



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

OIML Certificate No
R49/2006-GB1-10.03

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: **National Weights and Measures Laboratory**
Address: **Stanton Avenue**
Teddington
Middlesex
TW11 0JZ
United Kingdom

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

Applicant

Name: **ABB Limited**
Address: **Oldends Lane**
Stonehouse
Gloucestershire
GL10 3TA
United Kingdom

Manufacturer of the certified pattern is the Applicant.

Identification of the certified pattern:

**Family of cold-water meters named AquaMaster with
Battery powering, utilising a common, electromagnetic
principle. Further characteristics see page 2**

Type Designation: **MM/GA & FER2, Battery Powered and Explorer AM/E**

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 Organization of Legal Metrology (OIML):

OIML:	R49
Edition:	2006 (E)
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.

The conformity was established by tests included in the R49 Evaluation Checklist filed in T23/0017/9/0004 having 49 pages and test report TR0569 having 27 pages.

Issuing authority



Mr P R Dixon
for NWML

CIML member



Mr P Mason

Date 24 February 2010

Ref: T23/0017

Characteristics:

AquaMaster Battery OIML Class 1 Spec						
DN	Q4	Q3	Q_{0.5%}	Q2	Q1	R
	(m3/h)	(m3/h)	(m3/h)	(m3/h)	(m3/h)	
* 40	31	25	1.5	0.25	0.16	160
* 50	50	40	2.4	0.4	0.25	160
* 80	125	100	5.9	1	0.63	160
100	200	160	9.4	1.6	1	160
150	500	400	23.5	4	2.5	160
200	788	630	37	6.3	3.9	160
250	1,250	1,000	60	10	6.3	160
300	2,000	1,600	90	16	10	160

AquaMaster Battery OIML Class 2 Spec						
DN	Q4	Q3	Q_{0.5%}	Q2	Q1	R
	(m3/h)	(m3/h)	(m3/h)	(m3/h)	(m3/h)	
40	31	25	1.5	0.16	0.1	250
50	50	40	2.4	0.26	0.16	250
80	125	100	5.9	0.64	0.4	250
100	200	160	9.4	1.0	0.63	250
150	500	400	23.5	2.56	1.6	250
200	788	630	37	4.0	2.5	250
250	1,250	1,000	60	6.4	4	250
300	2,000	1,600	90	10	6.3	250

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 = 160, Class 2 = 250
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:	ABB Supplied Battery Pack
U _{max} :	Main Pack = 10V DC Standby Pack = 5.1V
U _{min} :	Main Pack = 6V DC Standby Pack = 3.3V DC
Frequency:	N/A

Important note: Apart from the mention of the certificate's 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.