

EU Type Examination Certificate Number: 0120/SGS0341

# **Corinex Communications a.s.**

Nove Zahrady I. 13/A – 821 05, Bratislava, Slovak Republic

Instrument Identification: CMS100 Series

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

Instrument Traceable Number 0120/SGS0341

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 23<sup>rd</sup> November 2027 Issue 3

Certification is based on report number(s) SHES170800749801dated 24<sup>th</sup> November 2017 EMA247014/1/TR50579 dated 23<sup>rd</sup> November 2017 EMA248884

**Authorised Signature** 

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EU Type Examination Cert.

SGSPAPER 19022248





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Dated: 27th June 2018

#### 1. Technical Data

Manufacturer	Corinex Communications a.s.
Meter Type	CMS100 Series
Voltage Rating (Un)	220V - 240V
Current Rating (Imin – Iref (Imax))	0.25-5(60)A, 0.25-5(80)A
Frequency (Fn)	50Hz, 60Hz (IEC only)
Active Accuracy Class (kWh)	B (kWh)
Type of circuit	1p2w
Temperature Range	-40°C to +70°C
Software/ Firmware Version No	20170907
CRC Checksum	0x607B
Identification Location	LCD
Bill Of Materials Number	LY5.528.001480MX-V01.01 LY5.528.001515MX-V01.01 LY5.528.001516MX-V01.01 LY7.303.001068MX-V01.01
IP Rating	IP54
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/kWh, 10000imp/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	Associated Documents

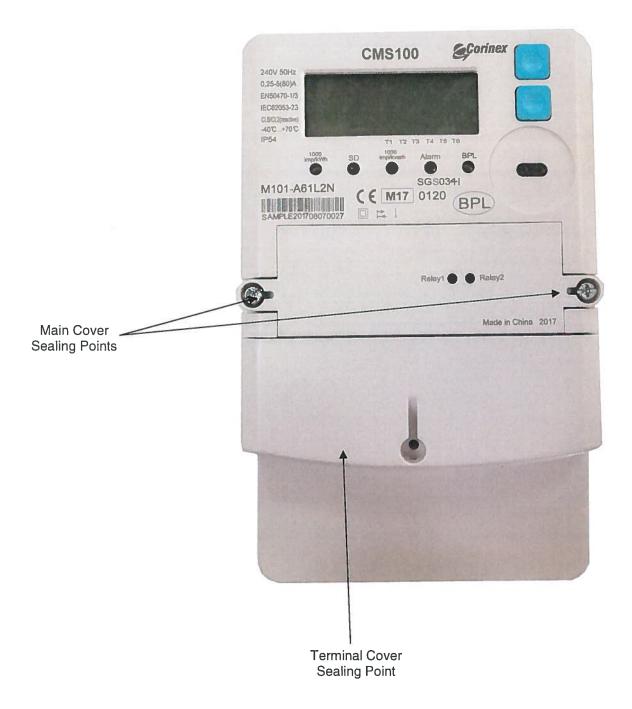


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#### 2. Photograph of Meter and Sealing Plan



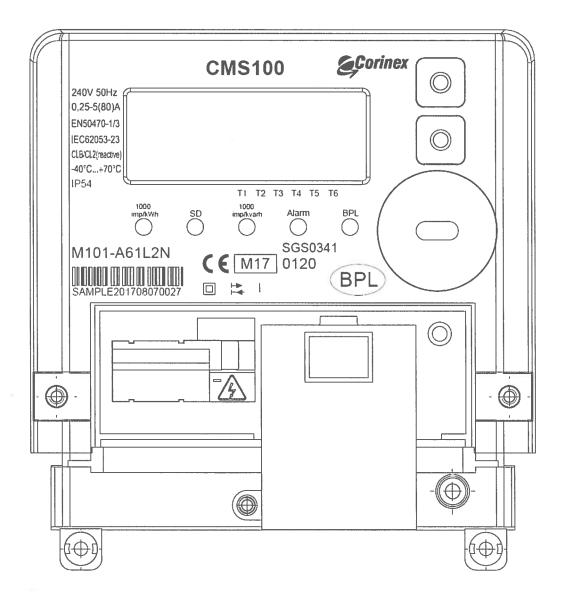


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#### 3. Example of Nameplate

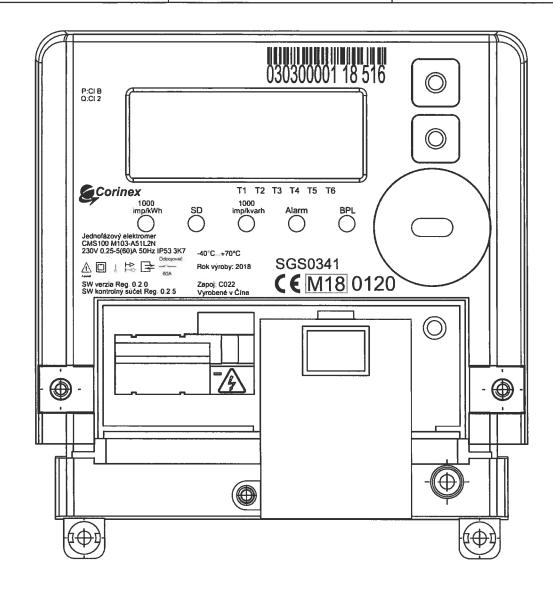


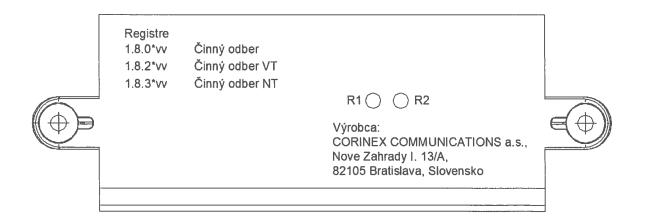


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#### 4. Calculation of the composite error/ MPE

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:-

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

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, frequency and voltage						<del></del>		
Current	PF Cos	-40°C	-25°C	-10°C	5°C	30°C	40°C	55°C	70°C
Imin	1.0	0.22	0.18	0.13	0.12	0.12	0.12	0.12	0.12
ltr	1.0	0.18	0.14	0.09	0.07	0.07	0.07	0.07	0.07
10ltr	1.0	0.17	0.11	0.06	0.04	0.02	0.03	0.03	0.04
Imax	1.0	0.11	0.09	0.09	0.07	0.06	0.07	0.11	0.15
ltr	0.5ind	0.19	0.16	0.16	0.15	0.15	0.15	0.15	0.15
10ltr	0.5ind	0.14	0.09	0.05	0.02	0.02	0.02	0.02	0.02
Imax	0.5ind	0.07	0.05	0.04	0.04	0.08	0.10	0.15	0.14
ltr	0.8cap	0.14	0.10	0.09	0.08	0.08	0.08	0.08	0.08
10ltr	0.8cap	0.14	0.09	0.04	0.02	0.01	0.02	0.01	0.02
lmax	0.8cap	0.09	0.08	0.05	0.04	0.05	0.07	0.11	0.15



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#### 5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
CMS100 M1  01 02 03  A B 1 2 3 4 5 6 1 2 N M	5(80)A 5(100)A 5(60)A 1000imp/kWh 100V 110V 120V 220V 230V 240V 50Hz 60Hz (IEC only) without anti-magnetic with anti-magnetic

Modifications to the meter(s) described according to approval No.0120/SGS0341 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	15/01/2018	Initial Issue
2	15/06/2018	Additional nameplate. Updated meter variant code.
3	27/06/2018	Nameplate replaced.

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