BMETERING SOFTWARE

Installation and configuration guide v1.9.6
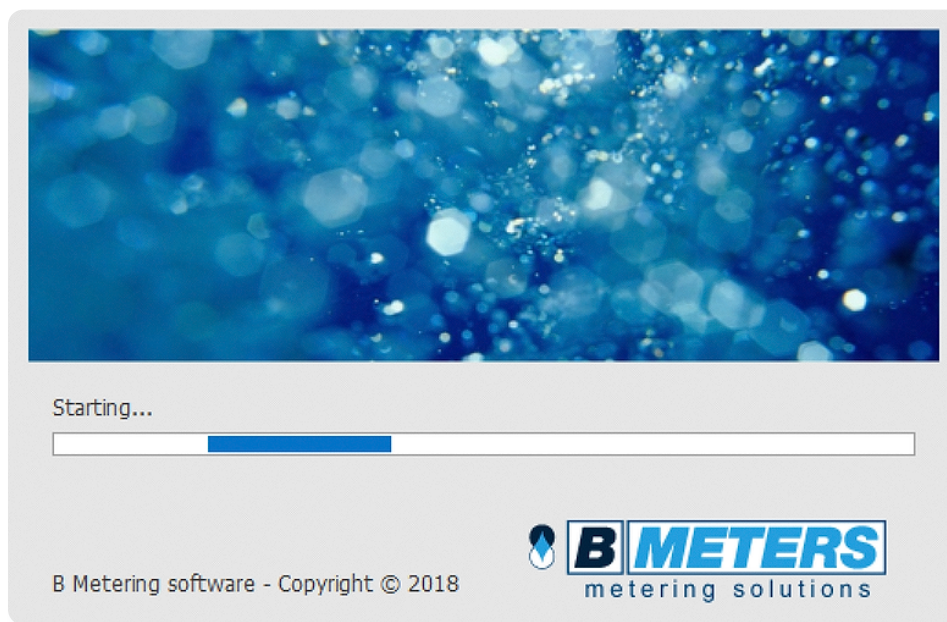
Starting...

B Metering software - Copyright © 2018

Table of contents

Introduction

This software can be used for reading, configuring and exporting data of the devices produced by B Meters. For compatibility, refer to the user manuals of the individual devices.

ⓘ Note: Use of the software is subject to the purchase of a license, contact your supplier for the purchase.

System requirements for using the program

- Hardware Requirements:
  > CPU: Dual Core x86/x64 bit 1.5 GHz (recommended>2GHz)
  > RAM 4GB (6GB recommended)
  > 150 MB of free disk space (2GB recommended) for the application
  > 1 GB for database and readings (may vary depending on the number of devices to receive)
  > 2 USB ports (3 USB ports recommended)

- Operating system:
  > Windows 11 / 10 / 8.1 / 8 / 7 / Vista SP2
  > Windows Server 2016 / 2012 R2 / 2008 R2

- Software Requirements:
  >Microsoft .NET Framework 4.5.2 (active Internet connection during installation)

1. Installation of the software
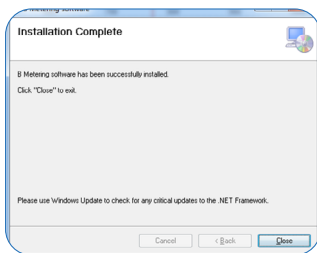
Extract the contents of the **.zip** file received from your supplier (downloadable at **http://keygenerator.bmetering.com/API/DownloadBMetering**), and launch the **"Setup.exe"** application.

ⓘ Note: If prompted, proceed with the installation of Microsoft .NET Framework 4.5.2 and the B Meters device drivers. To finish the installation, press the **Close** button.

2. Starting the software

To start the software use one of the two icons present after installation:

> Desktop icon
> Start menu icon

On the first launch, the software will run in demo version (**max 15 days**), subsequently it will be necessary to activate the product to continue to use it (refer to the **"Activation"** chapter).
Online product activation window:

> Number of days of trial period (demo).
> Go to the site (opens the web page for managing your licenses)
> Active to verify software activation
> Activation ID (to be used on the license portal)
> Continues advances in demo mode

Activation

The activation ID is unique for each PC on which the software is installed, each license can be associated with only one activation ID. If you need to replace your PC, contact your supplier or use the BMetering Keygenerator site to change the registered ID (**irreversible operation**).
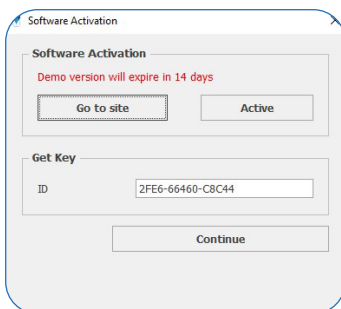
> The successful activation of the software can be verified in the software status bar at the bottom right:

Software Activated: 1730-610A3-20037   User: admin

> While using the demo version the status bar will appear as follows:

Demo version will expire in 12 days ⭐ Activate Software   User: admin

> Once the software has been activated, it can also be used in offline mode for 10 consecutive openings, at the end of which an online start must be performed to verify the license (the count of possible offline openings goes back to 10).

Software Activated: Offline-8   User: admin

"Login" panel
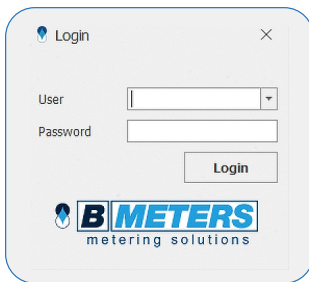
> Once the software is started a login panel will be prompted on the screen. The **default credentials** are:

>> **Username:** admin >> **Password:** admin

> Afterwards it is possible to change or disable the login credentials of the software through the **User management** section of the software (please refer to the paragraph "**3.2 Options**" of this manual).

3. Description of the window screen
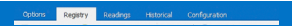
3.1 Main window composition
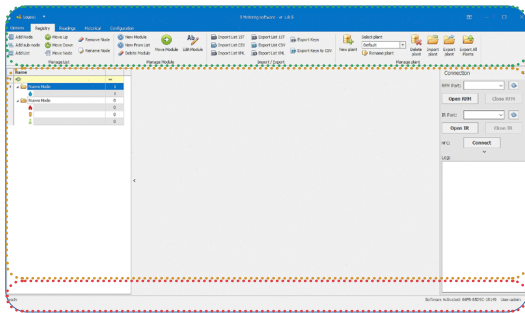
Top part called **Ribbon Bar**
highlighted in green

Central part
highlighted in orange

Bottom part
highlighted in red

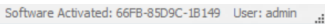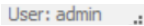The legend below contains in descending order the different options contained in the sections:

Ribbon Bar (in green):

> **Title bar**, it is the highest part of the window screen in which we find:
> **Software icon**
> **Logout button** returns to the Login window.
> **Name and software version.**
> **Ribbon Bar** display management **icon**
> **Menu bar** which contains **5 options**: Options, Registry, Readings, Historical, Configuration.
> **Command bar**, this is the list of commands that can be executed by the software depending on the menu chosen.

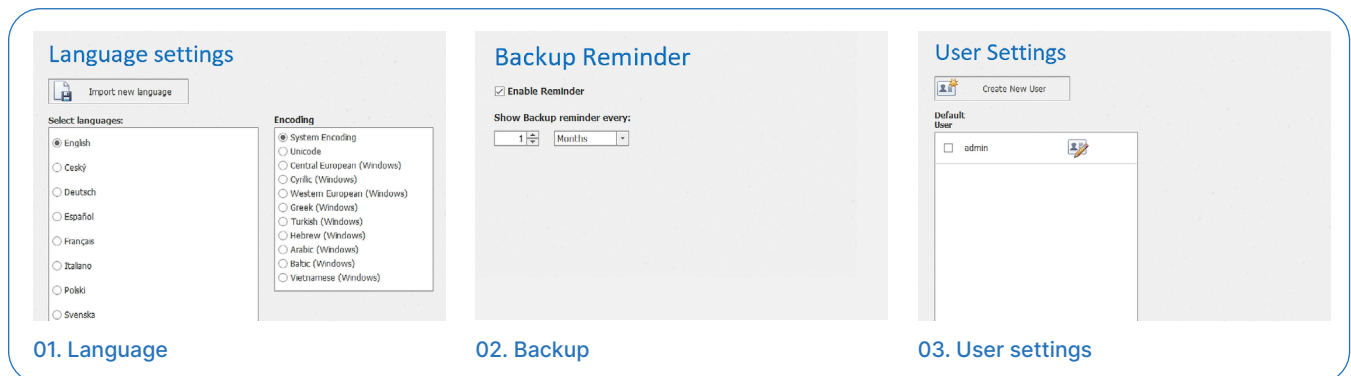### Central part, "Lists" (in orange):

> **Structure panel** (left), contains created **nodes**, **sub-nodes** and **lists** (**tree diagram**)
> **Data management panel (central)**, displays the devices in the lists.
> **Connection management panel (right)**, management of the **COM** and the **NFC** ports of the B Meters peripherals
  >> **RFM port:** opening/closing of the serial port of the **Wireless M-BUS** receiver (**RFM-RX2**).
  >> **IR port:** opening/closing of the serial port for the **IR peripherals** (**OPTO-USB, UC-CABLE**).
  >> **NFC:** connection to **NFC** device (**NFC-ANT**).

Bottom part, "State" (in red):

> **Status bar** of the software, presents:
  >> **Software status** Software Activated: 66FB-85D9C-1B149   User: admin
  >> **Activation status** information (see **"Activation"** chapter)
  >> **Logged-in user** User: admin

3.2 Options

The software **configuration parameters** screen can be accessed by selecting the **Options** item from the menu bar:

Language settings

Import new language

Select languages:
- English
- Český
- Deutsch
- Español
- Français
- Italiano
- Polski
- Svenska

Encoding
- System Encoding
- Unicode
- Central European (Windows)
- Cyrillic (Windows)
- Western European (Windows)
- Greek (Windows)
- Turkish (Windows)
- Hebrew (Windows)
- Arabic (Windows)
- Baltic (Windows)
- Vietnamese (Windows)

01. Language

Backup Reminder

☑ Enable Reminder

Show Backup reminder every:

1 ⌄ Months ⌄

02. Backup

User Settings

Create New User

Default User

☐ admin

03. User settings

01.Language settings: select the software language. Using the **Import new language** button, additional languages that are not present can be added (contact B METERS), while **Encoding** allows to manage different encodings for the characters used in the software.

