

EU Type Examination Certificate Number: 0120/ SGS0007/R1

Honeywell Elster Metering Ltd

Tollgate Business Park Beaconside Stafford ST16 3EF

Instrument Identification:

Instrument Traceable Number 0120/ SGS0007

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 6th June 2017 until 5th June 2027

Certification is based on report number(s): EMA106670/ 1/ CT dated 13th August 2007,EMA106670/ 1/ WC dated 13th August 2007 EMA130853 dated 26th November 2009,EMA137547 dated 18th August 2010,EMA180052/1 dated 19th September 2013, EMA180052/1/IEC dated 4th April 2014,EMA180052/2 dated 18th August 2014,EMA198098/1 dated 6th February 2015 EMA205841/1 dated 8th July 2015, EMA239191/1/DC/MID dated 31st May 2017 EMA23191/1/DC/MID dated 6th June 2017, EMA239191/1/CT/MID dated 6th June 2017

Authorised Signature

SGS United Kingdom Limited, Notified Body 0120 Unit 202B Worle Parkway, Weston-super-Mare, BS22 6WA□UK t +44 (0)1934 522917 f +44 (0)1934 522137 www.sgs.com

Contact Address

SGS United Kingdom Ltd, Units 12A & 12B, South Industrial Estate, Bowburn, Durham, DH6 5AD□UK

t +44 (0)191 377 2000 f +44 (0)191 377 2020 www.sgs.com



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

1. Technical Data

Manufacturer	Honeywell Elster Metering Ltd
Meter Type	A1120, A1140, A1160
Voltage Rating <i>(Un)</i>	A1120 & A1140 Direct Connection 220-240V (L-N), 380-415V (L-L) 127-139V (L-N), 220-240V (L-L) 105-127V (L-N), 180-220V (L-L) 105-127V (L-L) (LM2****** only) A1160 Direct Connection 220-240V (L-N), 380-415V (L-L) A1120 & A1140 Transformer Operated 220-240V (L-N), 380-415V (L-L) 127-139V (L-N), 220-240V (L-L) 105-127V (L-N), 180-220V (L-L) 105-127V (L-L) (LM2******* only)
Current Rating (Imin – Iref (Imax))	A1120 & A1140 Direct Connection 0.25-5(100)A (Any multiple of Iref up to Imax) A1160 Direct Connection 1-20(160)A (Any multiple of Iref up to Imax) A1120 & A1140 Transformer Operated 0.01-1(10)A (Any combination of In at 1, 1.5, 2, 2.5, 5 with Imax of meter at 1.2In, 1.5In and 2In)
Frequency (Fn)	50Hz
Active Accuracy Class (kWh)	A or B(kWh)
Type of circuit	A1120, A1140 1p2w, 1p3w, 1p4w, 2p of 3p4w, 2p3w, 3p3w, 3p4w. A1160 3p4w
Temperature Range	A1120 , A1140 : -25°C to +55°C A1160 : -40°C to +70°C
Software/ Firmware Version No's	A1120/A1140: 2-01178-Q. CRC DA2E 2-01322-L. CRC 3872 2-01340-H. CRC 0F34 2-01398-A. CRC 455(2-01345-A. CRC AA91 A1160: 2-01397-G. CRC N0EC
Identification Location	Nameplate
Bill Of Materials Number	JG05241, JG05241A, JG05242, JG05243, JG05244, JG05246, JG05247, JG05248, JG052412, JG052413, JG052414, JG052422, JG052423, JG052424, JG052432, JG052433, JG052434, JG0524100
IP Rating	IP54



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

Insulation Protective Class	Class II
LED Pulse Constant	CT: 10000imp/ kWh DC: 1000imp/kWh
Impulse Voltage Rating	4kV/ 6kV/ 12kV
AC Voltage Rating	2kV/ 4kV
Main Cover Sealing Type	A1120 & A1140 - 2 x wire and crimp A1160 - 2 x wire and crimp or optional 2 x shear head screws
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	A1120, A1140: Indoor A1160: Indoor or Outdoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacturers Address	Associated Documents



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

2. Example of Meter and Sealing Plan



Main Cover Seals

TerminalCover Seals



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

3. Photographs of Meter Name Plates





A1140





0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

A1160





0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

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:-

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

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 Additional error due to variation of the frequency at the same load



