50
W4A MProtect	T20 Pro
W4A MProtect	T50 Pro
W4A MProtect	T20 Pro2
W4A MProtect	T50 Pro2

The exact model designation and reference can be found on the device identification label, packaging or in the app.

Some functions described in this manual may depend on:

- the device model;
- the hardware version;
- the firmware version;
- the app version;
- the installation configuration;
- the connected sensors or accessories;
- the availability of communication services.

Where a function is not available on all models, this limitation is indicated in the relevant section.

Check that the model used is explicitly identified in this section.

1.4. Firmware compatibility

The installed version can be viewed in the app's **Information** tab.

Certain functions, screens, settings or procedures may differ in firmware versions earlier or later than those covered by this manual.

Use the firmware version recommended by W4A. When an update is available, follow the instructions in the app.

Do not disconnect the power supply or interrupt communication during a firmware update unless expressly instructed by the app.

1.5. App compatibility

The installed version can be checked:

- in the app settings;
- on the app's official store page;
- in the phone's app list, where available.

Screen appearance, control locations and some function names may vary depending on:

- the app version;
- the operating system;
- screen size and resolution;
- the selected language;
- the W4A MProtect firmware version.

Use of the latest app version is always recommended.

Install the app only through the official channels indicated by W4A. Do not use modified versions, unauthorised copies or apps from unknown sources.

1.6. Symbols and warning levels

Warnings appear in highlighted boxes with a coloured side bar. The heading identifies the warning level and, where applicable, the hazard. The following text gives the precautions or procedure to follow.

The written designation identifies the warning level even in a black-and-white printout. Colour is a visual aid and does not replace reading the instructions.

DANGER — Hazardous situation

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING — Potentially hazardous situation

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION — Precautions for use

Indicates a situation that could cause minor or moderate injury, or a practice that could damage the product, load or installation.

NOTE

Provides additional information to help understand or carry out a procedure. A note does not, by itself, identify a personal injury hazard.

1.7. Other conventions

This manual uses the following conventions:

- app menu, button and option names appear in bold;
- numbered instructions must be followed in the order shown;
- checklists must be completed before proceeding to the next step;
- references to “device” or “equipment” mean W4A MProtect unless stated otherwise;
- “controlled load” and “motor” mean the motor, pump, contactor or other equipment controlled by W4A MProtect, depending on the installation configuration;
- “app” means the official app compatible with W4A MProtect.

1.8. Responsibility for reading the manual

The user must:

- read the safety and operating information;
- observe operating limits;
- not change settings identified in this manual as technical or intended for the installer;
- not open the equipment or perform electrical work;
- check that the load can operate safely before sending commands;
- contact qualified personnel when support is required.

Not reading the manual does not remove the risks associated with incorrect equipment use.

2. Safety

2.1. General safety information

Incorrect use may cause electric shock, fire, equipment damage, motor damage or hazardous operation of the controlled load.

Before using W4A MProtect:

- read the warnings on the equipment and in this manual;
- ensure you understand the basic controls and states;
- use the equipment only for its intended purpose;
- do not change the electrical installation or settings identified in this manual as technical or intended for the installer;
- confirm that the load can operate safely before sending any command.

> **WARNING — External installation protection**
>
> W4A MProtect does not replace the protective and isolation devices required for the electrical installation, motor and controlled load.

The installation must include short-circuit, overload, electric shock and surge protection, residual current protection, switching and isolation devices, emergency stops and other required measures, as applicable.

Qualified personnel are responsible for selecting, installing and checking protective devices. Do not remove, modify or bypass them. Contact the installer if you have questions about the available protection or stopping devices.

2.2. Electrical safety

> **DANGER — Hazardous electrical voltage**
>
> Depending on the model, this equipment is supplied at 230 V AC or 400 V AC. Contact with live parts may cause severe electric shock or death.

Do not open the enclosure, touch terminals, conductors or internal components, or perform electrical work.

Do not remove covers, protective devices, cables or accessories.

Any installation, modification, maintenance or repair must only be performed by qualified personnel.

Setting OUT-OFF to position O, enabling STOP-SW or sending a stop command through the app does not guarantee the absence of voltage.

Unlit indicators do not prove the absence of voltage either.

2.3. Risk of automatic starting

> **WARNING — Unexpected starting of the controlled load**
>
> The controlled load may start or restart automatically due to:

- sensor operation;
- schedules or timers;
- local or remote commands;
- app commands;
- restoration of power;
- restoration of normal conditions after an alarm;
- settings saved on the device.

The absence of Bluetooth, Wi-Fi or Internet communication does not guarantee that the load remains stopped.

Before cleaning the equipment externally, approaching the load or carrying out any authorised operation:

- stop the system using the appropriate control;
- set OUT-OFF to position O, where applicable;
- use the external switching or isolation device when work is required;
- confirm that the load cannot start;
- contact qualified personnel where electrical or mechanical work is required.

2.4. Intended use

W4A MProtect is intended to control, monitor and perform configured protection functions for electric motors, according to the model, installation and settings defined by the installer.

The user may:

- check device state;
- view current values, consumption, events and history;
- use controls permitted by the app;
- configure timers and other options expressly identified as user-accessible;
- view errors, warnings and notifications.

Use the equipment only within the electrical, environmental and functional limits defined for the

installation.

Do not use the equipment as the sole means of personal protection, emergency stopping, electrical isolation or a safety-critical system.

Incorrect use, unsuitable installation or unauthorised modification may compromise safety and cause abnormal operation.

2.5. Foreseeable misuse

The user must not:

- open or modify the equipment;
- change electrical connections;
- replace sensors or accessories;
- bypass protective devices;
- change technical settings without suitable qualifications or installer instructions;
- use the app as an emergency stop;
- send remote commands without checking that the load can operate safely;
- confirm a factory reset without installer or technical support instructions;
- use the equipment if visibly damaged or operating abnormally.

2.6. Communication

The equipment uses Bluetooth Low Energy communication and may connect to a user-configured Wi-Fi network.

Wireless communication may be affected by interference, range limitations, physical obstacles, network failures or electromagnetic disturbances.

Do not use communication as the only means of control for safety-critical functions.

The user must ensure equipment operation does not create hazardous situations for people, animals, equipment or installations.

Loss of Bluetooth or Wi-Fi communication does not stop the load. W4A MProtect may continue executing previously saved settings, automatic functions and commands.

2.7. Firmware updates

Use only firmware, software or updates provided or authorised by W4A, Lda.

Do not install modified firmware or firmware from unverified sources.

Where applicable, keep equipment and the app updated to correct security flaws, improve stability and ensure correct operation.

2.8. Cleaning and basic maintenance

The user may only clean the outside and visually inspect the equipment.

Before cleaning:

- confirm that the load is stopped;
- set OUT-OFF to position O;
- do not open the enclosure or remove guards;
- do not touch terminals, cables or internal components.

Clean only the accessible exterior surface with a dry or slightly damp cloth.

Do not use:

- solvents;
- abrasive products;
- water jets;
- compressed air;
- metal objects;
- flammable products.

The user must not:

- open or dismantle the equipment;
- tighten terminals;
- change connections;
- replace the battery;
- replace components;
- repair the equipment.

Contact the installer or technical support in the event of visible damage, moisture, a burning smell, abnormal heating, persistent failure or unexpected behaviour.

2.9. Abnormal operation and emergencies

Immediately switch off and isolate the equipment and load supplies, if safe to do so, if any of the following occurs:

- smoke, flames or a burning smell;
- electrical arcing, sparks or abnormal electrical noise;

- excessive heating;
- ingress of water or other liquids;
- damage to the housing, terminals, conductors or insulation;
- loss of load control;
- unexpected operation or repeated starting;
- repeated tripping of fuses, circuit breakers or other protective devices;
- signs of a short circuit;
- deformation, discolouration or melted components;
- any situation that could endanger people, animals or property.

Do not touch the equipment or attempt to disconnect it directly if exposed live parts, fire, water or other immediate hazards are present. Use the upstream switching device and follow the installation's applicable emergency procedures.

Do not reconnect the equipment until qualified personnel have identified and corrected the cause.

The following situations require checking but do not necessarily require immediate supply disconnection:

- loss of Bluetooth communication;
- loss of Wi-Fi or Internet communication;
- app unavailability;
- delayed data updates;
- an outdated clock or history.

If a communication failure prevents required supervision or makes installation operation unsafe, make the load safe and contact qualified personnel.

In an emergency involving the motor, machine or installation, use the installation's own emergency stop and isolation devices. Do not rely solely on the app, OUT-OFF or STOP-SW.

2.10. Residual risks

Even when W4A MProtect is installed, configured and used according to this manual, risks may remain that the equipment cannot completely eliminate.

Residual risks may include:

- hazardous voltage at terminals and conductors;
- unexpected or automatic load starting;
- movement of mechanical machine or motor parts;
- heating of terminals, conductors or components;

- failure of sensors, external controls or protective devices;
- communication loss or delays;
- execution of previously saved settings or automatic functions;
- resumption of operation after power failure;
- incorrect operation due to unsuitable configuration;
- failure of components external to W4A MProtect;
- risks associated with the controlled load or process.

W4A MProtect reduces certain risks through its available control, monitoring and protection functions, but does not eliminate hazards inherent in the electrical installation, motor, machine or controlled process.

Communication, monitoring, notification and logging functions do not replace physical protective devices or independent safety measures.

Do not remain or allow others to remain in a hazardous area when the load may start automatically or be controlled remotely.

The installation and external protective devices must be checked by qualified personnel.

3. Product description and variants

3.1. Product overview

Depending on the model and configuration, W4A MProtect is designed to control, monitor and provide protection functions for electric motors.

The device monitors the current associated with load operation and may interrupt or restrict operation when conditions outside installer-defined limits are detected.

Depending on the model and installation, W4A MProtect controls the load directly or controls an external contactor. This configuration is defined by the installer and must not be changed by the user.

The equipment can receive sensor signals to control load operation according to installation conditions.

Clock, scheduling and timer functions allow automatic operation according to previously configured settings.

W4A MProtect can record information about operations, current and other events relevant to monitoring performance.

3.2. Main functions

Depending on the model and configuration, W4A MProtect may provide:

- local and remote load control;
- monitoring and configured current protection functions;
- sensor connections;
- scheduling and timers;
- operation and event logging;
- operation, current and sensor history;
- state monitoring;
- notifications;
- firmware updates.

3.3. Device identification

The model and main product characteristics are shown on the device identification label.

Check that the indicated model matches the equipment used.

Additional information, such as serial number and hardware and firmware versions, can be viewed in the app’s Information tab, where available.

Do not remove, cover, alter or make the identification label illegible.

3.4. Control panel

The control panel allows operating states to be checked locally and certain operations to be performed.

A detailed description of indicators and buttons is provided in 4 Control panel.

3.5. Operating records

W4A MProtect can record device and load operating data, including:

- switching on and off;
- current values;
- sensor states;
- notifications;
- other relevant events.

Records are intended for monitoring and troubleshooting and do not replace on-site checks or physical safety devices.

4. Control panel

The control panel allows the W4A MProtect state to be checked locally and certain functions to be performed using the OUT-OFF switch and Connection button.

