

COUNTIS *E*

Active and reactive energy meters
and multi-utility pulse concentrators



your energy
our expertise



socomec
Innovative Power Solutions

Energy meters for visible savings

As your first step towards saving energy, energy meters can do so much more than simply provide consumption readings. They now deliver highly accurate measurements along with other electrical parameters essential for managing your energy costs.

Use COUNTIS E meters with COUNTIS ECi pulse concentrators and energy management software from Socomec, and you have a complete system that centralises and makes it easier to track your consumption.



Measuring and centralising your energy data

Now offering so much more than metering and measuring functions, COUNTIS E meters, together with COUNTIS ECi pulse concentrators, allow you to centralise your multi-utility data (electricity, water, gas, compressed air, etc.). This means you can **easily allocate power** by area or by end-use to optimise costs.

Displaying consumption information where it's needed

Simply tracking your energy consumption means you can **reduce it significantly**. All COUNTIS E units have a backlit display and an optional communication output allowing you to view your consumption remotely or directly on the meter.

Guaranteed measurements

COUNTIS E units comply with the MID directive which guarantee accuracy and reliability when metering, a **compulsory function for energy billing applications**.

These products are subject to quality requirements assuring the accuracy of the displayed measurements and have accessories that prevent any kind of tampering.

Socomec, your best asset

Socomec is a specialist manufacturing group and solution provider in the availability, control and security of low voltage electrical power.

A renowned expert in energy efficiency and power quality, Socomec is your single point of contact, from diagnosis to application, for a solution perfectly tailored to your objectives.

With the COUNTIS E, DIRIS A, DIRIS Digiware and associated current sensor ranges, Socomec has developed one of the most advanced measurement ranges on the market, dedicated to improving your energy performance.



COUNTIS *E*

A complete range of energy meters adapted to even the most demanding of applications



COUNTIS E devices are electrical energy meters.

The COUNTIS E range is compatible with every type of integration, network and load (direct readings up to 100 A and up to 6000 A on the CT).

There are multiple features and benefits with this range: MID metering, various communication protocols, multi-measurements and multi-tariff options.

Adapted solutions to reach your energy goals

The COUNTIS E range perfectly meets the needs and constraints of every electrical system: industrial buildings, medical centres, data centres, infrastructures, high rise buildings...



The benefits of the **COUNTIS E** range



MID metering

COUNTIS E units comply with the MID directive to guarantee accuracy and reliability when metering, which is compulsory for energy billing applications.

Their tamper-proof components prevent fraud and restrict certain functions (no reset). **The COUNTIS E range is EN50470-compliant and MID-certified as "Module B+D", guaranteeing that the design and manufacturing process of products are approved by an accredited laboratory.**



Several tamper-proof features (anti-reset lock, uni-directional metering, etc.) guarantee the reliability of measurements and exclude any kind of tampering.



Multiple communication protocols

COUNTIS E devices incorporate a pulse output or Modbus, M-BUS or Ethernet communication ports.

This communication feature allows you to:

- centralise your consumption,
- configure devices remotely via the Easy Config software or web server,
- access up to four tariffs (four time slots) to track your energy consumption in more detail,
- measure more electrical parameters: I, V, P, Q, S and PF.



Modbus TCP (Ethernet)



Pulse



Modbus (RS485)



M-BUS



Quick setup

With the Easy Config software you can easily create, edit and save COUNTIS E and COUNTIS Eci settings.

It offers the following features:

- set up a new product offline,
- back-up the configuration to your PC,
- transfer the configuration to a device via the communication port.



SOFT 039 A



Multi-measurement

Display up to 20 electrical parameters with partial and total energy meters. Partial counters can be started, stopped or reset to get specific and targeted energy consumption readings.



Multi-tariff

With multi-tariff readings you can measure your energy at various time slots (peak, non-peak) or read your energy from different sources (normal, backup supply) on a single meter.



Connection control

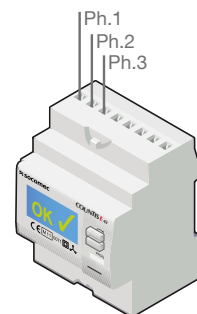
COUNTIS E devices are protected against phase/neutral inversion and can detect wiring errors. Installation and commissioning is quick and the meter is guaranteed to operate correctly.

Expert Services



Technical site audits, solution specifications, advice, commissioning, maintenance, training, etc.

Our Expert Services team offers customised support to make your project a success.



COUNT 229 A



Web server function

Single-point web server

These products have an Ethernet port with an integrated web server accessible on a standard web browser (Internet Explorer, Firefox...).

With the web server function you can:

- monitor electrical units,
- view your energy consumption,
- configure the meter's main parameters,
- View and export energy values to CSV format (automatic export via FTP).



COUNTIS
Modbus TCP.

