



# COUNTIS E0x

Active energy meters  
single-phase - direct 32 A

**new**



## The solution for

- > Camping sites.
- > Marinas.
- > Shopping centres.
- > Data centres.



## Strong points

- > Compact.
- > Pulse output.
- > MID certified B+D module.
- > RS485 communication (MODBUS)

## MID certification

- > COUNTIS E comply with the MID directive, guaranteeing accuracy and reliability when metering, an indispensable function for energy billing applications.
- > COUNTIS E MID feature tamper-proof components to prevent fraud.



## Conformity to standards

- > IEC 62053-21 class 1
- > IEC 62053-31
- > IEC 62052-11
- > EN 50470-1
- > EN 50470-3



## Function

The **COUNTIS E0x** is a modular active electrical energy meter displaying the total energy consumed (kWh) directly on its LCD display. It is designed for single-phase load metering and is used for direct connections of up to 32 A. The COUNTIS E02 and E04 has MID certification.

## Advantages

### Compact

The COUNTIS E0x is only 1 module wide.

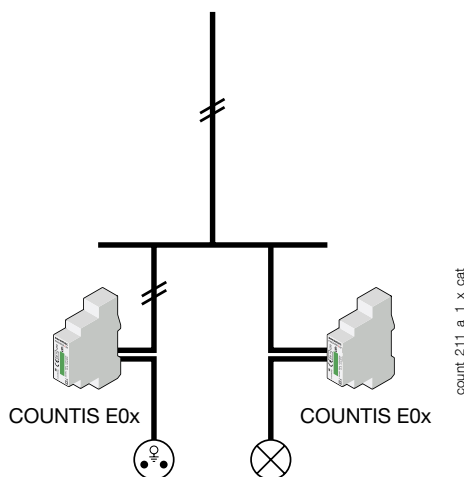
### Pulse output

The pulse output enables the kWh consumption to be reported to a remote system (PC/BMS) so that it can be analysed for billing, energy saving or energy cost management purposes.

### MID certified B+D module

COUNTIS E products with MID certification provide the guaranteed accuracy required for applications in which sub-billing of the electrical energy consumed is necessary. "Module B+D" certification guarantees that the design and manufacturing process of products are approved by an accredited laboratory.

## Principle diagram

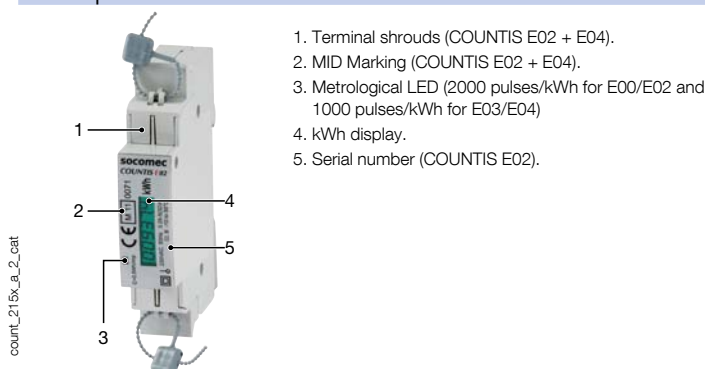


## Common characteristics

- Compact design.
- Measurement accuracy: 1 %.
- LCD display.

| Models | Key functions                    |
|--------|----------------------------------|
| E00    | Pulse output                     |
| E02    | MID + Pulse output               |
| E03    | MODBUS RS485 communication       |
| E04    | MODBUS RS485 communication + MID |

