



EU Type Examination Certificate Number: **0120/ SGS0260**

## **RDL Meters Ltd**

Unit E2  
Westfield Business Park  
Long Road  
Paignton  
Devon  
TQ4 7AU

Instrument Identification:  
**M-101**

**Single Phase, Multi-rate, Active Import (kWh), Prepayment Electricity Meter**  
Instrument Traceable Number  
**0120/ SGS0260**

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 for 10 years from 5<sup>th</sup> September 2016 until 4<sup>th</sup> September 2026  
Issue 2

Certification is based on report number(s) EMA225073/1 1<sup>st</sup> September 2016

Authorised Signature


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	Issue Number: 2	Dated: 30 <sup>th</sup> June 2017

## 1. Technical Data

Manufacturer	RDL Meters Ltd
Meter Type	M-101
Voltage Rating ( $U_n$ )	230V
Current Rating ( $I_{min} - I_{ref} (I_{max})$ )	1-20(100)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	V6.2
Identification Location	LCD
Bill Of Materials Number	Rev E
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	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD & Nameplate
Terminal Arrangement(s)	BS


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## 2. Photograph of Meter and Sealing Plan

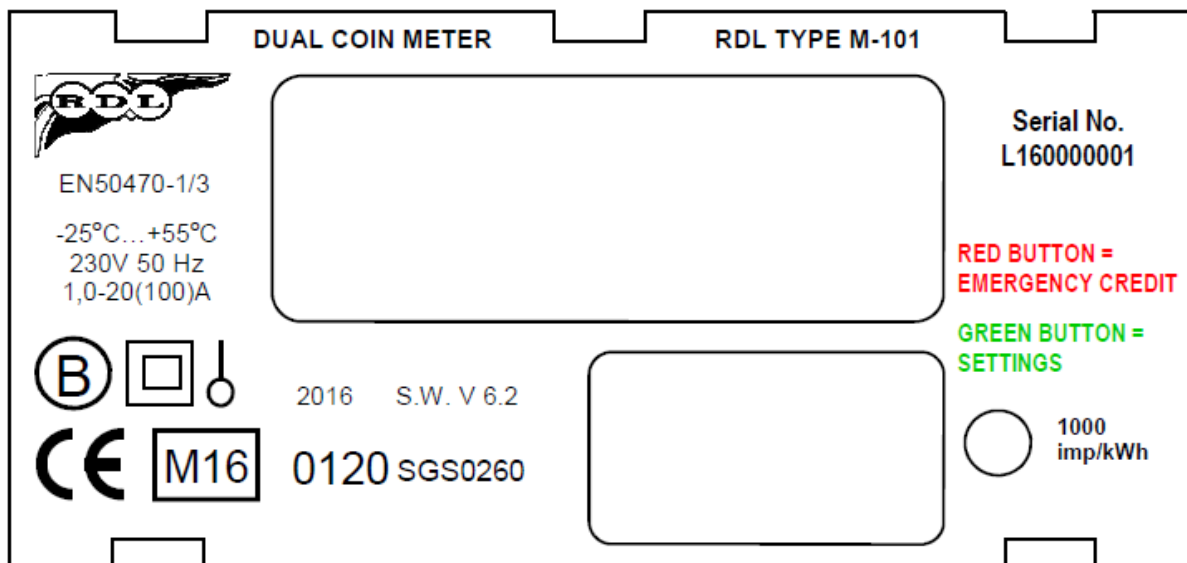



Terminal Cover Seal

Main Cover  
Seals

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### 3. Name plate and Markings



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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 <sub>min</sub>	1.0	<b>0.11</b>	<b>0.22</b>	<b>0.07</b>	<b>0.07</b>	<b>0.10</b>	<b>0.18</b>
I <sub>tr</sub>	1.0	<b>0.05</b>	<b>0.21</b>	<b>0.06</b>	<b>0.05</b>	<b>0.08</b>	<b>0.18</b>
10I <sub>tr</sub>	1.0	<b>0.07</b>	<b>0.18</b>	<b>0.07</b>	<b>0.06</b>	<b>0.09</b>	<b>0.18</b>
I <sub>max</sub>	1.0	<b>0.26</b>	<b>0.07</b>	<b>0.14</b>	<b>0.07</b>	<b>0.12</b>	<b>0.20</b>
I <sub>tr</sub>	0.5ind	<b>0.12</b>	<b>0.19</b>	<b>0.08</b>	<b>0.07</b>	<b>0.12</b>	<b>0.18</b>
10I <sub>tr</sub>	0.5ind	<b>0.16</b>	<b>0.21</b>	<b>0.09</b>	<b>0.06</b>	<b>0.11</b>	<b>0.19</b>
I <sub>max</sub>	0.5ind	<b>0.37</b>	<b>0.36</b>	<b>0.18</b>	<b>0.07</b>	<b>0.10</b>	<b>0.18</b>
I <sub>tr</sub>	0.8cap	<b>0.05</b>	<b>0.37</b>	<b>0.05</b>	<b>0.05</b>	<b>0.09</b>	<b>0.51</b>
10I <sub>tr</sub>	0.8cap	<b>0.06</b>	<b>0.32</b>	<b>0.07</b>	<b>0.08</b>	<b>0.14</b>	<b>0.22</b>
I <sub>max</sub>	0.8cap	<b>0.18</b>	<b>0.17</b>	<b>0.12</b>	<b>0.09</b>	<b>0.18</b>	<b>0.50</b>


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## 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
M-101	230V, 1-20(100)A Dual coin operated electronic meter & timer

Modifications to the meter(s) described according to approval No.**0120/ SGS0260** 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	05/09/2016	Initial Issue
2	30/06/2017	BOM revision number update from Rev D to Rev E

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