

## 1. Technical Data

<b>Manufacturer</b>	EM-Lite Ltd
<b>Meter Type(s)</b>	ECA1.* & EM*1.*
<b>Voltage Rating (<math>U_n</math>)</b>	220-240V
<b>Current Rating (<math>I_{min}</math> – <math>I_{ref}</math> (<math>I_{max}</math>))</b>	0,25-5(100)A 0,5-10(100)A 0,75-15(100)A 1-20(100)A
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (<math>kWh</math>)</b>	A or B ( $kWh$ )
<b>Type of circuit</b>	1p2w
<b>Temperature Range</b>	-40°C to +70°C
<b>Software/ Firmware Version No(s)</b>	See list overleaf
<b>Identification Location</b>	LCD
<b>Bill Of Materials Number(s)</b>	See list overleaf
<b>IP Rating</b>	IP52
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	1000 imp/ $kWh$
<b>Impulse Voltage Rating</b>	8kV
<b>AC Voltage Rating</b>	4kV
<b>Main Cover Sealing Type</b>	Wire & Crimp x 1
<b>Integrity of meter</b>	Inaccessible without breaking seals
<b>Intended Location of the Meter</b>	Indoor
<b>Type of Register</b>	LCD

	EC-Type Examination Certificate Number:	
	<b>0120/ SGS0083</b>	
	Issue Number: 8	Dated: 26 <sup>th</sup> January 2015

### **Bill of Materials**

<b>Meter Variant</b>	<b>BOM Number</b>
ECA1. z	ECA1-4002-01
ECA1. y	ECA1-4001-03
EMA1.z	EMA1-4002-01
EMA1.az	EMA1-4003-05
EMA1.y	EMA1-4001-05
EMA1.ay	EMA1-4004-01
EMA1.x	EMA1-4002-01
EMA1.w	EMA1-4001-05
EMB1.z	EMB1-4002-01
EMB1.y	EMB1-4001-05
EMB1.ay	EMB1-4003-02
EMB1.x	EMB1-4002-01
EMB1.w	EMB1-4001-05
EMC1.z	EMC1-4002-01
EMC1.az	EMC1-4003-01
EMC1.y	EMC1-4001-04
EMC1.x	EMC1-4002-01
EMC1.w	EMC1-4001-04

