OIML Member State SLOVAKIA	**OIML Certificate No.** **R49/2013-B-SK1-2018.01**

OIML CERTIFICATE ISSUED UNDER SCHEME B

OIML Issuing Authority

Name: **Slovak Legal Metrology (SLM)**
Address: Hviezdoslavova 1124/31, 974 01 Banská Bystrica, Slovakia
Person responsible: Jaromír Markovič, Director General

Applicant

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

Manufacturer

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

Identification of the certified type *(the detailed characteristics are defined in the additional pages)*

Type **SL-A, SL-AP**

Designation of the module *(if applicable)*

Single jet water meter intended for the metering of cold potable water

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 49, Edition (year): 2013

For accuracy class (if applicable): 2

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OIML Certificate No.
R49/2013-B-SK1-2018.01

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML 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 type evaluation report:

No. 2018/CV003/312.03 dated 21 May 2018 that includes 76 pages

The technical documentation relating to the identified type is contained in documentation file:

No. Ningbo_SL_00 dated 21 May 2018 that includes 56 pages.

OIML Certificate History

Revision No.	Date	Description of the modification
0	24 May 2018	Certificate first issued
-	-	-

Identification, signature and stamp

The OIML Issuing Authority

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Jaromír Markovič

Date: 24 May 2018

The CIML Member

.....

Pavol Pavlis

Date: 24 May 2018

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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 OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

DESCRIPTIVE ANNEX

1. Designation

The mechanical single jet water meters type SL-A and SL-AP are designed to measure, memorise and display the volume of water passing through the measurement transducer at metering conditions. The water meters are intended for the metering of cold potable water in household and commercial use.

The mechanical water meters type SL-A and SL-AP are single jet rotary vane wheel water meters with the mechanical indication device. The mechanical water meters type SL-A have the brass body. The mechanical water meters type SL-AP have the plastic body.

2. Description

Essential parts of water meters type SL-A and SL-AP:

- measuring mechanism - consisting of the measuring chamber and the rotary vane wheel (impeller) with an axle perpendicular to the flow direction;
- liquid sealed mechanical register and indication device with 4 numbered drums (last significant drum moves continuously) and 4 continuously moving rotating pointers. The register is connected to the rotary vane wheel (impeller) by the mechanical drive;
- housing of water meter with inlet and outlet connections (SL-A: the brass body, SL-AP: the plastic body).

Non-essential parts of water meters type SL-A and SL-AP:

- strainer in the inlet of the water meter;
- non-return valve in the outlet tube of the water meter (optional).

3. Metrological functions

Metrological functions of water meters type SL-A and SL-AP:

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

4. Integrated equipment and functions

Integrated equipment and functions of water meters type SL-A and SL-AP:

- pulse output module (optional).

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5. Technical and metrological data

Table 1: Technical and metrological parameters of the water meters types *SL-A and SL-AP, DN 15*

Type		***SL-A / SL-AP***									
Nominal diameter DN	mm	15									
Permanent flowrate Q_3	m^3/h	1,6				2,5					
Minimum flowrate Q_1	m^3/h	0,032	0,0254	0,02	0,016	0,03125	0,025	0,02	0,015625	0,0625	0,05
Transitional flowrate Q_2	m^3/h	0,0512	0,04064	0,032	0,0256	0,05	0,04	0,032	0,025	0,1	0,08
Overload flowrate Q_4	m^3/h	2				3,125					
Ratio Q_3/Q_1	-	50	63	80	100	80	100	125	160	40	50
Installation position	-	H (indication device positioned at the top)								V	
Ratio Q_2/Q_1	-	1,6									
Accuracy class	-	2									
Connection thread	-	G ¾ B									
Construction length L	mm	110 / 115 / 130 / 165									
Water temperature range	°C	0,1 to 50									
Temperature class	-	T30, T50									
Maximum admissible pressure (MAP)	bar	16									
Pressure loss ΔP	bar	0,63									
Maximum permissible error in upper flowrates	%	± 2 (at $\Theta \leq 30°C$) ± 3 (at $\Theta > 30°C$)									
Maximum permissible error in lower flowrates	%	± 5 (at $\Theta \leq 30°C$) ± 6 (at $\Theta > 30°C$)									
Scale interval	m^3	0,00005									
Capacity of calculator	m^3	9999									
Mechanical class	-	M1									
Climatic class	°C	-10 to +55									
Electromagnetic class	-	E1									
Flow profile sensitivity class	-	U0/D0									

Table 2: Technical and metrological parameters of the water meters types *SL-A and SL-AP, DN 20*

Type		***SL-A / SL-AP***									
Nominal diameter DN	mm	20									
Permanent flowrate Q_3	m^3/h	2,5				4					
Minimum flowrate Q_1	m^3/h	0,05	0,0397	0,03125	0,025	0,05	0,04	0,032	0,025	0,1	0,08
Transitional flowrate Q_2	m^3/h	0,08	0,0649	0,05	0,04	0,08	0,064	0,0512	0,04	0,16	0,128
Overload flowrate Q_4	m^3/h	3,125				5					
Ratio Q_3/Q_1	-	50	63	80	100	80	100	125	160	40	50
Installation position	-	H (indication device positioned at the top)								V	
Ratio Q_2/Q_1	-	1,6									
Accuracy class	-	2									
Connection thread	-	G 1 B									
Construction length L	mm	130 / 165 / 190									
Water temperature range	°C	0,1 to 50									
Temperature class	-	T30, T50									
Maximum admissible pressure (MAP)	bar	16									
Pressure loss ΔP	bar	0,63									
Maximum permissible error in upper flowrates range $Q_2 \leq Q \leq$	%	± 2 (at $\Theta \leq 30°C$) ± 3 (at $\Theta > 30°C$)									
Maximum permissible error in lower flowrates ranges $Q_1 \leq Q$	%	± 5 (at $\Theta \leq 30°C$) ± 6 (at $\Theta > 30°C$)									
Scale interval	m^3	0,00005									
Capacity of calculator	m^3	9999									
Mechanical class	-	M1									
Climatic class	°C	-10 to +55									
Electromagnetic class	-	E1									
Flow profile sensitivity class	-	U0/D0									

6. Marking and inscriptions

The following data shall be marked on the water meter:

a) name or trademark of the manufacturer;
b) type name of the water meter;
c) unit of measurement m^3;
d) year of manufacture, the last two digits of the year of manufacture, or the month and year of manufacture;
e) serial number (as near as possible to the indicating device);
f) direction of flow, by means of an arrow (shown on both sides of the body or on one side only provided the direction of flow arrow is easily visible under all circumstances);
g) flowrate Q_3 and ratio Q_3/Q_1 indicated as *(R)* followed by the ratio;
h) maximum working pressure, indicated as MAP 16;
i) the temperature class where it differs from T30;
j) operating position (letter H or V according to tables in the point 3 of this certificate);
k) type approval sign according to national regulations.

6.1 Manufacturer uses following trademarks on the water meters:

AIMEI ASM

7. Security measures

The water meter shall be protected against unauthorised manipulation by the seal securing the connection of the water meter head with the water meter body.

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