

COUNTIS E

Active and reactive energy meters and multi-utility pulse concentrators













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, multimeasurements 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, unidirectional 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)



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.





Multimeasurement

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.



Multitariff

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.



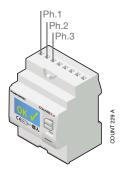
Connection control

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.



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

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





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 energie values to CSV format (automatic export via FTP).



COUNTIS Modbus TCP.





Also available

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



RETROFIT & DIRIS Digiware range.

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





Consumption monitoring.

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%.



Selection guide

Type of network - Input current	Single-phase Direct up to 32 A	Direct Direct		Single-phase Direct Up to 63 A Single-phase Direct Up to 63 A Up to 80 A			Three-phase Direct up to 63 A	Three-phase Direct up to 80 A		
					new				new	
Energy meters: COUNTIS E	E00/E02	E03/E04	E05/E06	E10/E11/E12	E13/E14	E15/E16	E17/E18	E20/E21/E22	E23/E24	
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 3041 (E05) 4850 3042 (E06)			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)	

Pulse concentrator	COUNTIS ECi2	COUNTIS ECi3	
Width	4 modules	4 modules	
Logical imputs	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?





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)	• (E24)	• (E36)		• (E42)	• (E44)	• (E46)		
	● (E20)	● (E20)	● (E32)	• (E34)	● (E30)	•	• (E42)	• (E44)	• (E46)		•
	•			Ÿ	•	· ·		·	•		•
					•						
	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
	200 10 100 1110	200 10 100 1110	200 10 100 1110	200 10 100 1/10	200 10 100 1/10	200 to 100 th	200 10 100 1/10	200 10 100 1/10	200 10 100 1/10	00 10 020 11 10	00 10 020 11 10
	•/•	•/•	•/• (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	•	•
	•/•	•/•	- (LO17 LO2)	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)		
		•		(200)	(200)			(2.0)	(2.0)		
				•				•			•
	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	5,000	0.000		5,000	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)	55	
	()	()	(' ')	(' ')	(1 3)		,	,			
	•	•	•	•	•	•	•	•	•		
	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, WEBVIEW 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. COUNTIS ECI DIRIS Digiware COUNTIS E DIRIS B-30 RS DIRIS G-40 / G-60 HYPERVIEW DIRIS A

Socomec worldwide

IN INDIA

CORPORATE OFFICE

B1, II Floor Thiru-Vi-Ka Industrial Estate Guindy, Chennai - 600 032 Tel: +91 44 3921 5400 / 5423 / 5466 Mob: +91 9711229993, +91 9790968731 Fax: +91 44 39215450 info.in@socomec.com

MANUFACTURING FACILITY

756 Pace City II Sector 37 Gurgaon - 122 001 Haryana

Tel: +91 124 4562700, 4597803 Fax: +91 124 4562733 CIN: U00000HR1999PTC038504

BRANCH OFFICES

BANGALORE

160, Arun Arch, 2nd Floor 9th Cross, Indiranagar First Stage Bangalore - 560 038 Tel: +91 80 41739101-03 Mob: +91 9972578171, +91 9886323448

COCHIN

47/590, Mattathumkattil Narayanan Asan Road Ponnurunni, Vyttila Cochin - 682019 Mob: +91 9745012322, +91 8939550688

COIMBATORE

12, 3rd Cross Street Lakshmipuram, Ganapathy Coimbatore - 641 006 Mob: +91 8939550688. +91 9003032012

HYDERABAD

3rd Floor 6-3-652/K/12, KAUTILYA Complex Somajiguda Hyderabad - 500 082 Mob: +91 9959444277, +91 9642528800

KOLKATA

AK-257, Sector-2 Salt Lake City, Kolkata - 700091 Mob: +91 9836405558, +91 8697709095

MUMBAI

Office No.404, 4th Floor
"C" Wing, Neelkanth Business Park
Nr. Vidyavihar Station, Vidyavihar (W)
Mumbai - 400 086
Tel: +91 9987052602, +91 9167542007

NEW DELHI

Plot No 100,1st Floor Okhla Industrial Estate Phase III New Delhi - 110020 Tel: +91 11 40884000 Mob: +91 9958595941, +91 9953595413

PUNE

Plot No. 30, Wireless Co-operative Society Behind Convergys, Aundh Pune 411 007 Telefax: +91 20 25881587 Mob: +91 9987052604, +91 9423204106

RESIDENT OFFICIES

AHMEDABAD

+91 9727753931 +91 9376639333

CHANDIGARH

+91 9023154784

TRIVANDRUM +91 9020179364

VADODARA

+91 9099947988

IN EUROPE

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OTHER COUNTRIES

www.socomec.co.in/worldwide

HEAD OFFICE

SOCOMEC GROUP

SAS SOCOMEC capital 10 686000 € R.C.S. Strasbourg B 548 500 149 B.P. 60010 - 1, rue de Westhouse F-67235 Benfeld Cedex - FRANCE Tel. +33 3 88 57 41 41 Fax +33 3 88 74 08 00 info.scp.lsd@socomec.com

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