### **Software Version Number(s)**

#### **EMA1, EMB1, ECA1**

V3.00-1  
V3.02-0  
V3.03-2  
V3.04-0 Checksum 44051

#### **EMA1.y or .z, EMB1.y or .z**

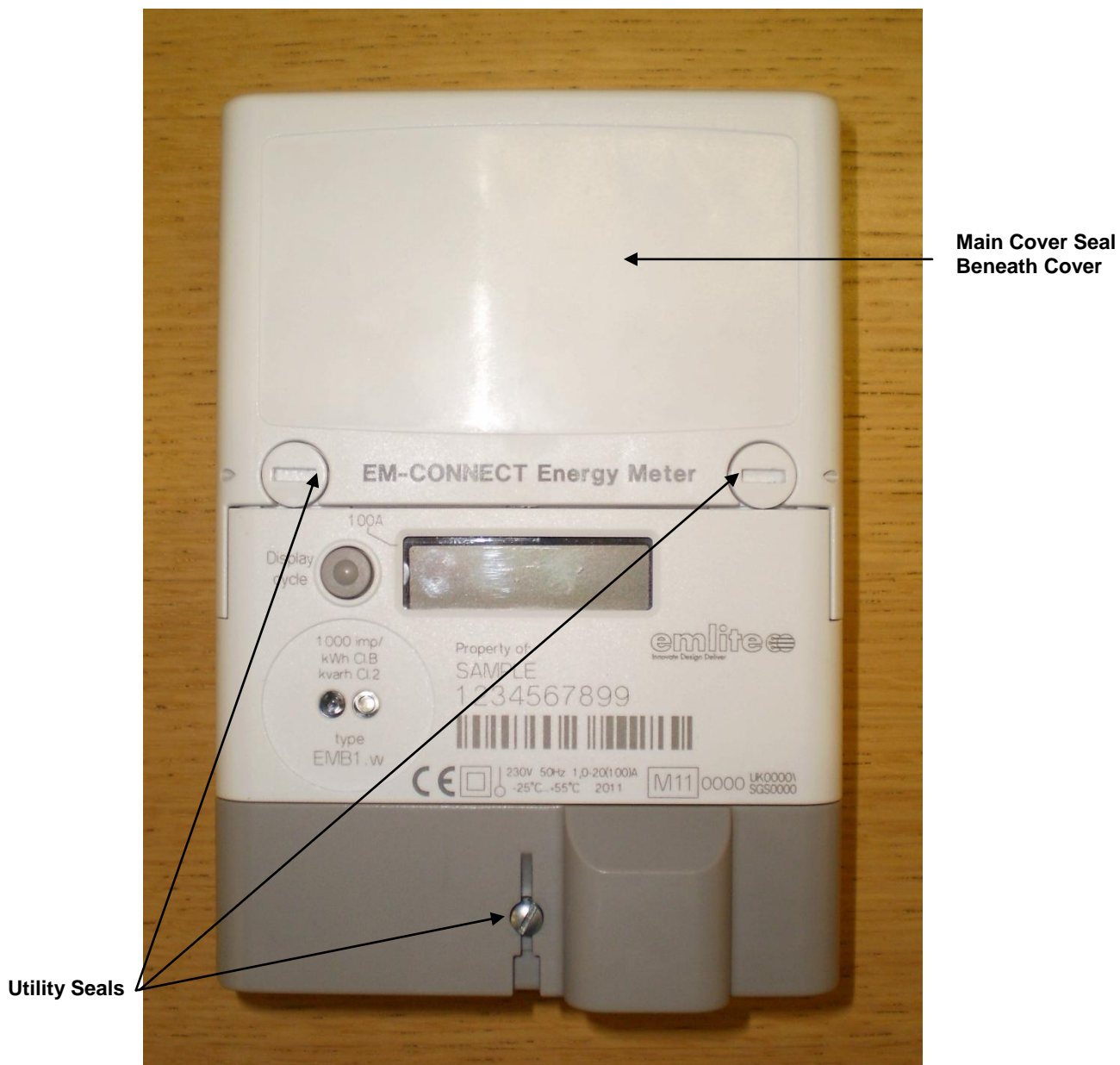
V3.10-0 Checksum 39352  
V3.11-1 Checksum 16259

#### **EMC1.\***

V0.00-3  
V1.00-0  
V1.01-3  
V1.02-0 Checksum 10305  
V2.00.1 Checksum 49889  
V3.00.0 Checksum 18714

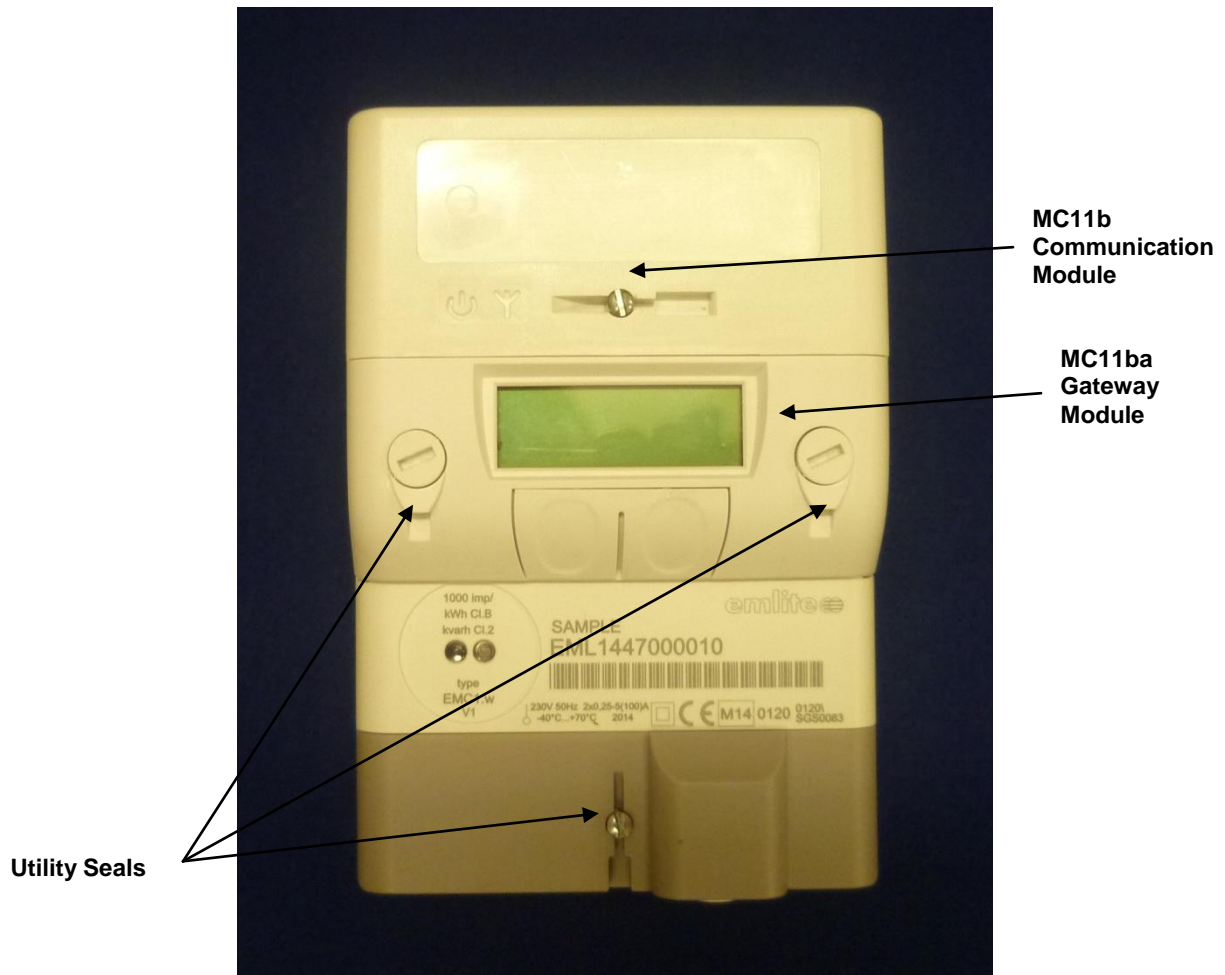
	EC-Type Examination Certificate Number:	
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## 2. Photograph of Meter EMB1 and Sealing Plan