The layout of indicators and controls may vary by model. Check that the image matches the installed variant.



Figure 4.1: Control panel

4.1. Indicator lights

Observe whether each LED is on, off or flashing. The table describes normal operation; patterns for special modes are described in the following sections.

Indicator	Colour	State and meaning
OUT-ON	Green	**On:** output active. **Off:** output inactive.
Connection	Blue	**On:** active connection to the device. **Off:** no active connection. **Flashing:** pairing mode available.
Error	Red	**On:** waiting for the current reset delay to expire. **Off:** normal operation. **Flashing:** a condition prevents operation, such as an error, STOP-SW or OUT-OFF in position O.
A Sensor / B Sensor / C Sensor	Yellow	**On:** the corresponding input is closed. **Off:** the corresponding input is open.

Indicator	Colour	State and meaning
Power	Green	**On:** device powered. **Off:** no power indication; this does not prove the absence of voltage.

Unlit LEDs do not prove the absence of voltage. OUT-ON indicates the output command; in systems with a contactor, it does not confirm mechanical motor operation.

4.2. OUT-OFF switch

The **OUT-OFF** switch physically enables or inhibits operation of the output relay.

- **Position I — operation enabled:** the relay control circuit is available and W4A MProtect can activate the output when all other operating conditions are satisfied.
- **Position O — operation inhibited:** the relay control circuit is physically interrupted, preventing the output relay from being energised.

Setting the switch to position I does not necessarily start the motor immediately. It only enables output activation when sensors, timers, commands and other configured conditions allow it.

Setting the switch to position O physically prevents output relay activation, but:

- does not disconnect the W4A MProtect supply;
- does not necessarily interrupt all energy sources to the load;
- does not guarantee the absence of voltage at terminals;
- is not an isolation device;
- is not and does not replace an emergency stop;
- does not authorise electrical or mechanical work on the installation.

Before any work, switch off and isolate the supply using a suitable device, prevent accidental reconnection and verify the absence of voltage.

Resetting through OUT-OFF

When the device is in STOP-SW, reset or a recoverable error state, it may be possible to re-enable operation using the following sequence:

1. set the OUT-OFF switch to position I;
2. set it to position O;
3. repeat the I–O sequence within a maximum of 3 seconds;
4. use the LEDs or app to confirm whether the previous state has been cleared.

This sequence does not remove the cause of a persistent error.

Before resetting:

- identify the cause of the state;
- check that the installation can resume operation;
- check that nobody is in the hazardous area;
- confirm that the motor can start safely.

If the error state returns, do not repeatedly reset it; see chapter 12 Basic troubleshooting.

4.3. Connection button

The **Connection** button activates pairing mode and performs operations related to device communication. Its effect depends on the indication shown while the button is held and the point at which it is released.

To pair a new phone, follow chapter 6 Device pairing. Observe the Connection and Error LEDs before releasing the button.

Indication while the button is held	Action when the button is released
Only Connection LED on	Activates pairing mode for a new phone.
Connection and Error LEDs on	With OUT-OFF in position O (inhibited), deletes communication sessions saved with the device. To communicate again, press Connection again and repeat device pairing.
Neither LED on	Cancels the operation without making changes.

> **CAUTION — Deleting communication sessions**
>
> Communication sessions are deleted only if OUT-OFF is in position O (inhibited) when the button is released with the Connection and Error LEDs on. After deletion, phones must pair with the device again by pressing Connection. This operation does not delete functional settings or history.
> This operation is not a complete factory reset.

The button can be locked through the app. If locked, use existing access to unlock it, as described in chapter 8 Device management and information. If no access is available, recovery requires a factory reset and new pairing.

4.4. Special indication modes

In addition to normal states, the **OUT-ON**, **Connection** and **Error** LEDs indicate special operations. In these modes, interpret the indicators together.

Factory reset mode

The **Error**, **OUT-ON** and **Connection** LEDs flash alternately. The device is waiting for factory reset confirmation using the Connection button.

> **CAUTION — Irreversible reset**
>
> Confirmation is reserved for the installer or technical support and deletes all device data and settings, including pairings, sensors, current settings, timers and history. Keep the load inhibited until reconfiguration is complete. Do not confirm without recording the information required to configure the installation again.

Do not confirm a reset unless instructed by the installer or technical support. Procedures are provided in the Installation and configuration manual.

Update mode

The **Error**, **OUT-ON** and **Connection** LEDs flash simultaneously. This indicates that the firmware is being updated.

During the update:

- do not disconnect power;
- do not press Connection;
- do not change OUT-OFF or the connections;
- do not interrupt communication required by the process.

Wait for the update to finish and normal indication to return. See chapter 8 Device management and information.

Indication while holding Connection

During normal operation, the Connection and Error LEDs indicate the operation that will be performed when the button is released, as shown in the table in the previous section.

When the device is powered on with Connection held down, the indication allows factory reset or firmware recovery to be selected. This operation is reserved for qualified personnel; contact the installer or technical support.

If you do not recognise the pattern, record the indication and see chapter 12 Basic troubleshooting. Do not confirm an operation whose effect you do not understand.

5. Installing the app

5.1. Purpose

The W4A MProtect app allows device configuration, sensor, current limit and timer settings, command execution and installation monitoring.

This chapter describes phone preparation and app installation. Pairing the phone with the device is described in chapter 6 Device pairing.

> **NOTE**
>
> Installing the app does not complete device pairing or validate electrical connections or installation settings. Commissioning must follow chapter 5 Installing the app.

5.2. Mobile device requirements

Use a phone compatible with the W4A MProtect app and the communication interfaces required for the intended access. For a local connection, the phone must support compatible Bluetooth Low Energy.

Before installation or pairing, check:

- operating system compatibility, according to chapter 1 About this manual and the version shown in the official store;
- sufficient space to install the app;
- Internet access to obtain the app and updates;
- Bluetooth availability for local connection;
- sufficient battery charge to complete the procedure.

Remote access depends on communication conditions at the installation and phone, and on available services. Installing the app alone does not guarantee remote access.

5.3. Installing the app

Install the app through the official channels indicated by W4A. Use the manufacturer’s link or search for **W4A MProtect** in the operating system’s official store.

Before installing, check that you have selected the correct product app and verify the publisher identification in the store.

To install:

1. open the official app page in the store;
2. check phone compatibility;
3. install and wait for completion;

4. open the W4A MProtect app.

> **CAUTION — App source**
>
> Do not use modified versions, unauthorised copies or apps from unknown sources. Install only the app provided through the official channels indicated by W4A.

5.4. Required permissions

During installation or use, the app may request permissions needed for operation. Depending on the operating system and version, these may include:

- Bluetooth;
- nearby devices;
- location;
- local network access;
- storage, where applicable.

Grant the necessary permissions requested by the official app. Refusing communication permissions may prevent discovery, pairing or connection to W4A MProtect.

Location permission may be required on certain Android versions to discover Bluetooth devices.

If the app cannot communicate with the device, check permissions in the phone settings. Once granted, return to the app and retry the connection.

5.5. Preparing the first connection

A local connection establishes communication with W4A MProtect through Bluetooth Low Energy. Prepare the phone and move close to the device before pairing.

Enable Bluetooth, grant the required permissions and move close to the equipment, safely installed and powered.

Follow chapter 6 Device pairing to authorise and complete pairing. Do not hold physical controls down without consulting the relevant procedure.

> **WARNING — Possible operation during configuration**
>
> Before executing commands or changing settings, check that the installation can operate safely and that no work is in progress on the motor or controlled load.

5.6. Updating the app

Use the latest app version compatible with the phone. Obtain updates through the official channels indicated by W4A.

The installed version can be checked in the app settings, the app’s official store page or the phone’s app list, where available.

Update at a suitable time and wait for completion before resuming use. After updating, open the app and confirm installation access and device identification before executing commands.

If connection difficulties occur, see chapter 12 Basic troubleshooting. Do not delete pairings or reset device data without first checking the applicable instructions.

> **NOTE**
>
> Updating the phone app and updating the controller firmware are separate operations. Firmware management is described in chapter 8 Device management and information.

6. Device pairing

6.1. Purpose

Pairing establishes a connection between W4A MProtect and the app, authorising access to device functions through the phone. The process uses Bluetooth Low Energy and requires physical access to the equipment's **Connection** button.

Pair after completing installation and initial checks. Sensor, timer and monitoring function configuration is described in chapter 7 Device functional configuration.

> **NOTE**
>
> Pairing does not replace commissioning or installation functional tests. Completing local pairing also does not confirm remote access availability.

6.2. Prerequisites

Before starting, check:

- installation is complete and connections have been checked;
- the device is powered and shows no signs of abnormal operation;
- the W4A MProtect app is installed on a compatible phone;
- Bluetooth is enabled and required permissions have been granted;
- the phone is close to the equipment;
- you can access **Connection** and the button is not locked;
- no other user is performing pairing or an update;
- the installation is in a safe condition.

Pairing mode must be activated on the device so that the app can discover it. Do this while the app is searching for devices, following the sequence in the next section.

Phone preparation is described in chapter 5 Installing the app. Equipment controls and indicators are described in chapter 4 Control panel.

6.3. Starting pairing in the app

1. Open the app.
2. Select **Add device**.
3. Allow Bluetooth use if requested by the app.
4. Press the W4A MProtect **Connection** button for approximately 1 second, until the Connection LED lights up. Release the button and confirm that the LED flashes, indicating pairing mode.

