



SGS

EU Type Examination Certificate Number: 0120/SGS0398

Reltech GmbH & Co. KG

Nordbahnstr.1
Kaiserslautern
67657
Germany

Instrument Identification:
RWZ Series

Single Phase, Active Import (kWh) Indoor, Electricity Meter

Instrument Traceable Number
0120/SGS0398

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 17th February 2024
Issue 1

Certification is based on report number(s) SHES130800321401 dated 18th February 2014
EMA262680

Authorised Signature

SGS United Kingdom Limited, Notified Body 0120
Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA, UK
t +44 (0)1934 522917 f +44 (0)1934 522137 www.sgs.com


Contact Address
SGS United Kingdom Limited, Units 12A & 12B, South Industrial Estate, Bowburn, Durham, DH6 5AD, UK
t +44 (0)191 377 2000 f +44 (0)191 377 2020 www.sgs.com



This document is issued, on the Client's behalf, by the Company under its General Conditions of Service printed overleaf. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.


DU_CST-ME-002 Rev 2
Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Clients instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.



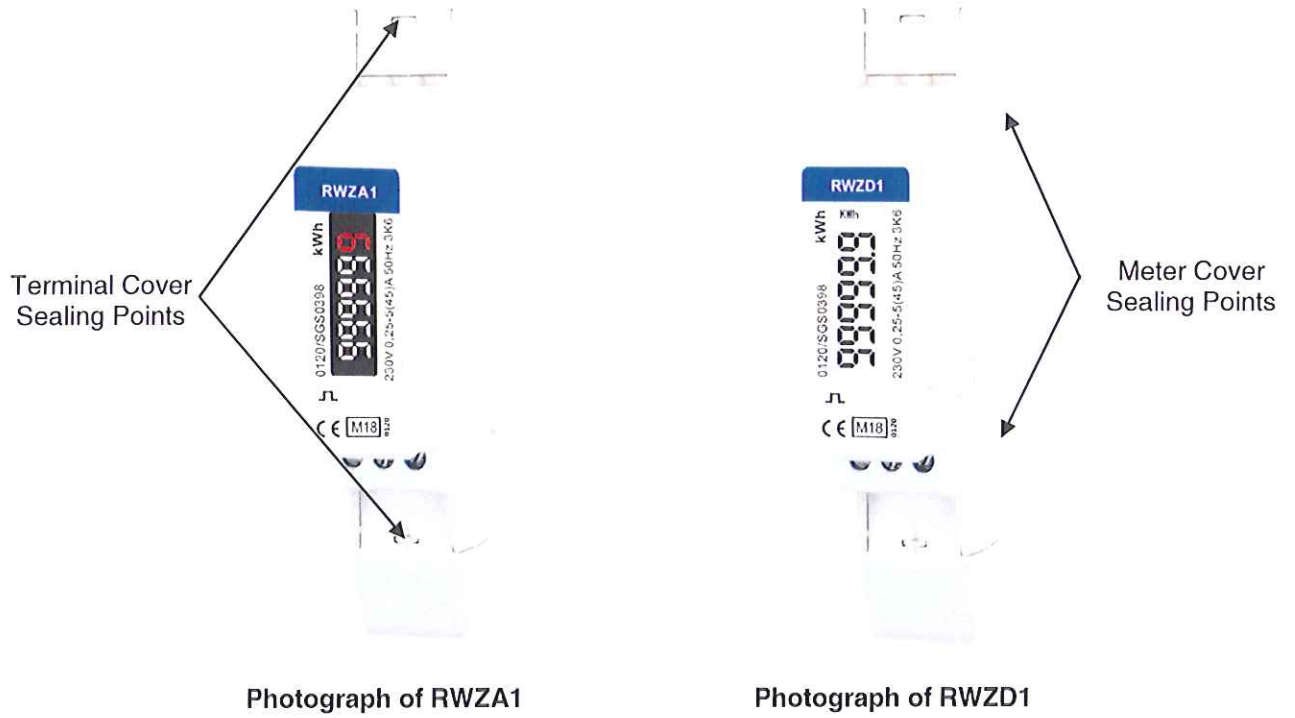
	EU-Type Examination Certificate Number:	
	0120/SGS0398	
	Issue Number: 1	Dated: 22 nd January 2019

