



EC Type Examination Certificate Number: **0120/ SGS0092**

Istrumenti Misurre Elettriche SpA

Via Travaglia, No.7
20094 Corsica (MI)
Italy

Instrument Identification:

CE2DMID11 & CE2DMID12

Single Phase, Credit, Active Import, Electricity Meter

Instrument Traceable Number

0120/ SGS0092

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

on Measuring Instruments Annex 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 MI-003 of EC Directive 2004/22/EC

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex D or Annex F.

This certificate is valid for 10 years from 30th September 2011 until 29th September 2021
Issue 1


Certification is based on report number(s)
EMA149138 dated 28th September 2011

Authorised Signature

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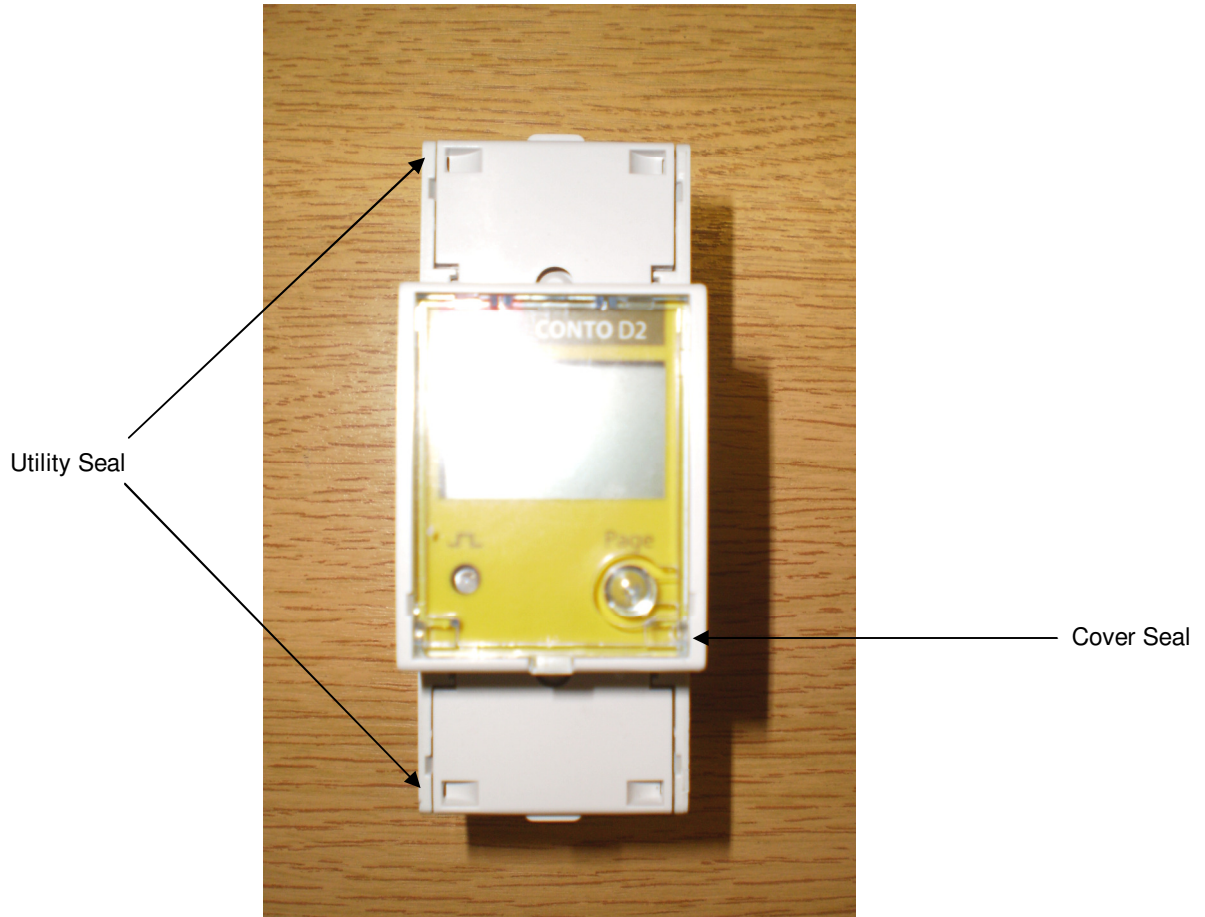
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1. Technical Data