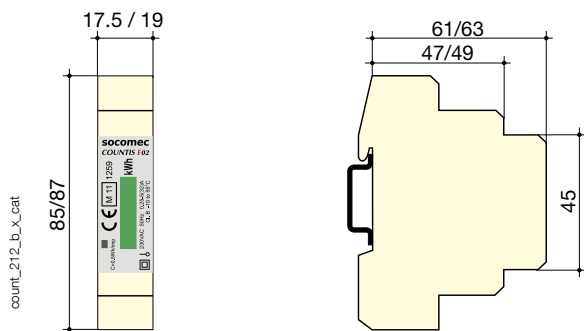
## Front panel



## Electrical characteristics

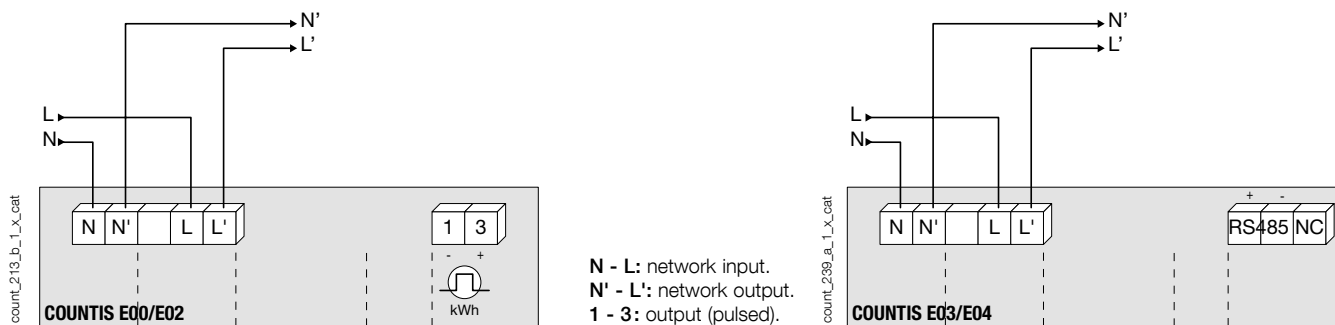
| Current measurement (TRMS)         |                               | Output (pulsed)             | COUNTIS E00/E02           |
|------------------------------------|-------------------------------|-----------------------------|---------------------------|
| Type                               | single-phase - direct 32 A    | Number                      | 1                         |
| Input consumption                  | < 2 VA                        | Type of optocoupler         | 15 VDC max                |
| Permanent overload                 | 32 A                          | Fixed pulse weight          | 100 Wh                    |
| Intermittent overload              | 30 I <sub>max</sub> for 10 ms | Pulse duration              | 100 ms                    |
| Minimum current measured           | 20 mA                         | <b>Operating conditions</b> |                           |
| <b>Voltage measurements (TRMS)</b> |                               | Operating temperature       | - 10 ... + 55 °C          |
| Range of measurement               | 196 ... 264 VAC               | Storage temperature         | - 20 ... + 70 °C          |
| Input consumption                  | 8 VA                          | Relative humidity           | 95 %                      |
| Permanent overload                 | 264 VAC                       | <b>Communication</b>        |                           |
| <b>Energy accuracy</b>             |                               | Link                        | COUNTIS E03/E04<br>RS485  |
| Active (according to IEC 62053-21) | Class 1                       | Type                        | 2 ... 3 half duplex wires |
| Active (according to EN 50470)     | Class B                       | Protocol                    | MODBUS® RTU               |
| <b>Power supply</b>                |                               | MODBUS speed                | 1200 ... 38400 bauds      |
| Self-supplied                      | yes                           |                             |                           |

## Case



|                              | COUNTIS E00/E02    | COUNTIS E03/E04   |
|------------------------------|--------------------|-------------------|
| Type                         | modular            | modular           |
| Number of modules            | 1                  | 1                 |
| Dimensions W x H x D         | 17,5 x 85 x 61     | 19 x 87 x 63      |
| Case degree of protection    | IP 20              | IP 20             |
| Front degree of protection   | IP 50              | IP 50             |
| Display type                 | LCD 5+1 digits     | LCD 6+1 digits    |
| Rigid cable cross-section    | 10 mm <sup>2</sup> | 6 mm <sup>2</sup> |
| Flexible cable cross-section | 6 mm <sup>2</sup>  | 4 mm <sup>2</sup> |
| Weight                       | 150 g              | 150 g             |

## Connection



## References

| Type                                                    | COUNTIS E00<br>Reference | COUNTIS E02<br>Reference | COUNTIS E03<br>Reference | COUNTIS E04<br>Reference |
|---------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Direct 32 A                                             | 4850 3019                |                          |                          |                          |
| Direct 32 A - MID                                       |                          | 4850 3020                |                          |                          |
| Direct 32 A - with MODBUS communication via RS485       |                          |                          | 4850 3029                |                          |
| Direct 32 A - with MODBUS communication via RS485 - MID |                          |                          |                          | 4850 3030                |