02.Backup reminder: it is possible to enable the reminder for the user (recurring every day/month/year) to carry out a safety backup of the plants.

03.User settings: allows to add or remove authorized users to use the software. New users can be added by pressing the 🧑‍💼 button, fill in all the fields and assign privileges according to the role. To remove users the 🩹 button can be used.
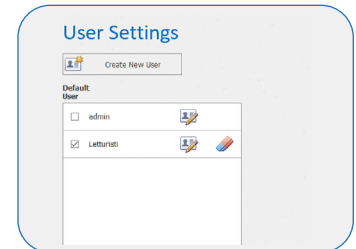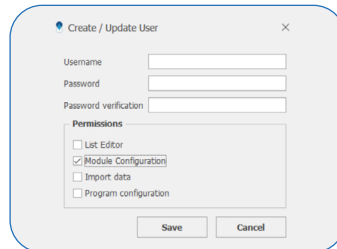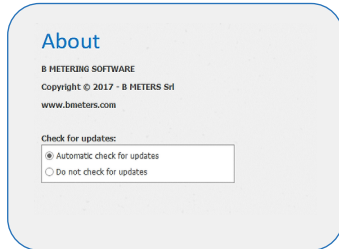
04. About

04. About: Information about the software manufacturer and choice to be notified whenever a new software version is available (recommended).

ⓘ **Nota:** by checking the **Default User** checkbox, the software will automatically load the selected account without showing the Log-in screen at launch.

3.3 Registry

This section allows you to manage the various lists of registered devices of which you want to collect reading data. Once you have selected this item from the menu bar you will see a series of available commands that allow you to build and organize the device management structure.

3.3.1 Manage list

The **Manage List** section is dedicated to the creation and manipulation of the **tree structure** inside which the devices are subdivided and managed.
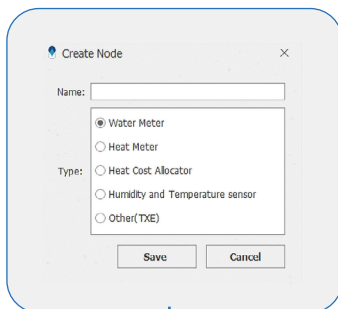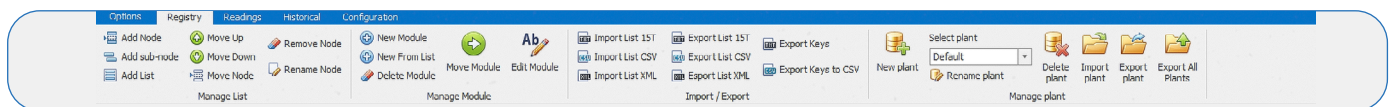
> The ⊞ Add Node icon creates a main node where to insert lists or secondary nodes.
> The ⊟ Add sub-node icon creates a secondary node where to insert lists or secondary nodes.
> The ⊞ Add List icon creates a list where to register the devices divided by type (see adjacent photo).

ⓘ **Note:** it is not necessary to respect a certain structure, the tree management has been built to improve the organization of all the managed lists and it is buildable at the will of the user in the software.

Tree structure
multi-list example

🔼 Move Up   🔽 Move Down moves the position of a **list or a node** within the **same level or node** of the tree.

then the ⊞ Move Node moves a **list or node** to another node of the tree.

The 🩹 Remove Node icon removes the selected **node or list** (irreversible).

And then the ✏️ Rename Node renames the selected **list or node**.

3.3.2 Manage module

The **Manage module** section allows to create/edit/delete devices in the lists. To proceed with any modification, firstly select a list. The **Data Management Panel** will change appearance depending on the type of list.

New Module Insert a new module in the list, opens a form containing the following fields:

Registry data

> **ID:** alphanumeric field that is typically used for the identification of the user
> **Module n°:** serial number of the radio module (for some products it coincides with that of the measuring device) <u>MANDATORY.</u>
> **Counter n°:** serial number of the measuring instrument (mechanical counter).
> **Name, Surname, Address, City, Postcode:** user data/installation location.
> **Note:** alphanumeric field to enter further information to identify the device.

> **New From List** allows you to generate a **new device** to be included in the list, selecting an existing one, this will allow you to keep the personal data of the selected device, facilitating the insertion of an additional device (which will have a different number) with the same personal data. This is useful when the **same user** owns several devices (for example 5-6 Allocators).

> **Delete Module** removes the selected module (confirmation required, irreversible command).
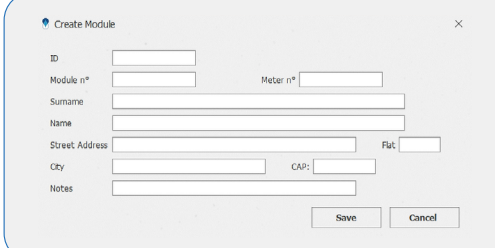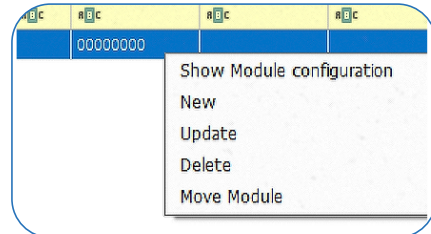
> **Move Module** moves the selected module **from one list to another** (of the same type)

> **Edit Module** modifies the data of the selected module (except the serial number).

ⓘ **Note:** When right-clickling a device in the list, the contextual menu appears. The first option lets the user **check the configuration of the module**, but only if it was performed with the same instance of B Metering Software in use.

3.3.3 Import and Export lists

This section includes a series of tools for the import and export of registry data from and to third-party softwares or PCs other than the one in use.

> The **Import List 15T** / **Import List CSV** / **Import List XML** **icons** imports a **15.t/CSV/XML** format file into a list.
Both of these functions start an import wizard, which requires a file to be selected to import and assign the data columns found in the file to the fields present.

> The **Export List 15T** / **Export List CSV** / **Esport List XML** **icons** exports a list in **15.t/CSV/XML** format file.
ⓘ **Note:** the **xml format** allows to export the entire structure of the plant. It is possible to export the encryption keys of the modules with a checkbox placed under the import wizard.
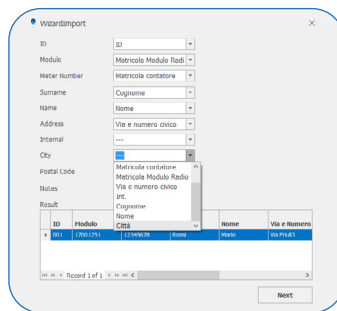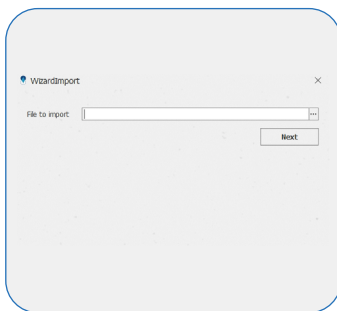
> **Export Keys** creates a .keys file with the encryption keys of the devices present in the selected list.

> **Export Keys to CSV** creates a CSV file with the encryption keys and the serial numbers of the devices inside the selected list.

ⓘ **Note:** keys export is only possible for the devices which were configured with data encryption enabled and whose key is found inside the software database.

3.3.4 Manage plant

This section allows to manage and/or switch plant; each plant has a separate database (the encryption keys of the devices ARE NOT global, but are contained in the plant where the devices are). <u>Follow the specifications of the buttons:</u>
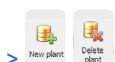
> **New plant** **Delete plant** these buttons are used for **creating** or **deleting** plants. The deletion is **not reversible** unless a backup has been previously performed.

> **Select plant** **Rename plant** this drop-down menu for selecting the **plant to operate in.**

> **Import plant** **Export plant** **Export All Plants** these buttons are used to import a single plant or export of the single plant or of all the plants.

ⓘ **Note:** the plant export allows to export all the registry data, all the readings collected and the configurations (including the encryption keys) of that plant.

3.4 Readings

This section allows to acquire the **readings** of the BMeters **radio modules.**
ⓘ Note: the readings of the buffer are automatically reset every day at **midnight**.

3.4.1 Manage readings

The **Manage Readings** section allows to manage the encryption system and organize the readings for the modules. Allows to select the type of encryption key to use. With the [Manage Encryption] icon is possible choose between a **global AES key** or an **individual AES key** for each module (OMS compliant).

Legend							
🟩 Reading OK	🟦 Q Max overflow	⬛ Sensor Fraud	🟦 Water Loss	🟥 NFC Fraud	🟨 Empty pipe		
🟥 Reading Error	🟨 Module Removal	🟩 Magnetic Fraud	🟦 Burst	🟩 Hardware error	🟦 Freezing	🟧 Excessive temperature	
🟧 AES Key Error	🟩 Battery	🟪 Reverse Flow	🟩 Wrong installation	⬛ Ultrasonic failure	🟦 No consumption		

Legenda Letture

ⓘ Note: readings legend

ⓘ CAUTION: the loss of the global key or individual AES key file will result in the data being unable to be read.
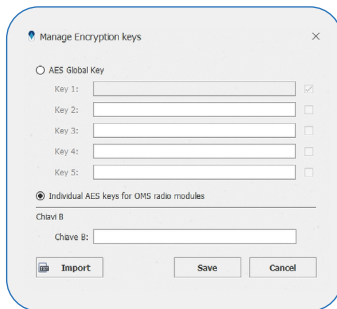
> The 📖 Import button allows, through a guided procedure, to **select the type of module** and to **import the corresponding keys** saved in a file

with **"keys"** or **"csv"** extension. For the **.csv file**, a wizard will be shown to allow the correct association of the fields and their import.

