



BMETERING NFC CONFIG APP MANUAL

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Introduction

The android application described in this manual is used to configure the new pulse emitter, wireless M-BUS, wired M-BUS, LoRaWAN devices for the new water meters (GMDM-I, WDE-K50, etc.).

It allows, through NFC technology, to read and write all the parameters necessary for the correct operation of the device, based on your needs.

What's NFC (Near Field Communication) technology? It's a technology that allows two devices, in close contact, to exchange data wirelessly. This module, available on all modern smartphones, tablets and all the devices that support this technology, allows the devices to communicate with each other in a simple and immediate way.

This manual is divided into two sections - the first describing the different windows and their functions and the second, called "quick guide", on how to read and write the settings of the new pulse emitter, wireless M-BUS, wired M-BUS, LoRaWAN modules.

The application can only be installed on an android device with support for NFC.

System requirements

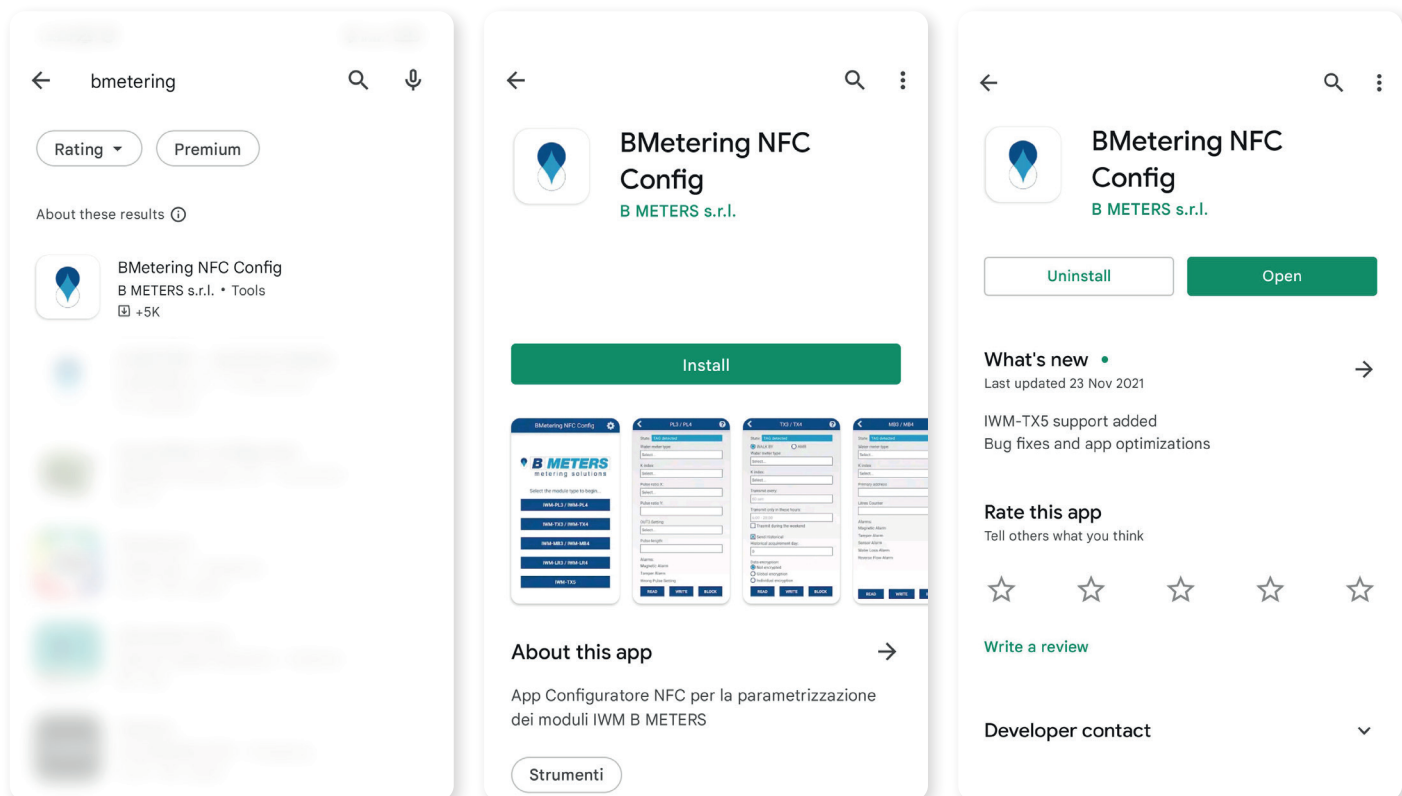
- Android 5 or higher
- Support for NFC
- Device display of 4.3" or higher



App installation

To install the app on your android device, go on the Play Store (Google Play) and type “**BMetering NFC Config**” in the search bar. Then, select the link among the results and press the “Install” button (see the image below).

Note: if the android device does not support NFC, the app will not figure in the search results.

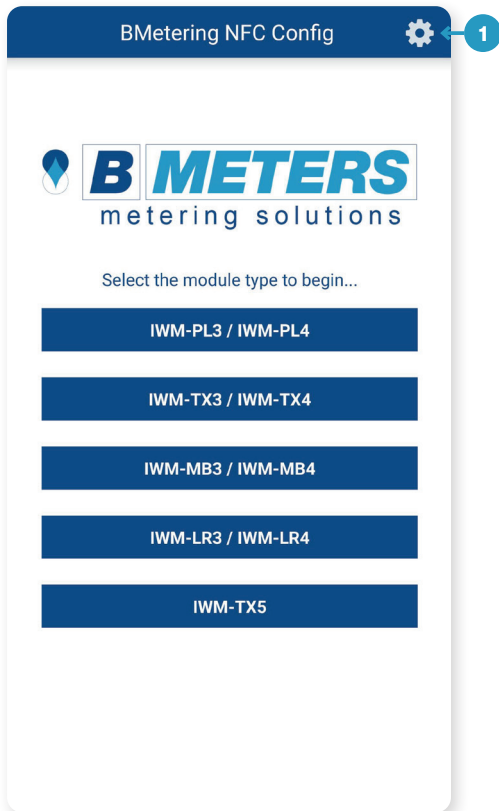


A successful installation will show the screen on the image 3.
To launch the application press the “Open” button, or select the icon from the applications list.



Main screen

The screen you'll see immediately after starting the application allows you to view the status of the activation of the NFC feature on the android device and allows you to choose which type of module to configure. It also allows you to set a password to protect the configuration of the device.



If the message “NFC disabled. Enable NFC to proceed!” is present at the start of the application you need to enable the NFC setting on your android device.

- 1 Allows you to access the settings screen and set a password of 8 hex characters to protect the device configuration as well as the settings of the AES key for the WM-BUS modules.

Note: If the password is lost, the device will no longer be accessible while retaining the last settings. For the password recovery it is necessary to send the device to the manufacturer.

To verify that the NFC antenna is working, put the android device in close contact with the module to allow the application to correctly detect the NFC TAG.