COUNT 332 A



SOFT_044 A



SOFT_045 A

Also available

Products suitable for existing sites and applications that require the implementation of multiple multimeter circuits.



RETROFIT & DIRIS Digiware range.

GAMME 593 A

Also available

Wide range of 5 to 5000 A current transformers to support Socomec counters and meters.



Multipoint web server

With the DIRIS G gateway used in applications with multiple metering points, you can:

- monitor up to 32 devices (via the web server),
- measure the parameters of your facility in real time (I, V, F, P, Q, S and PF),
- view the energie values (total and partial metering),
- record measurements and consumption (stored for up to 1 year),
- export consumption data to CSV format (automatic export via FTP).



DIRIS G

DIRIS G 004 A



Real-time display.

SOFT_027 A_1_FR_CAT



Consumption monitoring.

SOFT_038 A_1_FR_CAT

Software suite: the perfect companion to drive reductions in your energy consumption

Energy and facility managers of commercial and industrial sites, do you want:

- To understand your site, buildings & processes ?
- To reduce your energy consumption, costs & carbon emissions ?
- To drive a legislation compliance process ?
- To monitor, allocate and sub-bill energy costs ?
- To implement a corporate green communication ?

Socomec's energy management software is ideal for meeting the energy requirements of industrial and commercial buildings. The software allows you to **reduce your energy bills by up to 30%.**









SYDV 093 A

SYDV 094 A

Selection guide

Type
of network?

Load
current?

Type of network - Input current	Single-phase Direct up to 32 A	Single-phase Direct up to 40 A	Single-phase Direct up to 63 A	Single-phase Direct up to 80 A	Three-phase Direct up to 63 A	Three-phase Direct up to 80 A
		new 		new 		new 
Energy meters: <i>COUNTIS E</i>	<i>E00/E02</i>	<i>E03/E04</i> <i>E05/E06</i>	<i>E10/E11/E12</i>	<i>E13/E14</i> <i>E15/E16</i> <i>E17/E18</i>	<i>E20/E21/E22</i>	<i>E23/E24</i>

Main specifications

MID: EN 50470 module B+D certification	• (E02)	• (E04)	• (E06)	• (E12)	• (E14)	• (E16)	• (E18)	• (E22)	• (E24)
RS485 Modbus		•			•				•
M-Bus			•			•			
Ethernet Modbus TCP/RTU							•		
Width	1 module	1 module	1 module	3 modules	2 modules	2 modules	2 modules	4 modules	4 modules
Input voltage	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 to 400 VAC	230 to 400 VAC

Functions

Total / partial energy kWh	•/-	•/•	•/•	•/• (E10, E11)	•/•	•/•	•/•	•/•	•/•
Active power / Reactive power		•/•	•/•	•/-	•/•	•/•	•/•	•/• (E22)	•/•
Dual tariff for kWh		•	•	• (E11, E12)	•	•	•	• (E21 / 22)	•
Total / partial energy kvarh		•/•	•/•		•/•	•/•	•/•	• (E22)	•/•
kVA		via COM	via COM		•	•	•	• (E22)	•
Load curve									
Measurement (I, V, P, Q, S and PF)		•	•		•	•	•	• (E22)	•
CT connection control									
Bi-directional (consumed and generated power)		•	•		•	•	•	• (E22)	•
Embedded web server							•		
Compatible with DIRIS G web server		•			•				•

Accuracy

Active energy (IEC 62053-21)	Class 1	Class 1	Class 1	Class 1	Class 1	Class 1	Class 1	Class 1	Class 1
Reactive energy (IEC 62053-23)		Class 2	Class 2		Class 2	Class 2	Class 2	Class 2 (E22)	Class 2
Active energy (EN 50470)	Class B (E02)	Class B (E04)	Class B (E06)	Class B (E12)	Class B (E14)	Class B (E16)	Class B (E18)	Class B (E22)	Class B (E24)

Characteristics

Metrological LED	•	•	•	•	•	•	•	•	•
Pulse output	100 Wh	100 Wh	100 Wh	100 Wh	100 Wh	100 Wh		100 Wh	100 Wh
Sealing cover (MID version only)	• (E02)	• (E04)	• (E06)	• (E12)	• (E14)	• (E16)	• (E18)	• (E22)	• (E24)
Phase / neutral inversion protection								•	

References

COUNTIS E	4850 3019 (E00) 4850 3020 (E02)	4850 3039 (E03) 4850 3040 (E04)	4850 3041 (E05) 4850 3042 (E06)	4850 3000 (E10) 4850 3001 (E11) 4850 3002 (E12)	4850 3043 (E13) 4850 3044 (E14)	4850 3045 (E15) 4850 3046 (E16)	4850 3047 (E17) 4850 3048 (E18)	4850 3003 (E20) 4850 3004 (E21) 4850 3049 (E22)	4850 3050 (E23) 4850 3051 (E24)
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Pulse concentrator	COUNTIS ECi2	COUNTIS ECi3
Width	4 modules	4 modules
Logical inputs	7	7
Analogue input		2
Output (alarm)	1	1
Partial, total, daily, weekly, monthly kWh or other types of data (litres, m³...)	•	•
Load curve from 8 to 30 minutes	•	•
RS485 Modbus	•	•
References		
COUNTIS E	4853 0000	4853 0001
Panel mounting kit	192J 8015	192J 8015

Level
of accuracy?

