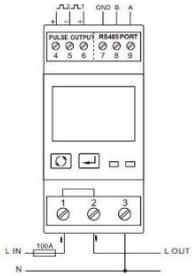


EMM.220-MID



EMM.220 is an advanced mono phase energy meter with direct connection up to 100A. The module consists in 2 versions with or without MID (MID= calibrated and therefore suitable for invoicing purposes)
The configuration of the meter is done via the push button and the LCD display. The bi-directional meter (import and export) is suitable for both active and reactive power measurement. The readout of the consumption values can be done via the display or via the linked web server. In addition to an RS485 connection, the module also has 2 pulse outputs of which 1 is configurable.

1. Connect:



Nutrition:

- L1 in on Clip 1
 - L1 out on Clip 2
 - N in/out on Clip 4
- Modbus:** Connect G, B and A

2. Configuration on the display:

This module is partly pre-configured, normally only a **UNIQUE** Modbus address, number between 1... 247 to be introduced but still check the other Modbus parameters like f.e. baud rate. .

How to get into SETUP:

On the right button (enter)keep pushing until **PASS 0000** appears, fill in default password **PAS 1000** by pressing the left button (scroll) until **1** appears, briefly press enter for next number or press enter for a long time to move to next setting. Scroll through the set values. After a few seconds of waiting, you automatically leave the menu. The pre-set Modbus parameters: 9600 8N1

- Modbus address: Id001. Id247 (default 1)
- Baudrate: b 9600 (default 9600)
- 8 bit
- Parity: Prty n (parity none) (default n)
- Stopbit 1(default 1)

So if there are several meters in the installation then you have to set up a unique Modbus address(Id001.) via this display. Id247 (default 1)) for every meter.

The list of all Modbus registers for link to a Modbus reading system is available via our website

3. Configuration in the web server

In the web server, go to /configuration/modules:



1. Enter a **unique fictitious** serial number starting with 01E followed by a unique number with 5 digits: Vb. **01E00002**
2. Name the meter: E.g. **EMM.220** and press "**NEW**" a fill-in table appears
3. Give a recognizable name to the exit: E.g. **CONSUMPTION TOTAL**
4. Choose **MODE COUNTER** (automatic)

5. Enter a unique Modbus address of the module: Vb. 25 (AND NOT **025!!**)
6. Enter Modbus sub-address : **always 0**
7. Log type: Only if you're working on charging data to a central server check the parameters you want
8. Choose unit kWh(automatic)
9. Press "**ZEND**" if Module appears OK the programming is in order otherwise see manual (Modbus address error, cabling check,...)

4. Read values on the display

By pushing the **scroll** push button for a short time, you can read all the readings and Modbus parameters:

Total kWh→ Import kWh→Export kWh→ Total kvarh→Import kVarh→ Export kVarh→ Max. Power Demand→Voltage →Current→W→ Var →VA→ Power Factor →Frequency →Pulse Constant→Modbus address→Baudrate

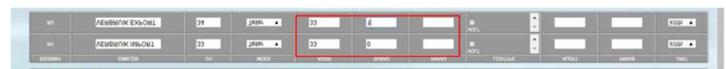
5. What values are logged.

MEMo logs every 60 seconds:

- Meter mode Import in kWh
- Meter mode Export in kWh
- Tension in Volt
- Power in Ampère
- Power in Watt
- Powerfactor
- Reactive powerVar

6. General note:

- If you want to see both import consumption and export consumption then use fictitious serial number starting in the web server starting with **02E00001** and fill out Modbus sub-address 0 and 1, import graph is then under sub-address 0 and export under sub-address 1.



- Visualization of channels for the customer : see 2 web server configuration/channels at WS.503
- Because the web server cannot show negative graphs, the E-meter for solar panels must be connected according to the direction of the current.
- Using the RG.016 module, this meter can be read wirelessly via MEMo and MiLo
- The comprehensive (English) manual with all technical specifications, detailed configuration, Modbus registers is available through our website www.2-wire.net

7. Installation instructions

The installation must be carried out by an approved installer and in accordance with the rules in force.

- This device is only suitable for DIN rail assembly in accordance with EN 50022 and must be fitted in a closed distribution board.
- Make sure that a safety interruption of the device is possible. Turn off the module before installing it.
- Do not open the device – the warranty expires when the device is opened.

This manual must be attached to the file of the electrical installation. The 2-Wire website always has the latest manual of the product.

8. Support

Do you want to exchange the product in case of a possible defect? Please contact your wholesaler or the 2-wire support service. The contact details can be found on our website www.2-wire.net/contact/

9. Guarantee conditions

The warranty period is two years from delivery date. The date of delivery is the invoice date of purchase of the product by the consumer. If there is no invoice available, the production date applies.

The consumer is obliged to inform Qonnex bvba in writing of the lack of conformity, and this at the latest within two months of adoption. In the event of a lack of conformity, the consumer is only entitled to a free repair or replacement of the product, which is determined by Qonnex. Qonnex is not responsible for any defect or damage caused by improper installation, improper or negligent use, improper operation, product transformation, maintenance in violation of maintenance regulations or an external cause such as moisture damage or damage from span. The mandatory provisions in national legislation on the sale of consumer goods and the protection of consumers in countries where Qonnex sells directly or through distributors, agents or permanent representatives take precedence over the above provisions

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