

# COUNTIS ATv2/ATiv2

**GB** Operating instructions





GB

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## PRELIMINARY OPERATIONS

For personnel and product safety please read the contents of these operating instructions carefully.

Check the following points as soon as you receive the package:

- the packing is in good condition,
- the product has not been damaged during transit,
- the product reference number conforms to your order,
- the package contains the product as well as the operating instructions.

## GENERAL INFORMATIONS

The COUNTIS System comprises energy metering products for balanced or non-balanced 3- or 4-wire network. This system comprises two products:

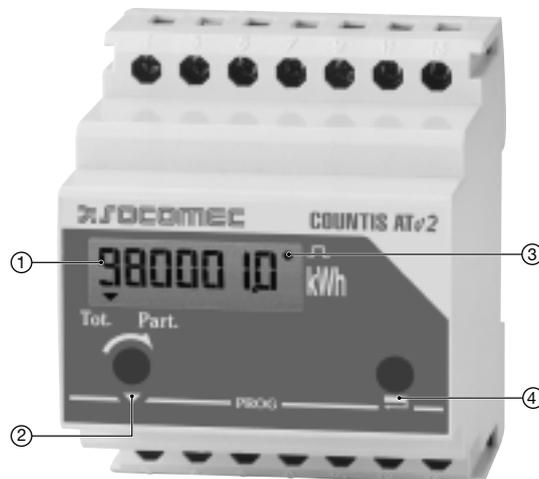
- **ATv2**: a **non-insulated** three-phase active energy-meter, which does not allow earthing CT of secondary.
- **ATiv2**: a three-phase **insulated** single or double rate active energy meter allowing the CT secondary to be earthed.

These products are completely configurable (CT ratio, network type and pulse output value) and have a 7-digit display which allows direct display of consumption in kWh. They are equipped with a pulse output as standard.

## PRESENTATION

### COUNTIS ATv2 / ATiv2 SINGLE RATE

COUNT 105 A

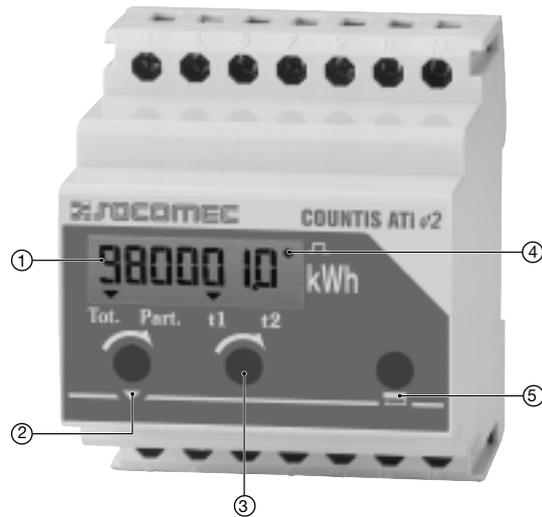


- ① kWh display
- ② Total and partial meter display, or scrolling parameter settings
- ③ Flashing LED consumption indicator (10 Wh/pulse)
- ④ Validation/scrolling of parameter settings

# PRESENTATION (continued)

## COUNTIS ATiv2 DOUBLE RATE

COUNT 119 B



- ① kWh display
- ② Total and partial meter display, or scrolling parameter settings
- ③ Displays t1 and t2 rate meters
- ④ Flashing LED consumption indicator (10 Wh/pulse)
- ⑤ Validation/scrolling of parameter settings

# INSTALLATION

### Note:

The COUNTIS can be installed on a DIN EN 50022 rail (DIN 43880).

### Recommendation:

- Avoid close proximity with systems generating electromagnetic disturbances
- Avoid vibrations including accelerations of more than 1 G for frequencies lower than 60 Hz.

### Note:

The minimum torque for the fixed terminal is 0.8 Nm.

### Recommendation:

We recommend that the auxiliary voltage and the voltage inputs should be protected with 0.5 A fuses or BS 88 2A gG.

## CLIMATIC ENVIRONMENT

To guarantee optimum operation, it is recommended that this device is used between - 5 to + 45 °C with a relative humidity of between 20 and 85 %.

## CONNECTION

The Countis ATv2 and ATiv2 consist of connection terminals of 1 to 6 mm<sup>2</sup> for currents and voltages.