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

Direct Connected

Influence Factors for Temperature. Frequency & Voltage										
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C			
Imin	1.0	0.45	0.37	0.23	0.30	0.53	0.71			
ltr	1.0	0.42	0.31	0.16	0.18	0.34	0.51			
10ltr	1.0	0.37	0.33	0.16	0.07	0.19	0.36			
Imax	1.0	0.37	0.31	0.19	0.02	0.07	0.21			
ltr	0.5ind	1.30	0.53	0.16	0.13	0.46	0.66			
10ltr	0.5ind	1.13	0.55	0.10	0.09	0.29	0.44			
Imax	0.5ind	0.76	0.35	0.07	0.09	0.05	0.17			
ltr	0.8cap	1.23	0.73	0.22	0.17	0.22	0.37			
10ltr	0.8cap	1.09	0.65	0.18	0.10	0.15	0.31			
Imax	0.8cap	0.96	0.63	0.26	0.06	0.04	0.16			
					0.00	0.00	0.00			
L1 ltr	1.0	0.53	0.39	0.21	0.37	0.46	0.62			
10ltr	1.0	0.53 0.45	0.39	0.21 0.14	0.37 0.15	0.46	0.62			
Imax	1.0	0.43	0.30	0.14	0.13	0.23	0.39			
Imax	1.0	0.42	0.29	0.15	0.02	0.09	0.23			
ltr	0.5ind	1.35	0.44	0.21	0.79	0.89	1.03			
10ltr	0.5ind	1.22	0.53	0.12	0.28	0.43	0.57			
Imax	0.5ind	0.83	0.37	0.04	0.09	0.16	0.28			
L2										
ltr	1.0	0.48	0.34	0.16	0.40	0.44	0.59			
10ltr	1.0	0.45	0.29	0.15	0.13	0.21	0.39			
Imax	1.0	0.42	0.30	0.18	0.01	0.08	0.23			
ltr	0.5ind	1.15	0.35	0.30	0.66	0.77	0.86			
10ltr	0.5ind	1.08	0.28	0.18	0.18	0.31	0.45			
Imax	0.5ind	0.71	0.14	0.16	0.08	0.04	0.13			
L3										
Itr	1.0	0.48	0.35	0.21	0.34	0.39	0.56			
10ltr	1.0	0.44	0.30	0.16	0.09	0.17	0.34			
Imax	1.0	0.39	0.29	0.18	0.02	0.06	0.22			
ltr	0.5ind	1.34	0.32	0.19	0.54	0.64	0.76			
10ltr	0.5ind 0.5ind	1.23	0.32	0.19	0.54	0.64	0.76			
Imax	0.5ind	0.85	0.32	0.10	0.10	0.03	0.11			



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

Transformer Operated

	Influence Factors for Temperature. Frequency & Voltage										
Current	PF Cos	-25	-10	5	30	40	55				
Imin	1.0	0.26	0.23	0.20	0.19	0.20	0.26				
ltr	1.0	0.14	0.13	0.08	0.04	0.06	0.15				
10ltr	1.0	0.13	0.09	0.04	0.02	0.04	0.12				
Imax	1.0	0.15	0.10	0.04	0.02	0.04	0.12				
ltr	0.5ind	1.27	0.96	0.14	0.13	0.08	0.20				
10ltr	0.5ind	1.05	0.68	0.11	0.03	0.02	0.09				
Imax	0.5ind	1.40	0.80	0.24	0.04	0.02	0.09				
14	0.0	4.05	0.57	0.40	0.04	0.04	0.44				
ltr	0.8cap	1.05	0.57	0.13	0.04	0.04	0.11				
10ltr	0.8cap	0.64	0.40	0.09	0.03	0.05	0.13				
Imax	0.8cap	0.80	0.48	0.16	0.03	0.06	0.13				
					0.00	0.00	0.00				
L1	4.0	0.74	0.00	0.70	0.00	0.40	0.00				
ltr	1.0	0.74	0.28	0.72	0.28	0.10	0.30				
10ltr	1.0	0.37	0.22	0.10	0.04	0.10	0.21				
Imax	1.0	0.39	0.23	0.11	0.04	0.09	0.20				
ltr	0.5ind	1.93	1.61	0.36	0.11	0.11	0.10				
10ltr	0.5ind	1.34	0.71	0.06	0.04	0.06	0.17				
Imax	0.5ind	1.65	1.03	0.43	0.05	0.02	0.18				
L2											
ltr	1.0	0.36	0.37	0.61	0.35	0.35	0.34				
10ltr	1.0	0.05	0.04	0.04	0.04	0.05	0.09				
Imax	1.0	0.08	0.04	0.04	0.04	0.05	0.10				
ltr	0.5ind	1.93	0.92	0.17	0.16	0.19	0.16				
10ltr	0.5ind	1.15	0.75	0.13	0.05	0.04	0.11				
Imax	0.5ind	1.44	0.78	0.12	0.02	0.03	0.10				
1.2											
L3	1.0	0.24	0.20	0.24	0.00	0.24	0.00				
ltr 10ltr	1.0	0.21	0.20	0.21	0.23	0.21	0.22				
10ltr	1.0	0.01	0.02	0.02	0.01	0.03	0.07				
Imax	1.0	0.03	0.02	0.02	0.02	0.02	0.07				
ltr	0.5ind	1.76	0.78	0.23	0.28	0.26	0.25				
10ltr	0.5ind	0.69	0.62	0.17	0.05	0.03	0.02				
Imax	0.5ind	1.19	0.63	0.18	0.02	0.03	0.04				