NFC TAG positioning

- IWM-PL3
- IWM-PL4
- IWM-MB3
- IWM-MB4



- IWM-TX3
- IWM-TX4
- IWM-LR3
- IWM-LR4



- IWM-TX5



Note: If the app does not correctly detect the NFC TAG of the android device, refer to the step by step procedure based on the device you want to configure.



Reading/configuration screen for IWM-PL3/ IWM-PL4

The screen immediately visible after having placed the android device on the pulse emitter module, is the following:

1 Allows to return to the previous screen

2 Allows you to consult the “Help” page

3 Indicates the current status.

Based on the actions carried out it can take one of the following states:

→ Reading done: all parameters set on the pulse emitter device have been read correctly

→ Writing done: all parameters selected have been written correctly on the pulse emitter module and the errors have been resetted

→ Wrong values: some parameter hasn't been selected or hasn't been inserted correctly

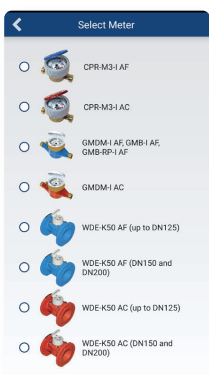
→ TAG detected: the NFC TAG has been detected correctly; the android device has been correctly positioned on the module.

→ TAG lost: the NFC TAG has been lost. Better position the android device on the module, making sure that the antenna is centered in relation to the TAG (move away and bring the android device closer to the module)

→ Password written: the device has been correctly locked and/or unlocked through the BLOCK/UNBLOCK button, with the password chosen in the initial settings

→ Password wrong: the password saved on the first settings is not the one used to block the module

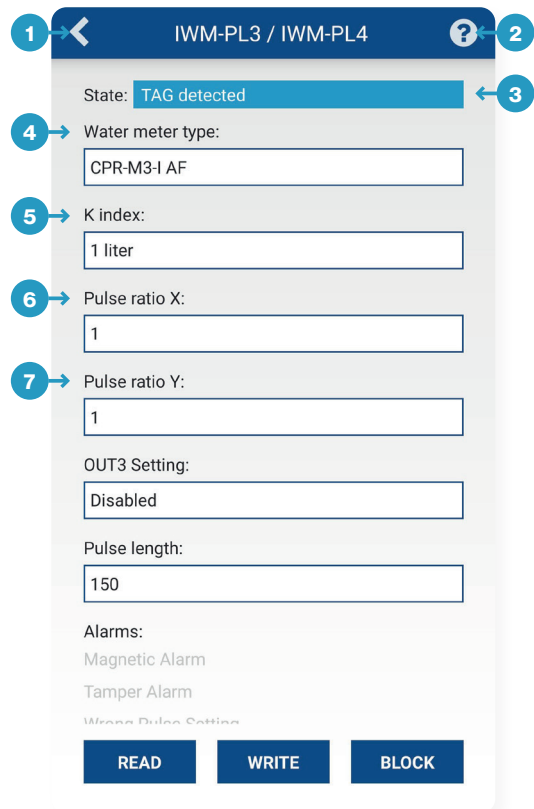
4 Allows you to select the type of water meter on which the module will be applied. The following list will be proposed:



← Simply select a water meter to return to the previous screen

The central area allows you to read and set all the parameters, so you can then write them on the pulse module, depending on the type of meter in use.

The area at the bottom allows you to view the active alarms, to use the parameter read/write functions and to block/unblock the device.



5 Allows you to select the inductive index value on water meter.

The K index represents the ratio Liters/index rotation.

The selection of the water meter automatically sets the correct assignment of the value.

6 Allows you to select the value liter/pulse of the module's output (multiple of K only).

You can select the value “Disabled” (the device doesn't send pulses), 1, 5, 10, 25, 50, 100, 250, 500, 1000. This index refers to the OUT1(white) cable and the OUT3 (green, excluding the dosing function).

7 Allows you to insert the value liter/pulse of the dosing output.

You can select a value between 1 and 65535.

In this field you must insert only multiples of K: the value refers to the dosing function only.



- 8 Allows you to select the OUT3 (green) cable function. It's possible to select one of the following functions:
 - Absolute count: sends a pulse every (Pulse Ratio X / Index K) rotations considering the rotations in the opposite direction and subtracting them. It represents the liters actually passed in the water meter
 - Backward Flow Count: sends one pulse every (Pulse Ratio X / Index K) rotations in the opposite direction
 - Dosing: sends one pulse every (Pulse Ratio Y / Index K) rotations in the forward direction. It works only with the Pulse Ratio Y field
 - Disabled: no pulses. Selecting this item completely disables the OUT3 behavior
- 9 Allows you to enter the pulse length in ms (milliseconds) on OUT1 (white), OUT2 (yellow, alarms) and OUT3 (green). You can enter a value between 50 and 300 extremes included. If the pulse length is too long compared to the number of pulses (pulse overlap), the "Wrong pulse setting" alarm may occur. In this case it is advisable to lower the value of the pulse length (ms). It is advisable to keep the default value (100 ms)

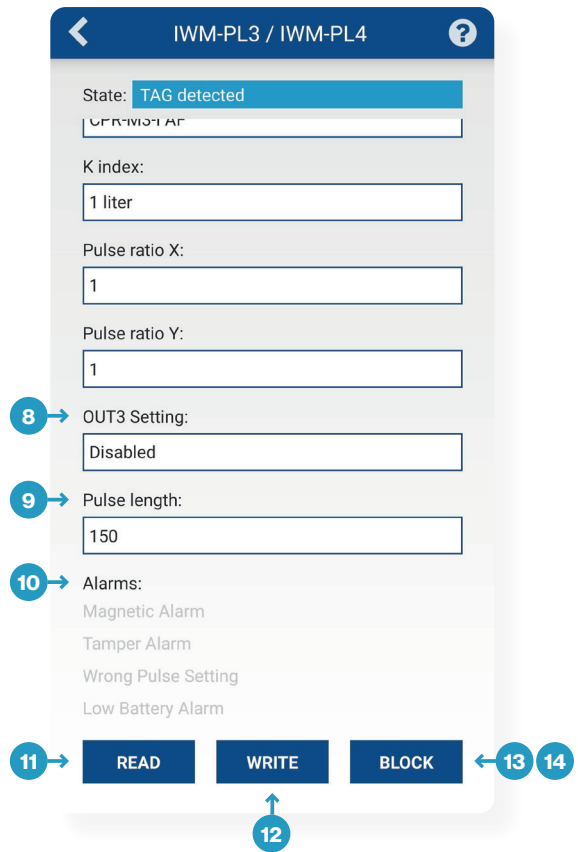
- 10 Allows you to view the active alarms. It's possible to view the following alarms:
 - Magnetic Alarm: active when a magnetic fraud is detected on the water meter
 - Tamper Alarm: active when removal of the external sensor module/ perturbation of the inductive sensor is detected
 - Wrong Pulse Setting: active when an incorrect setting of the values related to the pulse output is detected.

