



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


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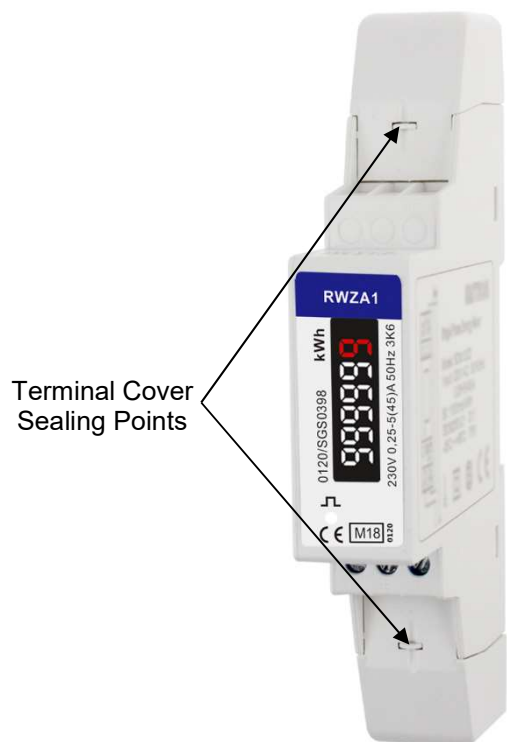
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1. Technical Data

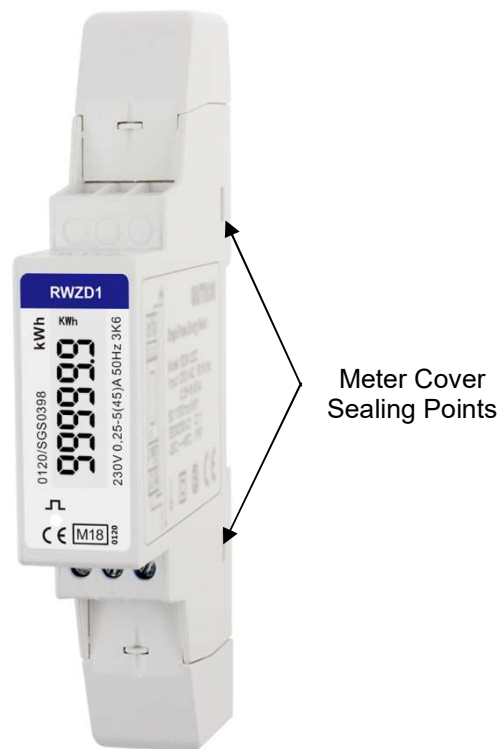
Manufacturer	Reltech GmbH & Co. KG
Meter Type	RWZA1, RWZD1, RWZP1, RWZD1CTP, RWZD1CTM, RWZD1CTMB
Voltage Rating (U_n)	230V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	Direct Connected: 0.25-5(45)A, CT Connected: 0.25-5(6)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B (kWh)
Type of circuit	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

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2. Photograph of Meters and Sealing Plan



Photograph of RWZA1



Photograph of RWZD1

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Photograph of RWZP1




Photograph of RWZD1CTP



Photograph of RWZD1CTM




Photograph of RWZD1CTMB

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3. Examples of Nameplates



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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


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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).

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6. Document Revision History

Issue	Date	Comments
1	22/01/2019	Initial Issue

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END OF CERTIFICATE