EU Type Examination Certificate Number: **0120/SGS0614**

ORNO-LOGISTIC Sp. z o.o

44-141 Gliwice, ul, Rolników 437,
Poland

Instrument Identification:
OR-WE-524, OR-WE-525, OR-WE-526

Single phase, Active Import/Export (kWh), Electricity Meter

Instrument Traceable Number
0120/SGS0614

has been assessed and certified as meeting the requirements of

EU Directive 2014/32/EU

on Measuring Instruments Annex II, Module B

It is certified that the manufacturer's technical design and specimen for the above instrument has been examined and, based on the evidence submitted, it is considered that the instrument conforms to the requirements of Annex V of EU Directive 2014/32/EU

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex II, Module D or Annex II, Module F

This certificate is valid until 22nd May 2032
Issue 1

Certification is based on report number(s) SHES220300395901dated 19th May 2022
EMA304043/1/TR50579 dated 18th May 2022
EMA304043/1
EMA309157/1

Authorised Signature

Mikko Välimäki

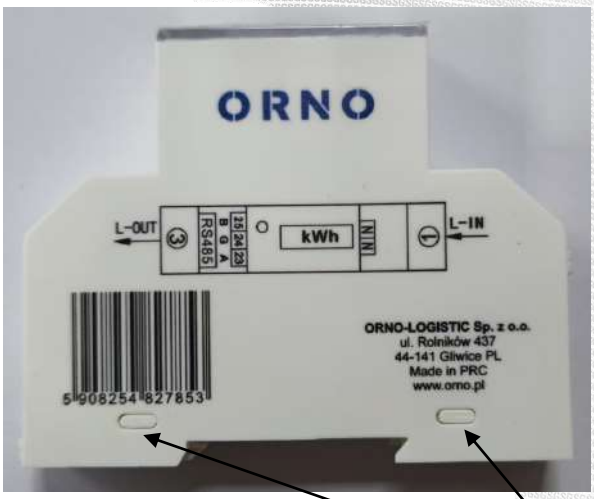
SGS Fimko OY, Notified Body 0598
Takomotie 8, FI-00380 Helsinki, Finland
t +358 9 6963 61 www.sgs.fi

1. Technical Data

Manufacturer	ORNO-LOGISTIC Sp. z o.o
Meter Types	OR-WE-524, OR-WE-525, OR-WE-526
Voltage Rating *(Un)*	230V
Current Rating *(Imin – Iref (Imax))*	0.25-5(30)A, 0.25-5(32)A, 0.25-5(40)A, 0.25-5(45)A, 0.25-5(50)A, 0.25-5(60)A 0.25-5(80)A, 0.25-5(100)A
Frequency *(Fn)*	50Hz
Active Accuracy Class *(kWh)*	B (kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +70°C
Software/ Firmware Version No's **Identification Location**	OR-WE-524:V101 CRC:5A8E OR-WE-525:V101 CRC:B6C9 OR-WE-526:V101 CRC:6B8D LCD & Nameplate
Bill of Materials No's	OR-WE-524: D118089-BOM V1.0 OR-WE-525: D118090-BOM V1.00 OR-WE-526: D118091-03
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Main cover clipped in place and sealed with tamper proof sealing tape
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacturers Name & Address	Side of the meter and associated documentation

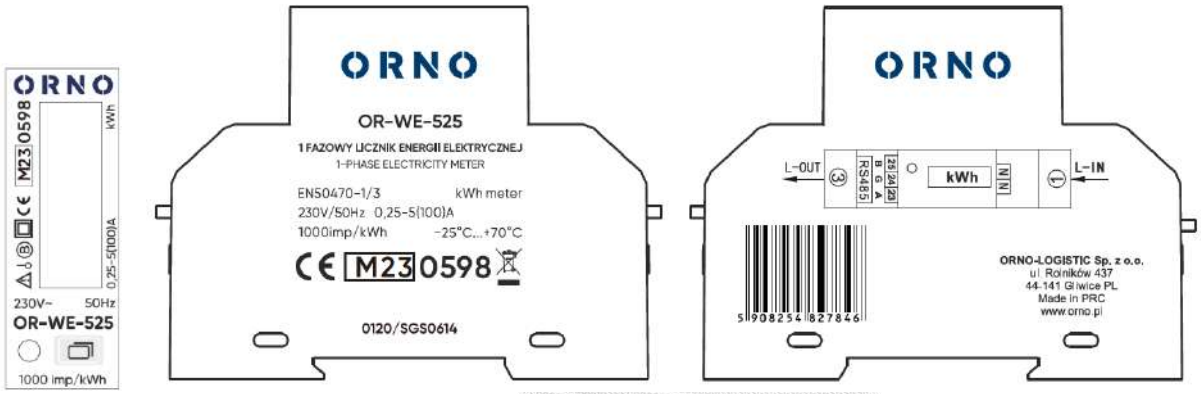
2. Photograph of Meter and Sealing Plan

Terminal Cover Sealing Points



Main Cover Sealing Points

3. Examples of Nameplates



4. Calculation of the composite error/ MPE

During the type approval examination the influence factors for temperature, frequency and 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, Voltage & Frequency						
Current	**PF Cos**	**-25°C**	**-10°C**	**5°C**	**30°C**	**40°C**	**55°C**	**70°C**
Imin	1.0	0.94	0.73	0.45	0.15	0.34	0.45	0.72
Itr	1.0	0.87	0.61	0.35	0.20	0.31	0.48	0.76
10Itr	1.0	0.89	0.64	0.37	0.24	0.23	0.47	0.72
Imax	1.0	1.38	1.20	1.01	0.71	0.72	0.70	0.76
Itr	0.5ind	0.89	0.75	0.48	0.36	0.32	0.48	0.69
10Itr	0.5ind	0.71	0.65	0.37	0.31	0.30	0.51	0.75
Imax	0.5ind	1.38	1.35	1.14	0.85	0.86	0.82	0.84
Itr	0.8cap	0.95	0.74	0.52	0.25	0.28	0.49	0.73
10Itr	0.8cap	0.92	0.69	0.45	0.19	0.25	0.47	0.73
Imax	0.8cap	1.68	1.52	1.36	1.08	1.06	1.01	1.01

5. Annex of Variants

Product Variant Identification Details:

Model No.	OR-WE-526	OR-WE-525	OR-WE-524
Voltage range	230V		
Current range	0.25-5(30)A, 0.25-5(32)A, 0.25-5(40)A, 0.25-5(45)A, 0.25-5(50)A, 0.25-5(60)A, 0.25-5(80)A, 0.25-5(100)A		
Frequency range	50Hz		
RS485	●	●	
Battery	●		
Tariff	●		
SO			●
Broadcast settings function			
Software version	V101	V101	V101
Checksum	6B8D	B6C9	5A8E

Modifications to the meter(s) described according to approval No.**0120/SGS0614** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

6. Document Revision History

Issue	Date	Comments
1	13/02/2023	Initial Issue

END OF CERTIFICATE