Note: check the pulse ratio and the pulse length with the water meter flow rate
 - Low battery Alarm: active when a battery volTAGe close to the minimum threshold is detected

- 11 Allows you to read the values previously set
- 12 Allows to write the current settings after setting all the parameters described previously.

Note: at the top of the screen, pay attention to the "Writing done" status as confirmation of the writing.
It is advisable to carry out a consecutive reading to verify its application
- 13 Allows you to set a security password on the device.

Note: since the application of the password lock the device is accessible only subordinately to the knowledge of the same.
WARNING: if the password is lost, the device will no longer be accessible while retaining the last settings.
For the password recovery it is necessary to send the device to the manufacturer



- 14 **UNBLOCK** Allows you to unblock the read/write settings of the modules with the password inserted in the first step

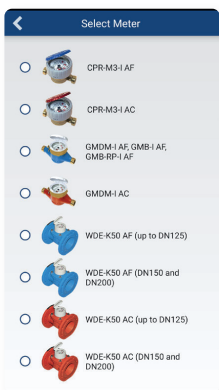


Reading/configuration screen for IWM-TX3/ IWM-TX4

The screen immediately visible after having placed the android device on the radio module, is the following:

- 1 Allows to return to the previous screen
- 2 Allows you to consult the “Help” page
- 3 Indicates the current status. Based on the actions carried out it can take one of the following states:
 - Reading done: all parameters set on the device have been read correctly
 - Writing done: all parameters selected have been written correctly on module and the errors have been resetted
 - Wrong values: some parameter hasn't been selected or hasn't been inserted correctly
 - TAG detected: the NFC TAG has been detected correctly; the android device has been correctly positioned on the module.
 - TAG lost: the NFC TAG has been lost. Better position the android device on the module, making sure that the antenna is centered in relation to the TAG (move away and bring the android device closer to the module)
 - Password written: the device has been correctly locked and/or unlocked through the BLOCK/UNBLOCK button, with the password chosen in the initial settings
 - Password wrong: the password saved on the first settings is not the one used to block the module

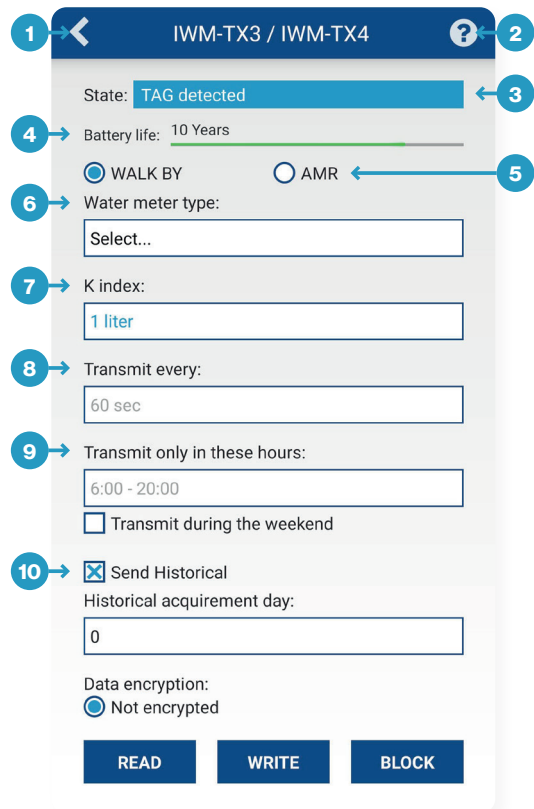
- 4 Displays the estimated maximum battery life based on the parameters selected
- 5 There are two types of readings, the first is used for on-site readings (WALK-BY) while the second for remote readings with concentrator (AMR)
- 6 Allows you to select the type of water meter on which the module will be applied. The following list will be proposed:



← Simply select a water meter to return to the previous screen

The central area allows you to read and set all the parameters, so you can then write them on the module, depending on the type of meter in use.

The area at the bottom allows you to view the active alarms, to use the parameter read/write functions and to block/unblock the device.



- 7 Allows you to select the inductive index value on water meter. The K index represents the ratio Liters/impeller rotation. The selection of the water meter forces the correct assignment of the value
- 8 Is a specific value that indicates the transmission interval (WALK-BY 60 seconds and AMR 200 seconds)
- 9 It is a specific value that indicates transmission interval (hours) of the module during the week (from Monday to Friday) with the possibility of transmitting even in the weekend by selecting “transmit during the weekend” field (only WALK-BY)
- 10 Allows you to send of the last 12 months historical data and set the day of the month in which it is saved



11 Allows you to set the encryption of data sent, you can choose between 3 modes:

- Not encrypted: data will not be encrypted
- Global encryption: data will be encrypted by global key (AES key password request)
- Individual encryption: the data is encrypted using an automatically generated key (you can export them using the “Save Encryption Keys” function)

12 Allows you to check if the date and time of the android device are correct before updating the radio module (pressing the “UPDATE” button)

13 Allows you to view the liters read from the module and modify them if needed

14 Allows you to view the following list of alarms (active/inactive):

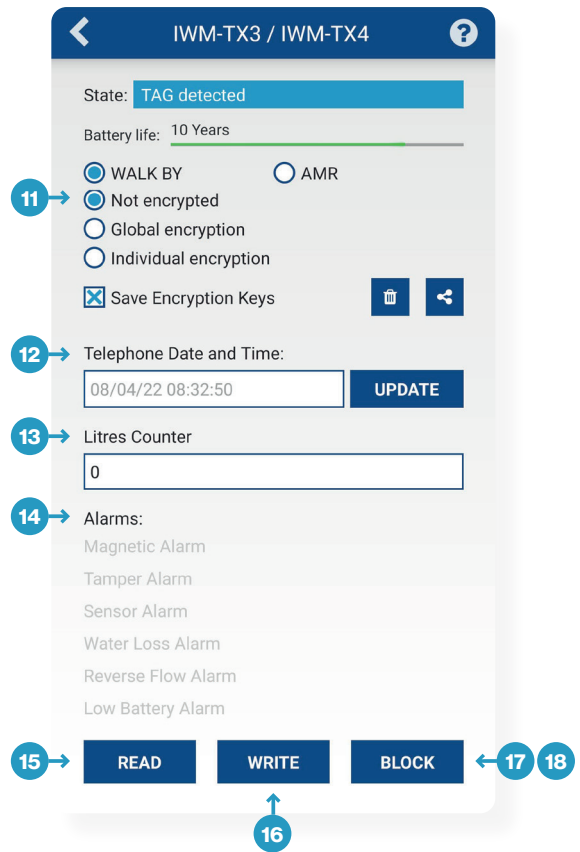
- Magnetic Alarm: active when a magnetic fraud is detected on the water meter
- Tamper Alarm: active when removal of the external sensor module/ perturbation of the inductive sensor is detected
- Sensor Alarm: active when someone attempts to fraud the inductive sensor
- Water loss Alarm: active when extended water leakage is detected
- Reverse flow Alarm: active when the reverse flow threshold is exceeded
- Low battery Alarm: active when a battery volTAGe close to the minimum threshold is detected