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

5. Annex of Variants

Product Variant Identification Details:

POLYPHASE (A1120/A1140) MODEL CODE

V	ref	I _b	I _{max}	MODEL															٦
L-L	L-N			TYPE (nameplate)	l														ı
				TITE (nameplate)															
		l		example:	∟∣м	3	A	A	3 N		N	В	в	N	В		_N	A.7	B.7
PRODUCT/TERM	MINATION				+	\forall	\dashv	+	+	IV	\vdash	Н	+	+	Н	- A	IV	IV I	!V
Polyphase, BS/D					LM	\Box	\exists	\top	†	t	T	П	\top	\top	H	\top	Н	\dashv	\dashv
SERVICE TYPE	_					П		\top	T	T	Т	П	\top		П				П
3Ph 4W for use o	n: Ŷᡐᢤ᠘	յ (No	t 3Ph 3W)			3			T	Т	Г				П		П		
3Ph 3W V Dire	ect Connected and	5-10A	CT versions	only		2		\top	T	T	Т	П	\top		П				_
CURRENT RANG																			
	20A - * (* is any m						Α	4	\perp	L		Ш	4	\perp	Ш	\perp	Ш	4	
Direct Connected	10A – * (* is any m	nultiple	of lb up to 1	00A maximum)		_	В	4	+	\perp	L	Ш	4	+	Ш	_	Ш	4	
	5A - * (* is any mu	ultiple c	of 1b up to 10	UA maximum)		-	С	+	+	+	L	Н	+	+	Н	+	Н	\dashv	_
CT Operated 1A						-	L	+	+	+	\vdash	Н	+	+	Н	+	Н	\dashv	_
CT Operated 5A -						\dashv	M N	+	+	+	+	Н	+	+	\vdash	+	Н	+	_
	– 10A (10A –100A) -40 ⁰	OC to 6	0°C operatio	n		\dashv	P	+	+	+	+	Н	+	+	\vdash	+	Н	+	-
VOLTAGE	1000 1000	J 10 0	o operatio				•	+	+	+	+	Н	+	+	H	+	Н	+	-
	N) (See note 2 for F	Ref volt	age ranges)				\dashv	Α	$^{+}$	†	†	Н	\dashv	+	H	$^{+}$	H	\dashv	\dashv
				(LM2***** variants only)			_	В	T	T	T	П	\top	\top	П	T	П	T	П
	N) (See note 2 for F			,				С	\top		Т		\top		П			\neg	П
105 - 127V (L - L) (See note 2 for R	Ref volt	age ranges)	(LM2***** variants only)				D											
				ACCURACY CLASS				4	\perp			Ш		\perp	Ш			4	
				te 1) Cl.C kWh,(EN 50470-3)				1	A										
				h 4W and 3Ph3W variant only						╀	╀	Н	+	+	Н	+	Ш	\dashv	\dashv
				1) Cl.B kWh,(EN 50470-3) 1) Cl.A kWh,(EN 50470-3)				- [3	+	\vdash	Н	+	+	Н	+	Н	\dashv	\dashv