MID
certification?

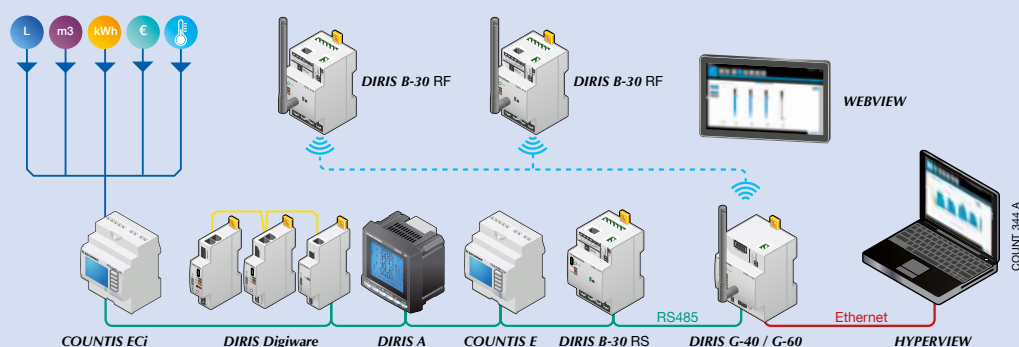
Communication
or pulse output?

View data on
the web server?

Three-phase Direct up to 80 A		Three-phase Direct up to 100 A			3 x single Direct up to 100 A	Three-phase CT/5 A			Three-phaseCT/5 A	
										
E25/E26	E27/E28	E30/E31/E32	E33/E34	E35/E36	E63	E40/E41/E42	E43/E44	E45/E46	E50	E53
• (E26)	• (E28)	• (E32)	• (E34)	• (E36)		• (E42)	• (E44)	• (E46)		
•			•	•	•		•	•		•
4 modules	4 modules	7 modules	7 modules	7 modules	7 modules	4 modules	4 modules	4 modules	96x96	96x96
230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	230 to 400 VAC	86 to 520 VAC	86 to 520 VAC
•/•	•/•	•/• (E31)	•/via COM (E34)	•/via COM (E36)	•/•	•/•	•/via COM (E44)	•/via COM (E46)	•/•	•/•
•/•	•/•	•/-	•/via COM	•/via COM	•/via COM	•/-	•/via COM	•/via COM	•/•	•/•
•	•	• (E31/E32)	Up to 4 via COM	Up to 4 via COM	Up to 4 via COM		Up to 4 via COM	Up to 4 via COM	•	•
•/•	•/•		via COM	via COM	via COM		via COM	via COM	•	•
•	•		via COM	via COM	via COM		via COM	via COM	•	•
			via COM	via COM	via COM		via COM	via COM		
•	•		via COM	via COM	via COM		via COM	via COM	•	•
						•	•	•	•	•
•	•		• (E33)	• (E35)			• (E43)	• (E45)		
	•		•				•			•
Class 1	Class 1	Class 1	Class 1	Class 1	Class 1	Class 0.5s	Class 0.5s	Class 0.5s	Class 1	Class 1
Class 2	Class 2					Class 2	Class 2	Class 2	Class 2	Class 2
Class B (E26)	Class B (E28)	Class B (E32)	Class B (E34)	Class B (E36)		Class C (E42)	Class C (E44)	Class C (E46)		
•	•	•	•	•	•	•	•	•		
100 Wh	100 Wh					Configurable				
• (E26)	• (E28)	• (E32)	• (E34)	• (E36)		• (E42)	• (E44)	• (E46)		
		•	•	•	•	•	•	•	•	•
4850 3052 (E25) 4850 3053 (E26)	4850 3054 (E27) 4850 3055 (E28)	4850 3005 (E30) 4850 3006 (E31) 4850 3007 (E32)	4850 3012 (E33) 4850 3013 (E34)	4850 3025 (E35) 4850 3026 (E36)	4850 3016 (E63)	4850 3008 (E40) 4850 3009 (E41) 4850 3015 (E42)	4850 3017 (E43) 4850 3014 (E44)	4850 3027 (E45) 4850 3028 (E46)	4850 3010 (E50)	4850 3011 (E53)

COUNTIS ECi pulse concentrators

These units can collect and store real-time pulses emanating from water, gas, compressed air and electricity meters, or analogue sensors (light, temperature, wind...). All data can be centralised and managed by a software solution dedicated to managing your energy efficiency.



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