



OIML CERTIFICATE OF CONFORMITY

Issuing Authority

Name Slovak Legal Metrology
Address Hviezdoslavova 31
974 01 Banská Bystrica, Slovakia
Person responsible Jaromír Markovič

Applicant

Name Ningbo Aimei Meter Manufacture Co., Ltd.
Address 68, West Town Road, Shangtian Town, Fenghua City
Zhejiang, 315511 P.R. of China

Manufacturer of the certified type

The applicant

Identification of the certified type

**Mechanical volumetric dry dial water meter type for metering
of cold water**

Type **PD-C, PD-C1**

For further characteristics see pages 2 to 5

This Certificate attests the conformity of the above identified type (represented by the sample or samples identified in the associated Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 49-1, edition 2013
Accuracy class 2


This Certificate relates only to the metrological and technical characteristics of the type of instrument covered by the relevant OIML Recommendation identified above.
This Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML Test Report: N° 2015/MI-001/B050/312.03 that includes 88 pages.


The Issuing Authority
Ing. Jaromír Markovič, PhD.

8 March 2016




The OIML Member
Dr. h.c. mult. prof. Ing. Jozef Mihok, PhD.

8 March 2016

Important note:

Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated Test Report is not permitted, although either may be reproduced in full.



1. Designation

Mechanical volumetric (rotary piston) water meter types *PD-C*, *PD-C1* are designed to measure, memorise and display the volume at metering conditions of water passing through the pipeline. They are intended for the measurement of volumes of clean cold water in household or a residential use.

The water meter type *PD-C*, *PD-C1* has a brass body.

The water meters types *PD-C*, *PD-C1* can be installed to operate in any positions.

2. Description

Essential parts of water meter:

- measuring mechanism - consisting of a chamber, rotary piston and top plate with transmission shaft for connection of measuring part with register;
- liquid sealed dry type mechanical register (the register chamber casing made from the plastic or copper material) - digital drum with gearing mechanism for all figures:
 - o 7 digits indication, 2 pointers of analogue device (*PD-C*);
 - o 8 digits indication, 1 pointers of analogue device (*PD-C1*);
- housing of the water meter with inlet and outlet connections – brass body with screw threads;
- adjustment device – without external adjustable screw or with external adjustable screw (to regulate the internal by-pass flow of the meter);
- magnetic coupling for the connection of the measuring mechanism with the mechanical register.

Non-essential parts of water meter:

- strainer (optionally);
- non - return valve (optionally).

2.1 Metrological functions

- measuring, memorizing and displaying the volume of the water passing through the water meter

2.2 Software

- not applicable

2.3 Integrated equipment and functions

- pulse output (optional)



3. Technical and metrological data

Table 1

Type of the water meter	Unit	PD-C / PD-C1			
Nominal diameter DN	mm	15			
Permanent flowrate Q_3	m ³ /h	1,6			
Minimum flowrate Q_1	m ³ /h	0,0064	0,008	0,01	0,0128
Transitional flowrate Q_2	m ³ /h	0,01024	0,0128	0,016	0,02048
Overload flowrate Q_4	m ³ /h	2			
Ratio Q_3/Q_1	-	250	200	160	125
Ratio Q_2/Q_1	-	1,6			
Connection thread	-	G 3/4 B			
Construction length L	mm	110/115/130/165/170/190			
Installation orientation	-	any positions			
Water temperature range Θ	°C	T30, T50			
Maximum working pressure P_{max}	bar	16 bar			
Pressure loss class ΔP	kPa	63			
Maximum permissible error in upper flowrates range $Q_2 \leq Q \leq Q_4$	%	± 2 (at $\Theta \leq 30^\circ\text{C}$) ± 3 (at $\Theta > 30^\circ\text{C}$)			
Maximum permissible error in lower flowrates range $Q_1 \leq Q < Q_2$	%	± 5			
Scale interval	m ³	0,00002			
Capacity of calculator	m ³	99999,99998			
Mechanical class	-	M1			
Climatic class	°C	-10 to + 55			
Electromagnetic class	-	E1			



Table 2

Type of the water meter	Unit	PD-C / PD-C1			
Nominal diameter DN	mm	15			
Permanent flowrate Q_3	m ³ /h	2,5			
Minimum flowrate Q_1	m ³ /h	0,00625	0,0079365	0,010	0,0125
Transitional flowrate Q_2	m ³ /h	0,01	0,0126984	0,016	0,02
Overload flowrate Q_4	m ³ /h	3,125			
Ratio Q_3/Q_1	-	400	315	250	200
Ratio Q_2/Q_1	-	1,6			
Connection thread	-	G 3/4 B			
Construction length L	mm	110/115/130/165/170/190			
Installation orientation	-	any positions			
Water temperature range Θ	°C	T30, T50			
Maximum working pressure P_{max}	bar	16 bar			
Pressure loss class ΔP	kPa	63			
Maximum permissible error in upper flowrates range $Q_2 \leq Q \leq Q_4$	%	± 2 (at $\Theta \leq 30^\circ\text{C}$) ± 3 (at $\Theta > 30^\circ\text{C}$)			
Maximum permissible error in lower flowrates range $Q_1 \leq Q < Q_2$	%	± 5			
Scale interval	m ³	0,00002			
Capacity of calculator	m ³	99999,99998			
Mechanical class	-	M1			
Climatic class	°C	-10 to + 55			
Electromagnetic class	-	E1			

4. Interfaces and compatibility conditions

- not applicable

5. Marking and inscriptions

The following data shall be marked on the water meter:

- manufacturer's name or mark;
- type of water meter;
- measuring unit m³;
- year of production and serial number;

- e) flowrate Q_3 and ratio Q_3/Q_7 indicated as (R) followed by the ratio;
- f) maximum working pressure, indicated as MAP 16;
- g) maximum water temperature, indicated as T30, T50;
- h) OIML Certificate of conformity number.

The flow direction shall be marked on a water meter's body in form of an arrow.
Markings on water meter must comply with the requirements OIML R 49.

Manufacturer can use following trademarks on its water meters:

AIMEI

ASM



6. Security measures

The water meter *PD-C* and *PD-C1* shall be protected against unauthorised manipulation by one seal securing the connection of:

- the water meter head with the screw cap of adjustment device (meter with adjustment screw)
- or
- the water meter head with the body of water meter (meter without adjustment screw). The measuring assembly of the water meter *PD-C* and *PD-C1* is secured by locating the snap fit plastic cover to the meter body. The plastic cover has integrally moulded clips and once fitted, unauthorised dismantling is not possible without leaving evidence of tampering

7. Documentation used for assessment purposes

- Test report No 2015/MI-001/B050/312.03;
- Manufacturer's technical documentation stored in folder *Ningbo_PD-C_PD-C1_00*.

8. Standards and regulations used for assessment purposes

- OIML R 49-1, edition 2013 (E);
- OIML R 49-2, edition 2013 (E);
- OIML R 49-3, edition 2013 (E).

