

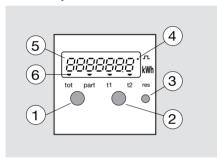
# EC 111, EC 112

### Operating principle

This kilowatt hour meter measures the active electrical energy used in an electrical installa-

This device has a total counter, a resettable partial counter and a calibrated pulsed output. In case of two tariff levels, the EC 112 will count separetely the energy used in tariff 1 and in tariff 2.

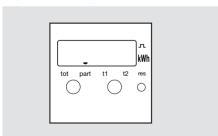
### **Product presentation:**



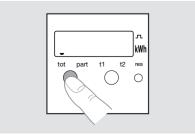
- 1) tot./part. to select display of total or partial consumption.
- ② t1/t2 o select display of tariff 1 or 2. 3 res to reset the partiel counter.
- 4 LED blinking each 10Wh.
- ⑤ 7 digits display.
- 6 indicator of operating mode.

#### Total or partial counter

1. Automatically, the device will display the partial consumption.



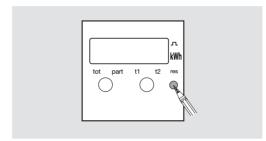
2. To display the total consumption (since the first installation of the counter), press key 1



# User instruction (GB)

# single phase kWh meter 1 and 2 tariff level

- 3. To switch back to the partial consumption, press key (1).
- 4. To reset the partial counter, press the key 3 with the tip of a pen during 3 seconds.

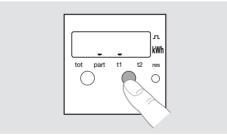


#### Tariff 1 and tariff 2 (EC 112)

The counter will split the consumption (total and partial) in the corresponding tariff (1or 2).

- Automatically, the counter will display the energy used in the tariff in progress.
- To display the partial or the total consumption in tariff 1 or in tariff 2, or the total tariff 1 + tariff 2, press successively key 2.

The indicator 6 will indicate to which tariff corresponds the consumption displayed. ex : partial consumption on tariff 1.



7. To reset the partial counter (tariff 1 and 2) see point 4.

#### **Technical specifications**

#### Voltage input:

working voltage : 230 V  $\sim \pm 20$  % frequency : 50/60 Hz  $\pm 2$  Hz

consumption : ≤ 15 VA

#### **Current input:**

direct reading: 32 A max. (lb = 10 A)

starting current: 320 mA

consumption : ≤ 2,5 VA

### **Electrical characteristics:**

IP 30 in the enclosure

insulation class: II

consumption : ≤ 17,5 VA

#### Accuracy:

- IEC 1036 class 2 (2 %) at 230 Vac 50/60 Hz and with 23 °C

#### Functional characteristics:

- direct reading : unit = 0,1 kWh
- display capacity: 999 999.9 kWh 5
- instant consumption : blinking LED 10 Wh 4
- savings of measures are made regularly and in case of power failure.

#### Impulse transmitter:

- relais reed
- 1 pulse : 100 Wh
- pulse duration : 15 ms ±3 ms external supply: 100 Vdc max.
- operating current : 0,3 A max.

#### Tariff level input:

supply: 230 V  $\sim \pm 20 \%$ - tariff level 1:0 Vac tariff level 2:230 Vac

#### **Environment:**

- working temperature : -5 °C to +45 °C - storage temperature : -20 °C to +70 °C - relativ humidity : 85% without condensation

### Connection capacity:

flexible: 1 to 6 mm<sup>2</sup>
rigid: 1.5 to 10 mm<sup>2</sup>

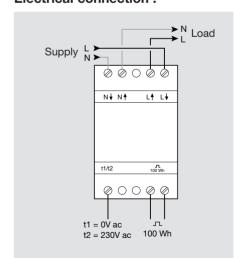
#### Size:

- 3 **I** of 17.5 mm

#### Installation:

- with I > 25 A, use minimum a 6 mm<sup>2</sup> wire.
- for a connection with flexible wire, use ferrules.
- keep 1/2 of 17,5 mm free on both sides of the counter.

## **Electrical connection:**



#### Warranty



A warranty period of 24 months is offered on hager products, from date of manufacture, relating to any material of manufacturing defect. If any product is found to be defective it must be returned via the installer and supplier (wholesaler). The warranty is withdrawn if:

- after inspection by hager quality control dept the device is found to have been installed in a manner which is contrary to IEE wiring regulations and accepted practice within the industry at the time of installation.

the time of installation.

- the procedure for the return of goods has not been followed.

Explanation of defect must be included when returning