15 Allows you to read the values previously set

16 Allows to write the current settings after setting all the parameters described previously.
Note: at the top of the screen, pay attention to the “Writing done” status as confirmation of the writing.
 It is advisable to carry out a consecutive reading to verify its application

17 Allows you to set a security password on the device.
Note: since the application of the password lock the device is accessible only subordinately to the knowledge of the same.
 WARNING: if the password is lost, the device will no longer be accessible while retaining the last settings.
 For the password recovery it is necessary to send the device to the manufacturer

18 **UNBLOCK**
 Allows you to unblock the read/write settings of the modules with the password inserted in the first step



Reading/configuration screen for IWM-MB3/ IWM-MB4

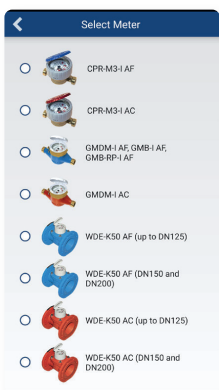
The screen immediately visible after having placed the android device to the M-BUS module, is the following:

- 1 Allows to return to the previous screen
- 2 Allows you to consult the “Help” page
- 3 Indicates the current status.

Based on the actions carried out it can take one of the following states:

- Reading done: all parameters set on the pulse emitter device have been read correctly
- Writing done: all parameters selected have been written correctly on the pulse emitter module and the errors have been resetted
- Wrong values: some parameter hasn't been selected or hasn't been inserted correctly
- TAG detected: the NFC TAG has been detected correctly; the android device has been correctly positioned on the module
- TAG lost: the NFC TAG has been lost. Better position the android device on the module, making sure that the antenna is centered in relation to the TAG (move away and bring the android device closer to the module)
- Password written: the device has been correctly locked and/or unlocked through the BLOCK/UNBLOCK button, with the password chosen in the initial settings
- Password wrong: the password saved on the first settings is not the one used to block the module

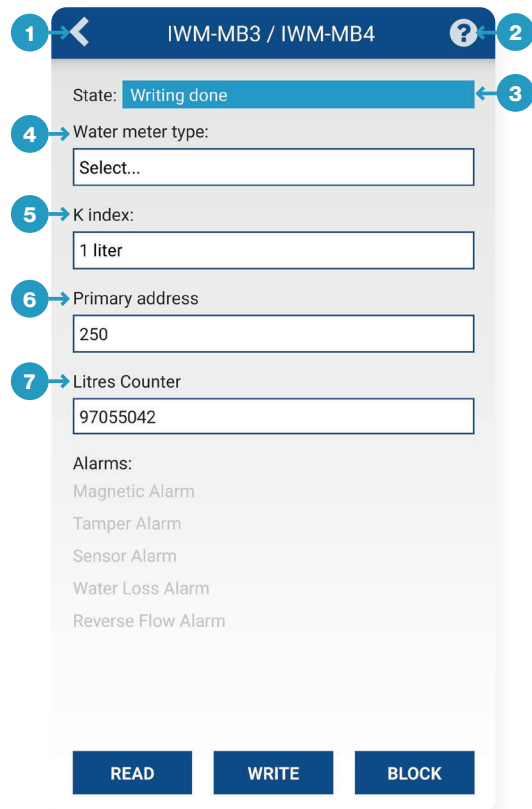
- 4 Allows you to select the type of water meter on which the module will be applied. The following list will be proposed:



← Simply select a water meter to return to the previous screen

The central area allows you to read and set all the parameters, so you can then write them on the module, depending on the type of meter in use.

The area at the bottom allows you to view the active alarms, to use the parameter read/write functions and to block/unblock the device.



- 5 Allows you to select the inductive index value on water meter. The K index represents the ratio Liters/impeller rotation. The selection of the water meter forces the correct assignment of the value
- 6 Allows you to set the primary address of the device (from 0 to 250). The secondary address is the serial number of the module
- 7 Allows you to view the liters read from the module and modify them if needed



8 Allows you to view the active alarms.

It's possible to view the following alarms:

- Magnetic Alarm: active when a magnetic fraud is detected on the water meter
- Tamper Alarm: active when removal of the external sensor module/ perturbation of the inductive sensor is detected
- Sensor Alarm: active when someone attempts to fraud the inductive sensor
- Water Loss Alarm: active when extended water leakage is detected
- Reverse flow Alarm: active when the reverse flow threshold is exceeded

9 Allows you to read the values previously set

10 Allows to write the current settings after setting all the parameters described previously.

Note: at the top of the screen, pay attention to the "Writing done" status as confirmation of the writing.

It is advisable to carry out a consecutive reading to verify its application

11 Allows you to set a security password on the device.

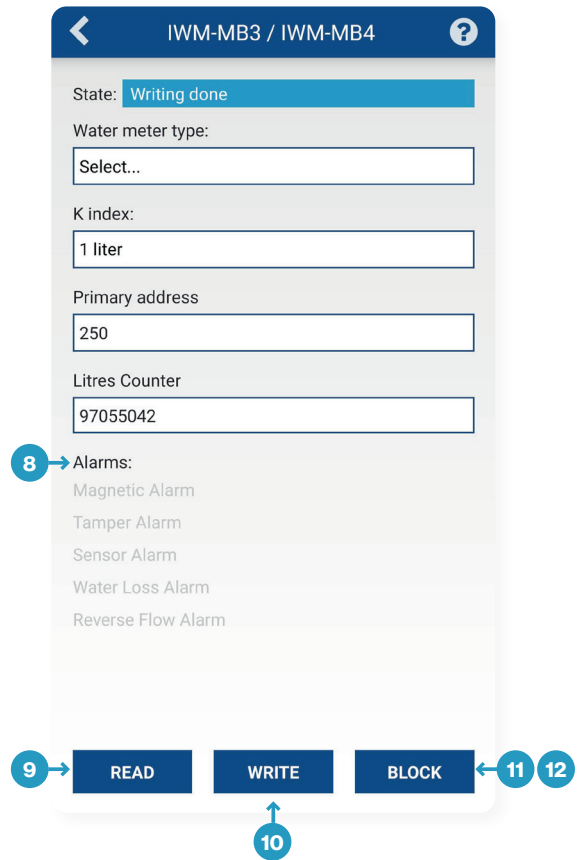
Note: since the application of the password lock the device is accessible only subordinately to the knowledge of the same.

WARNING: if the password is lost, the device will no longer be accessible while retaining the last settings.

For the password recovery it is necessary to send the device to the manufacturer

UNBLOCK

12 Allows you to unblock the read/write settings of the modules with the password inserted in the first step



Reading/configuration screen for IWM-LR3/ IWM-LR4

The screen immediately visible after having placed the android device on the LoRaWAN module, is the following:

- 1 Allows to return to the previous screen
- 2 Allows you to consult the “Help” page
- 3 Indicates the current status.

