



EC Type Examination Certificate Number: **0120/SGS0080**

Landis + Gyr Ltd

1 Lysander Drive
Northfields Industrial Estate
Market Deeping
Peterborough
PE6 8FB

Instrument Identification:

E470 ZCX310H & E470 ZCX320H

Single Phase, Credit/ Pre payment, Active Import/ Export, Electricity Meter

Instrument Traceable Number

0120/ SGS0080

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 until 14th August 2021

Issue 13

Certification is based on report number(s)

EMA141278 dated 15th August 2011

EMA156059 dated 3rd February 2012

EMA167307 dated 8th October 2012

EMA218537/1/MID dated 26th April 2016


Authorised Signature

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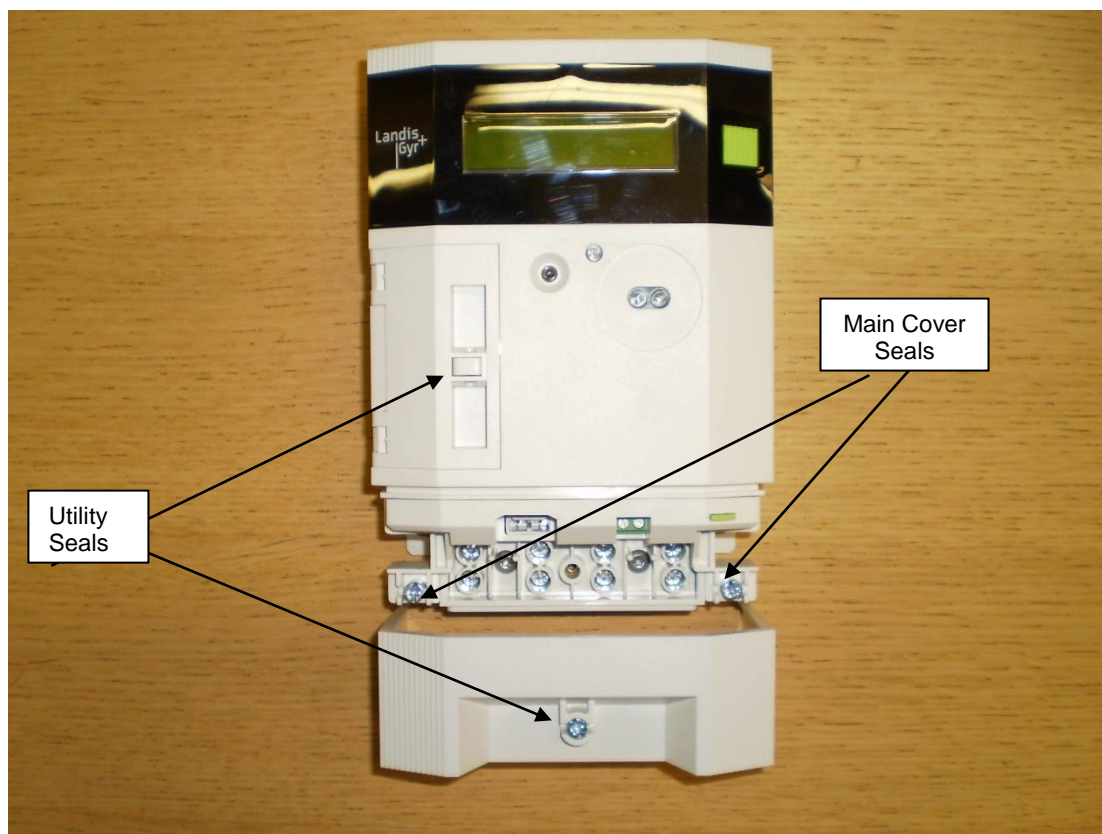
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	Issue Number: 13	Dated: 11 th October 2017


1. Technical Data

Manufacturer	Landis + Gyr Ltd		
Meter Type(s)	E470 ZCX310H & E470 ZCX320H		
Voltage Rating (<i>Un</i>)	220-240V		
Current Rating (<i>I_{min}</i> – <i>I_{ref}</i> (<i>I_{max}</i>))	0,25-5(100)A 0,5-10(100)A 1-20(100)A		
Frequency (<i>Fn</i>)	50Hz		
Active Accuracy Class (<i>kWh</i>)	A and B(kWh)		
Type of circuit	1p2w		
Temperature Range	-25°C to +55°C		
Software/ Firmware Version No's	V23.02.10.00, V23.02.19.00, V23.03.15.00, V23.04.19.00, V24.04.12.00, V23.05.07.00, V23.05.08.00, V23.05.09.00, V24.02.03.02 V23.05.10.00, V23.05.51.00		
CRC Number	0x25FAE30D		
Software Identification Location	LCD		
Bill Of Materials No's	Box Build Part # 5299A001NF 5299049 5299058	Main PCBA Part # P000196040 P000295240 5299060	PCBA Rev Rev T Rev C Rev 2
IP Rating	IP52		
Insulation Protective Class	Class II		
LED Pulse Constant	1000 imp/ kWh		
Impulse Voltage Rating	12kV		
AC Voltage Rating	4kV		
Main Cover Sealing Type	Wire & Crimp x 2 or Plastic Pin x 2		
Terminal 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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2. Photograph of Meter and Sealing Plan




