

EU TYPE EXAMINATION CERTIFICATE

Directive 2014/32/EU, Module B

0598/MID/B/24/049 Issue 1

Product	Active Electrical Energy Meters (Annex V MI-003)		
Model	Meter type COUNTIS P44, COUNTIS P46	Description Polyphase, Active Import/Export (kWh) Indoor, Electricity Meter	Instrument Traceable No. 0120/SGS0750
Trademark	-		
Certificate holder / Manufacturer	SOCOMECS.A.S 1-4 Rue de Westhouse 67230 BENFELD FRANCE		
Directive information	For the instruments mentioned in this Certificate, the following essential requirements of Directive 2014/32/EU apply: - Annex I Essential requirements - Annex V Active electrical meters (MI-003)		
Standards	EN IEC 62052-11:2021/A11:2022, EN 50470-3:2022, IEC 62052-31:2015		
Validity	This certificate is valid until 2034-06-13 The manufacturer must inform SGS Fimko in case of any intended change to the design. Unauthorised changes will invalidate this certificate. The Manufacturer is permitted to affix the CE-marking onto the instrument(s) after complying with the conformity assessment procedures referred to in Article 17 of the Directive and to draw up a written declaration of conformity.		
Date of issue	2024-11-11		
Signature	SGS Fimko OY Notified Body 0598  Mikko Välimäki Certification Manager		

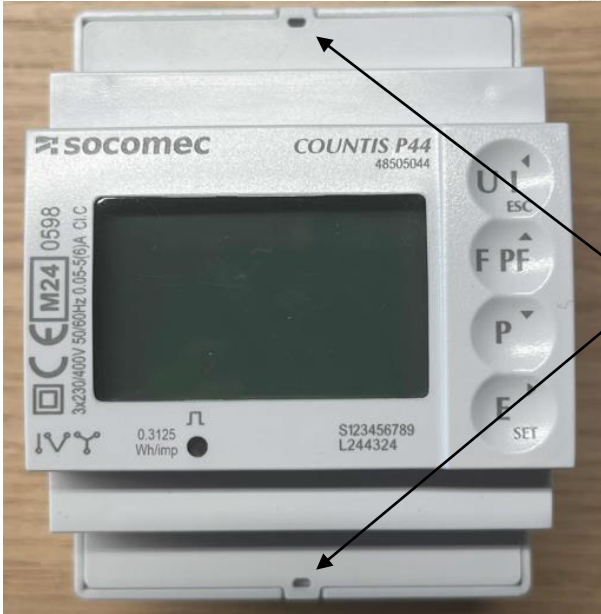
Test report(s)

Report Number	Date
SHES240100078801	2024-06-07
SHES240100078802	2024-06-07
SHES240100078801 Issue 2	2024-07-11
SHES240100078802 Issue 2	2024-07-11

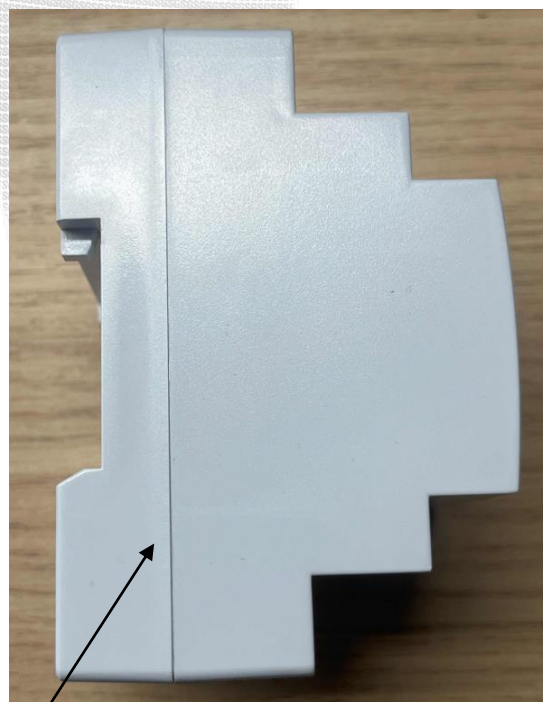
Technical information

Meter Type(s)	COUNTIS P44, COUNTIS P46
Voltage Rating (U ⁿ)	3*230/400V
Current rating (I _{min} – I _{ref} (I _{max}))	0.05-5(6)A
Frequency (F _n)	50/60 Hz
Active Accuracy Class	A or B or C (kWh)
Type of Circuit	1p2w, 3p3w, 3p4w
Temperature Range	-40 °C to +70 °C
Software Version	V01.04
CRC Checksum	COUNTIS P44: 84EDA549 COUNTIS P46: 0EFC9E7E
Identification location	Nameplate
Bill of Materials No.(s)	COUNTIS P44: DH-JS-230051 V1.0 COUNTIS P46: DH-JS-240052V1.0
IP rating	IP51 Front Display. Meter body not rated. Must be installed in a suitable IP rated enclosure
Insulation protective class	Class II
LED Pulse Constant	3200 imp/kWh,
Impulse Voltage Rating	6 kV
AC Voltage Rating	4 kV
Main Cover Sealing Type	Main cover laser welded. Sealed with tamper proof security label
Integrity of Meter	Inaccessible without breaking seals
Intended location of the Meter	Indoor
Type of Register	LCD