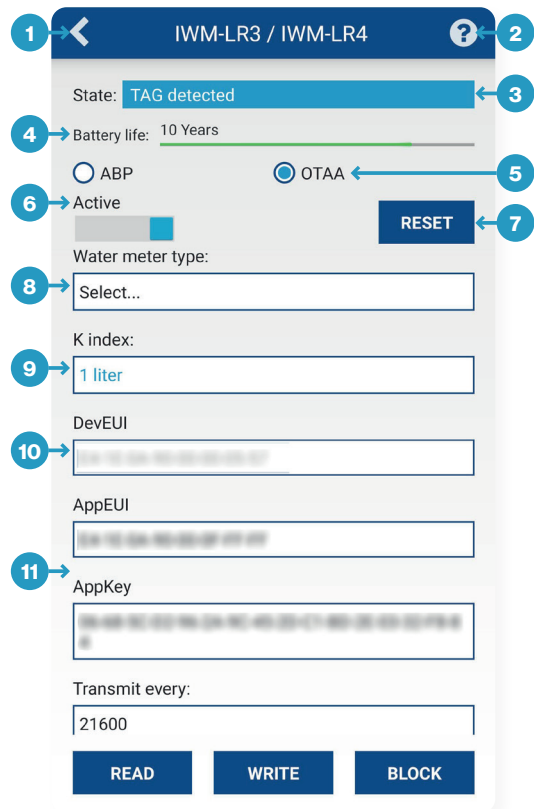
Based on the actions carried out it can take one of the following states:

- Reading done: all parameters set on the pulse emitter device have been read correctly
- Writing done: all parameters selected have been written correctly on the pulse emitter module and the errors have been resetted
- Wrong values: some parameter hasn't been selected or hasn't been inserted correctly
- TAG detected: the NFC TAG has been detected correctly; the android device has been correctly positioned on the module
- TAG lost: the NFC TAG has been lost. Better position the android device on the module, making sure that the antenna is centered in relation to the TAG (move away and bring the android device closer to the module)
- Password written: the device has been correctly locked and/or unlocked through the BLOCK/UNBLOCK button, with the password chosen in the initial settings
- Password wrong: the password saved on the first settings is not the one used to block the module

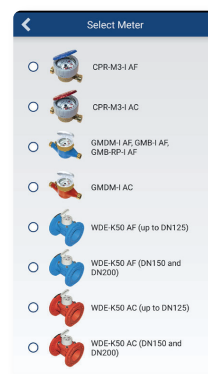
- 4 Displays the estimated maximum battery life based on the parameters selected
- 5 There are two ways to associate a module to the network: Activation By Personalization (ABP) mode and the Over-The-Air Activation (OTAA) mode
- 6 Allows you to activate or deactivate inductive sensing. Once the product leaves the production phase it is put into low consumption (stock mode)
- 7 Allows you to reset the module. It can be used to force new Join requests to be sent.
The whole procedure takes 20 seconds. At the end of the procedure, the App will ask you to update date and time (recommended)

The central area allows you to read and set all the parameters, so you can then write them on the LoRaWAN module, depending on the type of meter in use.

The area at the bottom allows you to view an active alarms, to use the parameter read/write functions and to block/unblock the device.



- 8 Allows you to select the type of water meter on which the module will be applied. The following list will be proposed:



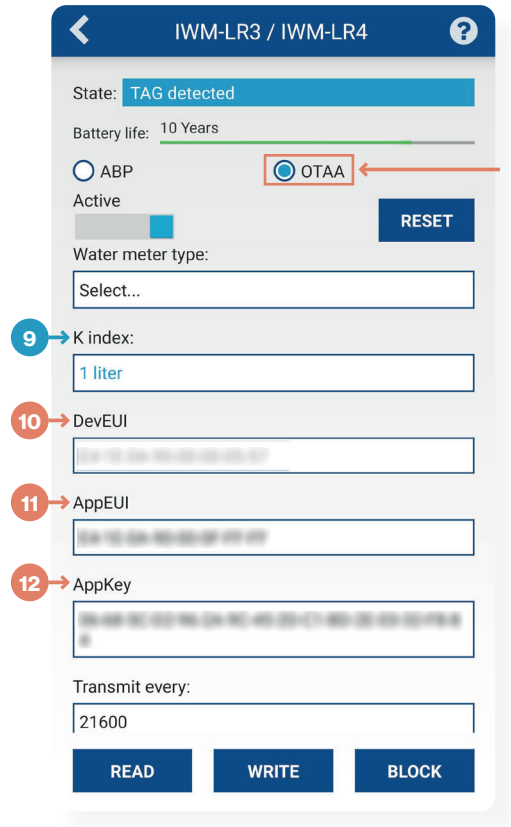
← Simply select a water meter to return to the previous screen



- 9 Allows you to select the inductive index value on water meter. The K index represents the ratio Liters/impeller rotation. The selection of the water meter forces the correct assignment of the value

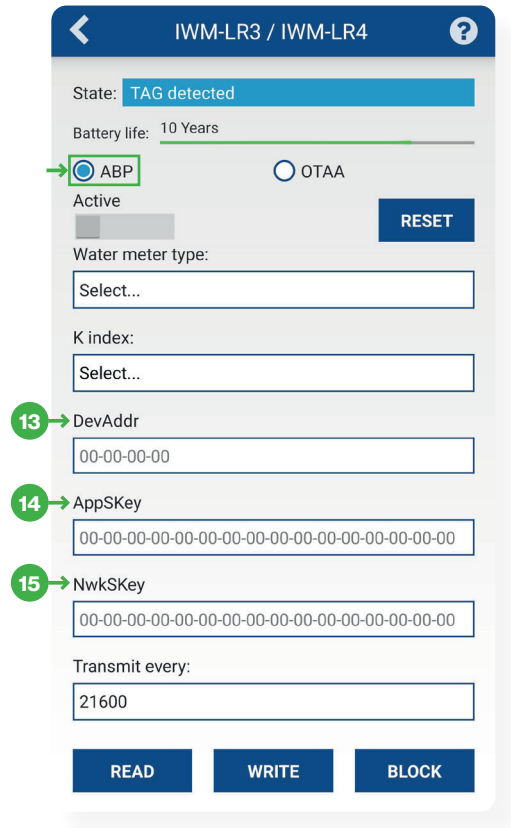
OTAA mode

- 10 Is an IEEE unique identification code for the end device (64 bit). The field is not editable
- 11 Allows you to set a unique identifier for the application, used for the OTAA join (64 bit). E4-1E-0A-90-00-0F-FF-FF is the default value
- 12 Allows you to set a securely generated authentication code (AES-128 bit). Preassigned field



ABP mode

- 13 Allows you to set the identification address of the device (32 bit)
- 14 Allows you to set a session key for the end-to-end encryption of the application payload (64 bit)
- 15 Allows you to set a session key for encryption and verifying the integrity of packets (AES-128 bit)