1. Technical Data

Manufacturer	Reltech GmbH & Co. KG
Meter Type	RWZA1, RWZD1, RWZP1, RWZD1CTP, RWZD1CTM, RWZD1CTMB
Voltage Rating (U_n)	230V
Current Rating (I_{min} – I_{ref} (I_{max}))	Direct Connected: 0.25-5(45)A, CT Connected: 0.25-5(6)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No	RWZA1, RWZD1: V1.2 RWZP1: V2.4 RWZD1CTP, RWZD1CTM, RWZD1CTMB: V2.5
CRC Checksum	RWZA1, RWZD1: 0x00008E1E RWZP1: 0x0000272C RWZD1CTP, RWZD1CTM, RWZD1CTMB: 0x0000B594
Identification Location	Meter Case
Bill Of Materials Number	RWZA1: DH-JS-150002-1.5 RWZD1: DH-JS-150003-1.5 RWZP1: DH-JS-170021-1.0 RWZD1CTM: DH-JS-170014-1.1 RWZD1CTMB: DH-JS-170027-1.0 RWZD1CTP: DH-JS-170025-1.0
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	4 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD: RWZD1, RWZP1, RWZD1CTP, RWZD1CTM, RWZD1CTMB Mechanical: RWZA1
Terminal Arrangement(s)	DIN
Location of Manufacturers Address	Meter Case and Associated Documents

	EU-Type Examination Certificate Number:	
	0120/SGS0398	
	Issue Number: 1	Dated: 22 nd January 2019

2. Photograph of Meters and Sealing Plan





EU-Type Examination Certificate Number:

0120/SGS0398

Issue Number: 1

Dated: 22nd January 2019



Photograph of RWZP1




Photograph of RWZD1CTP



Photograph of RWZD1CTM




Photograph of RWZD1CTMB

	EU-Type Examination Certificate Number:	
	0120/SGS0398	
	Issue Number: 1	Dated: 22 nd January 2019

3. Examples of Nameplates

<p>RWZA1</p> <p>kWh</p> <p>0120/SGS0398</p> <p>230V 0,25-5(45)A 50Hz 3K6</p> <p>CE M18 0120</p>	 <p>RELTECH Single Phase Energy Meter Model: RWZA1 Input: 230V AC 50Hz 0,25-5(45)A S0: 1000imp/kWh EN50470-1/3 IP51 0120/SGS0398 @ 3K6</p> <p>Manufactured in 2018 by Reltech GmbH & Co., KG Nordhäuser Str. 4, Kasseler Str. 6757, Germany</p> <p>CE M18 0120</p>	<p>RWZD1CTP</p> <p>kWh</p> <p>0120/SGS0398</p> <p>230V 0,25-5(6)A 50Hz 3K6</p> <p>CE M18 0120</p>	 <p>RELTECH Single Phase Energy Meter Model: RWZD1CTP Input: 230V AC 50Hz 0,25-5(6)A CT L1: 1000imp/kWh (Export) L2: 1000imp/kWh (import) EN50470-1/3 IP51 0120/SGS0398 @ 3K6</p> <p>Manufactured in 2018 by Reltech GmbH & Co., KG Nordhäuser Str. 4, Kasseler Str. 6757, Germany</p> <p>CE M18 0120</p>
<p>RWZD1</p> <p>kWh</p> <p>0120/SGS0398</p> <p>230V 0,25-5(45)A 50Hz 3K6</p> <p>CE M18 0120</p>	 <p>RELTECH Single Phase Energy Meter Model: RWZD1 Input: 230V AC 50Hz 0,25-5(45)A S0: 1000imp/kWh EN50470-1/3 IP51 0120/SGS0398 @ 3K6</p> <p>Manufactured in 2018 by Reltech GmbH & Co., KG Nordhäuser Str. 4, Kasseler Str. 6757, Germany</p> <p>CE M18 0120</p>	<p>RWZD1CTMB</p> <p>kWh</p> <p>0120/SGS0398</p> <p>230V 0,25-5(6)A 50Hz 3K6</p> <p>CE M18 0120</p>	 <p>RELTECH Single Phase Energy Meter Model: RWZD1CTMB Input: 230V AC 50Hz 0,25-5(6)A CT L1: Configurable L2: 1000imp/kWh EN50470-1/3 IP51 0120/SGS0398 @ 3K6</p> <p>Manufactured in 2018 by Reltech GmbH & Co., KG Nordhäuser Str. 4, Kasseler Str. 6757, Germany</p> <p>CE M18 0120</p>
<p>RWZP1</p> <p>kWh</p> <p>0120/SGS0398</p> <p>230V 0,25-5(45)A 50Hz 3K6</p> <p>CE M18 0120</p>	 <p>RELTECH Single Phase Energy Meter Model: RWZP1 Input: 230V AC 50Hz 0,25-5(45)A L1: 1000imp/kWh (Export) L2: 1000imp/kWh (import) EN50470-1/3 IP51 0120/SGS0398 @ 3K6</p> <p>Manufactured in 2018 by Reltech GmbH & Co., KG Nordhäuser Str. 4, Kasseler Str. 6757, Germany</p> <p>CE M18 0120</p>	<p>RWZD1CTM</p> <p>kWh</p> <p>0120/SGS0398</p> <p>230V 0,25-5(6)A 50Hz 3K6</p> <p>CE M18 0120</p>	 <p>RELTECH Single Phase Energy Meter Model: RWZD1CTM Input: 230V AC 50Hz 0,25-5(6)A CT L1: Configurable L2: 1000imp/kWh EN50470-1/3 IP51 0120/SGS0398 @ 3K6</p> <p>Manufactured in 2018 by Reltech GmbH & Co., KG Nordhäuser Str. 4, Kasseler Str. 6757, Germany</p> <p>CE M18 0120</p>