> 📝 Self-reading allows to manually enter an **auto-reading**.

> 🗑 Delete Reading allows to **delete all readings** received

> ☐ Hide modules already read shows/hides all the lines of the modules **already read.**

ⓘ Note: 👁 Show Details and 🚫 Hide Details allows **to show or hide details** such as **name, surname, address, etc**.

3.4.2 Manage out of list devices

This section allows to manage all the devices detected but not present in the lists (**Out of list**).

Out of list

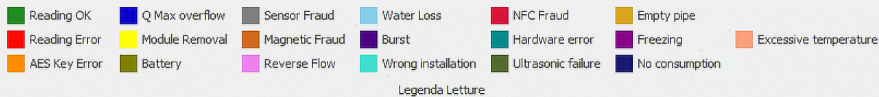| ...	Serial Number	Reading date	RAW
🔵	03042069	16/01/2024 10:22:15	2114B4096920040317067A250000000C1355860000046D052C10310F0300160...
🔴	05095630	16/01/2024 10:34:24	5E44B409305609051A0D8C00B37AE5000000046D292A10310C0E438043180C...
🔵	03035197	16/01/2024 10:32:19	2114B4099751030317067A480000000C1318430500046D152C10310F0300050...
🔵	22622575	21/12/2023 11:18:22	4944B4097525622213077A2D1C00000C133282030000046D042CF52C0F170422...
🔵	03232317	16/01/2024 10:32:15	4C44B4091723230317077A110000000C1309000000046D212A10310F8F00000...

◄◄ ◄◄ ◄ Record 3 of 768 ► ►► ►►| ◄

> The 🔤 Move all icon allows to move all the devices out of the list into the **selected list** with a single click. To move the single selected device into the selected list use the 🔤 Move single button. Then 🗑 Delete all and 🗑 Delete single allows **to delete a single** or **all devices** off the list.

> 🔍 Hide out of list devices and 👁 Show out of the list devices allows **to show or hide** the **Out of List section** by automatically expanding the **Data Management Panel**.

3.4.3 Manage advanced IR reading and allocators

> The 🔴 Read IR icon allows to read all the information of water meters, heat meters, etc. via **UC-CABLE**. set up for this functionality.

> The 🔴 Read from IR icon allows to read all the information of a **Hydroclima-RFM allocator**.

ID	Serial number	Reading Date	Data in datagram	Num. Alarm	Status	N... o...	[C] Actual consumpt...	[Udata] date of re...
	78003607	16/01/2024 14:39:25	16/01/2024 14:39:24	0	OK	IrDA	326,4	

Show IrDA More Info

ⓘ Note: By right-clicking on the allocator (read previously) you can select the **'Show IrDA More info'** item to obtain all the configuration data and subsequently save them in **.txt** format.

> The 📶 Advanced Radio Reading icon allows to enable advanced reception for Hydroclima-2. By right-clicking on the allocator (previously read) you can select the **'Show Radio More info'** item to obtain all the configuration data and subsequently save them in **.txt** format.

> 📝 Edit Columns with this button it is possible **to display/hide** the data columns of the allocators.

Reading Date	Data in datagram	Num. Alarm	Status
09/06/2022 8:35:27	09/06/2022 08:35:16	0	OK

Show Radio More Info

ⓘ Note: By right-clicking on the allocator (read previously) you can select the **'Show Radio More info'** item to obtain all the configuration data and subsequently save them in **.txt** format.

3.4.4 Import/Export readings

This section allows the import and export of readings.

> **Import Buffer from Gateways** imports buffer files received from concentrators.

> **Export Readings CSV** **Export Readings XML** **Export reading Buffer** allow exporting readings in a file with CSV/XML/TXT format. The CSV/XML formats launch an export wizard in which you can select the file to export and assign the various fields present in the readings to the relevant fields of the destination file.

3.4.5 Reading legend

In this section there is a legend which represents, for the read radio modules, an alarm state. The modules and alarms are highlighted by a different color depending on the type of alarm detected.

■ Reading OK	■ Q Max overflow	■ Sensor Fraud	■ Water Loss	■ NFC Fraud	■ Empty pipe
■ Reading Error	■ Module Removal	■ Magnetic Fraud	■ Burst	■ Hardware error	■ Freezing	■ Excessive temperature
■ AES Key Error	■ Battery	■ Reverse Flow	■ Wrong installation	■ Ultrasonic failure	■ No consumption

Readings Legend

ID	Module n°	Reading data ▼	Module date and time
A▣C	A▣C	A▣C	A▣C
	18850566	16/01/2024 10:34:30	16/01/2024 11:37:00
	21263009	16/01/2024 10:34:26	
	18850508	16/01/2024 10:34:25	16/01/2024 11:05:00

> **Reading error:** to interpret the errors, refer to the individual user manuals of the installed devices.
> **AES key error:** global or individual key error/missing.
ⓘ **CAUTION:** loss of the global key will result in the inability to read the devices.

3.5 Historical

Export Readings CSV **Export Readings XML** **Node Export Last Readings CSV** **Node Export Last Readings XML**

Import / Export
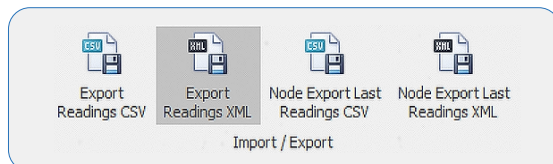
This section records **daily** the **reading history** carried out by the BMeters software. Readings taken from a specific device can be viewed here. It also allows to export all the readings of a module/meter into a file with **CSV** or **XML format** using the 'Export CSV Readings' and 'Export XML Readings' buttons.
The 'Export Latest Node Readings CSV' and 'Export Latest Node Readings XML' buttons allow to export the latest readings carried out for a given list.

3.6 Configuration

This section is used to configure the operating and transmission parameters of the BMeters devices.
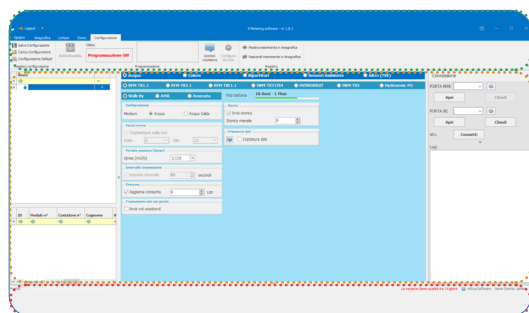
Top part
highlighted in green

Central part
highlighted in orange

Bottom part
highlighted in red

The **Configuration screen** is as follows:
Top part highlighted contains:
> **Command bar**, this is the list of commands for programming and configuration.

Central part highlighted contains:
> **Structure panel (left):** box for selecting the list of devices to configure.
ⓘ **Note:** the box will only show the lists with the type that conforms to the type indicated in the **Configuration Box** (water, heat, etc.).
> **Configuration panel (central):** used for device selection and configuration of operating parameters.
> **Connection management panel (right):** management of **COM** and **NFC** ports of BMeters configuration peripherals.
> **Module panel (left):** box in which the list of modules inserted with the device details will be displayed.

Bottom part highlighted contains:
Data entry box in the registry (bottom center): device registry data (optional). The **Module n°** field is automatically filled in once the configuration is obtained. The configured device can be inserted manually or automatically in the selected list via the Insert button or by selecting the relevant checkbox. By selecting the personal data related boxes, these are repeated for all subsequently configured devices.

3.6.1 Manage configuration

The **Manage Configuration** section allows to save and load an existing configuration or set one with default parameters.
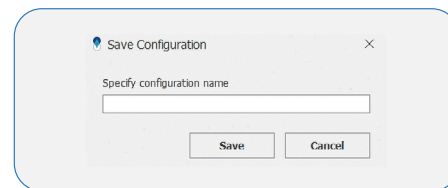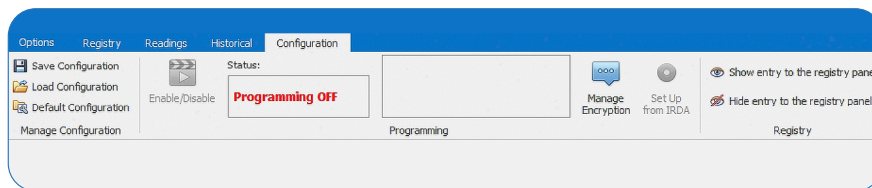
The 🖫 Save Configuration icon allows to save the current configuration by specifying a name.

ⓘ **Note:** after configuring a device it is possible to view the parameters written in the following way: move to the **'Registry'** tab, select the desired list, right-click on the desired device and select the **'Show module configuration'** item.
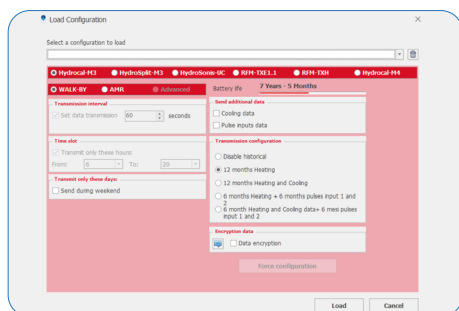
> 🖾 Load Configuration allows to load a saved configuration. After selecting it, simply press **Upload**.

> Then 🖳 Default Configuration automatically sets all the values of the fields modified in the **Configuration Panel** to default.

3.6.2 Programming

The **Programming** section allows to manage all the functions related to the sending or blocking of the parameters set on the modules. For some products, data will be sent by pressing the button located inside/outside the modules.
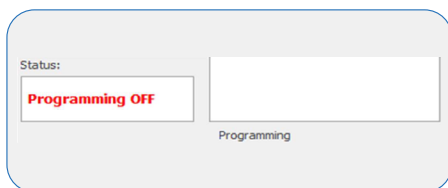
"OFF" — programming off
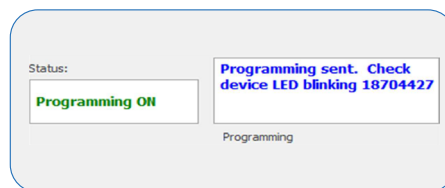
"ON" — programming enabled

> 🔼 Enable/Disable enables the programming to send the set parameters to the modules or disables programming to allow simple reading of the data

Programming OFF: programming disabled.