5. Wait for pairing to finish.

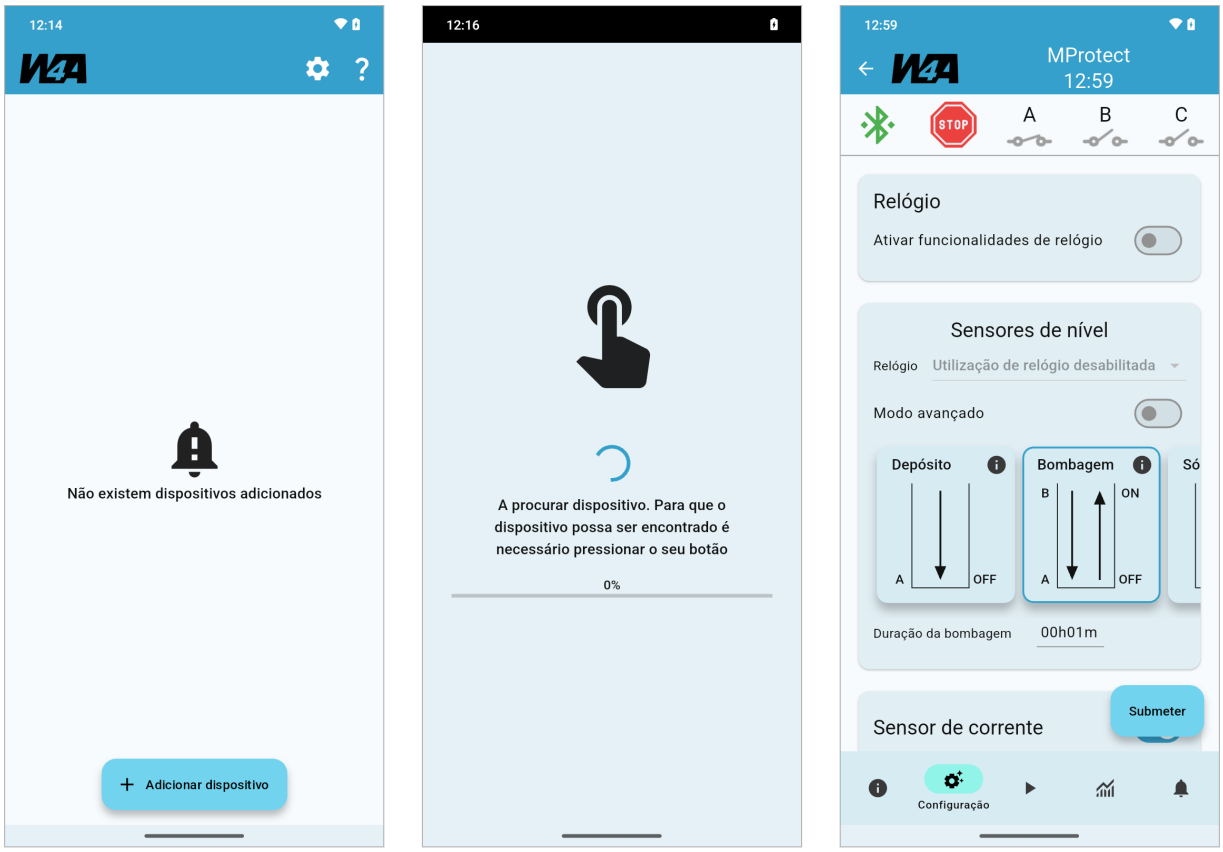


Figure 6.1: Device pairing sequence in the app.

6.4. Pairing not completed

If the device does not appear or the process does not finish, check:

- the equipment is powered;
- Bluetooth is enabled and required permissions have been granted;
- the phone is sufficiently close to the equipment;
- pairing mode has been activated and the **Connection** LED shows the corresponding indication;
- **Connection** is not locked;
- no other mobile device is connected to the equipment;
- no other pairing or update is in progress.

Correct the identified condition, close and reopen the app and repeat the pairing sequence. Consider obstacles and the electrical enclosure, which may hinder communication.

If the problem persists, record the stage at which the process stopped and the indication observed on the device. See chapter 12 Basic troubleshooting or request support, providing the model and available

identification details.

> **CAUTION — Deleting data and access**
>
> Do not delete pairings or perform a factory reset merely to retry a connection. These operations may remove access or settings and must follow their specific procedures.

6.5. Safety during pairing

Pair only with authorisation from the person responsible for the installation. Do not allow unauthorised people to use **Connection**, and always confirm the identity of the paired device. Protect the phone against unauthorised access.

Pairing does not authorise electrical or mechanical work. Before working on the installation, use the isolation methods described in chapter 2 Safety. Access sharing follows chapter 8 Device management and information.

7. Device functional configuration

W4A MProtect functional settings can be viewed and changed in the app's **Configuration** tab.

The configuration menu does not automatically distinguish installer settings from user settings. Before making any change, check whether the user may modify the setting according to this manual.

For operating purposes, the settings in this chapter are divided into two categories:

- user settings, which may be changed by the responsible user;
- technical settings, which may be viewed by the user but changed only by the installer or qualified personnel.

Technical settings include:

- sensor logic and behaviour;
- current measurement mode;
- minimum and maximum current limits;
- detection times;
- reset times and conditions;
- maximum number of automatic attempts;
- enabling or disabling protection functions;
- automatic analysis settings.

Timers and other options expressly identified in this manual as user-accessible may be changed by the responsible user.

Being able to change a setting in the app does not mean it can be changed safely without technical knowledge.

> **WARNING — Automatic starting or stopping**
>
> Changing settings may start or stop the load and change protection conditions. Check that the installation can operate safely.

Possible consequences include:

- automatic load starting;
- load stopping;
- changes to interlock conditions;
- further starting attempts;
- reduction or loss of certain protection functions.

Before changing or submitting a user-accessible setting:

- check that the app is connected to the correct device;
- check that the load can operate safely;
- ensure nobody is working on the motor, machine or installation;
- check OUT-OFF switch state;
- check whether STOP-SW is active;
- carefully review the entered values.

7.1. Viewing sensor configuration

The sensor configuration area shows how sensors connected to W4A MProtect affect load operation.

The app may display:

- each sensor’s current state;
- the selected configuration;
- interaction between sensors and timers;
- actions associated with different states;
- extension times;
- configured priorities.

Sensor connection, logic selection and action definition must be performed by the installer.

The user may view these settings to understand system behaviour but must not change them without installer instructions.

Sensor states

The app shows each sensor state as:

- open;
- closed.

The displayed state corresponds to the electrical condition detected at the input. Its functional meaning depends on sensor type, connection and installer-defined configuration.

For example, a closed state may represent the presence or absence of liquid, low pressure or another condition, depending on the sensor and installation.

Do not interpret an open or closed state as an error without knowing the sensor’s assigned function.

If the displayed state does not match the condition observed at the installation, do not change the configuration. Contact the installer.

Interaction with timers

When timer functionality is enabled, the app may display one of the following options:

Motor switches on with timers

The motor can only be activated when both sensor and timer conditions permit operation simultaneously.

Motor switches on with timers or sensor

The motor may operate when a timer or sensor issues a command, provided no higher-priority interlock or stopping condition exists.

Timer permission does not override:

- OUT-OFF in position O;
- STOP-SW;
- an error;
- a sensor condition configured to inhibit operation;
- another higher-priority interlock.

Changing this interaction may significantly alter automatic load behaviour and must only be done by the installer.

Selected configuration

The app may show a preset or advanced configuration.

Presets apply operating logic previously defined by the installer for the installation.

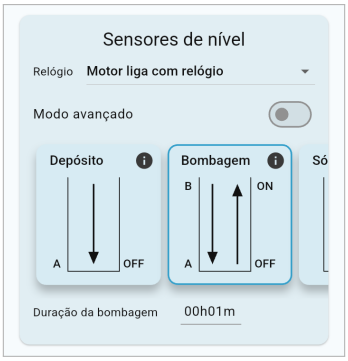


Figure 7.1: Sensor configuration defined by the installer.

Displayed names may include:

- Tank;
- Pumping;
- Pressure tank only;

- Pressure tank with sensor.

These names identify the logic currently applied. Each sensor's actual function depends on the installation and must be explained to the user by the installer.

Advanced mode

In advanced mode, the app may display actions associated with different sensor states.

This information helps explain the current logic but must not be changed by the user without installer instructions.

Possible actions may include:

No action

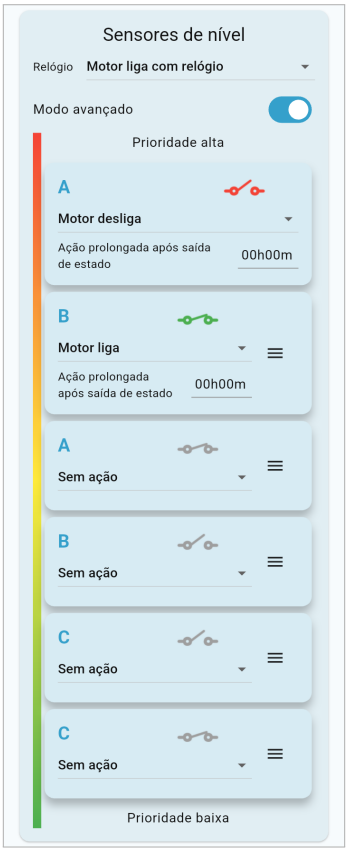


Figure 7.2: Viewing sensor actions and priorities.

The selected state does not directly issue a run or stop command.

Motor switches off

The selected state issues a command to interrupt motor operation.

Motor switches off with fault

The selected state interrupts operation and applies the fault behaviour defined for the installation.

Motor switches on

The selected state issues a run command, provided no higher-priority condition prevents operation.

50 % operation

When used with compatible equipment, this option reduces the scheduled operating time for the selected condition.

The availability and effect of these actions depend on the model, configuration and associated equipment.

The user may view configured actions but must not change them without installer instructions.

Action extension

The app may show a time for which an action remains active after the sensor state changes.

This setting may, for example, temporarily extend a run or stop command.

An incorrect change may cause:

- longer operation than expected;
- early or delayed stopping;
- conflicts with other sensors;
- automatic starting or restarting.

Do not change the extension without installer instructions.

State priorities

When several states are active simultaneously, W4A MProtect executes the highest-priority action.

Priorities ensure that stopping and protection conditions override start commands where necessary.

The user may view the configured order to understand which condition is controlling operation.

Do not change state priorities. An incorrect change may allow operation when a stop command should apply.

If sensor behaviour differs from that expected:

- check each sensor’s current state;
- record the displayed configuration;
- do not change logic, actions or priorities;
- contact the installer.

7.2. Viewing current monitoring configuration

Current monitoring allows W4A MProtect to monitor load operation and detect values outside the limits defined for the installation.

The app shows configured settings, including:

- measurement mode;
- minimum current;
- maximum current;
- starting time;
- time outside limits;
- reactivation time;
- maximum number of resets;
- behaviour after phase loss;
- whether monitoring is enabled.

These settings depend on the motor, load, current sensors and installed protective devices.

These settings must be defined or changed by qualified personnel.

Measurement mode

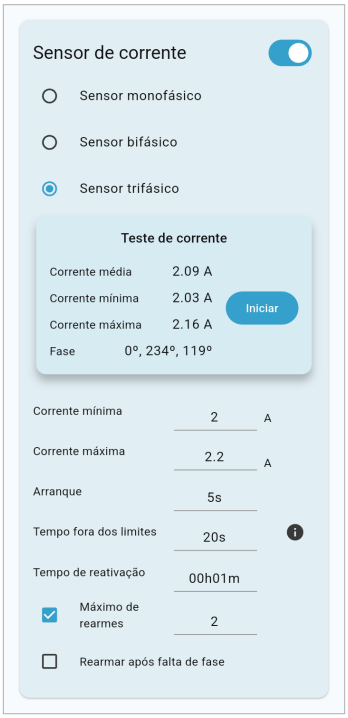


Figure 7.3: Viewing current monitoring settings.

Measurement mode indicates the channels used to analyse current.

It may display:

Single-phase mode

The current measured on channel T1 is analysed.

Two-phase mode

The current measured on channel T1 is analysed.

Three-phase mode

The currents measured on channels T1, T2 and T3 are analysed.

The displayed mode must match the installation. Do not change this setting.

If the number of displayed channels does not match the motor or installation, contact the installer.

Minimum current

Minimum current is the lower limit defined for normal load operation.

When current remains below this value for the configured time, the device may:

- display a warning;
- interrupt operation;
- start a reset waiting period;
- record the event;
- perform another configured action.

Current below the limit may be associated with various conditions, such as no-load operation, no consumption or another installation anomaly.

The displayed message does not necessarily identify the exact cause.

Maximum current

Maximum current is the upper limit defined for normal load operation.

