		V 3112

OIML Member State	**OIML Certificate No.**
Czech Republic	R49/2013-A-CZ1-2022.03

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority

Name: Czech Metrology Institute
Address: Okružní 31, 638 00 Brno, Czech Republic

Person responsible: Jan Kalandra

Applicant

Name: Aichi Tokei Denki Co., Ltd.

Address: 1-2-70, Chitose, Atsuta-ku, 456-8691 Nagoya, Japan

Manufacturer

Name: Aichi Tokei Denki Vietnam Co., Ltd.

Address: A1 Plot, CN5 Area, Trang Due IP; Dinh Vu - Cat Hai Ez, Le Loi Commune, An Duong Dist; Hai Phong, Vietnam

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

water meter - single jet
SD15S

Designation of the module *(if applicable)*

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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

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. 0511-ER-V065-21 dated 26th May 2022 that includes 56 pages including annex 1
- Test report No. 6015-PT-P5003-22 that includes 30 pages including annex 1

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

0511-UL-V065-21

OIML Certificate History

Revision No.	Date	Description of the modification
Addition 0	15 June 2022	Issuing certificate

The OIML Issuing Authority
RNDr. Pavel Klenovský
Head of Certification Body

Date: 15 June 2022

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.

Measuring system description

The water meters type SD15S are designed to measure, memorize and display the volume at metering conditions of water passing through the measurement transducer.
The water meters type SD15S are single jet rotary vane wheel water meters with dry mechanical indicating device.
The water meters type SD15S consist of a brass body with connecting screw threads, a strainer in front of wet measuring unit, a shaft, a rotary vane wheel, gear box, a magnetic coupling (wet and dry side), a rubber O-ring, a plastic plate closing the water meter, a magnetic shields and a mechanical indicating device. The mechanical indicating device is formed by numbered rollers with five drums, three pointers and pilot. The adjustment is realized by adjusting the position of screw. The access to the adjusting screw is protected by seal.

The water meters type SD15S shall be installed to operate in horizontal position with the indicating device positioned at the top. The water meters type SD15S are not designed to measure reverse flow.

Marking and inscriptions

The water meters types SD15S shall be clearly and indelibly marked with the following information:

- Unit of measurement (m^3)
- Numerical value Q_3 in m^3/h (Q_3 ×.×) and the ratio Q_3 / Q_1
- OIML certificate of conformity number
- Name of trademark of the manufacturer
- Year of manufacture, two last digits of the year of manufacture, or the month and year of manufacture and serial number (as near as possible to the indicating device)
- 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)
- Maximum admissible pressure (MAP ××)
- Letter H↑ (horizontal position with the indicating device at the top)
- The temperature class (T××)
- The pressure loss class (Δp ××)
- The installation sensitivity class (Ux Dx)

These markings shall comply with the requirements of OIML R 49 and shall be visible without dismantling the water meter after the instrument has been placed on the market or put into use.

Characteristics

Basic technical data of water meters types SD15S:

Manufacturer:	Aichi Tokei Denki Vietnam Co., Ltd.; A1 Plot, CN5 Area, Trang Due IP; Dinh Vu - Cat Hai Ez, Le Loi Commune, An Duong Dist; Hai Phong, Vietnam	
Model number:	SD15S	
Nominal diameter:	*15*	
Type details:		
Q_1 [m^3/h]:	0.0156	0.025
Q_2 [m^3/h]:	0.025	0.040
Q_3 [m^3/h]:	2.500	
Q_4 [m^3/h]:	3.125	
Q_3/Q_1:	160	100
Q_2/Q_1:	1.6	

Q_4/Q_3:	1.25
Measuring principle:	Water meter single jet
Accuracy class:	2
Maximum permissible error for the lower flowrate zone (MPE_l):	±5 %
Maximum permissible error for the upper flowrate zone (MPE_u):	±2 % for water having a temperature ≤ 30 °C ±3 % for water having a temperature > 30 °C
Temperature class:	T30; T50
Water pressure class:	MAP10; MAP 16
Pressure loss class:	*Δp63*
Environmental class:	*B*
Electromagnetic environment:	-
Maximum admissible temperature [°C]:	30 for T30; 50 for T50
Maximum admissible pressure [MPa]:	1 for MAP10; 1.6 for MAP16
Orientation limitation:	H↑ - for horizontal position with indicating device at top
Indicating range [m^3]:	*9 999*
Resolution of the indicating device [m^3]:	*0.00005*
Resolution of the device for rapid testing [m^3]:	-
EUT testing requirements (OIML R 49-2:2013, 8.1.8):	
Category:	-
Case:	-
Installation details:	
Connection type (screw thread):	G3/4
Minimum straight length of inlet pipe [mm]:	0
Minimum straight length of outlet pipe [mm]:	0
Flow conditioner (details if required):	no
Mounting:	in line
Orientation:	horizontal position with indicating device at top
Other relevant information:	-
Length [mm]:	*110, 165*
Reed switch power supply (U_{max} / I_{max}):	-
Reed switch K-factor (impulse / L):	-
Installation details (electrical):	
Wiring instructions:	-
Mounting arrangement:	-
Orientation limitations:	-
Power supply:	
Type (battery, mains AC, mains DC):	-
U_{max} (V):	-
U_{min} (V):	-

Frequency:	-
Minimum battery life time [years]:	-
Software version (of legally relevant SW):	-
CRC checksum (of legally relevant SW):	-

Securing components and verification marks
The SD15S meters have to be sealed by connecting the plastic ring to the brass body by a wire with seal such that the head ring cannot be turned and separate without damaging the seal or the sealing wire. The sealing is described in Figure 1.

Figure 1: The sealing of water meter SD15S.