Programming ON: on the right there is a text field where the device programming messages are shown.
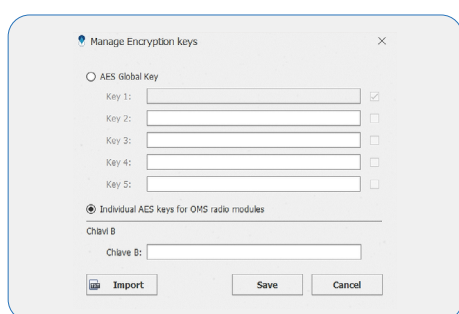
> 🖳 Manage Encryption allows to select the **type of encryption** key to use for device encryption. You will be able to choose between a **global AES** key or an **individual AES** key for each module (**OMS compliant**). The Import button allows to, through a guided procedure, to select the module type and import the corresponding keys saved in a file with the **"keys"** extension.

ⓘ **CAUTION:** <u>loss of the global key or individual key file will result in the inability to configure the device.</u>

> 🔴 Set Up from IRDA it is enabled only when the IR port of the Connection Management Panel is open. Functionality available only for Hydroclima-RFM and EXT allocators.

3.6.3 Register
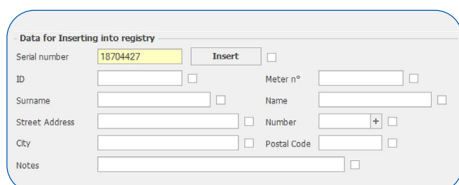
> 👁 Show entry to the registry panel allows to show the **Data entry section** in the registry.

> 🚫 Hide entry to the registry panel hides the **Data entry section** in the registry.

3.6.4 Water and TXE device configuration

Below are the configuration parameters for the water family devices:

ⓘ Note: depending on the device and some configuration parameters, the screens are changed and/or blocked automatically by the software.

⚪ **Water**						
⚪ **RFM-TX1.1**	⚪ **RFM-TX2.1**	⚪ **RFM-TXE1.1**	⚪ **IWM-TX3\TX4**	⚪ **Hydrodigit-S1**	⚪ **IWM-TX5**	⚪ **Hydrosonic-M1**

1 > Where required, it is necessary to **select the type of meter** on which the radio module will be applied (in the example in the photo for the IWM-TX3/TX4 product). The **K index** is a non-modifiable field and represents the liters/rotation ratio. The **'NFC Password'** field allows to block/unblock the NFC side of communication via an 8 hexadecimal character password.

2 > Allows to **block/unblock** the IR side of communication via an **8 hexadecimal character** password.

3 > Allows to set the **initial consumption value** of the mechanical meter to align it with the radio module.

4 > It is used to select the maximum range of the mechanical meter to which the radio module will be paired. Consult the reference technical data sheets relating to the various models of water meters.

5 > Enables/disables sending data on **Saturdays and Sundays**

6 > The **Battery Life** item indicates the ESTIMATED maximum battery life of the device based on the selected configuration.
ⓘ Note: the estimate is in no way a legal value, but an approximation which cannot take into account the operational and environmental variables to which the device is subjected.

7 > Allows selection of the **monthly historical saving day** and **annual Memory Days 1-2** (DD\MM).

8 > In addition to setting the monthly historical date (1-28), it is possible to **enable/disable** the sending of monthly data via wM-Bus.

9 > Allows to select the **time zone** and **automatic time change**.

10 > Enables/disables wM-Bus telegram **encryption** (the quick icon opens the key configuration).

12 > The **Force Configuration** button allows to send the configuration command to the device via the BMeters wired peripheral (IR or NFC).

13 > Alarm Reset - allows to reset the errors present on the meter.
Ignore 5 Lt – allows to activate radio transmission without passing ± 5 litres.
Reset Radio – resets the radio bringing it back to the standby state ± 5 litres.
Download Log - allows to download the device log file.
WM-Bus test - allows to test the W-MBus communication (only before ± 5 litres).

14 > Allows to select the **wM-Bus telegrams** to send.
ⓘ **Note:** refer to the product manuals for the description of the type of data transmitted.

15 > Allows to select the **alarm activation thresholds** and the **LOG saving time** (not all devices).

16 > In this section it is possible to select which **information** the radio module will transmit.

17 > Enables/disables the update of the device **date and time** during configuration (the data is synchronized with the clock of the PC used).

18 > Allows selection of the device **medium.**

19 > Enables to **delete information saved** by the device such as: **alarms, volume data and reverse flow**. It is recommended to keep these boxes checked if a radio module is being reused. This way the information received previously will be deleted (**parameter selected by default**).

20 > Allows to enable and disable the **Cut-Off**.

21 > Allows to select the **unit of measurement** and the **multiplier** for the pulse modules (**mod. RFM-TXE**).

22 > For the **TXE Electricity/Gas** version it is possible to select only the unit of measurement, while the multiplier is already pre-configured.

23 > In the **RFM-TXE** product it is possible to **activate/deactivate** the **fraud detection** input (check product specifications).

3.6.5 Modules and Heat Meters configuration

Below are the configuration parameters for the Heat family devices:

ⓘ Note: <u>depending on the device and some configuration parameters, the screens are changed and/or blocked automatically by the software.</u>

1 > In this selection it is possible to set the **historical data** to be transmitted in the **wM-Bus telegram**.

2 > In the Send additional data section you can select which optional information the radio module will transmit. Based on the device to be configured it is possible to decide whether to send:
> Cooling
> Pulse inputs
> Calories/cooling at historical day
> Instantaneous values
> Temperature data

3 > These masks allow to set the **unit of measurement**, update **consumption** and set the **type of meter** connected to devices with pulse inputs.

4 > Allows to set the **type of installation** (first installation only) and **unit of measurement** for **thermal energy meters**.

5 > Mask for **historical days** configuration:
> Monthly/bimonthly
> Memory Day 1 e 2 (DD \ MM)
> Annual

6 > **Pulse input configuration** with selection of the number of **active inputs**, **sampling frequency**, **multiplier**, **medium** and **input 1 and 2** counting.
By checking the **"Force module data update"** box, the meter will be configured to overwrite any values already present in an external module (**mod. IR-MB-PULSE**)

7 > **Alarms detectable** by the meter. By checking the related box, the detection of certain alarms will be **activated/deactivated**.

8 > Allows to set the **primary address, baud rate** and the **sending of historical data** if wired MBus module is enabled.

3.6.6 Allocators configuration

Below are the configuration parameters for the **Heat cost allocators**.
ⓘ **Caution:** HydroClima-RFM allocators are compatible from version 2.9 onwards.
ⓘ Note: depending on the device and some configuration parameters, the screens are changed and/or blocked automatically by the software.

1 > In the calculation period mask it is possible to modify the following configurations:
> Counting reset day (HC-1).
> Counting Start/End Day (HC-2).
> Monthly calculation of the allocator (Active, off, summer mode).
> ON/OFF monthly comfort data recordings
> Update calculation period Yes/No (if the allocator is already configured and you do not want to overwrite the data with the new configuration).

2 > Allows to **enable/disable the external sensor** of the allocator (if requested when ordered)

3 > This selection allows to update the **activation date of the allocator**; it is possible to postpone it by putting the allocator in energy saving mode until the chosen date.

4 > Enable/disable the sending of **logs** via wM-Bus telegram.

5 > KC – KQ Coefficients – this section allows to determine the radiator and power coefficients.
Save KC-KQ – is used to select a configuration of the two parameters already saved previously.
Radiator coefficient (Kc) – is a numerical coefficient that is provided by the radiator manufacturer according to the type of radiator on which the allocator is installed. To bring up the list of KCs and to select the radiator in use, simply press the 📖 button.
Power ratio coefficient (KQ) – is a correction coefficient based on the power of the radiator. It can be calculated by pressing the 🔲 button. Once pressed, the calculation screen will appear.

ⓘ Note: Kq calculation screen

3.6.7 Room and temperature Sensor Configuration

Below are the configuration parameters of the **Environment sensors**:
ⓘ Note: depending on the device and some configuration parameters, the screens are changed and/or blocked automatically by the software.

1 > Allows to select the **type of data** to be **detected and sent** via wM-Bus.

2 > Enables the sending of **historical data** and **deletion** of stored alarms.

3.6.8 Radio configuration

BMeters devices can be configured for **remote reading** in **Wireless M-Bus**, **LoRaWan** or both modes (**depending on the model**).
ⓘ Note: the BMetering software is only compatible with wM-Bus products. However, it allows the configuration of LoRaWAN parameters in devices equipped with this technology.

AMR (default):
> Transmission Interval: 200 seconds
> Time slot: from 0 to 24.
> Transmit on days: 7/7, parameter selected by default and not editable.
> Transmission configuration: not editable.
Walk-by:
> Transmission Interval: 60 seconds.
> Time slot: from 6am to 8pm.

In **Advanced mode** (where present) the user can modify the hourly, daily and monthly transmission parameters at their discretion, except for some minimum limitations imposed by the manufacturer. If the chosen configuration does not fall within the minimum parameters, a pop-up message will appear indicating the possible variants.

OTAA: this mask allows to view and modify the AppKey and AppEui only of the device's OTAA keys.
ABP: this mask allows to view and modify the ABP keys of the device.

1 > Instant allarms - Allows to select of instant alarms for which the device will send an immediate uplink without waiting for the normal scheduling (the same alarm can be sent a maximum of 1 time per hour).
2 > Force join - The button can force the join attempt on devices, even if they are waiting ± 5 litres and have already joined.
3 > Transmitted data - Allows to configure the time scheduling settings (where available) based on data package and data rate. Please refer to the product manual for further specifications.

