

# Active/reactive energy meters and multi-utility pulse concentrators *COUNTIS E*



When **energy** matters

# Energy meters for everyday efficiency

Your first step towards making savings, today's 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 effectively managing your energy costs. Using COUNTIS E meters with COUNTIS ECi pulse concentrators and energy management software from Socomec, you have a complete system that centralises your data and makes it easier than ever to track your consumption.



A **complete system**  
to centralise and track  
your consumption

## Cost optimisation

COUNTIS E meters - together with COUNTIS ECi pulse concentrators - allow you to :

- **centralise your multi-utility data** (electricity, water, gas, compressed air...),
- **easily allocate power** by area or by end-use.

## Guaranteed measurements

COUNTIS E meters are MID directive "Module B+D" certified for easy energy billing.

## Data analysis

COUNTIS E meters have advanced connectivity and an integrated web server, without any additional cost, for **viewing your consumption**:

- directly on the panel,
- remotely.

## Control of your installation

With accurate information on voltages, current and power, the COUNTIS E has all the necessary data to **optimise the operation of your installation**.

# COUNTIS E

Smart metering range, you can count on



GAMME 745 A

## LARGEST AND MOST VERSATILE RANGE ON THE MARKET

### Largest range

Compatible with every type of integration, network and load (direct readings up to 100 A and up to 12000 A on the CT).

### Advanced connectivity

Available for all applications, including the most demanding, through advanced connectivity: Ethernet, Modbus, M-Bus.

## RELIABLE AND EASY TO USE MEASUREMENT DATA

### Certified measurements

Accurate and reliable measurements - MID "Module B+D" directive certified.

### Integrated web server

Easy data exploitation thanks to a free integrated web server accessible on a standard web browser.

# Advantages



## Installation

### Quick setup

It's simple to create, edit and save product settings with the Easy config System.

Available features:

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

### Multiple communication protocols

To meet all your needs, COUNTIS E devices incorporate a pulse output, 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,
- access more electrical parameters: I, V, P, Q, S and PF remotely.



## Measurement

### Reliable and safe

To guarantee a **100% reliable product**, the COUNTIS E range is **EN50470-compliant and MID "Module B+D" certified** attesting to a rigorous double check. Product design and manufacturing processes are approved by an accredited external laboratory.

COUNTIS E units comply with the MID directive in order to:

- guarantee metering accuracy and reliability,
- ensure accurate energy billing.

COUNTIS E units have tamper-proof components in order to:

- prevent attempted fraud,
- restrict certain functions (no reset).

### Multi-tariff

It's now possible to reduce costs thanks to the meter's multi-tariff function, which facilitates energy usage at the most advantageous times.

With a single counter, the multi-tariff counting allows you to:

- measure your energy at various time slots (peak, non-peak),
- read your energy from different sources (normal, backup supply).

### Current transformer and RGW sensors



In order to get the best of your counters, select the Socomec's current transformers. Choose the rating, the size, the conductor size and the accuracy class to suit your needs.



CR000E280\_A GB

### Need multi-measurement ?



For existing sites and applications that require multi-measurement, discover our DIRIS Digiware scalable solution.



CR000E184\_A GB



## Exploitation

### Integrated web server



It's easy to **monitor, visualise and analyse** your consumption thanks to the integrated web server\*.

Unlike traditional solutions, COUNTIS E meters integrate the web server without any additional cost. Surf easily on the web server with your internet 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).

*\* Only available for products with an Ethernet port.*

### Multipoint web server



For applications with multiple metering points, WEBVIEW-M which is embedded in the DIRIS Digiware M-70 gateway and D-70 display can integrate up to 32 measuring devices, including COUNTIS E energy meters:

- visualise real time parameters of your facility (I, V, F, P, Q, S and PF),
- visualise energy values (total and partial meters),
- record measurements and consumptions,
- export measurements and consumptions (manual or automatic via FTP) in a CSV format.




If more than 32 devices are used or if more memory depth is needed, the DATALOG H80 allows you to visualise and store data from up to 200 Socomec measuring devices and third-party Modbus devices over several years.



# Selection guide

Which type  
of network ?

Which load  
current ?

Network - Input current	Single-phase Direct up to 40 A			Single-phase Direct up to 80 A				Three-phase Direct up to 80 A	
									