	EU-Type Examination Certificate Number:	
	0120/SGS0398	
	Issue Number: 1	Dated: 22 nd January 2019

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:-

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

where

- $\delta e(T, I, \cos\phi)$ = Additional error due to variation of the temperature at the same load
 $\delta e(U, I, \cos\phi)$ = Additional error due to variation of the voltage at the same load
 $\delta e(f, I, \cos\phi)$ = 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
I _{min}	1.0	0.12	0.12	0.12	0.13	0.12	0.12
I _{tr}	1.0	0.16	0.16	0.16	0.16	0.16	0.16
10I _{tr}	1.0	0.17	0.16	0.16	0.16	0.16	0.16
I _{max}	1.0	0.13	0.13	0.13	0.13	0.13	0.13
I _{tr}	0.5ind	0.29	0.29	0.29	0.29	0.29	0.29
10I _{tr}	0.5ind	0.40	0.40	0.40	0.40	0.40	0.40
I _{max}	0.5ind	0.16	0.16	0.16	0.16	0.16	0.16
I _{tr}	0.8cap	0.24	0.24	0.24	0.24	0.24	0.24
10I _{tr}	0.8cap	0.31	0.31	0.31	0.31	0.31	0.31
I _{max}	0.8cap	0.09	0.09	0.09	0.09	0.09	0.09


	EU-Type Examination Certificate Number:	
	0120/SGS0398	
	Issue Number: 1	Dated: 22 nd January 2019

5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
RWZA1	Single Phase 230V, 0.25-5(45)A Mechanical register
RWZD1	Single Phase 230V, 0.25-5(45)A LCD register with backlight
RWZP1	Single Phase 230V, 0.25-5(45)A
RWZD1CTP	Single Phase 230V, 0.25-5(6)A
RWZD1CTM	Single Phase 230V, 0.25-5(6)A. M-Bus
RWZD1CTMB	Single Phase 230V, 0.25-5(6)A. RS485 Modbus

Modifications to the meter(s) described according to approval No.**0120/SGS0398** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

	EU-Type Examination Certificate Number:	
	0120/SGS0398	
	Issue Number: 1	Dated: 22 nd January 2019

6. Document Revision History

Issue	Date	Comments
1	22/01/2019	Initial Issue

This document is issued by the Company subject to its General Conditions for Certification Services, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested *and such sample(s) are retained for 28 days only.*

END OF CERTIFICATE