4. Configuration and reading of BMeters products

The BMetering software can use the following peripherals to configure and/or read the devices:
> RFM-RX2: Wireless M-Bus USB dongle for all B Meters compatible devices (T1 mode compatible only)
> UC-Cable: Infrared head compatible with HydroDigit-S1, HydroCal-M3, HydroSplit-M3, Hydrosonis-UC
> OPTO-USB: Infrared key for HydroClima-RFM and HydroClima-EXT heat cost allocators
> NFC-ANT: NFC antenna compatible with HydroCal-M4, HydroSonic-M1, IWM-TX5
ⓘ Note: some BMeters devices (example IWM-TX3) require a magnet (not supplied) to initiate the radio configuration.

CONF/READING	RFM-RX2	UC-CABLE	OPTO-USB	NFC-ANT	MAGNET
RFM-TX1.1 - TX2.1 RFM-TXE1.1	C R				
IWM-TX3/TX4	C R			C (Android app)	C
HYDRODIGIT-S1	R	C R			
IWM-TX5 HYDROSONIC-M1	R			C R	
HYDROCAL-M3 HYDROSPLIT-M3 HYDROSONIS-UC	C R	C			
RFM-TXE 1.1 RFM-TXH	C R				C
HYDROCAL-M4	R			C R	
HYDROCLIMA-2	C R				
HYDROCLIMA-RFM HYDROCLIMA-EXT	R		C R		
RFM-AMB	C R				
RFM-TXE 1.1	C R				C

Configurations:

> RFM-TX1.1/2.1:   RFM-RX2 + Press red button on module (below)

> RFM-TXE1.1:   RFM-RX2 + MAGNET or alternatively RFM-RX2 + Press internal button

> IWM-TX3/TX4:   RFM-RX2 + MAGNET or alternatively NFC device + BMetering NFC App Config

> HYDRODIGIT-S1:   RFM-RX2 + UC-CABLE

> IWM-TX5:   NFC-ANT

> HYDROSONIC-M1:   NFC-ANT

> HYDROCAL-M3:   RFM-RX2 + UC-CABLE

> HYDROSPLIT-M3:   RFM-RX2 + UC-CABLE

> HYDROSONIS-UC: RFM-RX2 + UC-CABLE

> RFM-TXH: RFM-RX2 + MAGNET

> HYDROCAL-M4:   NFC-ANT

> HYDROCLIMA-2:   RFM-RX2 + Long press front button

> HYDROCLIMA-RFM/EXT: OPTO-USB

> RFM-AMB: RFM-RX2 + Press internal button
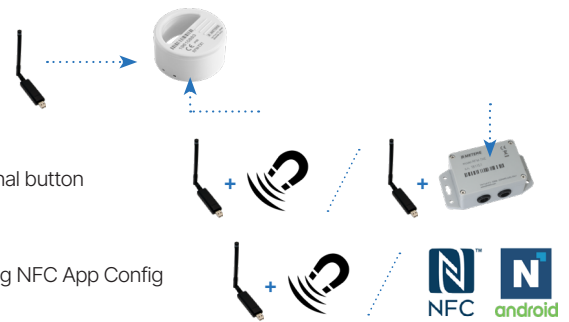
4.1 RFM-TX1.1, RFM-TX2.1, RFM-TXE1.1, RFM-AMB configuration

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>

---

1 > Connect the **RFM-RX2** receiver to the USB port on your computer.

2 > Start the program by selecting the desired user and the correct password.

3* > In the **Connection management box** (right), check that the **COM** port number is correctly matched to the receiver (**RFM PORT**).

4 > Press the **Open** button.

5 > Select the **Configuration** window.

6 > Select the desired window based on the module to be configured:

A > RFM-TX1.1:

○ Water	● Heat	
○ RFM-TX1.1	● RFM-TX2.1	● RFM-TXE1.1

B > RFM-TX2.1:

○ Water	● Heat	
● RFM-TX1.1	○ RFM-TX2.1	● RFM-TXE1.1

C > RFM-TXE1.1:

○ Water	● Heat	
● RFM-TX1.1	● RFM-TX2.1	○ RFM-TXE1.1

RFM Port: COM3
Open RFM   Close RFM
IR Port:
Open IR   Close IR

*point 3

TXE - Heat:

● Water	● Heat
○ Hydrocal-M3	● HydroSplit-M3

Gas, Electricity:

● Room sensor	○ Other (TXE)

D > RFM-AMB:

● Water	● Heat	● HCA	● Room sensor
○ RFM-AMB			

7* > After having selected the parameters on the configuration panel, according to your needs, press the Enable/Disable button (The Status changes to "PROGRAMMING ON").

8 > Proceed with initialization of the radio module by pressing the device button (see the module's **Quick User Guide**).

ⓘ **Note:** a magnet can be used alternatively for initializing the TXE module (see the device's **Quick User Guide**).

9 > Configuration can be terminated only after the successful configuration message shown by the software. Refer to **paragraph 5** for entry into the **registry** and **wM-Bus** reading.

10 > It is possible to continue to add radio modules to the list by returning to the window Configuration and repeating steps from **step 5** to **step 10**.
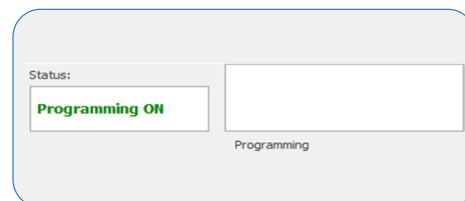
*point 7

4.2 HYDROSPLIT-M3, HYDROCAL-M3(HC-Radio) module configuration

ⓘ **Note:** <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of the registered devices for which data are to be collected.</u>

The configuration can be made in two modes: by UC-CABLE optical cable and RFMRX2 or by the buttons of device and RFM-RX2.

Configuration by UC-Cable optical cable and RFM-RX2:

1 > Connect the **RFM-RX2** receiver to the USB port of the computer.

2 > Connect the **UC-CABLE** optical cable to a second USB port on the computer.

3* > Start the program by selecting the desired username and password.

4 > In the **Connection Management Panel** (right) verify that the **COM** port number is correctly matched to the receiver **RFM-RX2** (**RFM PORT**) and that the **UC-CABLE** is correctly matched to the second **COM** port (**IR PORT**).

5 > Press **Open** RFM and OPEN IR

6 > Select the **Configuration** window.

7 > Select the desired window according to the module to be configured:

*point 3

A > HYDROCAL-M3:

● Water	○ Heat	● HCA	
○ Hydrocal-M3	● HydroSplit-M3	● HydroSonis-UC	● RFM-TXE1.1

B > HYDROSPLIT-M3:

● Water	○ Heat	● HCA	
● Hydrocal-M3	○ HydroSplit-M3	● HydroSonis-UC	● RFM-TXE1.1

8* > After selecting the desired settings, press the Enable/Disable button (The status changes to "PROGRAMMING ON").

9 > Proceed with initialization of the radio module by placing the UC-CABLE cable on the optical device of the module.
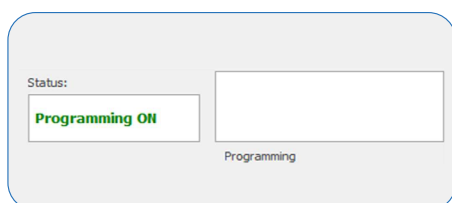
10* > Click on the Force Configuration button.

11* > The configuration can be considered completed only after the appearance of the message "Device correctly configured (serial number of the module)". Refer to paragraph 5 for entry into the registry and wM-Bus reading.
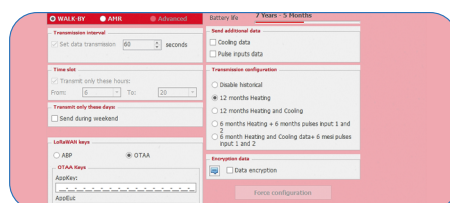
12 > It is possible to continue to add radio modules to the list by returning to the window Configuration and repeating steps from step 6 to 12.

*point 8

*point 10

*point 11
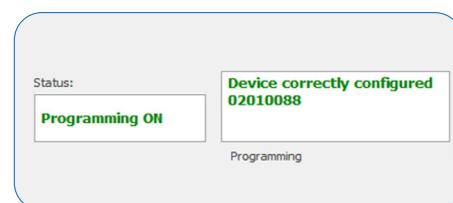
Configuration via device buttons and RFM-RX2:

1 > Connect the **RFM-RX2** receiver to the USB port on your computer.

2 > Start the program by selecting the desired user and the related password.

3* > In the **Connection Management Panel** (right), check that the COM port number is correctly matched to the receiver. (RFM PORT).

4 > Press **Open** RFM.

5 > Select the **Configuration** window.

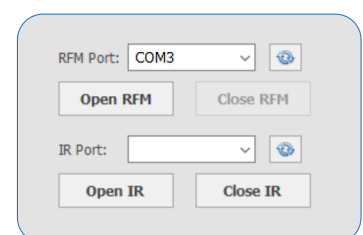6 > Select the desired window according to the module to be configured:

A > HYDROCAL-M3:

Water	Heat	HCA	
Hydrocal-M3	HydroSplit-M3	HydroSonis-UC	RFM-TXE1.1

B > HYDROSPLIT-M3:

Water	Heat	HCA	
Hydrocal-M3	HydroSplit-M3	HydroSonis-UC	RFM-TXE1.1
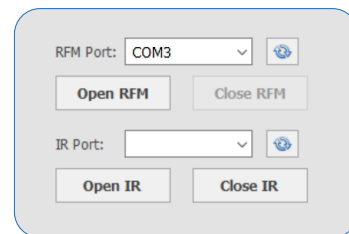
7* > After selecting the desired settings, press the Enable/Disable button (The Status changes to "PROGRAMMING ON").

8* > To enter the programming menu, press the T1 button and select level 3. Then keep the T2 button pressed for more than 3 seconds.

