OIML Member State
Slovakia

OIML Certificate N°
R49/2013-SK1-16.02

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 single - jet dry dial water meter type for metering of cold water

Type **SD-B, SD-B1, SD-BP, SD-BP1**

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/CV10/312.03 that includes 61 pages.

The Issuing Authority
Ing. Jaromír Markovič, PhD.

8 February 2016

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

8 February 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

The mechanical single-jet dry dial water meter of types SD-B; SD-B1; SD-BP and SD-BP1 are designed to measure, memorize and display the volume at metering conditions of water passing through the measurement transducer. They are intended for the measurement of volumes of clean cold water in household or a residential use. The water meters of type SD-B; SD-B1; SD-BP and SD-BP1 shall be installed to operate in horizontal position with the indication device positioned at the top and vertical position.

2. Description

Essential parts of water meter:

- measuring mechanism - consisting of the rotary vane wheel with an axle perpendicular to the flow direction, lower and upper tightening plates with bearing hubs;
- dry type mechanical register (the register chamber casing can be made from the plastic or copper material) with 6 numbered drums and 2 continuously moving rotating pointers;
- housing of the water meter with inlet and outlet connections – brass body (for type *SD-B and SD-B1*) or plastic body (*SD-BP and SD-BP1*);
- adjustment device – the adjustment of the water meter is enabled by using the external regulating;
- magnetic coupling for the connection of the measuring mechanism with the mechanical register.

Non-essential parts of the water meter:

- inlet strainer (optional);
- non-return valve (optional).

2.1 Metrological functions

- measuring 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

Technical parameters of the water meters type SD-B; SD-B1; SD-BP and SD-BP1 are listed in Table 1.

Table 1: Technical parameters of the water meters

Type	Unit	***SD-B / SD-B1 / SD-BP / SD-BP1***							
Nominal diameter *DN*	mm	15				20			
Connection thread	-	G ¾ B				G 1B			
Construction length *L*	mm	110/115/130/165				130/165/190			
Vater temperature range Θ	°C	T30, T50							
Maximum working pressure	bar	16							
Maximum permissible error in upper flow rates range $Q_2 \leq Q \leq Q_4$	%	± 2 (at $\Theta \leq 30$°C) ± 3 (at $\Theta > 30$°C)							
Maximum permissible error in lower flow rates range $Q_1 \leq Q < Q_2$	%	± 5							
Scale interval	m^3	0,000 05							
Capacity of calculator	m^3	9999,99995							
Mechanical class	-	M1							
Climatic class	°C	- 10 to + 55							
Installation orientation	-	H *)							
Nominal diameter *DN*	mm	15				20			
Permanent flowrate Q_3	m^3/h	2,5				4			
Minimum flowrate Q_1	m^3/h	0,03125	0,025	0,02	0,015625	0,05	0,04	0,032	0,025
Transitional flowrate Q_2	m^3/h	0,05	0,04	0,032	0,025	0,08	0,064	0,0512	0,04
Overload flowrate Q_4	m^3/h	3,125				5			
Ratio Q_3/Q_1	R	80	100	125	160	80	100	125	160
Ratio Q_2/Q_1	-	1,6							

Type	Unit	*SD-B / SD-B1 / SD-BP / SD-BP1*	
Installation orientation	-	V	
Nominal diameter *DN*	mm	15	20
Permanent flowrate Q_3	m^3/h	2,5	4
Minimum flowrate Q_1	m^3/h	0,0625	0,1
Transitional flowrate Q_2	m^3/h	0,1	0,16
Overload flowrate Q_4	m^3/h	3,125	5
Ratio Q_3/Q_1	R	40	
Ratio Q_2/Q_1	-	1,6	

**) horizontal position with the indication device positioned at the top only*

4. Interfaces and compatibility conditions

- not applicable

5. Marking and inscriptions

The following data shall be marked on the water meter:

a) manufacturer's name or mark;
b) type of water meter;
c) measuring unit m^3;
d) year of production and serial number;
e) flowrate Q_3 and ratio Q_3/Q_1; *(R);*
f) maximum working pressure *(MAP 16);*
g) temperature class *(T30,T50);*
h) installation position of the water meter *(H, V);*
i) 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 used following trademarks on its water meters:

AIMEI **ASM** ®

6. Security measures

The water meter shall be protected against unauthorised manipulation by one seal securing the connection of the water meter head with the screw cap of adjustment device.

7. Documentation used for assessment purposes

- Test report No 2015/CV10/312.03;
- Manufacturer`s technical documentation stored in folder *Aimei_SD_B_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).