- 16 Allows you to set the transmission frequency. Available options: 21600s (6h) or 43200s (12h)
- 17 Allows you to check if the date and time of the android device are correct before updating the radio module (pressing the “UPDATE” button)
- 18 Allows you to view the liters read from the module and modify them if needed
- 19 Allows you to view the following list of alarms (active/inactive):
 - Magnetic Alarm: active when a magnetic fraud is detected on the water meter
 - Tamper Alarm: active when removal of the external sensor module/ perturbation of the inductive sensor is detected
 - Sensor Alarm: active when someone attempts to fraud the inductive sensor
 - Water loss Alarm: active when extended water leakage is detected
 - Reverse flow Alarm: active when the reverse flow threshold is exceeded
 - Low battery Alarm: active when a battery voltage close to the minimum threshold is detected

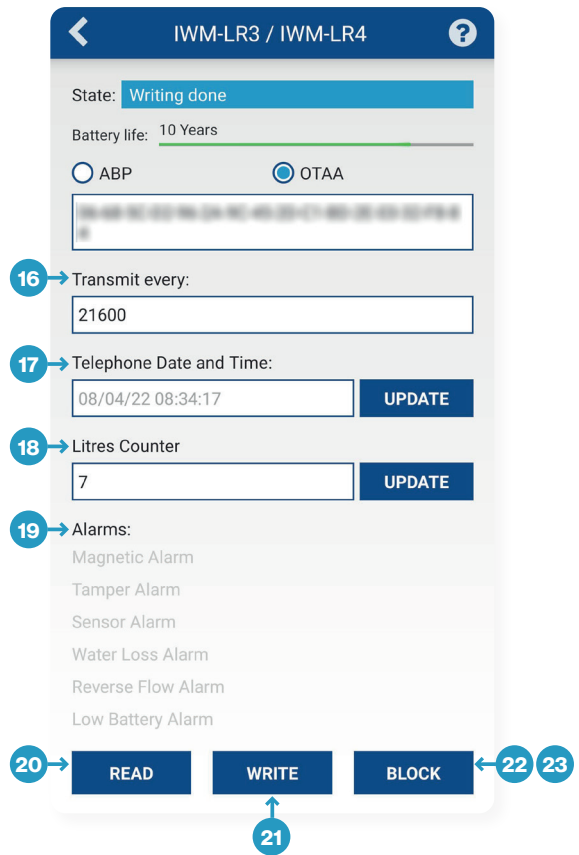
20 Allows you to read the values previously set

21 Allows to write the current settings after setting all the parameters described previously.
Note: at the top of the screen, pay attention to the “Writing done” status as confirmation of the writing.
 It is advisable to carry out a consecutive reading to verify its application

22 Allows you to set a security password on the device.
Note: since the application of the password lock the device is accessible only subordinately to the knowledge of the same.
 WARNING: if the password is lost, the device will no longer be accessible while retaining the last settings.
 For the password recovery it is necessary to send the device to the manufacturer

UNBLOCK

23 Allows you to unblock the read/write settings of the modules with the password inserted in the first step



Reading/configuration screen for IWM-TX5

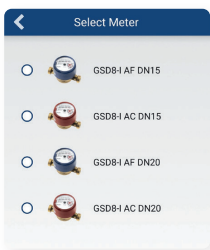
The screen immediately visible after having placed the android device to the radio module, is the following:

- 1 Allows to return to the previous screen
- 2 Allows you to consult the “Help” page
- 3 Indicates the current status.

Based on the actions carried out it can take one of the following states:

- Reading done: all parameters set on the pulse emitter device have been read correctly
- Writing done: all parameters selected have been written correctly on the pulse emitter module and the errors have been resetted
- Wrong values: some parameter hasn't been selected or hasn't been inserted correctly
- TAG detected: the NFC TAG has been detected correctly; the android device has been correctly positioned on the module
- TAG lost: the NFC TAG has been lost. Better position the android device on the module, making sure that the antenna is centered in relation to the TAG (move away and bring the android device closer to the module)
- Password written: the device has been correctly locked and/or unlocked through the BLOCK/UNBLOCK button, with the password chosen in the initial settings
- Password wrong: the password saved on the first settings is not the one used to block the module

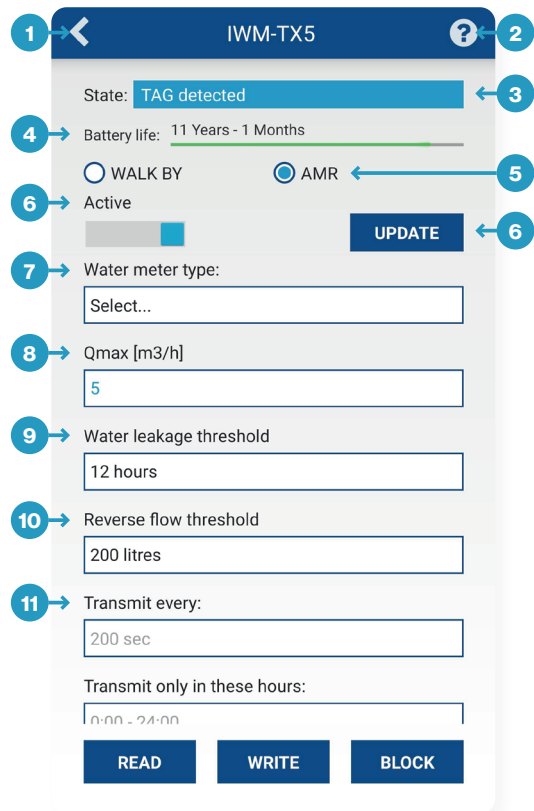
- 4 Displays the estimated maximum battery life based on the parameters selected
- 5 There are two types of readings, the first is used for on-site readings (WALK-BY) while the second for remote readings with concentrator (AMR)
- 6 Allows you to activate/deactivate the radio transmission without detecting 5 full forward turns of the inductive index. To perform this action you must press on the “UPDATE” button
- 7 Allows you to select the type of water meter on which the radio module will be applied. The following list will be proposed:



← Simply select a water meter to return to the previous screen

The central area allows you to read and set all the parameters, so you can then write them on the module, depending on the type of meter in use.