9* > Insert the password communicated by the manufacturer
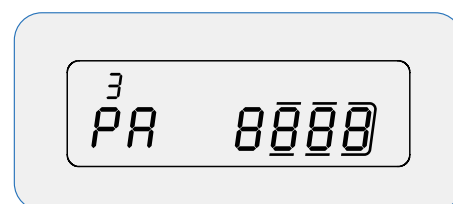
10 > Hold down the T2 button and release it to select:

> sublevel 10 (3.10) for HydroCal-M3

> sublevel 16 (3.16) for the HydroSplit-M3
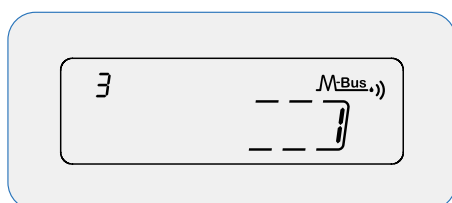
11* > Press the T1 button and set the value 1.

12* > Check the software for the appearance of the message "Device correctly configured (serial number of the module)". The configuration can be considered completed.
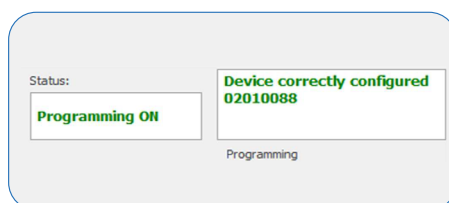
13* > Hold down the T2 button for more than 3 second and go to the last Esc sublevel. Press the T1 button to save and exit the configuration.

14 > Refer to paragraph 5 for inserting in registry and reading wM-Bus. It is possible to continue to
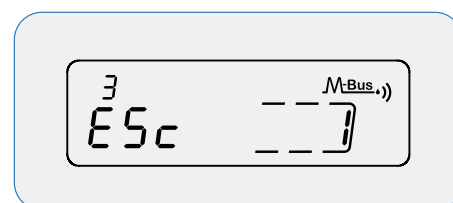
add radio modules to the list by returning to the window Configuration and repeating steps from step 5 to 14.

4.3 RFM-TXH, HydroSonis-UC (UC-Radio) module configuration

ⓘ **Note:** Before proceeding with the configuration of the modules it is necessary to have created the various lists of the registered devices for which data are to be collected.

Configuration via magnet and RFM-RX2:

1 > Connect the **RFM-RX2** receiver to the USB port of the computer.

2 > Start the program by selecting the desired username and password.

3* > In the **Connection Management Panel** (right) verify that the **COM** port number is correctly matched to the receiver (**PORT RFM**).

4 > Press **Open** RFM.

5 > Select the **Configuration** window.

6 > Select the desired window according to the module to be configured.

A > HYDROSONIS:

Water	Heat	HCA	
Hydrocal-M3	HydroSplit-M3	HydroSonis-UC	RFM-TXE1.1

B > RFM-TXH:
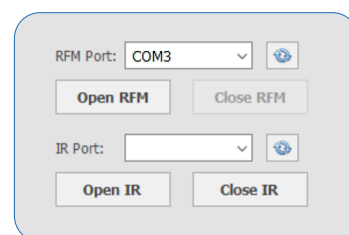
Heat	HCA		Room sensor
HydroSplit-M3	HydroSonis-UC	RFM-TXE1.1	RFM-TXH

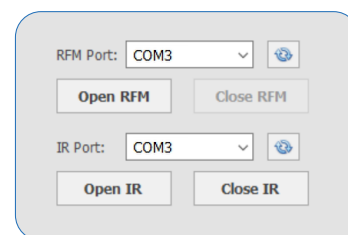**7* >** After having configured the radio module according to your needs, press the Enable/Disable button (The Status changes to "PROGRAMMING ON").

8 > Proceed with initialization of the radio module by passing the magnet over the meter label (see the module's **Quick User Guide**).

9* > The configuration can be considered completed only after the appearance of the message "Device correctly configured (serial number of the module)". Refer to paragraph 5 for inserting in registry and reading wM-Bus.

10 > It is possible to continue adding radio modules to the list going back to the Configuration window and repeating the steps from **point 5** to **10**.

*point 7

Status:
Programming ON

Programming

*point 9

Status:
Programming ON

Device correctly configured 02010088

Programming
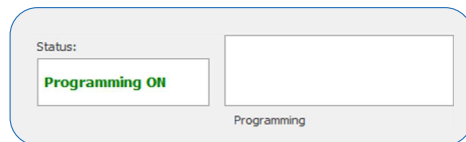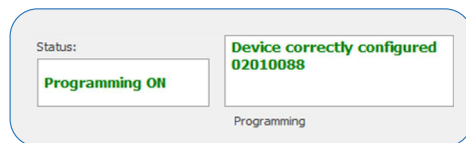
4.4 Configuration of HydroClima-RFM, EXT, 2 heat cost allocators

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>

Configuration via OPTO USB optical cable:

1 > Connect the optical cable **OPTO USB** to the USB port of the computer.

2 > Start the program by selecting the desired username and password.

3* > In the **Connection Management Panel** (right) verify that the **COM** port number is correctly matched to the receiver.

4 > Press **Open** IR.

5 > Select the **Configuration** window.

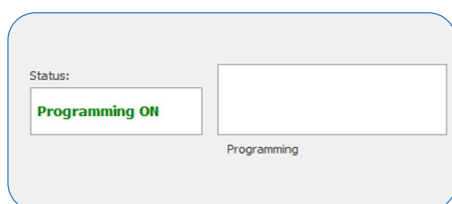**6 >** Select the desired window according to the module to be configured:

RFM Port: COM3
Open RFM　　Close RFM
IR Port: COM3
Open IR　　**Close IR**

*point 3

A > HYDROCLIMA RFM:

| ○ HCA | ● Room sensor |
| ○ HydroClima-RFM | ● HydroClima-EXT |

B > HYDROCLIMA EXT:

| ○ HCA | ● Room sensor |
| ● HydroClima-RFM | ○ HydroClima-EXT |

7* > Proceed with initialization of the heat cost allocator by positioning the OPTO USB optical cable on the optical device at the same

8* > After selecting the desired settings, press the Configure from IrDa button.

9* > The configuration can be considered completed only after the message "Device configured correctly (module serial number)" appears. Refer to paragraph 5 for entry into the registry and wM-Bus reading.

10 > It is possible to continue adding radio modules to the list going back to the Configuration window and repeating the steps from point 5 to 10.

*point 7

*point 8

Status:
Programming OFF

Programming

Manage Encryption　Set Up from IRDA

*point 9

Status:
Programming OFF

Device correctly configured 78092281

Programming
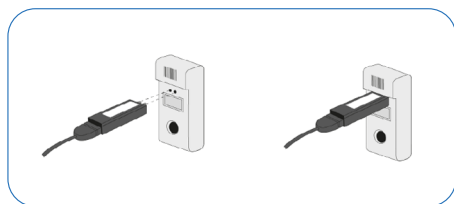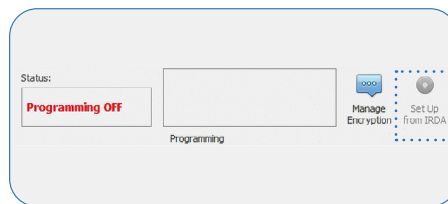
Configuration via button of the device and RFM-RX2:

1 > Connect the **RFM-RX2** receiver to the USB port of the computer.

2 > Start the program by selecting the desired username and password.

3* > In the **Connection Management Panel** (right) verify that the **COM** port number is correctly matched to the receiver (**RFM PORT**).

4 > Press **Open** RFM.

5 > Select the **Configuration** window.

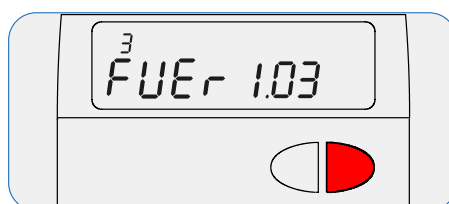**6 >** Select the desired window according to the module to be configured:

A > HYDROCLIMA 2:

| ● Water | ● Heat | ○ HCA |
| ○ HydroClima-2 | | ● HydroClima-RFM |

RFM Port: COM3
Open RFM　　Close RFM
IR Port:
Open IR　　**Close IR**

*point 3

7* > Press the central button for more than 5 seconds until the wording "rf" appears on the display. The configuration can be considered completed only after the message "Device configured correctly (module serial number)" appears. Refer to paragraph 5 for entry into the registry and wM-Bus reading.

8 > It is possible to continue adding radio modules to the list going back to the Configuration window and repeating the steps from point 5 to 9.

Status:
Programming ON

Device correctly configured 78092281

Programming
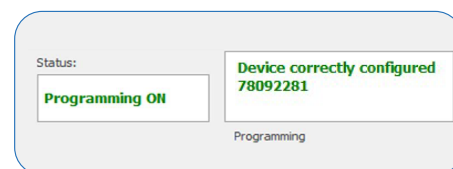
*point 7

Reading forms:

1 > Select the Readings window and position yourself on the desired list. Wait for the data to be received from all the modules in the list.

