EC Type Examination Certificate Number: **0120/SGS0164**

Secure Controls (UK)Ltd

South Bristol Business Park
Roman Farm Road
Bristol

Instrument Identification:
S123** & P123****

Instrument Traceable Number
0120/SGS0164
Single Phase, Import/Export kWh, Multirate, Credit, Static Electricity Meter

has been assessed and certified as meeting the requirements of

EC Directive 2004/22/EC

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 10th September 2014 to 9th September 2024
Issue 1

Certification is based on report number(s) EMA193122/1 dated 9th September 2014

Authorised Signature

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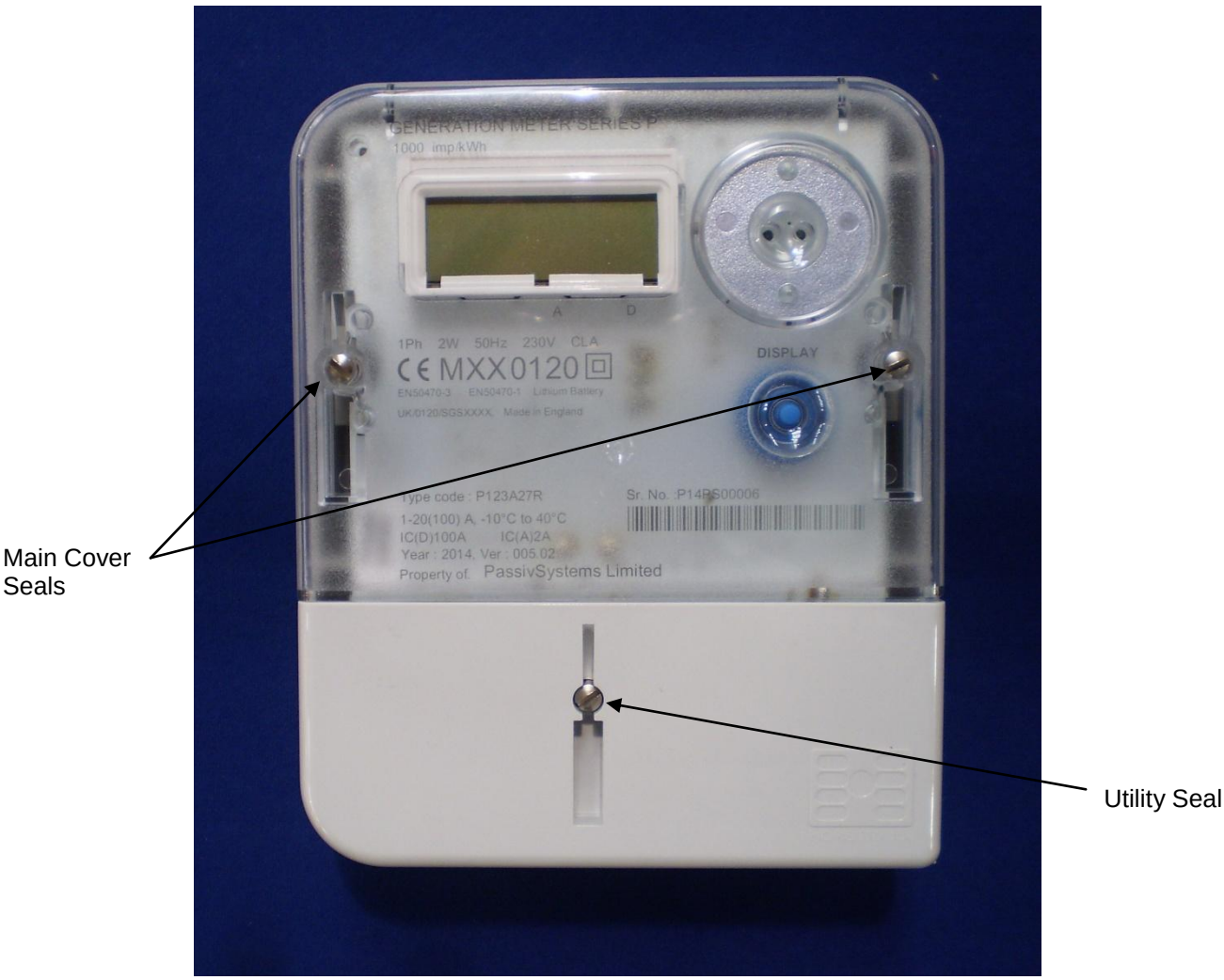
1. Technical Data

Manufacturer	Secure Controls (UK) Ltd
Meter Types	S123**** & P123****
Voltage Rating *(Un)*	230V
Current Rating *(Imin – Iref (Imax))*	1-20(100)A
Frequency *(Fn)*	50Hz
Active Accuracy Class *(kWh)*	A(kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software Version No's. **Identification Location**	V005.002 Nameplate
Bill Of Materials No.'s	P123****: MAX10Y-943 S123****: P82875/000
IP Rating	IP51
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
Terminal Arrangement(s)	BS

2. Photograph of Meter and Sealing Arrangement



3. Influence factors for temperature, frequency and voltage

		Influence Factors for Temperature, Frequency & Voltage					
Current	**PF Cos**	-25	-10	5	30	40	55
Imin	1.0	1.31	0.76	0.74	0.72	0.72	0.72
Itr	1.0	0.90	0.55	0.43	0.40	0.44	0.51
10Itr	1.0	1.29	0.53	0.28	0.14	0.30	0.54
Imax	1.0	1.24	0.50	0.27	0.10	0.24	0.48
Itr	0.5ind	1.86	0.98	0.87	0.82	0.82	0.82
10Itr	0.5ind	1.74	0.79	0.43	0.29	0.41	0.55
Imax	0.5ind	1.85	0.92	0.61	0.36	0.39	0.47
Itr	0.8cap	1.24	0.50	0.45	0.43	0.45	0.49
10Itr	0.8cap	1.17	0.43	0.24	0.16	0.30	0.55
Imax	0.8cap	1.07	0.39	0.22	0.14	0.26	0.52

During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table above 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
$\delta e(f, I, \cos\varphi)$ = Additional error due to variation of the frequency at the same load

4. Annex of Variants

Product Variant Identification Details:

Type Designation	**Description of meter**
S123****	Single phase, import/export, RTC (shunt) with 100A contactor and 2A voltage free relay, with RF Z-Wave local comms, internal antenna
P123****	Single phase, import/export, single element RTC (shunt) with 100A contactor and 2A voltage free relay, with RF-Z-Wave local comms, internal antenna.

Note: The fifth digit of the type designation identifies the software configuration version.

The sixth and seventh digit identifies the customer to whom the meter is sold.
The eighth digit identifies whether certified Zwave product “R”, or un-certified Zwave product “U”.
Any combination of digits five, six and seven is approved, since the meter itself is identical in all cases

Modifications to the meter(s) described according to approval No.**0120/ SGS0164** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

5. Document Revision History

Issue	Date	Comments
1	10/09/2014	Initial Issue