## SAFETY INSTRUCTIONS (U, I, F)

To avoid damaging the device, take care to observe the following before connecting the device:

- indications on the casing,
- network frequency: 50 or 60 Hz,
- maximum permanent voltage at voltage input terminals of 400 V AC ± 20 % phase/phase,
- maximum permanent current of 7 A (connection from current transformer(s)).

# INSTALLATION (continued)

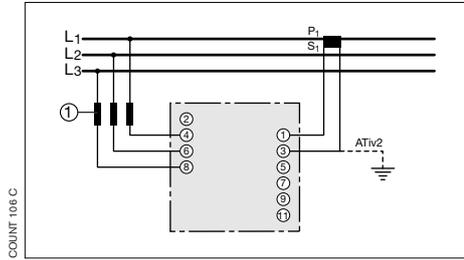
**Note:**

If the current is badly connected or there is poor current/voltage correspondence (negative energy) the counter will be stopped and the arrows ▼ flash.

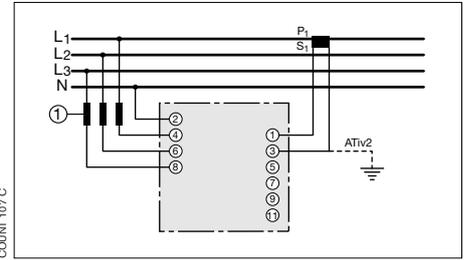
## NETWORK

**⚠** CT earthing, for the ATiv2 only

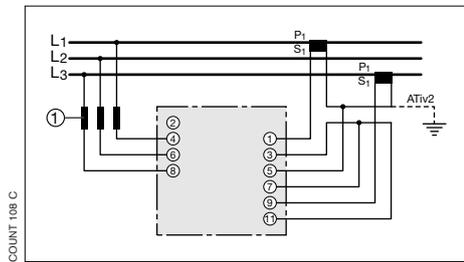
### 3 WIRE WITH 1 CT (3 BL)



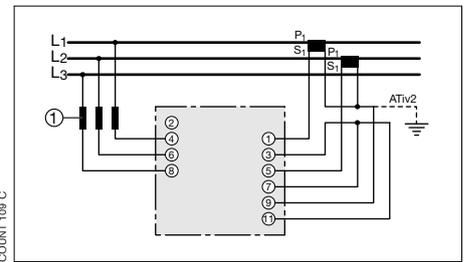
### 4 WIRE WITH 1 CT (4 BL)



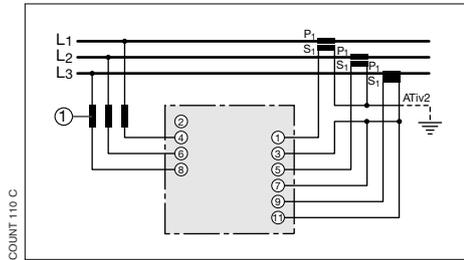
### 3 WIRE WITH 2 CT (3 NBL)



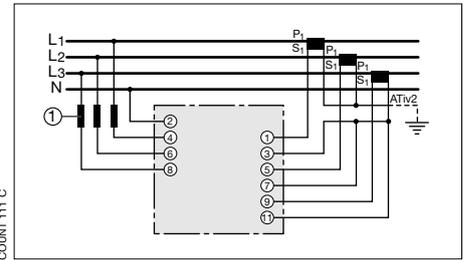
### 3 WIRE WITH 2 CT (3 NBL)



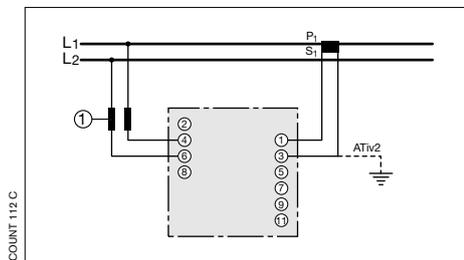
### 3 WIRE WITH 3 CT (3 NBL)



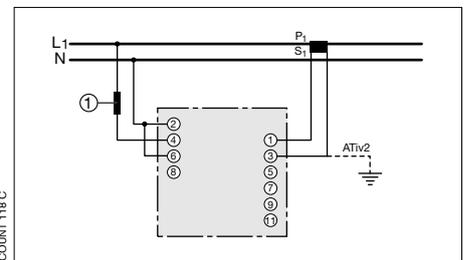
### 4 WIRE WITH 3 CT (4 NBL)