2 > Below is an explanation of the reading fields:
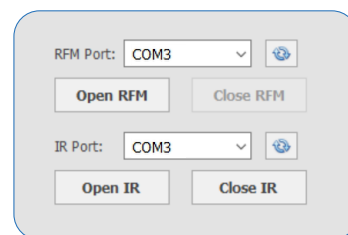
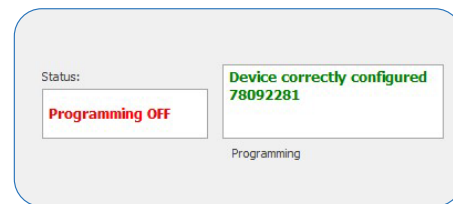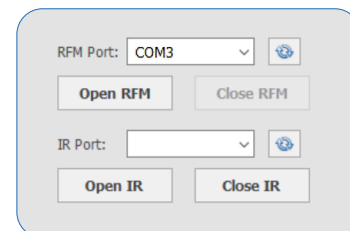|	
#ID	Parameter set by the user
Serial number	Allocator serial number
Surname	Parameter set by the user
First name	Parameter set by the user
Address	Parameter set by the user
Internal	Parameter set by the user
City	Parameter set by the user
POSTAL CODE	Parameter set by the user
Note	Parameter set by the user
Reading date	Reading date (based on PC date)
Date in the telegram	Telegram recording date (based on the allocator date)
Num. Alarm	Number of active alarms
Status	Codes and brief description of active alarms
Number of packets	WMBus packets received (IrDa if manual reading via Opto-Key / Adv if advanced HC2 reading)
[C] current consumption	Consumption detected from the reset of the allocator to the current reading
[Udata] date of recording the past value of the heat consumption display {C1D}	The closing date of the last accounting period (based on allocator date)
Self-reading	Parameter set by the user
[ATK/ATT] Max. Temp. detected by the probes	Maximum temperature detected by the probes
[ATK/ATT] Detection date Max. Temp. from the probes	(based on allocator date)
[STO] thermal comfort value	
[DOP] Date of opening / removal of the allocator seal	(based on allocator date)
[UCn] Total consumption units at the end of the first previous month	Historical data
[UCn-1] Total consumption units at the end of the third to last month	Historical data
[UCn-2] Total consumption units at the end of the fourth to last month	Historical data
[STOn] Thermal comfort value at the end of the second last month	Historical data
[STOn-1] Thermal comfort value at the end of the third to last month	Historical data
[STOn-2] Thermal comfort value at the end of the fourth to last month	Historical data
[CNI4] consumption historical data for the last 4 months compared to the reading	Historical data
[TT16] Number of ambient temp. recordings <16°C	Historical ambient data
Calculation period	Day/month of start and end of calculation period
[DRZ] Counting start date	(based on allocator date)
[DRZU] Counting start date	(based on allocator date)
[U] consumption in the previous calculation period	Total consumption in the last valid period
[U Total] Sum of consumption in previous completed periods	Total consumption since the start-up of the allocator
[STOU] Thermal comfort value in the previous calculation period	Historical ambient data
[STKU] Average radiator temp. in the previous calculation period	Historical data
[ATK or ATT U] Maximum temperature detected by the probes in the previous calculation period.	Historical data
[ATK or ATT U] Maximum temperature detection date detected by the probes in the previous calculation period.	(based on allocator date)

[LTU] Number of counts carried out in the previous calculation period	Historical data
[TOA] average ambient temperature in the current calculation period	Historical ambient data
[TOA1] average ambient temperature in the completed calculation period	Historical ambient data
[TKA] average radiator temperature in the current calculation period	Historical data
[TKA1] average radiator temperature in the completed calculation period	Historical data
[TTU16] Number of ambient temp. measurements <16°C	Historical environmental data
[TK21] Number of recordings between 21°C and 28°C	Historical data
[TK22LAR1] number of radiator temperature measurements taken in the range TK <22.5°C in the concluded calculation period	Historical data
[TK22AR1] number of radiator temperature measurements taken in the range 22.5°C = TK <35°C in the concluded calculation period	Historical data
[TK28] Number of recordings between 28°C and 35°C	Historical data
[TK35] Number of records above 35°C	Historical data
[TK35AR1] number of radiator temperature measurements carried out in the range 35 °C = TK in the completed calculation period	Historical data
[Utotal + C] Total count (since installation)	Historical data
[UCN1] to [UCN12] Monthly consumption history	Historical data
[STO1] to [STO12] Monthly comfort history	Historical ambient data

4.5 IWM-TX3, IWM-TX4 module configurations

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>

Configuration via magnet and RFM-RX2:

1 > Connect the **RFM-RX2** receiver to the USB port of the computer.
2 > Start the program by selecting the desired username and password.
3* > In the **Connection Management Panel** (right) verify that the **COM** port number is correctly matched to the receiver (**PORT RFM**).
4 > Press **Open** RFM.
5 > Select the **Configuration** window.
6 > Select the desired window according to the module to be configured:
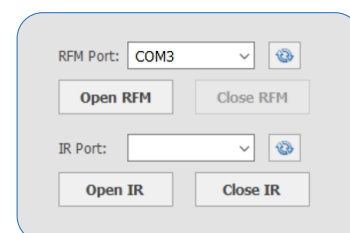
*point 3

A > IWM-TX3/4 :

7* > After having set the parameters in the configuration panel, according to your needs, press the Enable/Disable button (the Status changes to "PROGRAMMING ON").
8 > Proceed with initialization of the radio module by passing the magnet under the antenna of module (see the module's Quick User Guide).

9* > The configuration can be considered completed only after the appearance of the message "Device correctly configured (serial number of the module)". Refer to paragraph 5 for inserting in registry and reading wM-Bus.

10 > It is possible to continue adding radio modules to the list going back to the Configuration window and repeating the steps from point 5 to 10.
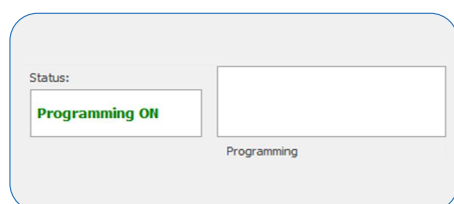
*point 7

*point 9
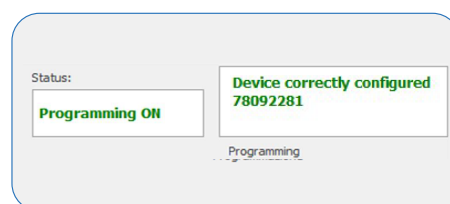
4.6 Configurations of HYDROSONIS-ULC, HYDRODIGIT-S1, IWM-TX5, HYDROCAL-M4, HYDROSONIC-M1

The new HYDROSONIS-ULC, HYDRODIGIT-S1, IWM-TX5, HYDROCAL-M4, HYDROSONIC-M1 meters (see BMetering NFC Config app manual), do not require any configuration to transmit consumption data via wM-Bus. To read the devices it is necessary to enter the relevant serial number in a Node/Secondary Node and a List as specified below:

1 > 'Water meters' list: Hydrodigit-S1 / IWM-TX5 / Hydrosonic-M1

2 > 'Heat meters' list: Hydrosonis-ULC / HydroCal-M4

Wireless M-bus transmission is activated based on the following thresholds:

1 > Hydrosonis-ULC / HydroCal M4: after 5 KWh / 5 liters of absolute consumption.

2 > Hydrodigit-S1/IWM-TX5/Hydrosonic-M1: after 5 liters of absolute consumption.

4.6.1 HYDRODIGIT-S1 configuration via UC-Cable optical cable (optional):

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>

1 > Connect the **RFM-RX2** receiver to the USB port of the computer (only **for readings**).

**2 >** Connect the **UC-CABLE** optical cable to a second USB port on the computer.

3 > Start the program by selecting the desired username and password.

4 > In the **Connection Management Panel** (right) verify that the **COM** port number is correctly matched to the receiver **RFM-RX2** (RFM PORT) and that the **UC-CABLE** is correctly matched to the second **COM** port (**IR PORT**).

5 > Press **Open** RFM and **Open** IR.

6 > Select the **Configuration** window.

7 > Select the desired window according to the module to be configured:
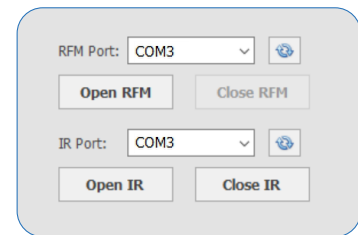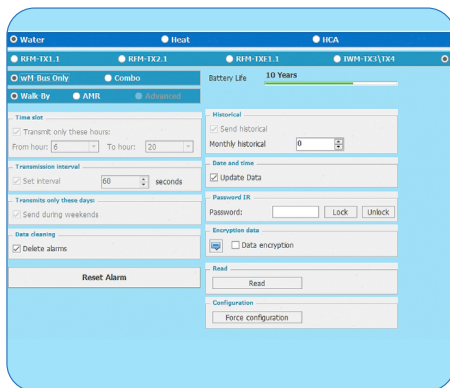
*point 3

> WATER - HYDRODIGIT-S1:

8 > Select the Hydrodigit version to configure:
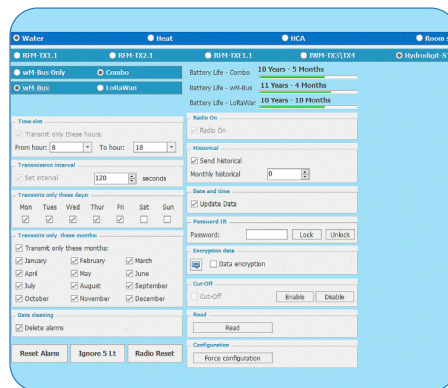
 > wM-BUS only

 > Combo (allows configuration of both LoRaWAN and wM-BUS parameters)

9 > Proceed to initialize the meter by positioning the **UC-CABLE** cable on the optical device of the meter.

10 > Click on the **Force Configuration** button and wait a few seconds.

> Hydrodigit "wM-BUS only" panel

> Hydrodigit "COMBO" panel (wM-BUS parameters)
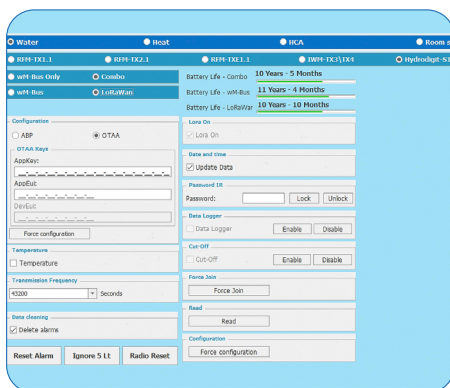
> Hydrodigit "COMBO" panel (LoRaWAN parameters)
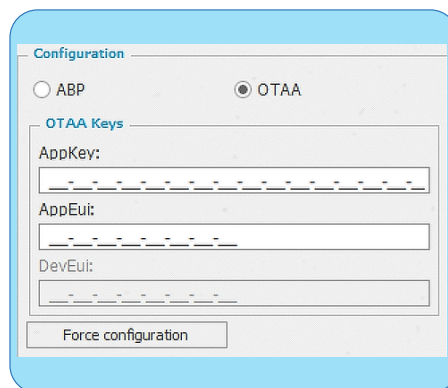
> LoRaWAN parameters

ⓘ CAUTION: <u>the "Force configuration" button located below the ABP/OTAA keys allows only the writing of the keys themselves, leaving the other parameters unchanged (temperature byte, transmission frequency, etc.). The "Force configuration" button at the bottom right allows the configuration of all parameters, excluding ABP/OTAA keys.</u>

11 > The configuration can be considered completed only after the "Operation successful" configuration window appears. To activate the radio transmission it is necessary to pass 5 liters forward. Refer to paragraph 5 for entry into the registry and wM-Bus reading.

