



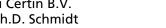
OIML Certificate

OIML Member State The Netherlands



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Issuing authority Person responsible: NMi Certin B.V. M.Ph.D. Schmidt



Applicant and Manufacturer

Viewshine Metering Ltd. Building 6, Moganshan Road 1418-41 Hangzhou

P.R. China

Identification of the

An ultrasonic water meter

certified type

Type: U-WR Series

Characteristics

See page 2 and further



This 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):

> **R 49-1 (2013)** "Water meters intended for the metering of cold potable water and hot water"

Accuracy class 2

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

This certificate and supporting reports comply with the requirements of OIML-CS-PD-07 clause 6.2.

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 and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority

NMi Certin B.V., OIML Issuing Authority NL1 18 August 2023

Certification Board

This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability.

The notification of NMi Certin B.V. as Issuing Authority can be verified at www.oiml.org

This document is digitally signed and sealed. The digital signature can be verified in the blue ribbon at the top of the electronic version of this certificate.







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The conformity was established by the results of tests and examinations provided in the associated report(s):

- No. NMi-1900855-01 dated 11 August 2017 that includes 35 pages;
- No. 170301928 / DN 15 / Q3 2,5 dated 11 August 2017 that includes 55 pages;
- No. NMi-2678029-01 dated 8 March 2022 that includes 36 pages.

Characteristics of the measuring instrument

In Table 1 the general characteristics of the measuring instrument are presented.

Table 2 gives an overview of the general characteristics of the family of instruments.

The construction of the measuring instrument is recorded in the Documentation folder no. T11059-3.

Table 1 General characteristics

Measuring principle	Ultrasonic flow metering		
Accuracy class	2		
Environmental class	M1 / O (installed outdoors)		
Electromagnetic environment	E1		
Temperature range ambient	-25 °C / +55 °C		
Water temperature class	T50 (+0,1 °C / +50 °C)		
Maximum admissible pressure (MAP)	1,6 MPa (16 bar)		
Orientation	All positions (Horizontal, vertical or diagonal)		
Flow profile sensitivity class	U0S and D0 (flow straightener + 0 x DN upstream and 0 x DN downstream)		
Reverse flow	The sensor is not intended to measure reverse flow		
Pressure loss class	Δp 63 (0,63 bar)		
Power supply	Non-replaceable battery (3,0 – 3,7 V)		
Software identification	Version: V2.2 Checksum: 37244 Displayed on water meter as 22 37244		





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Table 2 General characteristics of the family of instruments

	Ø in- and	Flow rates [m³/h]				Datia
Meter size outlet [mm]	Minimum Q1	Transitional Q2	Permanent Q3	Overload Q4	Ratio Q3/Q1	
DN15	19	0,00625	0,01	2,5	3,125	400
DN20	24	0,01	0,016	4	5	400

Please note that the flow rates Q1, Q2, Q3 and Q4 can be freely chosen as long as:

- Values Q3 and ratio Q3/Q1 are selected from paragraph 4.1 of OIML R49-1: 2013(E);
- Values mentioned for Q1 and Q2 are minimum values and the ratio Q2/Q1 = 1,6;
- Values mentioned for Q3 and Q4 are maximum values and the ratio Q4/Q3 = 1,25;
- The ratio Q3/Q1 is at least 40.

Table 3 General characteristics of the indicating device

Meter size	Indicating range (minimum value) [m³]	Verification scale interval (minimum resolution) [m³]
DN15; DN20	99999,999	0,000001

Certificate history:

This revision replaces the previous version.

Revision	Date	Description of the modification
Initial	8 March 2022	-
1	18 August 2023	Addition of a new PCB