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3. Maximum Permissible Error (MPE)

$e^2(T.I.\cos\theta)$ = Additional error due to variation of the temperature
 $e^2(U.I.\cos\theta)$ = Additional error due to variation of the voltage
 $e^2(f.I.\cos\theta)$ = Additional error due to variation of the frequency

Ambient Temperature Range 5 to 30 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	0.22	0.35	-0.32	-0.05	0.53
Itr	1.0	0.08	0.34	-0.17	-0.08	0.40
10ltr	1.0	-0.05	0.32	-0.14	-0.11	0.37
Imax	1.0	0.27	0.50	0.20	0.09	0.61
Itr	0.5ind	0.58	0.41	-0.08	-0.07	0.72
10ltr	0.5ind	0.26	0.30	-0.10	-0.16	0.44
Imax	0.5ind	0.65	0.57	0.26	0.15	0.92
Itr	0.8cap	0.07	0.40	0.04	-0.05	0.41
10ltr	0.8cap	-0.17	0.30	-0.08	-0.12	0.37
Imax	0.8cap	0.28	0.63	0.31	0.21	0.78

Ambient Temperature Range -10 to 40 Degrees C						
Current	PF Cos	e(lcos)	e(Tlcos)	e(Ulcos)	e(flcos)	%MPE
Imin	1.0	0.22	0.60	-0.32	-0.05	0.72
Itr	1.0	0.08	0.56	-0.17	-0.08	0.60
10ltr	1.0	-0.05	0.55	-0.14	-0.11	0.58
Imax	1.0	0.27	0.71	0.20	0.09	0.79
Itr	0.5ind	0.58	0.62	-0.08	-0.07	0.86
10ltr	0.5ind	0.26	0.53	-0.10	-0.16	0.62
Imax	0.5ind	0.65	0.78	0.26	0.15	1.06
Itr	0.8cap	0.07	0.62	0.04	-0.05	0.63
10ltr	0.8cap	-0.17	0.53	-0.08	-0.12	0.57
Imax	0.8cap	0.28	0.83	0.31	0.21	0.95

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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	0.22	0.75	-0.32	-0.05	0.85
Itr	1.0	0.08	0.76	-0.17	-0.08	0.79
10ltr	1.0	-0.05	0.74	-0.14	-0.11	0.76
Imax	1.0	0.27	0.86	0.20	0.09	0.93
Itr	0.5ind	0.58	0.81	-0.08	-0.07	1.00
10ltr	0.5ind	0.26	0.73	-0.10	-0.16	0.80
Imax	0.5ind	0.65	0.94	0.26	0.15	1.18
Itr	0.8cap	0.07	0.82	0.04	-0.05	0.83
10ltr	0.8cap	-0.17	0.73	-0.08	-0.12	0.76
Imax	0.8cap	0.28	0.99	0.31	0.21	1.09

Results taken from:-

Report: EMA167307/1

Dated: 8th October 2012

Sample: 0001448


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4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
Product ZCX Single-phase meter	
Connection type 3 Direct connection	
Accuracy class 10 Combined meter Active energy class 1 (IEC); B (MID), reactive energy class 2 20 Combined meter Active energy class 2 (IEC); A (MID), reactive energy class 2	
System interface H External Hub	

Modifications to the meter(s) described according to approval No.**0120/ SGS0080** 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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5. Document Revision History

Issue	Date	Comments
1	15/08/2011	Initial Issue
2	03/02/2012	Minor Hardware Mod, Major Software Mod
3	05/10/2012	Hardware change
4	20/11/2012	Minor firmware update to V23.02.06.01
5	05/03/2013	Minor firmware update to V23.02.10.01 and V23.02.10.02
6	10/10/2013	Minor firmware updates to V23.02.12.00, V23.02.12.01 and V23.02.12.02
7	07/03/16	Firmware history now kept in central file No EMA141278/1
8	06/12/2016	Minor firmware change
9	22/02/2017	CRC checksum number change from 0x298D2A5E to 0x25FAE30D
10	28/07/2017	Certificate covers classes A & B. New CRC, software and BOM revision numbers
11	11/10/2017	Firmware versions V23.05.10.00 & V23.05.51.00 for ZCX 310 added to approval

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