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**Photographs of Meter EMC1w with MC11ba and MC11b Modules Fitted and Sealing Plan**



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#### 4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
ECA1.z	4 terminal basic variant, no auxiliary connections, no modular comms, no breaker
ECA1.y	4 terminal with auxiliary relay, no modular comms, no breaker
EMA1.z	4 terminal basic variant, no auxiliary connections
EMA1.az	4 terminal basic variant, no auxiliary connections, no breaker
EMA1.y	4 terminal with auxiliary relay
EMA1.ay	4 terminal with auxiliary relay, no breaker
EMA1.x	4 terminal with external hub connections
EMA1.w	4 terminal with auxiliary relay and external hub connections
EMB1.z	5 terminal (100A Heating Control) basic variant, no auxiliary connections
EMB1.y	5 terminal with auxiliary relay
EMB1.ay	5 terminal (100A Heating Control) with auxiliary relay, no breaker
EMB1.x	5 terminal with external hub connections
EMB1.w	5 terminal with auxiliary relay and external hub connections
EMC1.z	twin element basic variant, no auxiliary connections
EMC1.az	twin element basic variant, no auxiliary connections, no breakers
EMC1.y	twin element with auxiliary relay
EMC1.x	twin element with external hub connections
EMC1.w	twin element with auxiliary relay and external hub connections
EMC1.w	twin element with auxiliary relay and external hub connections,
MC11b + MC11a	smart module and gateway for use with all variants

Modifications to the meter(s) described according to approval No.**0120/ SGS0083** 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	24/05/2011	Initial Issue
2	12/08/2011	Addition approval of EMC1.* and ECA1.* variants
3	17/01/2012	Major Firmware update to EMC1 variants. Minor Firmware updates to ECA1, EMA1 and EMB1 variants
4	30/10/2012	New EMB1.ay variant added. Also, minor firmware updates to 3.10.0 on EMA1.* & EMB1.* variants for use with coin mech.
5	11/10/2013	Minor Firmware updates to ECA1, EMA1, EMB1 to V3.04.0 with Checksum 44051, EMA1.z, EMA1.y, EMB1.z, EMB1.y to V3.11.1 with Checksum 16259
6	18/09/2014	Minor software updates for EMC1.* variants V2.00.1 & V3.00.0 with checksums
7	26/11/2014	Updated BOM list & additional variant EMC1.az added
8	26/01/2015	Option for smart module and gateway modules for all variants