<b>Active energy meters: COUNTIS E</b>	<b>E00/E02</b>	<b>E03/E04</b>	<b>E05/E06</b>	<b>E11/E12</b>	<b>E13/E14</b>	<b>E15/E16</b>	<b>E17/E18</b>	<b>E21/E22</b>	<b>E23/E24</b>
<b>References</b>	E00: 4850 3058 E02: 4850 3059	E03: 4850 3039 E04: 4850 3040	E05: 4850 3041 E06: 4850 3042	E11: 4850 3060 E12: 4850 3061	E13: 4850 3043 E14: 4850 3044	E15: 4850 3045 E16: 4850 3046	E17: 4850 3047 E18: 4850 3048	E21: 4850 3062 E22: 4850 3049	E23: 4850 3050 E24: 4850 3051
<b>Main specifications</b>									
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	2 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 ... 400 VAC	230 ... 400 VAC
<b>Functions</b>									
Total/partial energy kWh	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•
Active power / Reactive power	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•
Dual tariff for kWh		•	•	•	•	•	•	•	•
Total/partial energy kvarh	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•	•/•
kVA		via COM	via COM		•	•	•	•	•
Load curve									
Measurement (I, V, P, Q, S, F and PF)	•	•	•	•	•	•	•	•	•
CT connection indication									
Birectional (energy consumption and production)	•	•	•	•	•	•	•	•	•
Integrated web server							•		
Compatibility with Webview		•			•		•		•
<b>Accuracy</b>									
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 (according to IEC 62053-23)	class 2	class 2	class 2	class 2	class 2	class 2	class 2	class 2	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)
<b>Characteristics</b>									
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									

## Expert Services



The ISO 50001 standard requires companies to:

- define their measurement equipment needs,
- regularly review the installed equipment,
- ensure that the equipment used for monitoring and measurement of the key characteristics is accurate, reliable and repeatable.

To guarantee the reliability of the data collected, the Expert Services technicians support you with services to verify the global measurement chain.

Which 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			Three-phase CT 1/5A				Three-phase CT/5 A	
<b>E25/E26</b>	<b>E27/E28</b>	<b>E30/E31/E32</b>	<b>E33/E34</b>	<b>E35/E36</b>	<b>E41/E42</b>	<b>E43/E44</b>	<b>E45/E46</b>	<b>E47/E48</b>	<b>E50</b>	<b>E53</b>
E25: 4850 3052 E26: 4850 3053	E27: 4850 3054 E28: 4850 3055	E30: 4850 3005 E31: 4850 3006 E32: 4850 3007	E33: 4850 3012 E34: 4850 3013	E35: 4850 3025 E36: 4850 3026	E41: 4850 3063 E42: 4850 3064	E43: 4850 3065 E44: 4850 3066	E45: 4850 3067 E46: 4850 3068	E47: 4850 3056 E48: 4850 3067	E50: 4850 3010	E53: 4850 3011
• (E26)	• (E28)	• (E32)	• (E34)	• (E36)	• (E42)	• (E44)	• (E46)	• (E48)		
			•			•				•
	•			•			•			
								•		
4 modules	4 modules	7 modules	7 modules	7 modules	4 modules	4 modules	4 modules	4 modules	96x96	96x96
230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	230 ... 400 VAC	86 ... 520 VAC	86 ... 520 VAC
•/•	•/•	•/• (E31)	•/via COM (E34)	•/via COM (E36)	•/•	•/•	•/•	•/•	•/•	•/•
•/•	•/•	•/-	•/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	•	•	•	•	•	•
					•	•	•	•	•	•
•	•		• (E33)	• (E35)	•	•	•	•		
	•							•		
	•		•			•		•		•
class 1	class 1	class 1	class 1	class 1	class 1	class 1	class 1	class 1	class 1	class 1
class 2	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)	class C (E48)		
•	•	•	•	•	•	•	•	•		
100 Wh	100 Wh				configurable	configurable	configurable	configurable		
• (E26)	• (E28)	• (E32)	• (E34)	• (E36)	• (E42)	• (E44)	• (E46)	• (E48)		

## 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...).

Pulse concentrator	COUNTIS ECi2	COUNTIS ECi3
<b>Width</b>	4 modules	4 modules
<b>Logical inputs</b>	7	7
<b>Analogue input</b>		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	•	•
<b>References</b>		
COUNTIS E	4853 0000	4853 0001
Panel mounting kit	192J 8015	192J 8015

# Socomec: our innovations supporting your energy performance

**1** independent manufacturer

**3,900** employees worldwide

**8** % of sales revenue dedicated to R&D

**400** experts dedicated to service provision

## Your power management expert



POWER SWITCHING



POWER MONITORING



POWER CONVERSION



ENERGY STORAGE



EXPERT SERVICES

## The specialist for critical applications

- Control, command of LV facilities
- Safety of persons and assets
- Measurement of electrical parameters
- Energy management
- Energy quality
- Energy availability
- Energy storage
- Prevention and repairs
- Measurement and analysis
- Optimisation
- Consultancy, commissioning and training

## A worldwide presence

**12** production sites

- France (x3)
- Italy (x2)
- Tunisia
- India
- China (x2)
- USA (x2)
- Canada

**30** subsidiaries and commercial locations

- Algeria • Australia • Austria • Belgium • China
- Canada • Dubai (United Arab Emirates) • France
- Germany • India • Indonesia • Italy • Ivory Coast
- Netherlands • Poland • Portugal • Romania • Serbia
- Singapore • Slovenia • South Africa • Spain • Sweden
- Switzerland • Thailand • Tunisia • Turkey • UK • USA

**80** countries

where our brand is distributed

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