When current remains above this value for the configured time, the device may interrupt operation and record the event.

High current may be associated with conditions including:

- overload;
- mechanical blockage;
- abnormal load demand;
- unsuitable power supply;
- a motor problem.

Do not increase the limit to prevent a warning or error from appearing. Identify the cause before allowing another operation.

Starting time

Starting time is the initial period during which the starting current transient is accounted for by the configured operation.

During this period, current may be higher than during normal operation.

An unsuitable value may:

- cause unwanted interruptions during starting;
- delay detection of an abnormal condition.

Do not change this setting.

Time outside limits

Defines the accumulated time for which current may remain outside the configured range before operation is interrupted. The time counter increases while current is outside the limits and decreases according to the device logic when current returns to the normal range. When the configured time is reached, the motor is stopped and the event is recorded. This time counter is separate from the automatic restart counter.

The user may view these settings but must not change them. Contact the installer if operation differs from what is expected.

Reactivation time

Defines the waiting time used for automatic restart attempts after certain anomalies. The actual delay depends on the anomaly, as described in 7.2 Automatic restart rules by anomaly. It must not be confused with the time outside limits.

Maximum number of automatic restarts

Select one of the following options for anomalies subject to the automatic restart counter:

- **Never restart:** the anomaly causes an error, with no automatic restart attempt.
- **Limited number:** attempts are allowed up to the configured limit. Once they are exhausted, the device enters an error state and blocks further automatic attempts.
- **Always restart:** no limit is applied to the number of automatic attempts.

These options do not override the specific open-circuit, short-circuit and phase-loss rules in the following table.

These settings must be defined by qualified personnel. Repeated starting attempts may cause overheating or damage to the motor, contactor and installation.

Automatic restart after phase loss

This option determines whether automatic restart is allowed after phase loss, with or without an associated short circuit. If disabled, the device enters an error state without automatic restart. If enabled, the specific

delays in the table and the restart-count setting apply, including the never-restart option.

The user may view these settings but must not change them. Contact the installer if operation differs from what is expected.

Automatic restart rules by anomaly

Phase loss with an associated short circuit follows the phase-loss rule; it is distinct from a short circuit without phase loss.

Anomaly	Delay before an automatic attempt	Conditions and counter
Open circuit	Always 1 minute, regardless of the configured reactivation time.	Always restarts automatically. Not subject to the restart limit and does not increment the counter.
Short circuit	No automatic attempt.	Places the device in an error state, regardless of the restart settings.
High or low current	Configured reactivation time.	Follows the restart settings and counts towards the limit.
Low voltage during operation	Configured reactivation time.	Follows the restart settings and counts towards the limit.
Phase loss, with or without an associated short circuit	First restart: configured time. Second restart: the greater of the configured time and 1 hour. Third and subsequent restarts: the greater of the configured time and 24 hours.	Requires automatic restart after phase loss to be enabled. Follows the restart settings and counts towards the limit.

Clearing the delay and restart counter

While waiting for an automatic restart, the following operations clear the pending delay and reset the restart counter:

- submitting the current sensor settings;
- activating and then removing the STOP-SW pause;
- executing the clear-errors command in the app.

These operations do not correct the cause of the anomaly. After clearing, the device reassesses the operating conditions and may allow the motor to start before the previous delay would have expired.

These settings must be defined by qualified personnel. Repeated starting attempts may cause overheating or damage to the motor, contactor and installation. The user may view these settings but must not change them. Contact the installer if operation differs from what is expected.

WARNING — Possible start after clearing

Before submitting current settings, removing the pause or clearing errors, confirm that the cause has been corrected and that the load can start safely.

Clearing after anomaly-free operation

Warnings and the restart counter are cleared automatically once the motor has operated continuously without anomalies for a period equal to:

Time outside limits + starting time + 10 seconds

The times configured in the current sensor settings are used. Expiry of the restart delay alone is not sufficient: the motor must run without problems throughout this interval.

Monitoring disabled

The app may indicate that current monitoring is disabled.

In this condition, W4A MProtect may no longer interrupt operation based on configurable minimum and maximum current limits.

If monitoring is disabled and the installer has not informed you of this, contact qualified personnel.

Do not enable or disable this function to try to correct an error.

Unexpected values

If displayed values or settings appear incorrect:

- do not change limits;
- view real-time current;
- record displayed values;
- check errors, warnings and history;
- contact the installer.

The technical current test and limit settings are described in the Installation and configuration manual and must be performed by qualified personnel.

7.3. Timer configuration

Timers allow load operation to be enabled or started during predefined periods.

Timers may be changed by the responsible user.

WARNING — Automatic starting

Changing or enabling a timer may start the load automatically.

Before changing a timer:

- check that the app is connected to the correct device;
- check that the load can operate safely;
- ensure nobody is working on the motor, machine or installation;
- check the displayed date and time;
- review days, schedules and durations.

Timers do not override:

- OUT-OFF in position O;
- STOP-SW;
- errors;
- reset waiting periods;
- sensor conditions configured to inhibit operation;
- automatic analyses preventing operation;
- other higher-priority interlocks.

Enabling timers

When enabling this function:

- check the device date and time;
- check the time zone, where displayed;
- synchronise the clock where this option is available;
- review existing timers;
- check that schedules are suitable;
- submit the change;
- wait for app confirmation.

An incorrect date or time may cause operation at unintended times.

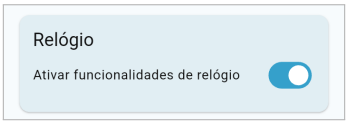


Figure 7.4: Enabling and viewing timers.

Timer behaviour

Periods ending on the following day

When the end time is earlier than the start time, the period extends into the following day.

For example, a schedule starting at 22:00 and ending at 06:00 is active from 22:00 on the selected day until 06:00 the next day.

The selected day is the day on which the period starts.

Sensor conditions, protection functions, OUT-OFF and STOP-SW continue to take priority throughout the scheduled period.

Overlapping timers

When two or more timers permit operation during overlapping periods, these periods are treated as continuous permission to run.

Transitioning from one timer to another does not necessarily stop and restart the motor.

The motor remains enabled while at least one active timer permits operation and no higher-priority interlock or stop condition exists.

Example:

- Timer 1: 08:00–10:00;
- Timer 2: 09:30–11:00.

Permission to run remains continuous from 08:00 to 11:00.

Conflicting commands

When run and stop commands are present simultaneously, the stop command takes priority.

Protection and interlock conditions take priority over start commands, including:

- OUT-OFF in the inhibited position;
- STOP-SW active;
- current error;
- reset waiting period;
- sensor-defined stop condition;
- automatic analysis preventing operation;

- any other applicable interlock condition.

An active schedule cannot start the motor while one of these conditions remains.

After the interlock condition clears, the device reassesses sensors, timers and other settings before deciding whether operation can resume.

Device powered on during an active period

When W4A MProtect is powered on or restarted during an already active period, it retrieves saved settings and assesses current conditions.

The motor may start automatically if:

- the period is still active;
- sensors permit operation;
- there is no error or reset waiting period;
- OUT-OFF is in position I;
- STOP-SW is not active;
- all other conditions allow operation.

Before restoring power, confirm that the load can start safely.

Weekly timers

Weekly timers define operating periods associated with specific days of the week.

For each timer, configure:

- days of the week;
- start time;
- end time.



Figure 7.5: Weekly timers.

Repeating timer

The repeating timer executes operating cycles at a defined interval.

Configure:

- operating duration;
- start time;
- repeat interval.



Figure 7.6: Repeating timer.

Advanced mode

Advanced mode allows several independent timers to be created and managed.

Configure:

- start time;
- end time;
- timer type;
- continuous or intermittent operation.

Weekly timer

In Weekly mode, the timer repeats on the selected days of the week.



Figure 7.7: Weekly timer in advanced mode.

Cyclic timer

In Cyclic mode, the timer repeats at a user-defined interval of days.

Configure:

- number of days between repetitions;
- cycle start date used as the calculation reference.



Figure 7.8: Cyclic timer in advanced mode.

Continuous operation

When Intermittent operation is disabled, the timer maintains the run command throughout the configured schedule.

Intermittent operation

When Intermittent operation is enabled, the scheduled period is divided into successive operating and rest cycles.

Configure:

- ON — operating period duration;
- OFF — rest period duration.

Example: with ON set to 5 minutes and OFF to 5 minutes, the device alternates between 5 minutes of operation and 5 minutes of rest during the configured schedule.

7.4. Viewing automatic operating analyses

Automatic analyses compare load operation against defined limits or patterns.

The app may allow these settings to be viewed and changed, but configuration must be performed by the installer or qualified personnel.

Analyses may:

- record an event;

- display a warning;
- send a notification;
- interrupt operation;
- place the device in STOP-SW.

The user may view:

- the active analysis type;
- the periods considered;
- defined limits;
- the configured action;
- the analysis state or result.

Do not change these settings to clear a warning or prevent stopping.

Automatic STOP-SW behaviour

When an analysis places the device in STOP-SW:

- operation is paused by software;
- new run commands are inhibited;
- the event is recorded;
- the condition is shown in the app;
- a notification may be sent.

STOP-SW is not electrical isolation or an emergency stop.

Before clearing STOP-SW:

- read the displayed message;
- check warnings and history;
- confirm that the load can resume operation;
- do not change analysis settings;
- contact the installer if the cause is not obvious.

Time window analysis

This analysis compares total load operating time within a defined period.

The app may display:

- time window duration;
- expected minimum time;
- maximum permitted time;
- the configured action when the maximum limit is exceeded.

When maximum time is exceeded, the system may interrupt operation or place the device in STOP-SW.

When minimum time is not reached, the system may record the event and send a warning or notification.

These settings depend on expected installation operation and must not be changed by the user.



Figure 7.9: Viewing time window analysis.

Operating pattern analysis

This analysis uses an earlier period as a reference for comparing future operation.

The app may display:

- the reference period;
- configured tolerance;
- daily or weekly repetition;
- the intended action in the event of a deviation.

Changes to the motor, sensors, use, timers or process may cause deviations from the saved pattern.

A deviation does not necessarily mean a fault but must be investigated.

Do not select a new reference period or change tolerance without installer instructions.



Figure 7.10: Viewing operating pattern analysis.

When an automatic analysis warning appears:

- check the indicated period or pattern;
- check whether a known change in use occurred;
- check history;
- do not change settings;
- contact the installer if there is no known explanation for the event.

7.5. Saving and applying settings

Changes made in Configuration are applied only after submission.

Before selecting Submit, check that you have changed only user-accessible options.

Before submitting a change:

- check that the app is connected to the correct device;
- check that the load can start or stop safely;
- review all displayed fields;
- check that no technical setting was changed accidentally;
- select Submit;
- maintain active communication;
- wait for app confirmation.

Do not close the app, disable Bluetooth or move the mobile device away during transfer unless instructed by the app.

After submission:

- reopen Configuration;

- check saved values;
- check the device’s current state;
- confirm that no unexpected errors or warnings appeared;
- confirm that the load behaves as intended.

