

ECF.08 draadloze Energy Counter



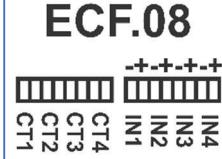
The ECF.08 is an energy measurement module for measuring 4 flows via CT coils **in a mono-phase installation..** The 230 voeding also serves as a reference voltage for calculating the 4 consumptions.

In addition to the 4 CT inputs, there are also 4 digital inputs for counting consumption pulses, or measuring time for consumers with a known consumption/hour.

Communication with MiLo OR MEMo is done wireless, via RF868MHz signal (adjustable FSK or LORA)..

1. Connect:

When connecting the 4 CTs, the polarity of these inputs should NOT be taken into account. There is an automatic detection of polarity for each CT input. In the digital inputs there is a polarity but this is not important in the standard potential-free reed contacts, but in impulse givers with their own polarity.



The 230Volt power supply plug also serves to measure the reference voltage, again there is no 'polarity'.

2. Configuration from the MiLo web server:

The configuration is based on entering serial numbers.

The serial numbers shall be compiled according to the function:

BASIC SN: 08Fxxxx1

CT1:	CT2:	CT3:	CT4:
04Fxxxx1	04Fxxxx2	04Fxxxx3	04Fxxxx4
IN1 puls:	IN2 puls:	IN3 puls:	IN4 puls:
04Cxxxx1	04Cxxxx2	04Cxxxx3	04Cxxxx4
IN1 tijd:	IN2 tijd:	IN3 tijd:	IN4 tijd:
04Cxxxx5	04Cxxxx6	04Cxxxx7	04Cxxxx8

If the inputs are pulse or time, the number of pulses/you or consumption/u must be completed under Pulse/h.

Note: In MiLo the serial numbers to be entered start with 04 and not 08!!

Example:

SN15 04F00001	0.0.0.0	---	<input type="radio"/> ECF08 CT1	kWh	0
SN16 04C00005	0.0.0.0	---	<input type="radio"/> ECF08 TB	kWh	1000

JOIN:

Each RF module must be 'linked' to the MiLo (or MEMo.) To get into 'JOIN mode', the tension on the ECFmust. 08. The 4 LEDs will light up together with the 'POWER-LED'. After quickly flashing the POWER LED, LED1-4 will burn in turn.

Now the module is waiting for 1 minute for a link to MILO (or MEMO)

Note! The jumper 'FSK/LORA' serves to be placed for MILO on the left, and for MEMO on the right.

At MILO: Press 'JOIN' and check the LEDs on the ECF08. With a successful link, the LEDs should stop in turn and the power LED should blink quickly.

Then turn off the 'JOIN' on the MILO and press 'RSSI' (several times). You need to see the FW version now, and the reception strength.

SN15 04F00001	19.3.13.5 *	-3735dBm	<input type="radio"/> ECF08 CT1	kWh	0
SN16 04C00005	19.3.13.5 *	-4535dBm	<input type="radio"/> ECF08 TB	kWh	1000

Now the module is ready to measure consumption.

UPGRADING:

Upgrading of the module can only be done when the last SN = 1 (Ex base SN = 08F00451) is present:

In MILO configuration CT1-4 = 04F00451, 04F00452, 04F00453, en 04F00454. So for upgrading the SN 04F00451 must appear in your module list.

3. Configuration from the MEMo web server:

The jumper 'FSK/LORA' must be put to the right (LORA)

Go to 'MODULES' and fill in the serial number printed on the module's plate. (e.g. 08F00001)

The first 4 inputs are for the CT1-4. The next 4 are for the pulse/time inputs.

- The mode for CT1-4 is always 'TELLER'. For the 4 inputs, this can be 'TELLER' or 'TIME'.
- Under 'PARA6' one has to fill in the number of pulses or the consumption/you.
- The Modbus address is always UNIQUE! The sub address must be blank or 0.

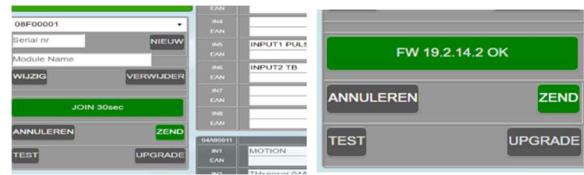
08F00001	CH	MODE	ADDR	SUBAD	PARA3	LOGTYPE	PARAS	PARA6	UNIT
INT EAN	CT1 ECF08	17	Teller	17		VOLT			kWh
INT EAN		18	Teller			VOLT			kWh
INT EAN		19	Teller			VOLT			kWh
INT EAN		20	Teller			VOLT			kWh
INS EAN	INPUT1 PULS	21	Teller	21		---		2000	m3 G
INS EAN	INPUT2 TB	22	Tijd	22		---		3500	l Fuel
INT EAN		23	Teller			VOLT			kWh
INT EAN		24	Teller			VOLT			kWh

JOIN:

At 'ZEND' the first time 'Module NOK' will appear. The module still needs to be linked via RF ! The same procedure applies as with MILO: Start the ECF08, and wait for the 4 LEDs to start burning in turn, then press the text bar where 'Module NOK' is located. There will now be the text 'JOIN 30sec'. (max 30sec timeout)

Then press 'ZEND'. With a successful link, the text is now "Module OK." When pressing 'TEST', the FW version appears.

If this fails after some attempts, check that the ECF08 is still in 'JOIN mode', that the jumper 'FSK/LORA' is correct, and the serial number is correctly filled in.



Upgrading : Press the "UPGRADE" button and DO NOT pause during this process.

4. The first way in the world are to General note:

- In order to measure mono-phase consumers in a 3-phase installation, one ECF.08 module is needed for each phase where consumers are required to be measuring.
- If necessary, several conductors of the same phase can be incorporated into a single CT coil to measure the total consumption over these conductors together.

5. Technical information:

General:

Power supply: 230V/50Hz, Consumption: 1.4VA
Transmitter: 868MHz 20mW
Sensitivity LORA: -120dBm
Sensitivity FSK: -100dBm
CT1-4: 333mV / max 75A
IN1-4: binary, potential-free !!! 3.3V/1mA, Minimum pulse duration IN1-4: 20msec

Operating conditions:

Operating temperature range: 10 °C to 50 °C
Storage temperature range: -10 °C to 60 °C
Maximum humidity: 90%, no moisture condensation
Max. mounting height : 2000m

Physical properties:

Housing: plastic, self-extinguishing acc. UL94-V0
Degree of protection: IP20, EN 60529
Installation indoors or in waterproof housing
Dimensions (h x b x l): 125mm x75mm x38mm
Weight: about 100 grams

Connections:

- 4 galvanically insulated pulse inputs for gas and water meter. potential-free !! max 5V/1mA (0-logic: < 0.7V) pulse duration: min. 10 ms, max 10 pulses/second
- 4 split-core transformers 75A/333mVolt with opening up to 10mm diameter and 0.5% accuracy.
- Power supply: via grid plug 230V/50Hz, no grounding.

Labels:

RoHS: Rient-toxic, acc. to guidelines WEEE/RoHS
CE: In accordance with EMC and low voltage directive: HBES – EN 50090-2-2 and EN60950 – 1: 2006.

6. Installation instructions

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

During installation, account must be taken of (non-exhaustive list):

the laws, standards and regulations in force.

the state of the art at the time of installation.

this manual which only mentions general provisions and must be read in the context of each specific installation.

- the rules of good craftsmanship.

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

7. 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/

8. 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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