



EC Type Examination Certificate Number: **0120/SGS0202**

Owen Brothers Metering UK Ltd

Unit6 Glen Trading Estate
Wellyhole Street
Oldham
OL4 3BF
England

Instrument Identification:
OB415 Series

Instrument Traceable Number
0120/SGS0202

Single Phase, Active Import/ Export (kWh), Indoor, 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 from 9th November 2015 to 14th October 2025
Issue 1

Certification is based on report number(s) SHES150800466201 issued 14th October 2015

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

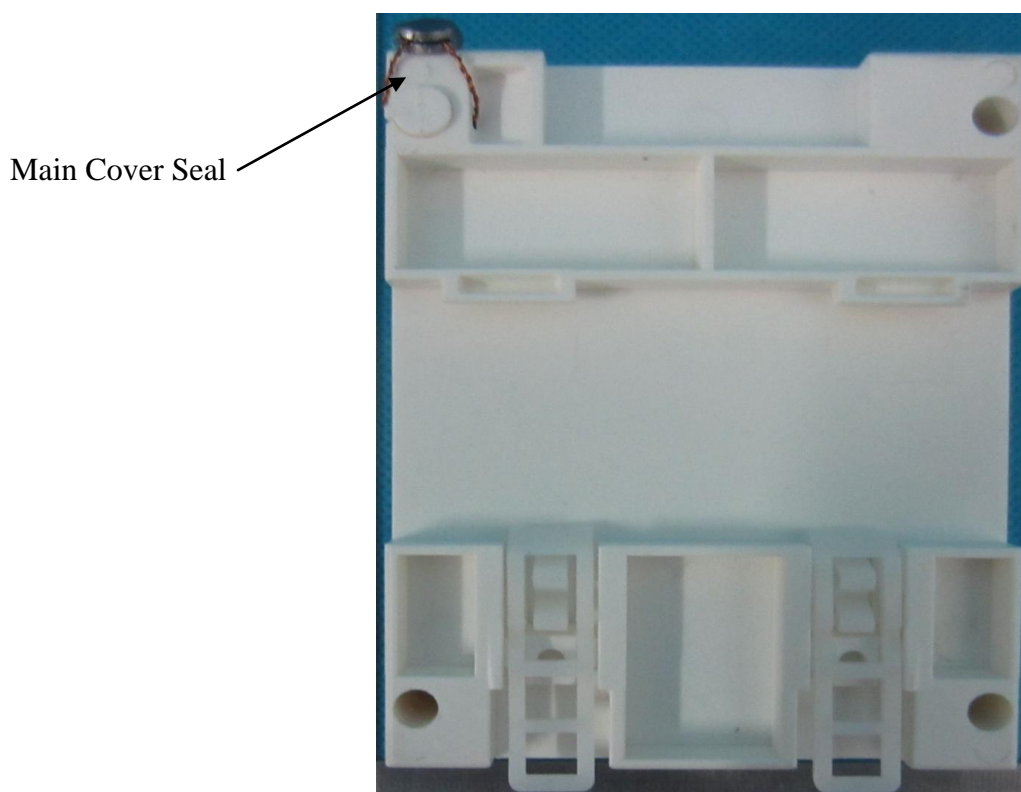
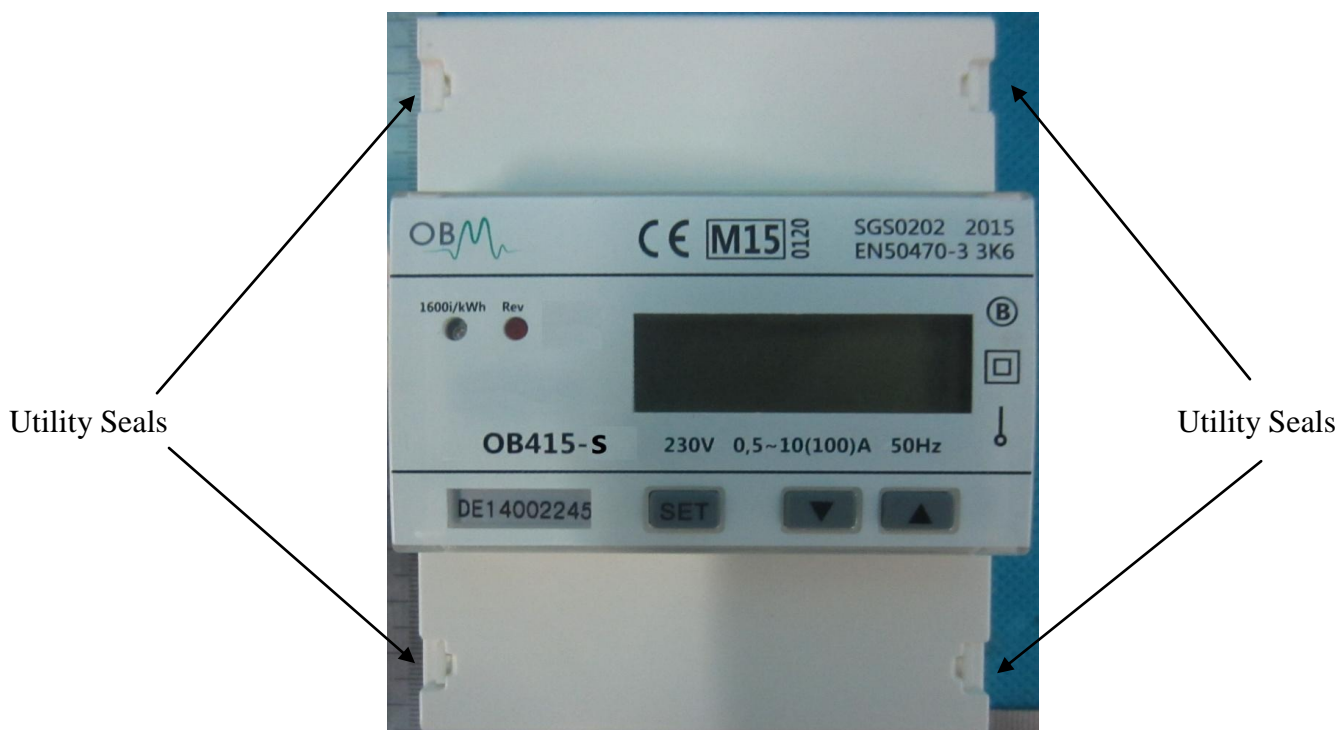
	EC-Type Examination Certificate Number:	
	0120/ SGS0202	
	Issue Number: 1	Dated: 9 th November 2015