If communication is interrupted during transfer:

- do not assume changes have been applied;
- wait for communication to be restored;
- check saved values again;
- repeat submission only where necessary.

If you discover that you accidentally changed a technical setting:

- do not repeatedly try to correct values;
- place the load in a safe condition;
- record displayed values;
- contact the installer or technical support.

Incorrect configuration may cause unexpected starting, unwanted stopping, automatic resets or reduced protection functions.

8. Device management and information

The app’s **Information** tab allows you to view and change general W4A MProtect data, configure communication, check installed versions and manage certain access and maintenance options.

Available options may vary depending on:

- the model;
- the firmware version;
- the app version;
- user permissions;
- associated services.

Before changing a setting, check that the app is connected to the correct device.

8.1. Identification and general data

The identification section defines the data used to recognise W4A MProtect in the app and records.

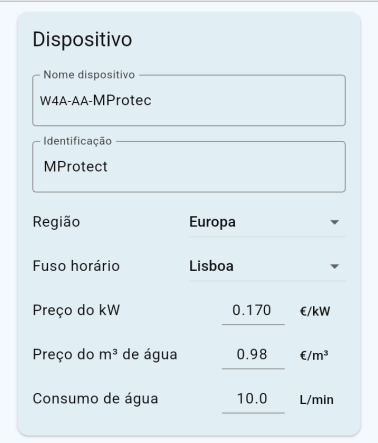


Figure 8.1: Identification and general data

Device name

The **Device name** field shows the W4A MProtect Bluetooth name. Use the edit icon beside the field to change it.

Use a name that distinguishes the equipment from other devices in the same installation.

Identification in the app

Defines the name shown to the user in the app.

Use an identification related to the motor’s function or location, for example:

- Well pump;
- Main tank pump;
- Ventilation motor;
- Panel 2 — Motor 1.

Avoid generic names where several devices are present.

Region and time zone

Defines the region and time zone used by the device for:

- the internal clock;
- timers;
- event logging;
- history;
- time-based analyses;
- displaying dates and times.

Check that the region and time zone are correct before configuring timers.

Incorrect configuration may cause operation at unintended times.

8.2. Reference values for estimates

The app allows reference values to be entered to estimate costs and consumption shown in the history.

These values do not directly change motor operation.

Electricity price

Enter the electricity price in **€/kWh.**

This value estimates the electricity cost associated with the consumption shown in the history.

Water price

Enter the water price in **€/m³.**

This value estimates the water cost associated with system operation.

Water flow rate

Enter the estimated installation flow rate in **L/min.**

This value estimates the volume of water moved during motor operating time.

> **NOTE — Estimated values**
>
> Costs and consumption shown by the app are indicative values calculated from the entered settings and available operating data.

These values:

- do not replace certified meters;
- must not be used for billing;
- may differ from actual consumption;
- depend on the accuracy of the price, flow rate and other entered values.

Where installation flow varies with pressure, hydraulic head, wear or other conditions, estimated water consumption may deviate significantly.

8.3. Communication methods

W4A MProtect can communicate with the app through Bluetooth Low Energy, a local Wi-Fi connection and, when the relevant service is active, remote communication over the Internet.

Bluetooth communication

By default, the device allows local Bluetooth communication.

Bluetooth communication requires the mobile device to be within W4A MProtect range.

Actual range may be reduced by:

- metal enclosures;
- walls;
- obstacles;
- electromagnetic interference;
- mobile device characteristics.

Wi-Fi communication

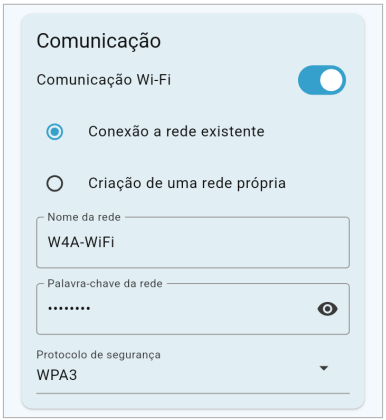


Figure 8.2: Wi-Fi communication

To enable Wi-Fi communication:

1. open the **Information** tab;
2. select **Wi-Fi communication**;
3. choose the required network mode;
4. enter the requested settings;
5. submit the configuration.

Connecting to an existing Wi-Fi network

This is the recommended mode where a suitable Wi-Fi network is available at the installation site.

Enter:

- network name;
- password;
- security protocol or method, where requested.

The network must:

- operate in the 2.4 GHz band;
- provide adequate coverage;
- be password protected;
- use a compatible security method;
- not rely on a captive portal;
- allow access to required services.

After configuration, the mobile device must connect to the same network as W4A MProtect to establish local Wi-Fi communication.

Creating a Wi-Fi network on the device

Where no suitable Wi-Fi network exists, W4A MProtect can create its own network.

In this mode, configure:

- network name;
- password;
- security method, where available.

The device-created network is primarily intended for local communication.

Use this mode only when:

- no suitable network exists at the site;
- local access is sufficient;
- the mode’s limitations are compatible with the installation.

When connected to the network created by W4A MProtect, the mobile device may lose normal Internet access or use another available connection, depending on the operating system.

Use a strong password and do not share credentials with unauthorised people.

Remote communication

Remote communication allows access to W4A MProtect over the Internet without the mobile device being connected to the equipment’s Wi-Fi network.

This function depends on purchasing or subscribing to the remote communication service provided by W4A. After the service is purchased, an access key is supplied to the customer; enter it in the app to associate the service with the device.

To activate the remote communication service:

1. configure W4A MProtect to connect to a Wi-Fi network with Internet access;
2. purchase or subscribe to the remote communication service;
3. obtain the access key supplied for the service;
4. in the app, open the **Information** tab;
5. select **Remote communication**;
6. enter the access key;
7. select **Activate** and wait for activation confirmation.

For remote communication to be available:

- W4A MProtect must connect to a Wi-Fi network with Internet access;
- the mobile device must have Internet access;
- the service must be active and within its validity period;
- the access key must be valid and correctly associated with the device;
- W4A communication services must be available.

Entering remote communication mode

The app preferentially attempts to establish local communication with W4A MProtect.

The remote communication button is available only when the app cannot establish local communication with the device and the remote service is active.

Remote communication does not start automatically. To enter this mode, the user must explicitly select the remote communication button displayed in the app.

Once selected, the app routes messages over the Internet.

Leaving remote communication mode

To leave remote communication mode, the user can:

- press the communication status icon in the app; or
- leave the device menu and open it again.

When the device menu is reopened, the app attempts local communication again. The remote communication button reappears only if local communication cannot be established.

Functions available remotely

Remote communication allows device state checks and use of functions provided by the app.

Where permitted by the app, certain operating settings can also be changed remotely, including:

- timers;
- automatic analyses.

Being able to change these settings remotely does not remove the need to check that changes do not create hazardous starting, stopping or operating conditions for the controlled load.

> **CAUTION — Remote configuration limitations**
>
> Settings identified as critical to protection of the motor, controlled load or installation cannot be changed through remote communication.

Configure these settings through local communication with W4A MProtect and, where applicable, have qualified personnel do so after checking installation conditions.

The following settings cannot be changed remotely:

- current protection limits and criteria;
- system behaviour in the event of sensor failures;
- interlock, enabling or reset conditions;
- other functions identified by the app as safety settings.

Remote communication does not replace on-site presence, functional tests or technical inspection of the installation.

Data routing and storage

The remote communication service acts solely as an intermediary to route messages between the app and W4A MProtect.

The service does not store user data or retain a history of routed messages.

> **NOTE — Communication availability**
>
> Remote communication may be temporarily unavailable due to:
>
> - Wi-Fi network failures;
> - loss of Internet access;
> - communication service unavailability;
> - expiry or deactivation of the purchased service.

Loss of remote communication does not imply equipment stopping. W4A MProtect may continue executing locally saved settings, protections, timers and automatic functions.

8.4. Checking versions

The **Versions** section shows technical information about the device and app.

It may display:

- model;
- serial number;
- hardware version;
- firmware version;
- other technical information.

Check versions before updating or using instructions specific to a particular manual revision.

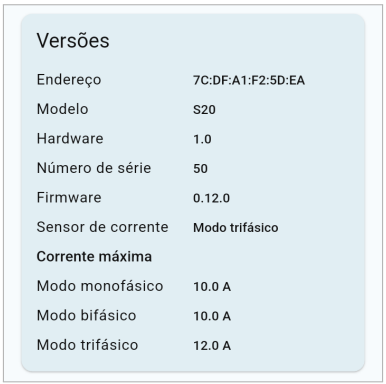


Figure 8.3: Checking versions

8.5. Locking the Connection button

Block button access prevents authorisation of new pairings through Connection. Before enabling it, confirm that you retain authorised app access.

Lock and unlock using the same app option. If no access is available to unlock the button, contact the installer or technical support to recover access. The reset described in 8.8 Factory reset deletes data and settings.

8.6. Sharing access

Share device access provides access through a file or QR code, allowing the device to be added without pressing Connection. Check authorisation from the person responsible for the installation and the recipient's identity before sharing.

For a local connection, the recipient's phone must be close to W4A MProtect and have the required communication permissions.

> **CAUTION — Shared access**
>
> There is no option to revoke shared access. Provide the file or QR code only to authorised people and prevent its disclosure or forwarding.

Inform the recipient about the controlled load and precautions required before executing commands or changing settings.

8.7. Updating firmware

Update device installs a firmware version provided by W4A.

Updates may include:

- operating fixes;
- security improvements;

- new functions;
- compatibility changes;
- communication improvements.

Before starting:

- place the load in a safe condition;
- prevent unexpected starting;
- ensure a stable power supply;
- keep the mobile device within the required range;
- check Internet access where required;
- ensure nobody else is configuring the device.

During the update:

- do not disconnect power;
- do not restart the device;
- do not change connections;
- do not press Connection;
- do not close the app;
- do not interrupt communication.

During the process, the LEDs may show the update mode described in 4.4 Update mode.

After updating, check the installed version, date and time, timers and state displayed by the app. Check errors and warnings. Do not change sensors, current limits or protection functions to correct a problem; contact the installer if settings are missing or behaviour is unexpected.

If the update is interrupted or the device does not resume normal operation, keep the load safe and contact technical support.

8.8. Factory reset

Resetting deletes settings, pairings, communication, timers, history and all other saved data. This operation is reserved for the installer, technical support or express instructions from W4A.

Do not confirm a reset displayed by the app or LEDs to try to resolve an anomaly. Contact the installer and keep the load safe. Procedures are provided in the **Installation and configuration manual**.

After resetting, the device may only be used again following new pairing, technical configuration and verification by the installer.

8.9. Submitting and checking changes

After reviewing editable fields, tap **Submit** and maintain communication during transfer. Check the data again to confirm that changes have been saved on the device.

Check identification, region, time zone and values used for consumption and cost estimates. If Wi-Fi data is changed, also check the connection to the intended network.

Sharing, locking, updating, resetting and remote service renewal have their own procedures. Follow the instructions displayed when selecting each option. Saving functional settings for sensors, current, timers and analyses is described in 7.5 Saving and applying settings.

9. Device control

The **Control** tab displays the current W4A MProtect operating state and allows certain operating actions.

