National Measurement Office

Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R49/2006/GB1-10.02
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **National Measurement Office**

Person responsible: **Paul Dixon – Product Certification Manager**

Applicant: **ABB Limited**
Oldends Lane
Stonehouse
Gloucestershire, GL10 3TA
United Kingdom

Manufacturer: **The applicant**

Identification of the certified pattern: **MM/GA & FER2, Mains Powered. A family of cold-water meters named AquaMaster with Mains powering, utilising a common, electromagnetic principle. Further characteristics see page 2.**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organisation of Legal Metrology (OIML):

OIML R 49 - Edition 2006(E) for accuracy class: 1 & 2

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

Issue Date: **15 May 2012**
Reference No: **T23/0017**

Signatory: **P R Dixon**

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UKAS PRODUCT CERTIFICATION 0135

BIS Department for Business Innovation & Skills

The conformity was established by tests described in the associated test report WMFEV1 having 51 pages, test report TR0550 having 26 pages and the associated pattern evaluation checklist included in report WMFEV1.

This revision replaces previous versions of the certificate.

Characteristics:

AquaMaster Mains OIML Class 1 Spec						
DN	Q4	Q3	$Q_{0.25\%}$	Q2	Q1	R
	(m3/h)	(m3/h)	(m3/h)	(m3/h)	(m3/h)	
* 40	31	25	1.5	0.1	0.063	400
* 50	50	40	1.5	0.16	0.1	400
* 80	125	100	3	0.4	0.25	400
100	200	160	4.6	0.64	0.4	400
150	500	400	11.4	1.6	1.0	400
200	788	630	18	2.5	1.6	400
250	1,250	1,000	29	4	2.5	400
300	2,000	1,600	46	6.4	4	400

AquaMaster Mains OIML Class 2 Spec						
DN	Q4	Q3	$Q_{0.25\%}$	Q2	Q1	R
	(m3/h)	(m3/h)	(m3/h)	(m3/h)	(m3/h)	
40	31	25	1.5	0.063	0.040	630
50	50	40	1.5	0.10	0.063	630
80	125	100	3	0.25	0.16	630
100	200	160	4.6	0.41	0.25	630
150	500	400	11.4	1.0	0.63	630
200	788	630	18	1.6	1.0	630
250	1,250	1,000	29	2.5	1.6	630
300	2,000	1,600	46	4.1	2.5	630

Note: * OIML R49-1 allows Class 1 only for meters with Q3>= 100m3/h, although the meters were tested to class 1 accuracy and passed the requirements.

Measuring principle:	Electromagnetic
Accuracy Class:	1 & 2
Q_2/Q_1	1.6
Q_3/Q_1	Class 1 = 400, Class 2 = 630
Environmental class:	T50 (0.1C to 50C)
Environmental class:	C
Electromagnetic environment:	E1
Maximum admissible temperature:	50 °C
Maximum admissible pressure:	1.6 Mpa (16 bar)
Pressure Loss Class	0.63 bar

Installation details

Connection type	Flange
Minimum straight length of inlet pipe:	0D (0)
Minimum straight length of outlet pipe:	0D (0)
Flow conditioner (details if required):	None

Mounting

Orientation:	Can be installed in any position

Power Supply

Type:	Mains (85 to 265V AC)
U_{max} :	265V AC
U_{min}:	85V AC
Frequency:	44 to 440Hz

Alternative Manufacturing Sites:

ABB Inc.
125 East County Line Road
Warminster
18974-4995
Pennsylvania
United States

ABB Engineering (Shanghai) Ltd.
No.5, Lane 369,
Chuangye Rd.,
Pudong District,
Shanghai 201319
P.R. China

Certificate History:

ISSUE No..	DATE	DESCRIPTION
R49/2006-GB1-10.02	24 February 2010	Type approval first issued.
R49/2006-GB1-10.02 Revision 1	15 May 2012	Revision 1 issued: Alternative manufacturing sites and certificate history added