Photographs and sealing

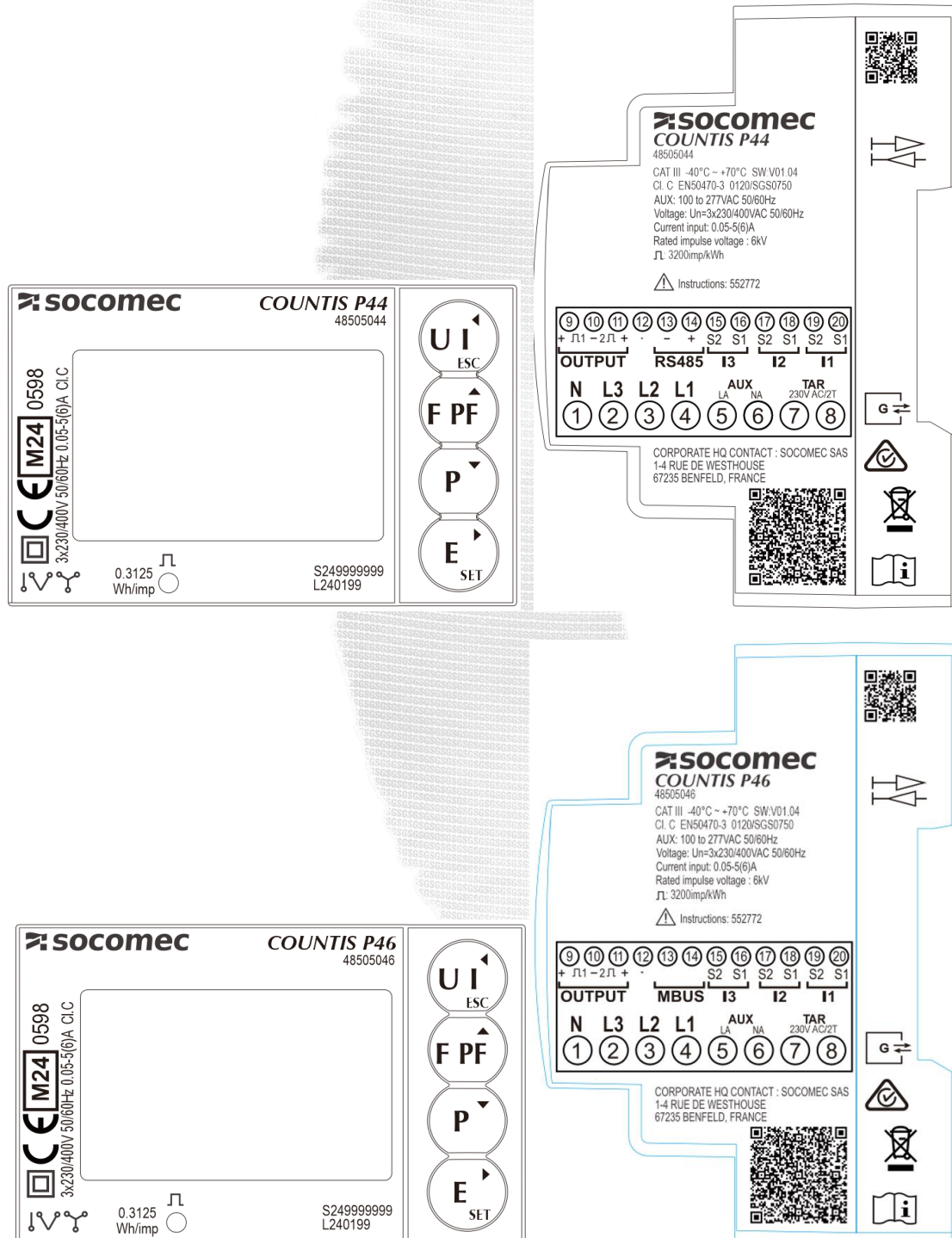


Terminal Cover Sealing Points



Main Cover Sealing Point

Nameplate example(s)