Depending on the model, configuration and user permissions, this tab allows you to:

- check communication status;
- check motor operating state;
- view sensor states;
- view active errors and warnings;
- monitor measured current;
- view automatic operation forecasts;
- enable or clear STOP-SW;
- perform manual operation;
- view accumulated consumption.

Displayed information depends on device communication. Without a connection, data may not reflect the current installation state.

> **WARNING — Possible motor starting**
>
> Some actions in this tab may start the motor immediately or later.

Before executing a command, confirm that the motor and load can operate safely.

9.1. Status bar

The status bar summarises:

- device communication;
- motor operation;
- sensor states.



Figure 9.1: Status bar

Communication status

The communication symbol indicates the method and status of the connection between the app and W4A MProtect.

Motor operating state

The operating state indicates whether the motor is running, stopped or inhibited.

States may appear as follows:

 **Motor running**

The output is active and the device issues a run command. With an external contactor, this does not confirm actual mechanical motor operation.

 **OUT-OFF switch interlock**

The switch is in position O and prevents output activation. Restarting requires permission from OUT-OFF and all other conditions.

 **STOP-SW active**

Run commands are suspended by software until the pause is cleared or the defined period ends.

 **Active error**

A condition prevents operation. Identify and correct the cause before clearing the error.

 **Reset waiting time**

Defines the waiting time used for automatic restart attempts after certain anomalies. The actual delay depends on the anomaly, as described in 7.2 Automatic restart rules by anomaly. It must not be confused with the time outside limits.

 **Sensor-controlled operation**

Operation depends on sensors. The motor remains stopped when no state produces a run command.

 **Timer-controlled operation**

Operation depends on timers and their interaction with sensors. Outside an enabled period, no timer run command exists.

Sensor states

The status bar displays sensor states and the action associated with each sensor.

When several states occur simultaneously, the app highlights the highest-priority action.

Symbol	State	Colour	Action
	Closed	Grey	No action
		Red	Switch motor off
		Green	Switch motor on
		Blue	50% operation
	Open	Grey	No action
		Red	Switch motor off
		Green	Switch motor on
		Blue	50% operation

Open or **closed** refers to the input's electrical state and must not be interpreted alone as the presence or absence of liquid.

Functional meaning depends on:

- sensor type;
- installation;
- the connection made;
- the configuration assigned in the app.

Colour indicates the action configured for the currently detected state.

9.2. Current state

Current state groups the device date and time, battery and communication indications and operation forecasts. Refer only to data received while communication is available.

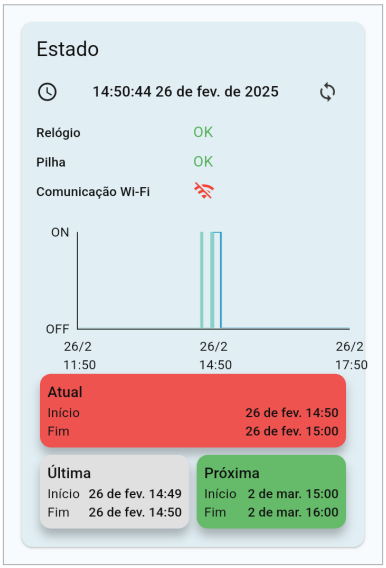


Figure 9.2: Current state and operation forecasts.

Date and time

The clock is used by timers, automatic analyses and records. If the time is incorrect, check the region and time zone and use the synchronisation option beside the time display. Clock-dependent functions may be suspended until the time is valid.

Internal battery

If the app indicates a low battery, contact the installer or technical support. Replacement is reserved for qualified personnel. A low or missing battery may cause time loss after a power interruption and compromise timers, analyses and record dates.

Wi-Fi communication

If Wi-Fi is configured but disconnected, check the network, coverage and credentials. This indication is separate from the Bluetooth connection and remote service validity. Loss of Wi-Fi does not necessarily stop local operation.

Operation forecasts

Forecasts depend on timers and current conditions. Changes to sensors, OUT-OFF, STOP-SW, errors or configuration may prevent or change the predicted operation.

9.3. Errors

An error prevents motor operation and requires user intervention. For anomalies subject to the restart limit, the device enters an error state when the allowed attempts are exhausted. If never restart is selected, the first occurrence already causes an error.

A short circuit does not allow automatic restart. Phase loss also causes an immediate error when its restart option is disabled. When enabled, the restart-count setting applies. An open circuit allows restart after 1 minute and is not subject to that limit. See 7.2 Automatic restart rules by anomaly, including the rule for phase loss with an associated short circuit.

When an error occurs:

1. read the displayed description;
2. identify and correct the cause;
3. confirm that the motor can resume operation safely;
4. reset where required.

Do not repeatedly reset an error without identifying the cause. Clearing errors in the app also clears the pending delay and resets the restart counter, as described in 7.2 Clearing the delay and restart counter.

Error	Description
Maximum resets	The device reached the configured maximum number of reactivation attempts after current anomalies.
Short circuit	A short circuit was detected, with no automatic restart. Phase loss with an associated short circuit follows the specific phase-loss rule.
Phase loss	A phase anomaly was detected. Entry into an error state depends on the phase-loss restart option and the allowed attempts.
High current	Current remained above the maximum limit for the configured time.
Low current	Current remained below the minimum limit for the configured time.
Time window analysis	The maximum operating time for the time window was exceeded and the configured action interrupted operation.
Operating pattern analysis	A deviation from the reference pattern was detected and the configured action interrupted operation.

9.4. Warnings

A warning indicates an abnormal condition detected during operation. For current anomalies subject to the restart counter, events are treated as warnings while automatic attempts remain available. Once the allowed number of restarts is exhausted, the device enters an error state and blocks automatic restart. If never restart is selected, the first occurrence already causes an error; if always restart is selected, no attempt limit is applied.

This change from warning to error does not apply to an open circuit, which always allows restart after 1 minute and does not increment the counter. Short circuits and phase loss follow the specific rules in 7.2

Automatic restart rules by anomaly.

Warning	Description
Phase loss	Absence or an anomaly was detected on a monitored phase.
Open circuit	No current or an equivalent condition was detected during a run command.
High current	Current remained above the maximum limit for the configured time.
Low current	Current remained below the minimum limit for the configured time.
Motor unexpectedly running	Current consumption was detected when the device had no motor run command.
Current sensor error	The current sensor circuit is not operating correctly.
Time window analysis	The configured maximum operating time was exceeded.
Time window analysis	The configured minimum operating time was not reached.
Operating pattern analysis	Operation exceeded the upper limit relative to the reference pattern.
Operating pattern analysis	Operation fell below the lower limit relative to the reference pattern.
High voltage	Voltage above the maximum permitted limit was detected.
Low voltage	Voltage below the minimum permitted limit was detected before motor starting.
Low voltage during operation	Voltage below the minimum limit was detected during motor operation.

> **NOTE**
>
> Not all warnings trigger an automatic reset. Behaviour depends on warning type and associated configuration.

Operating sequence following an anomaly

When an anomaly stops the motor, the device applies the corresponding rule in 7.2 Automatic restart rules by anomaly. If automatic restart is not allowed, it enters an error state. If allowed, it waits for the applicable delay and reassesses the conditions before attempting to resume operation.

See 7.2 Clearing the delay and restart counter for clearing operations and 7.2 Clearing after anomaly-free operation for automatic clearing after anomaly-free operation.

WARNING — Automatic restarts

The motor may restart automatically when the delay expires or after an operation that clears it. Before working on the motor, load or installation, switch off and isolate the supply using an appropriate device.

9.5. Real-time current

Current shows the measured current over time on active channels.

The graph shows:

- starting current;
- steady-state operating current;
- variations during operation;
- how closely current approaches the configured limits.



Figure 9.3: Real-time current

Interpret readings according to motor characteristics and load conditions.

A reading within the configured limits does not, by itself, guarantee the absence of an electrical or mechanical fault.

W4A MProtect values are intended for monitoring and do not replace suitable measuring instruments where a technical check is required.

9.6. STOP-SW

STOP-SW, in the **Control** tab, suspends motor run commands by software. The device remains powered and available for viewing. The pause may last until cleared or for a defined period.

Activation

Use STOP-SW and confirm the pause indication in the app.

Temporary pause

In **Pause**, tap **Pause**, choose the duration and save. Check the end time and **Resume** option. At the end of the period, STOP-SW is cleared and the device reassesses operating conditions.

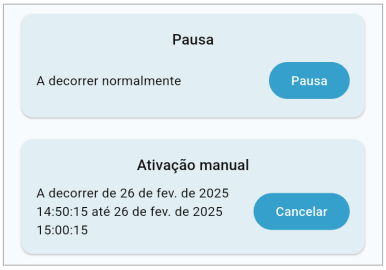


Figure 9.4: Temporary pause and manual operation.

Clearing the pause

To end the pause early, use **Resume** or the STOP-SW clearing command displayed in the app and check that the indication disappears.

> **WARNING — Possible starting after the pause ends**
>
> Clearing STOP-SW or the end of a temporary pause may allow immediate starting if a sensor, timer or manual run command is present. Check installation safety before resuming.

Before working on the motor or installation, follow the safety procedures in 2 Safety.

Activating and then removing the pause also clears a pending restart delay and resets the counter, as described in 7.2 Clearing the delay and restart counter. Starting may occur before the previous delay would have expired.

9.7. Manual operation

Manual operation requests motor operation for a user-defined period.

This function can be used to:

- run the motor on demand;
- test installation operation;
- temporarily bring automatic operation forward;
- perform an operation outside programmed schedules.

To start manual operation:

1. confirm that the motor can operate safely;
2. select **Manual operation**;
3. set the required duration;
4. confirm the command;
5. check the motor state in the app.

During manual operation, the following still apply:

- OUT-OFF switch interlock;
- STOP-SW;
- active errors;
- current limits and protection;
- sensor stop conditions;
- other configured interlocks.

Manual operation does not override a higher-priority protection or stop condition.

At the end of the defined time, the manual command ends and the device returns to automatic operation according to its existing configuration.

If a valid automatic command is present at that point, the motor may remain running or start again.

9.8. Consumption

Consumption displays accumulated information related to controlled load operation.

Displayed consumption depends on:

- device measurements;
- operating time;
- actual load conditions.

These values are indicative and do not replace:

- certified energy meters;
- technical measurements using suitable equipment.

Total consumption

Total consumption is the value accumulated since initial operation, the last factory reset or a change to the current sensor operating mode.

Partial consumption

Partial consumption can be reset by the user and used to monitor a specific period.

Before resetting a partial counter, record or export any values you wish to keep.

10. History and data analysis

The **Analytics** tab displays W4A MProtect operating history and analyses data recorded over a selected period.

Depending on available data, you can view:

- motor operating time;
- electricity consumption;
- estimated electricity cost;
- estimated water consumption;
- estimated water cost;
- average current;
- minimum and maximum current;
- motor states;
- STOP-SW activations;
- OUT-OFF switch interlocks;
- sensor states;
- power failures;
- other recorded events.

Displayed data depends on the model, configuration, selected period and available records.

