



EU Type Examination Certificate Number: **0120/ SGS0265**

## **Itron Indonesia**

PT Mecoindo  
EJIP Plot 6B-2  
Lemah Abang  
Bekasi 17550  
Jawa Barat  
Indonesia

Instrument Identification:

**EM512 Type 900**

**Single Phase, Active, Import/ Export, Prepayment, Electricity Meter**

Instrument Traceable Number

**0120/ SGS0265**

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> December 2016 until 4<sup>th</sup> December 2026  
Issue 2

Certification is based on report number(s) EMA229359/1/MID Issued 7<sup>th</sup> December 2016


Authorised Signature

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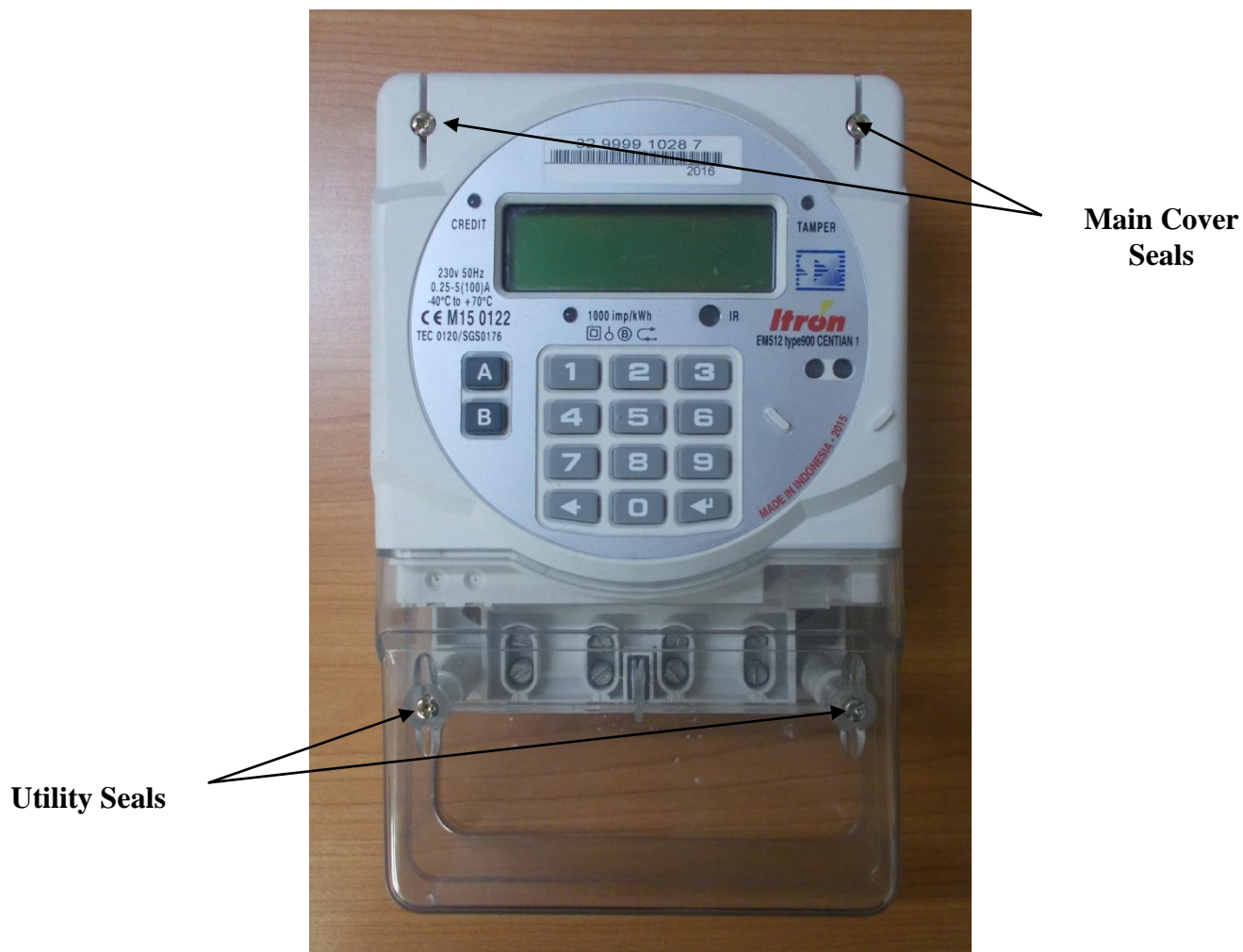
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	Issue Number: 2	Dated: 29 <sup>th</sup> June 2017


## 1. Technical Data

Manufacturer	
Meter Type	EM512 Type 900
Voltage Rating ( $U_n$ )	230V
Current Rating ( $I_{min} - I_{ref} (I_{max})$ )	0.25-5(100)A
Frequency ( $F_n$ )	50Hz
Active Accuracy Class ( $kWh$ )	A or B( $kWh$ )
Type of circuit	1p2w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No	V1.02
CRC Checksum	5C815367
Identification Location	LCD
Bill Of Materials Number	A5004427 PCBA EM512 Type 900 Centian 1
IP Rating	IP51 & IP54
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
Terminal Arrangement(s)	DIN
Location of manufacturers address	Nameplate