Calculation of the composite error / MPE

During the type approval examination the influence factors for temperature, voltage are determined per load point. The table below represents the sum of the square values per load, determined via the following formula:

$$\delta e(T, U, f) = \sqrt{(\delta e^2(T, I, \cos\varphi), \delta e^2(U, I, \cos\varphi), \delta e^2(f, I, \cos\varphi))}$$

where

- $\delta e(T, I, \cos\varphi)$ = Additional error due to variation of the temperature at the same load
- $\delta e(U, I, \cos\varphi)$ = Additional error due to variation of the voltage at the same load
- $\delta e(f, I, \cos\varphi)$ = Additional error due to variation of the frequency at the same load

		Influence Factors for temperature, frequency and voltage							
Current	PF Cos	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
I _{min}	1.0	0.45	0.38	0.13	0.08	0.09	0.10	0.21	0.43
I _{tr}	1.0	0.48	0.39	0.24	0.13	0.13	0.17	0.28	0.45
10I _{tr}	1.0	0.39	0.31	0.14	0.08	0.08	0.09	0.18	0.34
I _{max}	1.0	0.37	0.36	0.20	0.08	0.09	0.08	0.16	0.31
I _{tr}	0.5ind	0.30	0.19	0.09	0.12	0.10	0.12	0.28	0.55
10I _{tr}	0.5ind	0.35	0.26	0.11	0.04	0.04	0.08	0.23	0.44
I _{max}	0.5ind	0.30	0.27	0.15	0.15	0.16	0.13	0.18	0.35
I _{tr}	0.8cap	0.67	0.68	0.74	0.80	0.82	0.79	0.75	0.70
10I _{tr}	0.8cap	0.43	0.34	0.16	0.05	0.03	0.07	0.16	0.33
I _{max}	0.8cap	0.41	0.37	0.21	0.06	0.04	0.06	0.16	0.31
L1									
I _{tr}	1.0	0.41	0.23	0.08	0.06	0.05	0.09	0.21	0.43
10I _{tr}	1.0	0.39	0.20	0.08	0.07	0.07	0.09	0.21	0.42
I _{max}	1.0	0.38	0.22	0.08	0.04	0.04	0.09	0.17	0.43
I _{tr}	0.5ind	0.40	0.24	0.08	0.06	0.07	0.15	0.31	0.60
10I _{tr}	0.5ind	0.32	0.16	0.13	0.16	0.14	0.13	0.21	0.44
I _{max}	0.5ind	0.28	0.15	0.12	0.15	0.14	0.12	0.17	0.41
L2									
I _{tr}	1.0	0.60	0.39	0.24	0.17	0.18	0.23	0.33	0.51
10I _{tr}	1.0	0.44	0.25	0.13	0.13	0.13	0.12	0.19	0.35
I _{max}	1.0	0.44	0.26	0.13	0.12	0.12	0.11	0.18	0.35
I _{tr}	0.5ind	0.36	0.17	0.08	0.09	0.08	0.14	0.30	0.58
10I _{tr}	0.5ind	0.40	0.32	0.33	0.36	0.35	0.32	0.32	0.43
I _{max}	0.5ind	0.41	0.35	0.37	0.41	0.40	0.36	0.35	0.43
L3									
I _{tr}	1.0	0.48	0.26	0.10	0.05	0.05	0.07	0.19	0.37
10I _{tr}	1.0	0.49	0.27	0.11	0.06	0.06	0.07	0.16	0.34
I _{max}	1.0	0.50	0.27	0.10	0.03	0.03	0.06	0.16	0.33
I _{tr}	0.5ind	0.42	0.22	0.11	0.09	0.14	0.22	0.45	0.75
10I _{tr}	0.5ind	0.45	0.24	0.11	0.06	0.07	0.13	0.30	0.51
I _{max}	0.5ind	0.46	0.25	0.11	0.05	0.04	0.13	0.27	0.49

Annex of Variants

Product variant identification details:

Model No	Measurement	Output	Tariff
COUNTIS P44: 48505044	Multi-parameters:voltage(V), frequency(Hz), current(A), power(kW/kVA/kVar), import, export and total Energy(kWh/kVarh), Maximum demand of current and power.	Pulses & RS485	2 Tariffs (Dual Source)
COUNTIS P46: 48505046		Mbus	2 Tariffs (Dual Source)

Certificate issue history

Issue	Date	Comments
1	2024-11-11	This certificate replaces earlier issued certificate number 0120/SGS0750. The manufacturer can use the previous certificate number 0120/SGS0750 in their Declaration of Conformity and other documentation until normal lifecycle of the documentation comes to its end. New EU Type Examination Certificate number: 0598/MID/B/24/049