10.1. Selecting the period

Select **Year**, **Month**, **Week**, **Day** or **Hour**, and use the arrows to view the previous or next period. Check the displayed interval before interpreting data. Hour view shows records in greater detail.

10.2. Selecting the indicator

The menu beside the graph selects the indicator to display.

Available indicators may include:

- operating time;
- electricity consumption;
- water consumption;
- current;
- costs;
- other supported indicators.

The graph updates according to the selected indicator.

10.3. Summary graph

In Year, Month, Week or Day modes, the graph shows accumulated values for each subdivision of the selected period.

The period total appears above the graph.

The horizontal line, where shown, may represent an average or another reference value defined by the app.

Graphs allow comparison of:

- operating duration between periods;
- consumption trends;
- water consumption variations;
- average current differences;
- changes in installation behaviour.

10.4. Period summary

A summary of accumulated data for the selected period appears below the graph.

Operating time

Operating time is the accumulated duration for which W4A MProtect recorded the motor as active.

When an external contactor is used, this represents the run command issued by the device and does not, by itself, confirm actual mechanical motor operation.

Electricity consumption

Treat the value as an estimate unless obtained through a certified energy measurement system.

Water consumption

Water consumption is calculated from operating time and the flow rate entered in the settings.

The result may differ from actual consumption when flow varies during operation.

Estimated costs

Electricity and water costs are calculated from user-defined prices.

These values are indicative and must not be used for billing.



Figure 10.1: Viewing summary history

10.5. Detailed data

Hour or **Day** views show data at higher time resolution.

In this view, select the series to plot on the graph.

Available series may include:

- **Motor (M)**;
- **STOP-SW (S)**;
- **OUT-OFF (H)**;
- **Sensor A (A)**;
- **Sensor B (B)**;
- **Sensor C (C)**;
- **Current**.

Select one or more options to display their states or values on the graph.

Each button’s colour matches the displayed series.

Motor

Motor shows periods during which a run command was recorded.

STOP-SW

STOP-SW shows periods during which motor operation was inhibited by software.

OUT-OFF

OUT-OFF shows periods during which the OUT-OFF switch was in the inhibited state.

Sensors

Sensor A, B and C series show the state changes recorded at each input.

State interpretation depends on sensor connections and assigned configuration.

Current

Current shows measured current over the selected interval.

Current readings are intended for monitoring and do not replace measurements made with suitable instruments.

10.6. Detailed statistics

Detailed view may show:

- operating time;
- electricity consumption;
- electricity cost;
- water consumption;
- water cost;
- average current;
- minimum current;
- maximum current;
- number of power failures;
- number of interlock activations.

Power failures

This value indicates the number of supply interruptions recorded during the selected period.

The absence of a record does not prove that no failure occurred, particularly if the device could not save the event.

Operating stops

This value indicates the total number of recorded stops, including those resulting from STOP-SW activation or setting OUT-OFF to the inhibited position.



Figure 10.2: Viewing detailed history

10.7. Limitations and incomplete data

Records may have gaps or incomplete values due to:

- power failure;
- date or time changes;
- a discharged internal battery;
- unavailable memory;
- factory reset;
- history deletion;
- firmware update;
- a saving failure;
- other system limitations.

Loss of Bluetooth, Wi-Fi or Internet connection does not necessarily imply data loss, provided data is saved locally and synchronised later.

10.8. Deleting history

Delete history deletes saved historical data.

> **CAUTION — Data deletion**
>
> History deletion may be irreversible.

After deletion, data may no longer be available for viewing, analysis or technical support.

Deleting history should not change device functional settings unless expressly stated otherwise.

10.9. Using the data

Data in the **Analytics** tab is intended to:

- monitor installation operation;
- identify behavioural changes;
- analyse operating periods;
- compare consumption;
- support troubleshooting;
- provide information to technical support.

It must not be used as the sole basis for:

- billing;
- legal metrology;

- energy certification;
- safety validation;
- definitive fault diagnosis.

11. Notifications

The **Notifications** tab shows messages generated by W4A MProtect following errors, warnings and other relevant events.

Notifications help monitor device operation and identify situations that may require checks or intervention.

Depending on the event type, a notification may indicate:

- a condition that inhibited motor operation;
- an anomaly that triggered a reset attempt;
- a warning that did not interrupt operation;
- a device state change;
- a power or communication failure;
- a condition detected by automatic analyses.

The absence of a notification does not prove the absence of a fault or abnormal condition.

A notification may remain in the history after its cause has cleared. Reading or deleting a notification does not correct the cause or automatically reset the device.

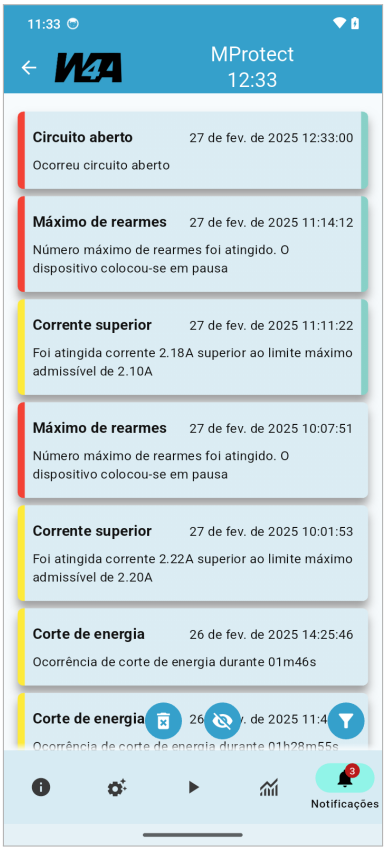


Figure 11.1: Notifications

11.1. Notification categories

Notifications may be classified as:

- **Error**: indicates a condition that inhibits or restricts operation and may require user intervention.
- Warning: indicates an abnormal condition requiring analysis, but not necessarily permanent inhibition.

11.2. Notification repetition

To avoid excessive messages when the same condition recurs, some notifications have a minimum repeat interval. This interval only affects the number of notifications generated for the user and has no effect on device operation.

Where there is no repeat interval, a notification may be issued for every event.

11.3. Error notifications

Notification	Description	Repeat interval
Short circuit	A current condition matching the device’s short-circuit criterion was detected.	10 minutes
Phase loss	Absence or an anomaly was detected on a monitored phase during motor operation	10 minutes
Open circuit	No current or an equivalent condition was detected during a run command	10 minutes
Maximum resets	The configured maximum number of automatic attempts after current anomalies was reached	10 minutes
Clock	A failure was detected in the system maintaining date and time. Clock-dependent functions may become unavailable	10 minutes
W4A Hidro lost	Pairing or communication with the configured W4A Hidro device was lost	Once per event

When the maximum number of resets is reached, check earlier warnings to identify the condition that caused the attempts, such as:

- short circuit;

- phase loss;
- open circuit;
- high current;
- low current.

11.4. Warning notifications

Notification	Description	Repeat interval
Power failure	An interruption to the device power supply was detected	30 seconds
Low current	Current below the minimum acceptable limit was detected	10 minutes
High current	Current above the maximum acceptable limit was detected	10 minutes
Low voltage	Voltage below the minimum acceptable limit was detected before motor starting	10 minutes
Low voltage during operation	Voltage below the minimum acceptable limit was detected during motor operation	10 minutes
High voltage	Voltage above the maximum acceptable limit was detected	10 minutes
Low internal battery	The device battery is low, which may limit some functions.	No defined repetition
Time window maximum	The maximum operating time defined for the time window was exceeded	18 hours
Time window minimum	The minimum operating time defined for the time window was not reached	18 hours
Operating pattern maximum	Operating time exceeded the maximum defined by the reference pattern	18 hours
Operating pattern minimum	Operating time fell below the minimum defined by the reference pattern	18 hours

11.5. Interpretation and action

When you receive a notification:

1. check the date and time;
2. check the current state in **Control**;
3. consult history and current values where applicable;
4. identify the cause before clearing the error;
5. confirm that the motor can resume operation safely.

Do not increase current limits, reset counts or tolerance times merely to prevent repeated notifications without first identifying the cause.

12. Basic troubleshooting

This section describes problems that may occur when using W4A MProtect, their possible causes and recommended actions.

Before contacting technical support:

- check the current state in the app;
- check panel LEDs;
- check errors, warnings and notifications;
- view history for the period when the problem occurred;
- perform only checks that can be carried out safely.

WARNING — Work reserved for qualified personnel

The user must not open the enclosure, measure voltages, change connections or tighten terminals. Electrical and mechanical checks listed in the table must be performed by the installer or technical support.

12.1. Troubleshooting table

Power supply and clock

Problem	Possible cause	Recommended action
Device does not power on	No power supply	Contact the installer to check for no power supply. Do not open the enclosure or change connections.
	Incorrect supply voltage	Contact the installer to check for incorrect supply voltage. Do not open the enclosure or change connections.
	Loose conductor, incorrectly connected terminal or tripped protective device	Contact the installer to check for a loose conductor, incorrectly connected terminal or tripped protective device. Do not open the enclosure or change connections.
	Internal failure	Disconnect the equipment and contact technical support. Do not attempt device repairs.

Problem	Possible cause	Recommended action
Device restarts unexpectedly	Supply failure or voltage drop	Check power failure history and contact the installer to check the supply.
	Poor supply connection	Contact the installer to check for a poor supply connection. Do not open the enclosure or change connections.
	Electrical interference or disturbance	Contact the installer to check for electrical interference or disturbances. Do not open the enclosure or change connections.
Device operates intermittently	Unstable supply	Contact the installer to check for an unstable supply. Do not open the enclosure or change connections.
	Poor connection	Contact the installer to check for a poor connection. Do not open the enclosure or change connections.
	Sensor, timer or analysis settings	Check history and identify which conditions are switching the motor on and off.
Device lost date or time	Internal battery low, removed or discharged	Contact the installer or technical support to check and replace the battery.

Communication

Problem	Possible cause	Recommended action
Cannot establish communication	Device outside Bluetooth range	Move the mobile device closer to W4A MProtect and reduce obstacles between them.
	Bluetooth or Wi-Fi disabled on the mobile device	Enable the required communication method and check app permissions.
	Missing app permissions	Check Bluetooth, nearby device, network and location permissions where required by the operating system.
	Outdated app	Update to a compatible app version provided by W4A.
Cannot establish Wi-Fi communication	Incorrect network or invalid credentials	Check the configured network name, password and security method.
	Insufficient coverage	Check signal strength at the installation site and move the access point closer where necessary.
	Mobile device connected to another network	For local access, check that the mobile device and W4A MProtect are on the appropriate network.

Sensors

Problem	Possible cause	Recommended action
Sensor not detected	Incorrect connection	Contact the installer to check for incorrect connections. Do not open the enclosure or change connections.
	Incompatible sensor	Contact the installer to check for an incompatible sensor. Do not open the enclosure or change connections.
Sensor shows the opposite state to that expected	Incorrect interpretation of open or closed contact	Check the state and action shown by the app. Contact the installer if they do not match expected operation.
Sensor state is unstable	Poor contact, interference or faulty sensor	Contact the installer to check for poor contact, interference or a faulty sensor. Do not open the enclosure or change connections.