				1) Not OFGEM / MID Approved				E		+	╁	Н	+	+	Н	+	Н	+	\dashv
				1) Not OFGEM / MID Approved				⊢i.		$^{+}$	H	Н	+	+	Н	+	Н	\dashv	\dashv
HARDWARE - S		JOO 2 1	, 20 000 11010	1) Not of CEM / MID / Apriotod					†	t	T	Н	\top	$^{+}$	H	†	Н	\dashv	\dashv
No tamper detect									N	T	T	П	\top	\top	П	T	П	T	\neg
Two tamper detec	ct switches								В										
		and C	T ratio progr	amming protection switch.					C	:									
HARDWARE – B	UTTONS									L		Ш	4	\perp	Ш	\perp	Ш	4	_
No buttons										N	-	Ш	4	+	Ш	_	Ш	4	
Two buttons	N									В	_	Ш	\perp	+	Н	\perp	Ш	\dashv	_
Backlit LCD, with										C	-	Н	+	+	Н	+	Н	\dashv	\dashv
Backlit LCD, with HARDWARE - B										ט	\vdash	Н	+	+	Н	+	Н	+	\dashv
No external batte											N	Н	+	+	H	+	Н	+	-
		e! Exter	nal battery mo	odule cannot be fitted when an RS232 comm	ns mo	dul	e is	fitte	ed.		В		\dashv	+	H	+	Н	\dashv	\dashv
	·			tion.(Iranian orders only)							С	П	\top	\top	H	\top	Н	\dashv	\neg
OPERATIONAL				,								П	\top	\top	П	Т	П	\exists	٦
Import kWh only												В			П				
Import kWh, Q1 a												С							
	Q2, Q3, Q4 kvarh a	and Imp	o kVAh									D	4	+	Ш	_	Ш	4	_
Imp/Exp kWh	00.00. 10.11											E	+	+	Н	+	Ш	\dashv	4
<u> </u>	, Q2, Q3, and Q4 k	kvarn										F	+	+	Н	+	Н	\dashv	4
Imp/Exp kWh and	ı imp/Exp k∨An , Q2, Q3, Q4 kvarh	and l	mn/Evn L\/AL									G H	+	+	\vdash	+	Н	+	\dashv
	Power Flow Insens		ιιΡι⊏νh κ∧₩Ι	1								J	+	+	H	+	Н	+	\dashv
	and Q4 kvarh (Powe		/ Insensitive)									K	+	+	H	+	H	\dashv	\dashv
				er Flow Insensitive)								L	+	+	H	\top	H	\forall	\dashv
	Theft Resistant Me											R	\top	\top	\sqcap	\top	П	\forall	\dashv
				ement) – 3Ph 4W variants only								S	_†	İ	П	İ	П	_†	7
	Q2, Q3, Q4 kvarh a	and Imp	kVAh (Thef	t Resistant Measurement) – 3Ph 4W varia	ants	onl	y					Т		I					
TARIFFS												- 1	- 1	1 7	ıſ	1	ιĪ		1