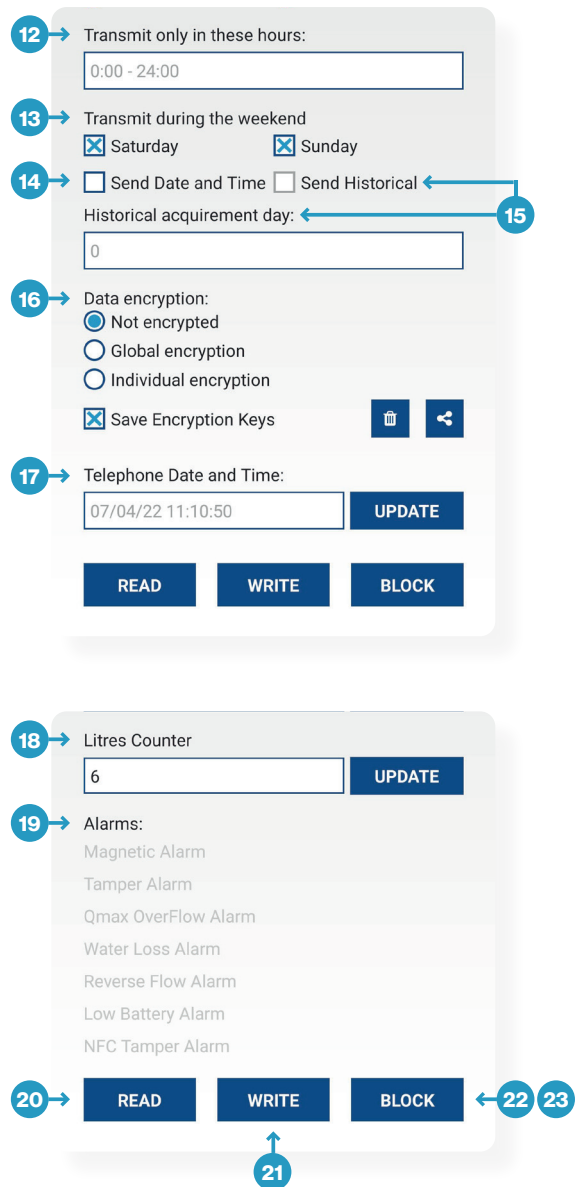
The area at the bottom allows you to view the active alarms, to use the parameter read/write functions and to block/unblock the device.



- 8 Allows you to set the activation threshold of the maximum flow rate. The selection of the meter forces the default assignment of the value
- 9 Allows you to set the interval for the activation of the water loss alarm
- 10 Allows you to set the threshold for the activation of the reverse flow alarm
- 11 Is a specific value that indicates the transmission interval (WALK-BY 60 seconds and AMR 200 seconds)



- 12 It is a specific value that indicates the hours of transmission of the module during the week (from Monday to Friday)
- 13 Enable the sending of data during the weekend (it is possible to set Saturday and/or Sunday)
- 14 Enable the sending of the internal date and time of the radio module. It is a mandatory option if individual or global encryption is enabled
- 15 Allows you to send the last 12 months historical data and set the day of the month in which it is saved
- 16 Allows you to set the encryption of data sent, you can choose between 3 modes:
 - Not encrypted: data will not be encrypted
 - Global encryption: data will be encrypted by global key (AES key password request)
 - Individual encryption: the data is encrypted using an automatically generated key (you can export them using the “Save Encryption Keys” function)
- 17 Allows you to check if the date and time of the android device are correct before updating the radio module (pressing the “UPDATE” button)
- 18 Allows you to view the liters read from the module and modify them if needed
- 19 Allows you to view the active alarms. It’s possible to view the following alarms:
 - Magnetic Alarm: active when a magnetic fraud is detected on the water meter
 - Tamper Alarm: active when removal of the external sensor module/ perturbation of the inductive sensor is detected
 - Qmax Overflow Alarm: active after the meter works at a flow rate above Qmax for a few minutes
 - Water loss Alarm: active when extended water leakage is detected
 - Reverse flow Alarm: active when the reverse flow threshold is exceeded
 - Low battery Alarm: active when a battery voltage close to the minimum threshold is detected
 - NFC Tamper Alarm: active when a NFC fraud is detected on the IWM-TX5 module
- 20 Allows you to read the values previously set



- 21 Allows to write the current settings after setting all the parameters described previously.

Note: at the top of the screen, pay attention to the “Writing done” status as confirmation of the writing. It is advisable to carry out a consecutive reading to verify its application
- 22 Allows you to set a security password on the device.

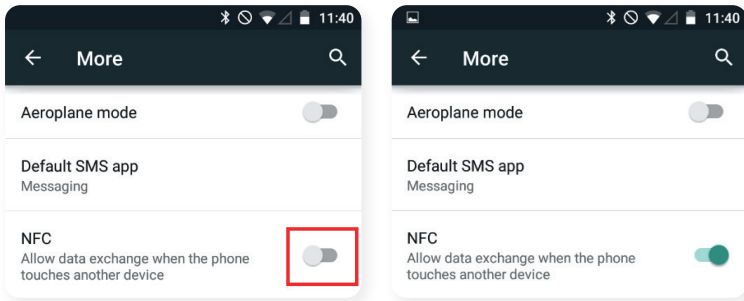
Note: since the application of the password lock the device is accessible only subordinately to the knowledge of the same. WARNING: if the password is lost, the device will no longer be accessible while retaining the last settings. For the password recovery it is necessary to send the device to the manufacturer

UNBLOCK
- 23 Allows you to unblock the read/write settings of the modules with the password inserted in the first step



“Step by step” procedure for IWM-PL3/ IWM-PL4

- 1 Go on the NFC settings on your device (directory: Settings → Other) and turn on the function



Note: depending on your android device the interface may be different. In this case, to enable the NFC function it is necessary to access the connection settings of the device

- 2 Open the “B Metering NFC Config” application, select the IWM-PL3/ IWM-PL4 button and place the android device in close contact with the pulse emitter module:



In this example, the NFC antenna of the smartphone is positioned at the back and top of the device

Note: the android device has, in a certain position, an integrated NFC antenna.

If after the selection of the module in the first screen it could not be read, move always in close contact, the android device from top to bottom, or the other way around, to find the correct correspondence between its antenna and the antenna of the pulse emitter module.

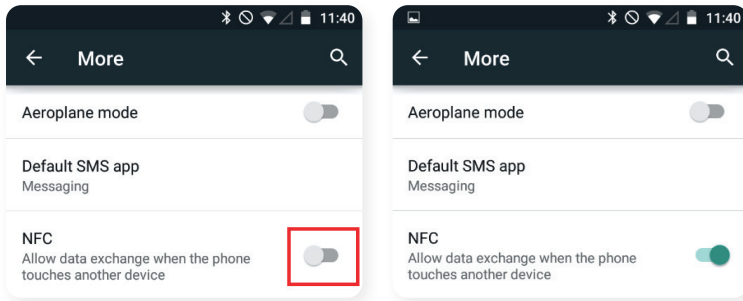
If the communication does not work, it is possible to turn the pulse emitter module upside down and repeat the procedure described above (the NFC antenna of the pulse emitter module is positioned at the bottom of the module)

- 3 Set all the selectable parameters based on your needs (Refer to paragraph [Reading/Configuration Screen for IWM-PL3/ IWM-PL4](#))
- 4 Press the button **WRITE** for writing all the parameters set on the previous step
- 5 Press the button **READ** for reading and verifying all the parameters written on the step number 4
- 6 Recommended: it's possible to block the device with the security password chosen in the first screen with: **BLOCK**



“Step by step” procedure for IWM-TX3/ IWM-TX4

- 1 Go on the NFC settings on your device (directory: Settings → Other) and turn on the function



Note: depending on your android device the interface may be different. In this case, to enable the NFC function it is necessary to access the connection settings of the device

- 2 Open the “B Metering NFC Config” application, select the IWM-TX3/ IWM-TX4 button and place the android device in close contact with the radio module where NFC antenna is:



