

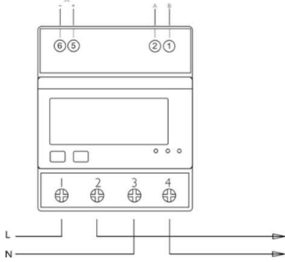
EMM.320C



The EMM.320C budget meter is the combination of an advanced mono phase energy meter with direct connection up to 100A and a built-in 1 pole power relay up to 100A. 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 reading of the consumption values can be done via the display or via the

connected web server. In addition to an RS485 connection, the module also has a pulse output.

1. Connect:



Power supply: L1 in on Terminal 1, L1 out on Terminal 2; N in on Terminal 3, N out on Terminal 4

Modbus: Connect A to small terminal 2, B to small terminal 1

Pulse: - on small terminal 6, + on small terminal 5

2. Configuration on the display:

This module is partly pre-configured, normally only a **UNIQUE** Modbus address needs to be provided, number between 1... 247 but also check the other Modbus parameters.

How to get into SETUP:

Keep **pressing the right button (enter) until PAS 0000** appears, enter default password **PAS 1000** by pressing the **left button (scroll)** until 1 appears, short **press enter for next number or long press enter** to go to next setting. Go through the set values via scroll. After waiting a few seconds, you will automatically exit the menu. The pre-set Modbus parameters: **9600 8N1**

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

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

The comprehensive manual with all technical specifications, detailed configuration, Modbus registers is available via our website www.2-wire.net

3. Configuration in the web server

MEMo3b:

In the webserver go to Level3 (installer level), click on the button "EDIT GROUP-CHANNELS" enter the word 'Level3' and press the button 'CANCEL', you will now see 'Level3' at the top left. In this installers Level3 you can add meters.

For the configuration in the MEMo3b, please refer to the Memo manual > v1.3 point 9b. Below an example with CH17=phase 1+import, Enter: module=EMM220-630, mode= Bistable, Modbus address and sub address, name and then 'SAVE'

CH 17	EMM220-630	Relais	VOLT	CURRENT	POWER	VA	PF	kWh+	kWh-
ADRICH1	DAG	MAAND	0 V	0.00 A	0 W	0 VA	0.00	0.12 kWh	0.00
GENERATE RT		0	MOTT-SH		0	0 4 0 1 0 32 241 75			
TEST RX									
SAVE	LOAD	17	EMM 320C module						

4. Reading values on the display

By briefly pressing the **scroll** push button each time, you can read all measured values 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→Baud Rate

5. What values are logged.

MEMo logs every 60 seconds:

- Meter reading import in kWh
- Meter reading Export in kWh
- Voltage in Volts
- Current in Amperes
- Power in Watts
- Power factor
- Reactive power Var

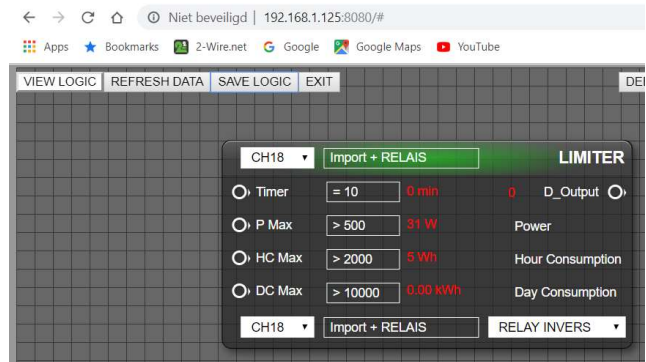
6. General remark:

- If you want to see both import consumption and export consumption, enter a Modbus sub-address 0 and 1 in the web server, import graph is under sub-address 0 and export under sub-address 1.
- Visualization of the channels for the customer: see WS.503 webserver configuration/channels. Since the web server cannot show negative graphs, the solar panel E-meter must be connected according to the direction of the current.
- Manual operation can be done from the web server with an on/off button and not via the display on the module.

Relais	Healthy Voltage	Import/Export	Zero/Total	UIT	MAN
Import + RELAIS	30 W	0.00 kWh	0.00 kWh		
Export	0 W	0.00 kWh	0.00 kWh		

Automatic operation, e.g. as a budget meter, can be set via the visual logic user interface in the web server. In the

configuration below, the logic in the MEMo web server turns off the budget meter for 10 minutes if more than 500 watts are consumed for 10 minutes, or switches off until the next hourly or day transition if hourly or daily consumption is exceeded, respectively.



7. Installation instructions

Installation must be carried out by a certified installer and in accordance with the regulations in force. The module must be built into a fireproof fuse box. During installation, the following must be taken into account (non-exhaustive list):

- the applicable laws, standards and regulations.
- the state of the art at the time of installation.
- This manual, which only mentions general provisions and should be read in the context of each specific installation.
- the rules of good workmanship.
- the specified specs in this manual, otherwise there is a risk of damage to the module.

This manual must be attached to the electrical installation file. On the 2-Wire website you can always find the most recent manual of the product.

8. Support

Would you like to have the product repaired in case of a possible defect? Please contact your supplier or order "inspection module" online.

9. Warranty provisions

The warranty period is two years from the date of delivery. The delivery date is the invoice date of purchase of the product by the consumer. If no invoice is 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 after discovery. 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 a defect or damage resulting from incorrect installation, improper or negligent use, incorrect operation, transformation of the product, maintenance in violation of the maintenance instructions or an external cause such as moisture damage or damage due to overvoltage. 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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