1. Technical Data

Manufacturer	Owen Brothers Metering UK Ltd
Meter Type(s)	OB415-S OB415-Mod OB415-Mb
Voltage Rating (U_n)	230V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0.5-10(100)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 Version No's.	415.3.0 (EM415-S) 415.3.2 (EM415-Mod) 415.2.0 (EM415-Mb)
Identification Location	Nameplate
Bill Of Materials No.	FQ-JS-301-304
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1600imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Terminal Cover Sealing Type	4 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD


	EC-Type Examination Certificate Number:	
	0120/ SGS0202	
	Issue Number: 1	Dated: 9 th November 2015

2. Photographs of Meter and Sealing Plan



	EC-Type Examination Certificate Number:	
	0120/ SGS0202	
	Issue Number: 1	Dated: 9 th November 2015



	EC-Type Examination Certificate Number:	
	0120/ SGS0202	
	Issue Number: 1	Dated: 9 th November 2015

3. Influence factors for temperature, frequency and voltage


Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	1.37	0.95	0.65	0.14	0.38	0.84
I _{tr}	1.0	1.36	0.98	0.52	0.21	0.49	0.90
10I _{tr}	1.0	1.36	0.96	0.55	0.24	0.53	0.91
I _{max}	1.0	1.50	1.10	0.71	0.16	0.37	0.76
I _{tr}	0.5ind	1.34	0.92	0.52	0.21	0.46	0.94
10I _{tr}	0.5ind	1.37	0.91	0.49	0.28	0.56	0.97
I _{max}	0.5ind	1.76	1.36	0.91	0.27	0.63	1.37
I _{tr}	0.8cap	1.36	0.88	0.54	0.23	0.50	0.86
10I _{tr}	0.8cap	1.36	0.92	0.51	0.26	0.52	0.93
I _{max}	0.8cap	1.27	0.85	0.46	0.29	0.42	0.65

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


	EC-Type Examination Certificate Number:	
	0120/ SGS0202	
	Issue Number: 1	Dated: 9 th November 2015

4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
OB415-S:	Single phase energy meter with pulse output
OB415-Mod:	Single phase energy meter with modbus
OB415-Mb:	Single phase energy meter with M-bus

Modifications to the meter(s) described according to approval No.**0120/ SGS0202** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

	EC-Type Examination Certificate Number:	
	0120/ SGS0202	
	Issue Number: 1	Dated: 9 th November 2015

5. Document Revision History

Issue	Date	Comments
1	09/11/2015	Initial Issue