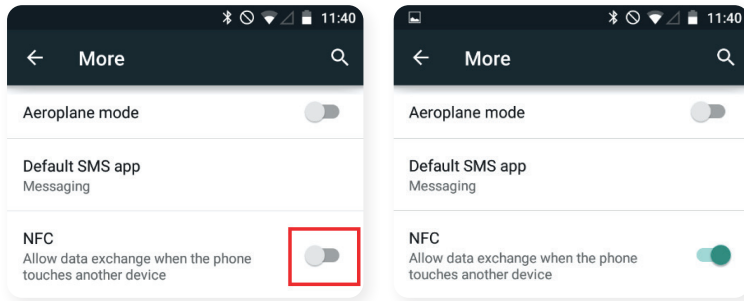
In this example, the NFC antenna of the smartphone is positioned at the back and top of the device

Note: the android device has, in a certain position, an integrated NFC antenna. If after the selection of the module in the first screen it could not be read, move always in close contact, the android device from top to bottom, or the other way around, to find the correct correspondence between its antenna and the antenna of the Wireless M-BUS module

- 3 Set all the selectable parameters based on your needs (Refer to paragraph [Reading/Configuration Screen for IWM-TX3/ IWM-TX4](#))
- 4 Press the button **WRITE** for writing all the parameters set on the previous step
- 5 Press the button **READ** for reading and verifying all the parameters written on the step number 4
- 6 Recommended: it’s possible to block the device with the security password chosen in the first screen with: **BLOCK**

“Step by step” procedure for IWM-MB3/ IWM-MB4

- 1 Go on the NFC settings on your device (directory: Settings → Other) and turn on the function



Note: depending on your android device the interface may be different. In this case, to enable the NFC function it is necessary to access the connection settings of the device

- 2 Open the “B Metering NFC Config” application, select the IWM-MB3/ IWM-MB4 and place the android device in close contact with the M-BUS module:



In this example, the NFC antenna of the smartphone is positioned at the back and top of the device

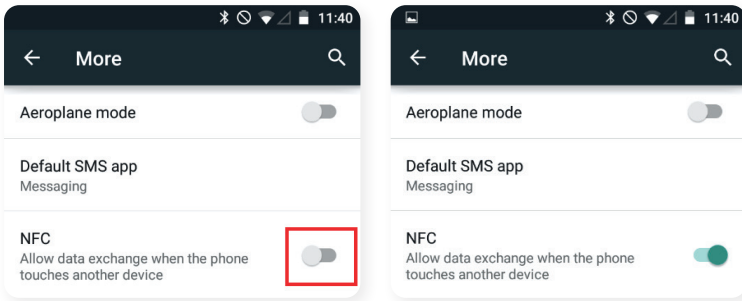
Note: the android device has, in a certain position, an integrated NFC antenna. If after the selection of the module in the first screen it could not be read, move always in close contact, the android device from top to bottom, or the other way around, to find the correct correspondence between its antenna and the antenna of the wired M-BUS module. If the communication does not work, it is possible to turn the module upside down and repeat the procedure described above (the NFC antenna of the wired M-BUS module is positioned at the bottom of the module)

- 3 Set all the selectable parameters based on your needs (Refer to paragraph [Reading/Configuration Screen for IWM-MB3/ IWM-MB4](#))
- 4 Press the button **WRITE** for writing all the parameters set on the previous step
- 5 Press the button **READ** for reading and verifying all the parameters written on the step number 4
- 6 Recommended: it's possible to block the device with the security password chosen in the first screen with: **BLOCK**



“Step by step” procedure for IWM-LR3/ IWM-LR4

- 1 Go on the NFC settings on your device (directory: Settings → Other) and turn on the function



Note: depending on your android device the interface may be different. In this case, to enable the NFC function it is necessary to access the connection settings of the device

- 2 Open the “B Metering NFC Config” application, select the IWM-LR3/ IWM -LR4 button and place the android device in close contact with the module where NFC antenna is:



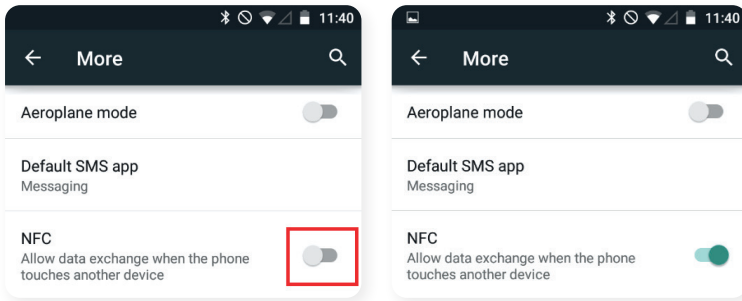
In this example, the NFC antenna of the smartphone is positioned at the back and top of the device

Note: the android device has, in a certain position, an integrated NFC antenna. If after the selection of the module in the first screen it could not be read, move always in close contact, the android device from top to bottom, or the other way around, to find the correct correspondence between its antenna and the antenna of the LoRa module

- 3 The LoRa modules are already configured in OTAA mode with preset keys. The keys (DevEUI, AppEUI and AppKey) are provided by B METERS. If they have not been received, send a request to ticket@bmitters.com. For various needs the modules can be configured in Activation By Personalization mode (ABP). In this case the modules do not have to perform a join procedure by sending MAC request-join accept messages because the device identifier address is DevAddr, the NwkSKey network session key and the sessions for the AppSKey application are stored directly in the network server and the node. In other words, in this mode the module already has the information necessary to join a LoRaWAN network (these are not preset and must be requested to the network provider). It's important that each module has a unique set of NwkSKey and AppSKey keys so that the security of the network is not compromised as reported in the Reading/Configuration Screen for IWM-LR3/ IWM-LR4 chapter
- 4 Press the button **WRITE** for writing all the parameters set on the previous step
- 5 Press the button **READ** for reading and verifying all the parameters written on the step number 4
- 6 Recommended: it's possible to block the device with the security password chosen in the first screen with: **BLOCK**

“Step by step” procedure for IWM-TX5

- 1 Go on the NFC settings on your device (directory: Settings → Other) and turn on the function



Note: depending on your android device the interface may be different. In this case, to enable the NFC function it is necessary to access the connection settings of the device

- 2 Open the “B Metering NFC Config” application, select the IWM-TX5 button, and place the android device in close contact with the radio module:



android device positioning on the top

android device positioning on the back

In this example, the NFC antenna of the smartphone is positioned at the back and top of the device

Note: the android device has, in a certain position, an integrated NFC antenna. If after the selection of the module in the first screen it could not be read, move always in close contact, the android device from top to bottom, or the other way around, to find the correct correspondence between its antenna and the antenna of the Wireless M-BUS module

- 3 Set all the selectable parameters based on your needs (refer to paragraph [Reading/Configuration Screen for IWM-TX5](#))
- 4 Press the button **WRITE** for writing all the parameters set on the previous step
- 5 Press the button **READ** for reading and verifying all the parameters written on the step number 4
- 6 Recommended: it’s possible to block the device with the security password chosen in the first screen with: **BLOCK**



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