Manufacturer	Istrumenti Misurre Elettriche SpA
Meter Type(s)	CE2DMID11 & CE2DMID12
Voltage Rating (U_n)	230V
Current Rating (I_{min} – I_{ref} (I_{max}))	0,5-10(63)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 Number Identification Location	V1.1 LCD Display
Bill Of Materials Number	BOM – CE2DMID11 BOM – CE2DMID12
IP Rating	IP20 at Terminals Intended to be fitted inside an IP51 Enclosure
Insulation Protective Class	Class II
LED Pulse Constant	1000 imp/ 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

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Photograph of Meter and Sealing Plan



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2. Composite Error / MPE

In addition to the accuracy requirements the composite error e_c of the meter is shown below

The composite error at a certain load is calculated from the following formula:

$$e_c = \sqrt{e^2(l.\cos\theta) + e^2(T.l.\cos\theta) + e^2(U.l.\cos\theta) + e^2(f.l.\cos\theta)}$$

where

$e^2(l.\cos\theta)$	=	Intrinsic error of meter at a certain load
$e^2(T.l.\cos\theta)$	=	Additional error due to variation of the temperature at the same load
$e^2(U.l.\cos\theta)$	=	Additional error due to variation of the voltage at the same load
$e^2(f.l.\cos\theta)$	=	Additional error due to variation of the frequency at the same load

Ambient Temperature Range 5 to 30 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	0.09	0.11	-0.13	-0.22	0.29
Itr	1.0	-0.28	0.21	0.04	-0.14	0.38
10Itr	1.0	0.02	0.19	-0.08	-0.12	0.24
I _{max}	1.0	0.06	0.18	-0.04	-0.14	0.24
Itr	0.5ind	-0.27	0.70	-0.22	-0.25	0.82
10Itr	0.5ind	0.06	0.76	-0.22	-0.21	0.82
I _{max}	0.5ind	0.15	0.91	-0.13	-0.15	0.94
Itr	0.8cap	-0.48	0.39	0.23	0.18	0.68
10Itr	0.8cap	-0.08	0.27	0.06	0.09	0.30
I _{max}	0.8cap	0.12	0.37	0.24	0.20	0.50

Ambient Temperature Range -10 to 40 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	0.09	0.3	-0.13	-0.22	0.40
Itr	1.0	-0.28	0.26	0.04	-0.14	0.41
10Itr	1.0	0.02	0.3	-0.08	-0.12	0.33
I _{max}	1.0	0.06	0.29	-0.04	-0.14	0.33
Itr	0.5ind	-0.27	1.85	-0.22	-0.25	1.90
10Itr	0.5ind	0.06	1.9	-0.22	-0.21	1.93
I _{max}	0.5ind	0.15	1.93	-0.13	-0.15	1.95
Itr	0.8cap	-0.48	-0.53	0.23	0.18	0.77
10Itr	0.8cap	-0.08	-0.58	0.06	0.09	0.60
I _{max}	0.8cap	0.12	-0.68	0.24	0.20	0.76



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Ambient Temperature Range -25 to 55 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	0.09	0.34	-0.13	-0.22	0.43
Itr	1.0	-0.28	0.38	0.04	-0.14	0.49
10ltr	1.0	0.02	0.36	-0.08	-0.12	0.39
Imax	1.0	0.06	0.41	-0.04	-0.14	0.44
Itr	0.5ind	-0.27	2.49	-0.22	-0.25	2.53
10ltr	0.5ind	0.06	2.49	-0.22	-0.21	2.51
Imax	0.5ind	0.15	2.59	-0.13	-0.15	2.60
Itr	0.8cap	-0.48	-0.82	0.23	0.18	0.99
10ltr	0.8cap	-0.08	-0.89	0.06	0.09	0.90
Imax	0.8cap	0.12	0.75	0.24	0.20	0.82

Results taken from:-

Report: EMA149138

Dated: 28th September 2011

Sample: New Sample 1

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3. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
CE2DMID1*	
1	RS485 Communication
2	Pulse Energy Output

Modifications to the meter(s) described according to approval No.**0120/ SGS0092** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

4. Document Revision History

Issue	Date	Comments
1		Initial Issue