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

A1120 Multi Rate	Т		П	\top					
A1140 Multi Rate (with load profile)	\Box								
A1120 Multi Rate with Password Protected Register Zeroing and Zero Level Time Shift (Not for MID use)	\perp			\perp					
AUXILIARY OUTPUT									
	$\overline{}$	_		+					
No Output									
SO output, floating, 2 aux terminals, 12 kV isolation (Configurable pulse duration/value) 27V DC only	+	+	H	+					
SO output, floating, 2 aux terminals. 12 kV isolation (Configurable pulse duration/value) 27V DC only									
SO output floating 2 any terminals 12 kV indiction realizating central ED (IAM/k) 271/ DC cells									
SO output, floating, 2 aux terminals. 12 kV isolation, replicating centre LED (kWh) 27V DC only									
SO output, floating, 2 aux terminals. 12 kV isolation, replicating left hand LED (kvarh) 27V DC only	T	\Box	П	Т					
So duput, noating, 2 aux terminais. 12 kV isolation, replicating let hard LLD (kVaril) 27 V DC drily	\perp		Ш	\perp					
100mA Relay output, floating, 2 aux terminals. 12 kV isolation (Configurable pulse duration/value) 230V AC, DC									
,,,,,,,,	+	\vdash	Н	+					
100mA Relay output, floating, 2 aux terminals. 12 kV isolation, replicating centre LED (kWh) 230V AC, DC									
	+	+	Н	+					
100mA Relay output, floating, 2 aux terminals. 12 kV isolation, replicating left hand LED (kvarh) 230V AC, DC									
	+	+	H	+					
300 mA Relay output, floating, 2 aux terminals, 12kV isolation, indicating tariff/MD state, 230V AC only (Not pulsing)									
COMMUNICATIONS	\top	\top	H	\top					
No Serial Comms.	\top	\Box	П						
RS232 Serial Comms Note! An RS232 comms module cannot be fitted when an external battery module is fitted.	\Box			\perp					
OTHER OPTIONS	\perp	\perp	Ш	4					
2 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	В	\perp	Ш	\perp					
	C	\perp	Ш	\perp					
	D		Ш						
	E		Ш						
	F		Ш						
	G		Ш						
	Η								
	J		Ш						
Standard (Extended) Terminal cover and main cover with voltage disconnect protection	ĸ								
A Cover Plate cannot be fitted to this variant – seek approval if R5232 or battery module is also required			Ш						
	L		Ш						
	M	\perp	Ш	\perp					
	P	\perp	Ш	4					
	Q	\perp	Ш	4					
Standard (Extended) Terminal cover with cut out and main cover with voltage disconnect protection	R								
A Cover Plate cannot be fitted to this variant – seek approval if RS232 or battery module is also required		\perp	Ш	\perp					
Short (clear with smoked tint)Terminal Cover and main cover with voltage disconnect protection	s								
A Cover Plate cannot be fitted to this variant – seek approval if RS232 or battery module is also required FEATURE SET	4	+	Н	+					
8 TOU Registers, 4 MD Registers, 15 Historical Registers, DSM. See Note 4 for scheme	+	- A	Н	+					
compatibility		^							
8 TOU Registers, 4 MD Registers, 15 Historical Registers, DSM, DLS time stamps and 12 external registers. Note! All new	十.	- C	H	+					
customers from November 2007. See Note 4 for scheme compatibility									
8 TOU Registers, 4 MD Registers, 24 Historical Registers, DSM, DLS time stamps 12 external registers, tamper flag in Load Profile	٠ . ڊ	·F	Н	\top					
daily billing and per phase registration. See Note 4 for scheme compatibility. Note! This feature set requires the use of PMU	,								
version 3.1.4666 or later									
8 TOU Registers, 4 MD Registers, 15 Historical Registers, DSM, DLS time stamps and 12 external registers. Note! Register zeroin	ıg -	G	П	\top					
by use of the "Register Zeroing Tool" is NOT available in this option. See Note 4 for scheme compatibility			Ш						
8 TOU Registers, 4 MD Registers, 15 Historical Registers, DSM, DLS time stamps, 12 external registers and tamper flag in Load	-	·H							
Profile. See Note 4 for scheme compatibility	\dashv	1.	Ш	4					
8 TOU Registers, 4 MD Registers, 15 Historical Registers, DSM, DLS time stamps, 12 external registers and tamper flag in Load	-	· K							
Profile. Low level password access to register and load profile data. See Note 4 for scheme compatibility	\perp	Щ	Н	+					
REVISION SUFFIX Firmware 2-01178-Q (Feature set A only). Enhanced GPRS & COP 10		_		+					
Firmware 2-017/8-Q (Feature set A only). Enhanced GPRS & COP 10	—	_	Q L	+					
Firmware 2-01322-L (Feature set C and h). Elimanced GPRS & COP 10 Firmware 2-01340-G (Feature set F). Daily billing & per phase registration & tampers (Note! Requires PMU version 3.1.4666 or late		—	G	+					
Firmware 2-01398-A (Feature set K). Enhanced GPRS & COP 10 and low level password access to register and load profile data	JI).	_	A	+					
Firmware 2-01395-A (Feature set G). Enhanced GPRS & COP 10 and low level password access to register and load profile data.	—	_	Z	+					
SPECIAL ADDITIONS – FIRMWARE	—	—	-	+					
None	—	—	Η,	N					
Phase angle definition as A1700i		-	-	A					
SPECIAL ADDITIONS – HARDWARE		—	 '	+					
None		—	\vdash	N					
		-	\vdash	+					