### TWO-PHASE (2 BL)



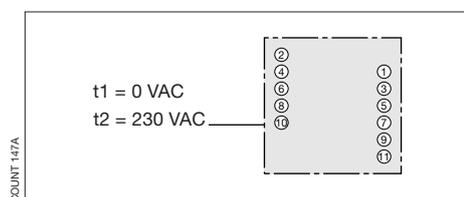
### SINGLE-PHASE (1 BL)



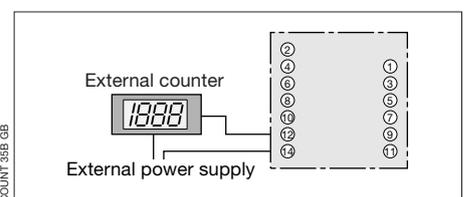
**Key to diagrams:**

① Fuses 0.5 gG or BS 88 2A gG

### RATE INPUT (t1 / t2)



### CONNECTING PULSE OUTPUT



**⚠** The neutral has to be connected for the dual tariff ATiv2.

# CONFIGURATION

**Note:**

The device will automatically leave the configuration menu if no buttons are pressed for a period of 25 seconds.

**Note:**

Press the ▼ button for a prolonged period to scroll rapidly through the configuration screens. Press for a short period to scroll through each screen one-by-one.

**Note:**

A long press on the button ▼ causes rapid scrolling and a single short press causes scrolling in steps of 5.

**Note:**

The values available depend on the Ct ratio.

KEY	INSTRUCTION
 + 	For 3 seconds to access access-code entry (CdE).
	To enter <b>code 21</b> .
	To validate the code and access to the network programming (nET).
	To select the network type, 1bL (single phase), 2bL (two-phase), 3-4 nbL (unbalanced three-phase) and 3-4 bL (balanced three-phase).
	To validate the network programming and go on to the current transformer (CT) primary value.
	To programme the primary value up to 6000 A.
	To validate the unit programming and go on to the pulse output (PuLSES).
	To go on to the weight of this output (VAL).
	To select the weight "0.1" for 0.1 kWh, "1" for 1 kWh, "10" for 10 kWh, "100" for 100 kWh.
	To validate the programming of this weight and go on to the pulse duration (dur).
	To select the duration from 60 to 900 ms.
	To accept value and pass to partial meter zero reset (rSET).
	To select 'rSEt nO' (no reset to zero) and 'rSEt YES' (reset to zero).
	To confirm reset to zero and return to network type programming.
 + 	To confirm and quit programming.

# TECHNICAL CHARACTERISTICS

## ENCLOSURE

Connection	via 1 to 6 mm <sup>2</sup> terminal shrouds
Weight	300 g
Size	modular: 4 modules of 17.5 mm
Protection class (front)	IP40

## FRONT PANEL

Green LCD/7 digits	
Digit height	8 x 4 mm

## INPUTS

### CURRENT

Via transformer with	
• configurable primary	5 to 6000 A
• secondary	5 A
Input consumption	10 mA to 7 A (secondary)
Consumption	≤ 1 VA

### TENSION

Measurement range (Line/Line)	230 V AC - 15 % to 400 V AC + 20 %
Consumption	≤ 0,5 VA

## AUXILIARY POWER SUPPLY

Type	auto-powered
Consumption	≤ 1 VA

## ACCURACY

Accuracy index	IEC 61036 class 1
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## PULSE OUTPUT

Reed relay (100 V DC - 0.5 A - 12 VA)	
Pulse duration	60 to 900 ms
Maximum tripping number	5 x 10 <sup>7</sup> at 10 V DC/10 mA

## OPERATING CONDITIONS

Operating temperature	- 5 °C up to 45 °C
Storage temperature	- 20 °C up to 70 °C
Relative humidity	85 %

## STANDARDS

CE marking	IEC 61000-4/2-3-4-5-6-8-11 EN 50081-1 EN 50082-2
Operating conditions	IEC 60068-2-6 IEC 60068-2-11 IEC 60068-2-30

**Note:**

The current inputs are insulated on the ATiv2.

**Note:**

The Countis ATv2 and ATiv2 are auto-powered from the V1 et V2 voltage inputs.



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