Measured current

Problem	Possible cause	Recommended action
Current reading is zero	Motor is not being operated	Check that a run command is present.
	Incorrectly installed current sensor	Contact the installer to check for an incorrectly installed current sensor. Do not open the enclosure or change connections.
	Incorrect channel	Contact the installer to check for an incorrect channel. Do not open the enclosure or change connections.
Current reading is unstable or inconsistent	Incorrect sensor or connection	Contact the installer to check for an incorrect sensor or connection. Do not open the enclosure or change connections.

Configuration and timers

Problem	Possible cause	Recommended action
Expected function not performed	Incorrect or unsubmitted configuration	Review timers and user-accessible settings and confirm saving. Contact the installer for technical settings.
	Simultaneous conditions with different priorities	Check the status bar to identify the highest-priority condition.
Timers do not work	Invalid date or time	Synchronise the clock and check region and time zone.
	Timer disabled or not submitted	Check that the timer is active and the configuration was saved.
	An interlock condition exists	Check OUT-OFF, STOP-SW, errors, sensors and other priority conditions.
No response after a change	Incomplete configuration transfer	Reconnect and check the values currently saved on the device.
	Settings incompatible with intended operation	Review only user-accessible changes. If a technical setting has been changed, record the values and contact the installer.

Motor operation

Problem	Possible cause	Recommended action
Output not activated	OUT-OFF switch interlock	Set OUT-OFF to the enabled state only after confirming that the motor can start safely.
	STOP-SW active	Clear STOP-SW after checking the installation and cause of the pause.
	Active error or maximum resets reached	Check earlier warnings, identify the cause and clear the error only after correcting it.
	Reset waiting time	Wait for the delay applicable to the anomaly or follow the specified intervention procedure.
	Sensor issuing a stop command	Check sensor states and priorities.
	Outside the configured schedule	Check time, time zone and timers.
	Limit or automatic analysis	Check warnings, history and analysis settings.

Problem	Possible cause	Recommended action
Motor shown on, but not running	Contactor or power circuit fault	Contact the installer to check for a contactor or power circuit fault. Do not open the enclosure or change connections.
	External protective device tripped	Contact the installer to identify and correct the cause before resetting the protective device.
Motor runs unexpectedly	Active timer, sensor or manual operation	Check current state and history to identify the command source.
	Welded contactor or power circuit fault	Immediately switch off and isolate the installation and request qualified personnel.

Estimates

Problem	Possible cause	Recommended action
Water consumption does not match the actual value	Incorrect or variable configured flow rate	Check the entered value and consider actual installation flow variations.
Displayed cost is incorrect	Incorrect configured price	Check electricity and water prices in Information.

12.2. Resetting after an anomaly

An anomaly may interrupt operation, start a restart delay or place the device in an error state. Before clearing an error or bringing an attempt forward, check the notification and records, ask the installer to perform the necessary checks, and confirm that the cause has been corrected and the motor can start safely.

See 7.2 Automatic restart rules by anomaly for delays and limits. An open circuit allows restart after 1 minute without counting towards the limit. A short circuit does not allow automatic restart. Phase loss requires its restart option to be enabled and uses the specific delays in that section.

When the allowed restarts are exhausted, operation is blocked. After correcting the cause, use the clear-errors command in the app or the OUT-OFF procedure described in the control panel chapter.

Clearing errors in the app, submitting current sensor settings, and activating then removing the pause clear the pending delay and reset the counter, as described in 7.2 Clearing the delay and restart counter. They may allow starting before the previous delay expires. Submitting current settings is reserved for qualified personnel.

Warnings and the counter are also cleared after the continuous anomaly-free operating period described in 7.2 Clearing after anomaly-free operation. None of these operations repairs the fault. If the anomaly recurs, stop further attempts and seek assistance.

12.3. General checking procedure

When an anomaly occurs:

- read the message in the app;
- check OUT-OFF switch state;
- check whether STOP-SW is active;
- check the Bluetooth, Wi-Fi or Internet connection, as applicable;
- check date and time;
- check for an active timer;
- confirm there is no error or reset waiting period;
- check recent history;
- perform only the basic actions described in this manual.

Do not open the enclosure, measure voltages, change connections, tighten terminals or change protection settings.

If the condition persists, contact the installer or technical support.

12.4. Restarting the device

Restarting may resolve a temporary failure. Before considering it, record errors and warnings, confirm no update or transfer is in progress and that stopping and restarting the load can occur safely.

Use only an identified, accessible power control whose use has been explained by the installer. Do not open the enclosure or take measurements. If unsure how to proceed, request support.

After startup, check communication, date and time, timers and output state. Do not use repeated power interruptions as a routine diagnostic method.

12.5. Factory reset

A factory reset must not be the first attempt to resolve an anomaly.

Consider resetting only when recommended by the installer, technical support or W4A.

Before resetting, save the required information and confirm that the device can be correctly configured and paired again.

12.6. When to stop using the equipment

Immediately stop use under the conditions in 2.9 Abnormal operation and emergencies.

Also stop use if the motor runs without a run command, failure persists after correcting the installation or behaviour occurs that is not described in this manual.

12.7. Contacting technical support

If the problem cannot be resolved through the previous procedures, contact W4A technical support.

Where possible, provide:

- equipment model;
- serial number;
- hardware version;
- firmware version;
- app version;
- a detailed problem description;
- event date and time;
- how often the problem occurs;
- the conditions in which it occurs;
- LED states;
- displayed errors, warnings and notifications;
- relevant configuration;
- observed current values;
- photographs of the installation and wiring;
- the electrical diagram used;
- a history file or screenshot, where available.

Do not send passwords, access QR codes, pairing files or other credentials unless expressly instructed by technical support.

13. Regulatory compliance

13.1. CE marking

W4A MProtect regulatory compliance is documented in the product's EU Declaration of Conformity. CE marking refers to the requirements of applicable European Union legislation identified in that declaration.

CE marking does not remove the need to follow this manual's installation, operating and safety instructions. The installer must check equipment suitability for the supply, motor and other connected loads, and installation site conditions.

13.2. EU Declaration of Conformity

The complete W4A MProtect EU Declaration of Conformity is available at:

www.w4a.pt/products/w4amprotect/legal/ce

The declaration identifies the manufacturer, product covered, applicable legislation, standards or technical specifications used and the person responsible for signing it.

Consult the version applicable to the installed equipment. For a copy or clarification, contact W4A through official channels.

13.3. Restriction of hazardous substances

Requirements restricting certain hazardous substances in electrical and electronic equipment applicable to W4A MProtect are identified in the EU Declaration of Conformity and product regulatory documentation.

13.4. Equipment modifications

Use only accessories, components and firmware versions authorised by W4A. Observe equipment specifications and instructions for power supply, outputs and sensor inputs.

WARNING — Unauthorised modifications

Do not modify W4A MProtect hardware, firmware, enclosure, internal connections or components without W4A authorisation. Such modifications may compromise safety, operation, compliance and warranty conditions, or make the equipment unsuitable for its intended use.
Do not change protection conditions to connect incompatible loads or permit operation outside specifications. All work must follow W4A instructions and be carried out by authorised personnel.

14. Disposal and end of life

14.1. Equipment disposal

W4A MProtect and its electrical and electronic components must not be disposed of with household or unsorted commercial waste.

At the end of its service life, send the equipment to an appropriate waste electrical and electronic equipment collection and treatment system.

Separate collection helps to:

- prevent negative environmental impacts;
- reduce risks to human health;
- allow material recovery;
- promote resource reuse and recycling.

Before removing W4A MProtect from the installation, prepare for interruption of operation and ensure that the motor and other connected equipment are left safe. Removal and electrical disconnection must be performed by qualified personnel.

DANGER — Equipment removal

Before disconnecting conductors or removing the equipment from the enclosure, switch off and isolate all supplies, prevent accidental reconnection and verify the absence of voltage.
Do not leave accessible conductors or terminals in an unsafe condition after removal.

14.2. Private users

For information on collection locations and procedures, contact:

- the retailer from whom the product was purchased;
- municipal services;
- an authorised electrical and electronic waste collector;
- another competent body in the country of use.

Hand over the equipment according to the collection body’s instructions. Do not abandon it or place it in unsorted waste containers.

14.3. Professional users

Professional users should contact the supplier or an authorised body to confirm applicable W4A MProtect collection and treatment conditions.

Do not dispose of the equipment with unsorted commercial waste. Record decommissioning and retain

the handover and treatment documentation required for the installation.

14.4. Internal battery

Battery removal and replacement are reserved for qualified personnel. Ask the installer or technical support to arrange appropriate battery disposal according to local requirements. Do not dispose of it with household waste or in fire.

14.5. Data deletion

Before transferring, returning or disposing of the equipment, save any data you wish to keep and contact the installer or technical support to delete saved settings and access where necessary.

Removing the device from the app does not necessarily delete data saved on the equipment. Access shared through a file or QR code has no individual revocation option, as described in 8.6 Sharing access. Factory reset must follow 8.8 Factory reset.

15. Warranty, responsibility and support

15.1. User and installer responsibilities

W4A MProtect must be installed, configured, used and maintained according to this manual, technical characteristics, connected equipment instructions and applicable legislation and regulations.

The installer is responsible for checking product suitability for the installation, loads and operating environment, correctly making connections and checking required external protective devices.

The user is responsible for using W4A MProtect only for its intended purpose and observing this manual's warnings and limitations. The user must also check that configured sensors, current limits, timers and pauses are suitable for the installation.

Retain installation documentation and record significant changes to settings and connected equipment.

15.2. Improper use

W4A cannot guarantee correct or safe operation in the event of incorrect installation, use outside specifications, unauthorised connections or repairs, hardware or firmware modifications, missing protective devices, incompatible components, failure to follow this manual or damage caused by external conditions.

This provision does not limit any rights or liabilities that cannot be excluded under applicable legislation.

15.3. Limitations of displayed data

Current values, estimated consumption and costs, states, forecasts, history and notifications shown by W4A MProtect are intended for monitoring and operational support.

This information does not replace:

- suitable or certified measuring instruments where required;
- safety devices and external electrical protective devices;
- checking motor, contactor and controlled load operation;
- inspections by qualified personnel.

See the interpretation limits for states in chapter 9 Device control and records in chapter 10 History and data analysis. Before making an operating decision, confirm communication and the current installation state.

15.4. Warranty

The buyer's statutory rights regarding lack of conformity are determined by applicable legislation in the country of purchase. This manual does not limit those rights.

To report a problem, contact the seller from whom the product was purchased and provide proof of purchase, serial number and a description of the fault. Follow the instructions received before shipping or

dismantling the equipment.

If an additional commercial warranty is offered, its terms are provided by the guarantor. A commercial warranty supplements and does not replace the buyer’s statutory rights.

15.5. Technical support

If support is needed, first consult chapter 12 Basic troubleshooting.

If the problem persists, contact W4A technical support through the official channels at www.w4a.pt. Where possible, provide the information listed in that chapter’s technical support contact section.

Do not send network passwords, access files or sharing QR codes. Before removing or shipping equipment for assessment, follow technical support instructions and ensure the installation is left safe.