



COUNTIS E0x

Active energy meters
single-phase - direct 32 A

Metering, monitoring
& power quality

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.

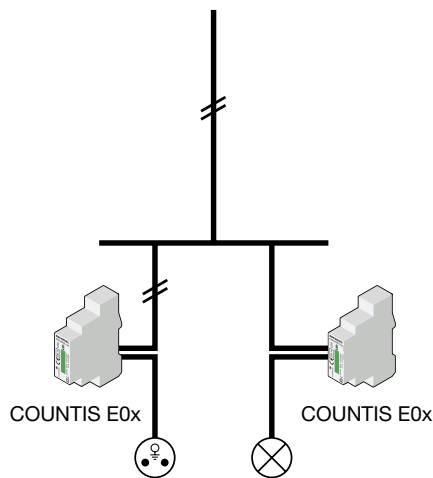
Pulse output

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

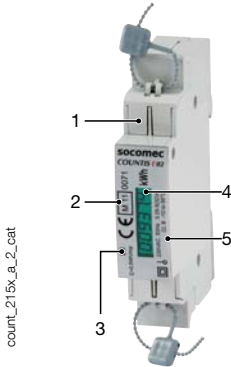


Common characteristics

- 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

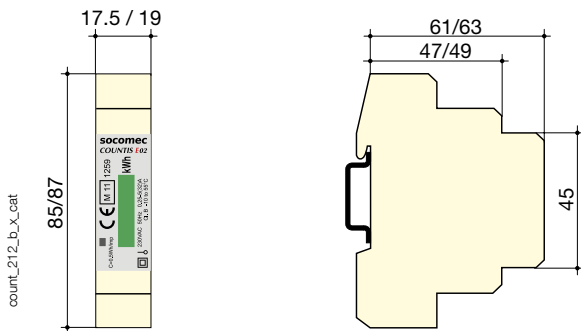


1. Terminal shrouds (COUNTIS E02 + E04).
2. MID Marking (COUNTIS E02 + E04).
3. Metrological LED (2000 pulses/kWh for E00/E02 and 1000 pulses/kWh for E03/E04)
4. kWh display.
5. Serial number (COUNTIS E02).

Electrical characteristics

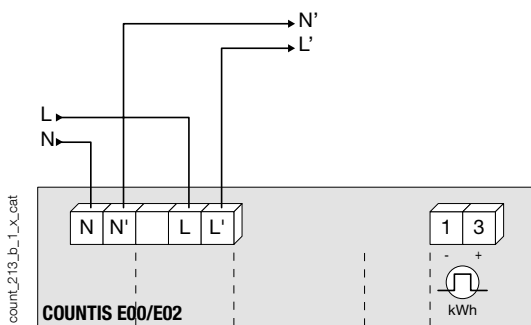
Current measurement (TRMS)		Output (pulsed)	COUNTIS E00/E02
Type	single-phase - direct 32 A	Number	1
Input consumption	< 2 VA	Type of optocoupler	15 VDC max
Permanent overload	32 A	Fixed pulse weight	100 Wh
Intermittent overload	30 I _{max} for 10 ms	Pulse duration	100 ms
Minimum current measured	20 mA	Operating conditions	
Voltage measurements (TRMS)		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	Communication	
Energy accuracy		Link	COUNTIS E03/E04
Active (according to IEC 62053-21)	Class 1	Type	RS485
Active (according to EN 50470)	Class B	Protocol	2 ... 3 half duplex wires
Power supply		Protocol	MODBUS® RTU
Self-supplied	yes	MODBUS speed	1200 ... 38400 bauds

Case

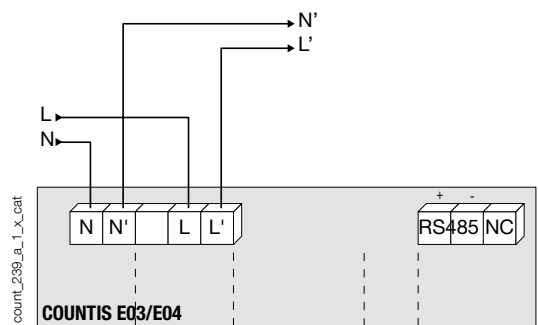


	COUNTIS E00/E02	COUNTIS E03/E04
Type	modular	modular
Number of modules	1	1
Dimensions W x H x D	17,5 x 85 x 61	19 x 87 x 63
Case degree of protection	IP 20	IP 20
Front degree of protection	IP 50	IP 50
Display type	LCD 5+1 digits	LCD 6+1 digits
Rigid cable cross-section	10 mm ²	6 mm ²
Flexible cable cross-section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

Connection



N - L: network input.
N' - L': network output.
1 - 3: output (pulsed).



References

Type	COUNTIS E00 Reference	COUNTIS E02 Reference	COUNTIS E03 Reference	COUNTIS E04 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