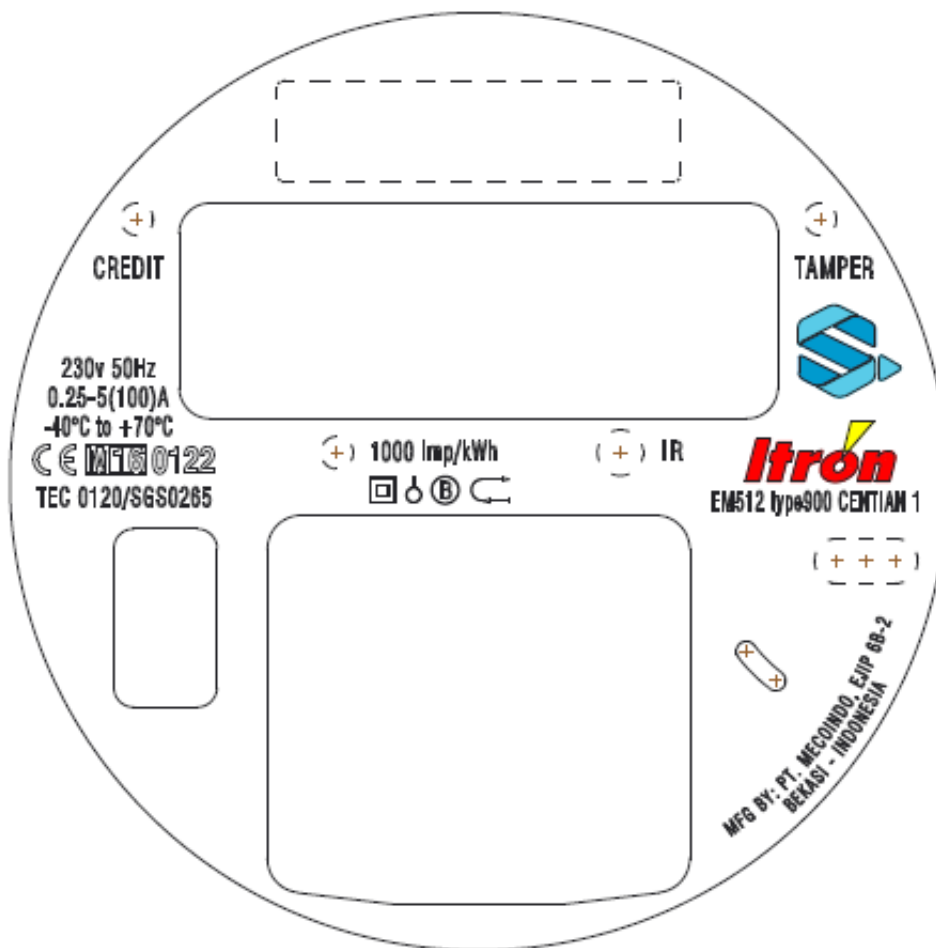
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## 2. Photograph of Meter and Sealing Plan



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### 3. Nameplate



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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, frequency and voltage							
Current	PF Cos	-40	-25	-10	5	30	40	55	70
I <sub>min</sub>	1.0	0.52	0.49	0.43	0.28	0.22	0.33	0.44	0.61
I <sub>tr</sub>	1.0	0.52	0.49	0.40	0.26	0.12	0.26	0.39	0.56
10I <sub>tr</sub>	1.0	0.49	0.49	0.38	0.24	0.17	0.27	0.44	0.63
I <sub>max</sub>	1.0	0.47	0.52	0.43	0.29	0.08	0.11	0.26	0.40
I <sub>tr</sub>	0.5ind	0.59	0.57	0.44	0.29	0.03	0.14	0.31	0.44
10I <sub>tr</sub>	0.5ind	0.55	0.49	0.45	0.28	0.07	0.20	0.31	0.53
I <sub>max</sub>	0.5ind	0.59	0.57	0.50	0.33	0.11	0.09	0.18	0.34
I <sub>tr</sub>	0.8cap	0.51	0.49	0.44	0.28	0.07	0.19	0.33	0.53
10I <sub>tr</sub>	0.8cap	0.49	0.51	0.42	0.24	0.10	0.20	0.36	0.55
I <sub>max</sub>	0.8cap	0.41	0.48	0.42	0.29	0.11	0.17	0.29	0.45

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## 5. Annex of Variants

Product Variant Identification Details:


### Type Designation

### Description of meter

EM512

Single Phase, 1p2w, 230V, 0,25-5(100)A, Active Import (kWh), Prepayment

Modifications to the meter(s) described according to approval No.**0120/ SGS0265** 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	05/12/2016	Initial Issue
2	29/06/2017	Minor firmware change from V1.01 to V1.02 and CRC number change from C11AECE3 to 5C815367

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