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

POLYPHASE	A1160 MODEL	COD	E				Τ	Т
	,			MODEL				
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/ _{ref}	I _b	I _{max}	MODEL				
L-L	L-N			"				
		1		TYPE (nameplate)	Г			
				J			I	ı
				example: $ \mathbf{L} \mathbf{P} 3 \mathbf{A} \mathbf{A} \mathbf{B} \mathbf{N}_B \mathbf{N} \mathbf{H} \mathbf{M} \mathbf{V} \mathbf{R}$. B -	$A \mid H$	i N	N
PRODUCT/TERI				LP	$+\!+\!$		\perp	\perp
Polyphase, BS/D				L P	++		+	+
3Ph 4W for use of		nected	only	3	+		T	T
CURRENT RAN					\Box		I	
Direct Connected VOLTAGE	d 20A – * (* is any n	nultiple	of lb up to 1	60A maximum) A	++		+	\vdash
	N) (See note 2 for F	Ref vol	tage ranges)	A	++	H	+	+
ACCURACY CL	ASS		<u> </u>				I	
		053-21	, 23 see note	: 1) Cl.B kWh,(EN 50470-3)	++	\vdash	\perp	\perp
No tamper detec				N	++	+	+	+
Two tamper dete	ect switches (Termin	nal Cov	er & Main Co			世	士	T
HARDWARE - E	BUTTONS				$\!$	$oxed{\square}$	丰	F
Two buttons HARDWARE – E	BATTERY			B	++	\vdash	+	╁
No external batte				N I I	++	\vdash	†	t
		e! An e	kternal battery	module cannot be fitted when a comms module is fitted.	\Box		I	Γ
OPERATIONAL	MODES 1, Q2, Q3, Q4 kvarh	o and l	mn/Evn k\/Ak		$+\!+\!\!+$	\vdash	+	╄
				t Resistant Measurement)	++	\vdash	+	+
TARIFFS			(土	\perp
	e – with load profile	l D		K	$+\!+\!+$		\perp	\perp
	e with load profile ar e – with load profile			eted Register Zeroing and Zero Level Time Shift (Not for MID use) L	++	\vdash	+	+
A1160 Multi Rate	e with load profile ar	nd Inst	rumentation p	profile and Password Protected Register Zeroing and Zero Level	++		†	†
Time Shift (Not fo				IN I	$+\!+\!1$	\sqcup	\downarrow	╀
Auxiliary Output	its			N N	++	\vdash	+	+
'	tput, floating, 2 aux	termin	als. 12 kV is	olation (Configurable pulse duration/value) 230V AC, DC S	\prod		T	T
	tput, floating, 2 aux utput (Phase 'C' + N			plation (Configurable pulse duration/value) 230V AC, DC.	\prod		\dagger	T
COMMUNICATION		v Cuti ai,	<u>'</u>		++		+	+
No Serial Comm				N			I	
		ns mod	lule cannot b	e fitted when an external battery module is fitted.	:		\perp	\perp
Short Terminal C					E	+	+	+
	Cover and Main Cov	er with	voltage disc	onnect protection	s	\vdash	t	T
	ded) Terminal Cove				В		T	\perp
	ded) Terminal Cove			vith voltage disconnect protection	C	\vdash	+	+
				Agin Cover with voltage disconnect protection	R	+	+	+
FEATURE SET	,			<u> </u>	\Box		I	
				ers, DSM, DLS time stamps, 12 external registers, daily billing, per phase	-	A		
				ture set requires the use of SmartSet version 1.1 or later ers, DSM, DLS time stamps, 12 external registers, daily billing, per phase	-	В	+	+
registration, tamp				ture set requires the use of SmartSet version 1.1 or later. (For multi-drop				
applications) REVISION SUFF	FIY					4	+	+
	97-E (Feature set A))				Н	╫	+
Firmware 2-0139	97-F						I	I
None	TIONS – FIRMWAR	ĽΕ				_	N	\perp
	are Function (Phase	e angle	e definition as	s A1700i)		+	A	_
SPECIAL ADDIT	TIONS – HARDWAI	RE		,			Ï	
				r head main cover screws)		\perp	Ļ	N
	B main terminal scre					+	+	A B
	main terminal scre					+	+	C
							_	



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

Modifications to the meter(s) described according to approval No.0120/SGS0007/R1 must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).



0120/ SGS0007/R1

Issue Number: 2 Dated: 11th August 2017

3. Document Revision History

Issue	Date	Comments
1	07/06/2017	Re certification initial issue
2	11/08/2017	Manufacturers name corrected

"This document is issued by the Company subject to its General Conditions of Service available on request or accessible at
http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic
Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues
defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its
intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does
not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law."
"Unless otherwise stated the results shown in this test certificate refer only to the sample(s) tested and such sample(s) are retained for 28 days
only."

** End of Document **