12 > You can continue adding radio modules to the list by returning to the Configuration window and repeating steps 6 to 11.

4.6.2 IWM-TX5 configuration via NFC-ANT antenna (optional):

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>

1 > Connect the **RFM-RX2** receiver to the USB port on your computer (for readings).

2 > Connect the **NFC-ANT** antenna to a second USB port on the computer.

3 > Start the program by selecting the desired user and the related password.

4 > In the **Connection management box** (right), press the **"Connect"** button and verify that the antenna has been connected by the presence of the wording **"READER CONNECTED"** in the Log box immediately below.

5 > Select the **Configuration** window.

6 > Select the desired window based on the module to be configured:

> **WATER - IWM-TX5:**

7* > Proceed to initialize the module by positioning the NFC-ANT antenna on the module (for the correct position of the NFC antenna, refer to the product Quick Guide).

8* > Press the Read button.

9* > Select the type of meter on which the IWM-TX5 module is installed.

10* > Configure all the desired parameters and press the Force configuration button.

11 > The configuration can be considered completed only after the "Operation successful" configuration window appears. To activate the radio transmission it is necessary to pass 5 liters forward or activate the 'Active' field.
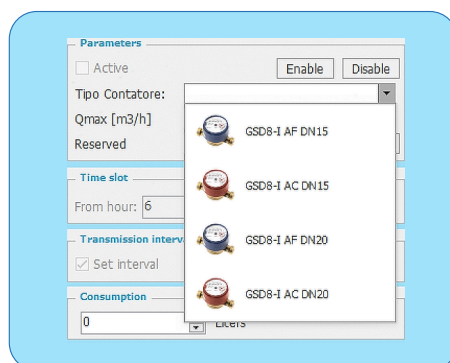
Refer to paragraph 5 for entry into the registry and wM-Bus reading.

12 > You can continue adding radio modules to the list by returning to the Configuration window and repeating steps 6 to 11.

*point 7 - point 8

*point 9

*point 10
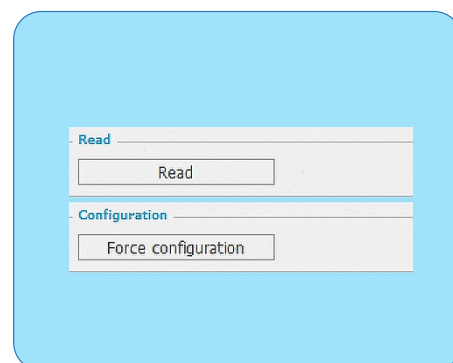
4.6.3 HYDROSONIC-M1 configuration via NFC antenna (optional):

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>

1 > Connect the **RFM-RX2** receiver to the USB port on your computer (only **for readings**)

2 > Connect the **NFC-ANT** antenna to a second USB port on the computer.

3 > Start the program by selecting the desired user and the related password.

4 > In the **Connection management box** (right), press the **"Connect"** button and verify that the antenna has been connected by the presence of the wording **"READER CONNECTED"** in the Log box immediately below.

5 > Select the **Configuration** window.

6 > Select the desired window based on the module to be configured:
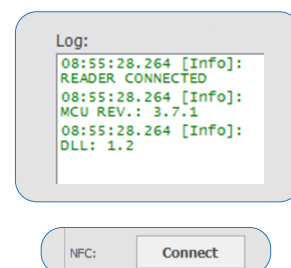
> **WATER - HYDROSONIC-M1:**

7 > Proceed to initialize the meter by positioning the **NFC-ANT** antenna on it (for the correct position of the NFC antenna, refer to the product Quick Guide).

8 > Press the **Read** button

9 > Configure the desired wM-Bus parameters in Walk-By, AMR or Advanced mode.

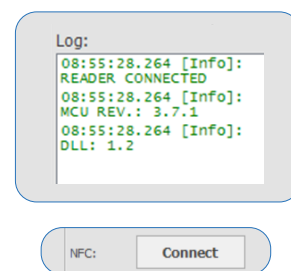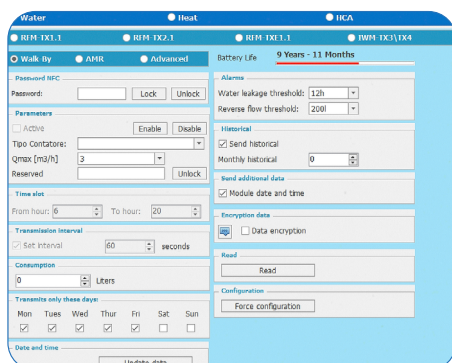**10 >** Click on the **Force Configuration** button and wait a few seconds.

11 > The configuration can be considered completed only after the **"Operation successful"** configuration window appears. Refer to paragraph 5 for entry into the registry and wM-Bus reading.

12 > You can continue adding radio modules to the list by returning to the Configuration window and repeating steps 6 to 11.

4.6.4 HYDROCAL-M4 configuration via NFC-ANT antenna:

ⓘ Note: <u>Before proceeding with the configuration of the modules it is necessary to have created the various lists of registered devices for which you want to collect data.</u>
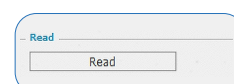
1 > Connect the **RFM-RX2** receiver to the USB port on your computer (for readings)

2 > Connect the **NFC-ANT** antenna to a second USB port on the computer.

3 > Start the program by selecting the desired user and the related password.

4 > In the **Connection management box** (right), press the **"Connect"** button and verify that the antenna has been connected by the presence of the wording **"READER CONNECTED"** in the Log box immediately below.

5 > Select the **Configuration** window.

6 > Select the desired window based on the module to be configured:


```
Log:
08:55:28.264 [Info]:
READER CONNECTED
08:55:28.264 [Info]:
MCU REV.: 3.7.1
08:55:28.264 [Info]:
DLL: 1.2
```
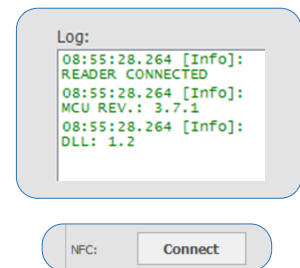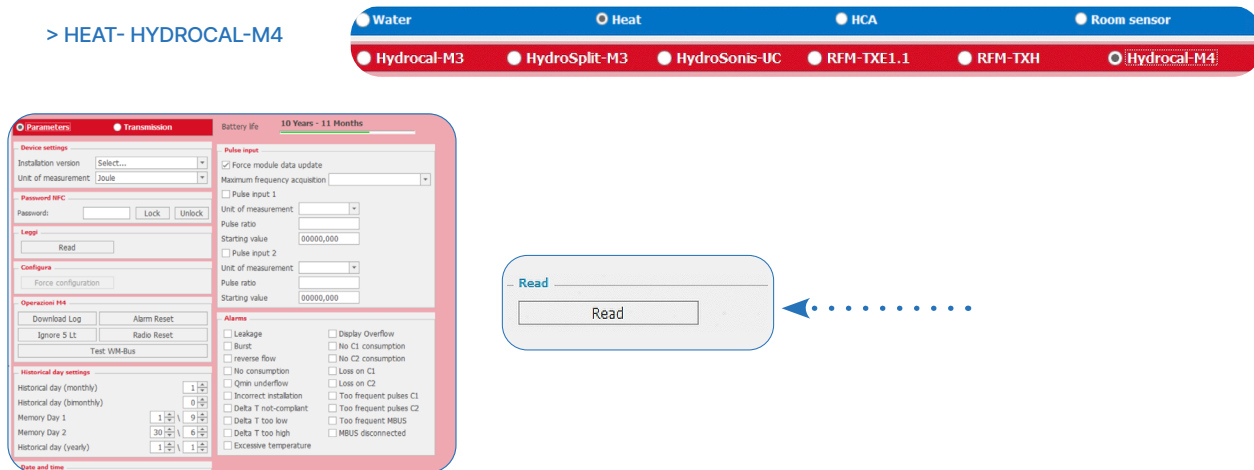
NFC: Connect

> HEAT- HYDROCAL-M4

7 > Proceed to initialize the meter by positioning the **ANT-USB** antenna on it.

8 > Press the **Read** button.

9 > Select the type of installation and the desired unit of measurement (if not specified when ordering, with units and version not set by the manufacturer)

10 > Set the desired parameters in the **'Module Config'** screen

11 > In the TRX Config screen, select the desired data transmission type (wM-Bus, M-Bus or LoRaWAN).

12 > Press the **'Configure'** button to set all previously selected parameters.

13 > The configuration can be considered completed only after the **"Operation successful"** configuration window appears. Refer to paragraph 5 for entry into the registry and wM-Bus reading.

14 > You can continue adding radio modules to the list by returning to the Configuration window and repeating steps 6 to 12.

5. Entry into the registry and reading of devices

1 > At the end of the product configuration go to the "Data entry in the registry" box at the bottom. Check the correctness of the Form No. field (8 digits), optionally enter the additional data and press Insert. By ticking one or more checkboxes at the end of each field it is possible to report the same personal information in a subsequent configuration. The checkbox after the 'Insert' button allows immediate insertion of the newly configured module into the database.

ⓘ Note: <u>for devices with automatic activation it is necessary to pass 5 absolute liters or for Hydrosonic-ULC 5 kWh of thermal energy.</u>

2 > Select the Readings window and move on the desired list. Wait for data to be received from all the modules in the list.

3 > To save the data reading, press the Export Readings to CSV or Export Readings to XML buttons (based on the desired format) and create/select the directory where you want to place the data.