OIML Member State SLOVAKIA	OIML Certificate No. R49/2013-A-SK1-25.10

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority

Name: **Slovak Legal Metrology (SLM)**
Address: Geologická 9966/1,
821 06 Bratislava-Podunajské Biskupice, Slovakia
Product Certification Body
Hviezdoslavova 31
974 01 Banská Bystrica, Slovakia
Person responsible: Ing. Dušan Šmigura, PhD., Director of PCB

Applicant

Name: **Qingdao Comcore Technologies Co., Ltd.**
Address: 8th Floor, Block A, Qingdao International Innovation Park, No. 1 Keyuanweiyi Road, Laoshan District, Qingdao City, Shandong Province, China

Manufacturer

Name: **Qingdao Comcore Technologies Co., Ltd.**
Address: 8th Floor, Block A, Qingdao International Innovation Park, No. 1 Keyuanweiyi Road, Laoshan District, Qingdao City, Shandong Province, China

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

Water meter type **EUW300**

Designation of the module *(if applicable)*

Ultrasonic water meters with electronic indication device

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: 2

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OIML Certificate No.
R49/2013-A-SK1-25.10

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:

Test report No: 2024/MI-001/B040/312.15 dated 1st April 2025 that includes 72 pages

OIML type evaluation report No. 2025/ER024/SK1 dated 30th April 2025 that includes 16 pages.

The technical documentation relating to the identified type is contained in documentation file name: „Technical documentation file Qingdao_EUW_00“ dated 30th April 2025 that includes a sum of documents 51 pages.

OIML Certificate History

Revision No.	Date	Description of the modification
0	30th April 2025	Certificate first issued

Identification, signature and stamp

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The OIML Issuing Authority

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Dušan Šmigura

Date: 30th April 2025

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.

1. Designation

The ultrasonic water meter type **EUW300** is designed to measure, memorise and display the volume of water passing through the measurement transducer at metering conditions. The water meter is intended for the measurement of volume of clean water in residential, commercial and light industrial use.
The water meter type EUW300 is compact ultrasonic water meter with electronic indication device. The measurement is based on ultrasonic bidirectional transit-time principle. The water meter type EUW300 can be installed to operate in horizontal or vertical positions and is not designed to measure the reverse flow.

2. Description

2.1 Parts of the water meter type EUW300:

Essential parts:

Flow sensor:
- the hydraulic plastic body with inlet and outlet threaded connections;
- the inner plastic tube placed in the body;
- two mirrors set to create an ultrasound path in the flow meter body;
- two ultrasonic transducers at the upstream and downstream of the measurement channel (pipe section) to transmit and receive ultrasonic signals.

Calculator and indication device:
- plastic counter housing with meter indication device molded together with flow sensor;
- PCB of the measuring module;
- the PCB board;
- the electronic LCD display with 9 digits and indication range of 999999,999 m^3;
  The sub-multiples of a cubic meter after decimal point are marked on the LCD display with a frame;
- two non-replaceable lithium batteries, with a maximum lifetime of more than 10 years;
- optical port for the display scrolling by magnet.

Non-essential parts:

- IoT including LoRa/LoRaWAN/NB-IoT/LPWAN.

2.2 Metrological functions

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

2.3 Operation and presentation of legal data

To switch the display menu must be used magnet (touch the lower right corner with a magnet).

The LCD display in normal mode:
a) the total measured volume (m^3);
b) flow rate (m^3/h);

The LCD display in testing mode:
a) the measured volume (L);
b) flow rate (L/h);

The LCD display include the following display screens:

a) test display – all segments on;
b) test display – all segments off;
c) firmware version;
d) checksum.

2.4 Software specification

Software versions	Checksum	Remarks
V1.1	7762678	DN15
V1.0	5065031	DN20 and DN25

The software version is indicated on the display in the form: 11240922 or 10240920
The checksum is indicated on the display in the form: 7762678 or 5065031

2.5 Accountable alarms

During the measuring process the calculator and indication device detects automatically if a fault condition occurs and eventually stops the measurement reporting an alarm indication on the display. See user manual issued by the manufacturer.

3. Technical and metrological data

Type /model		EUW300		
Accuracy class	-	2		
Nominal diameter DN	mm	15	20	25
Permanent flowrate Q_3	m^3/h	2,5	4	6,3
Minimum flowrate Q_1	m^3/h	0,00625	0,01	0,01575
Transitional flowrate Q_2	m^3/h	0,01	0,016	0,0252
Overload flowrate Q_4	m^3/h	3,125	5	7,875
Ratio Q_3/Q_1	-	400		
Ratio Q_2/Q_1	-	1,6		
Connection thread	-	G ¾	G 1	G1 ¼
Construction length L	mm	110	130	150
Installation position	-	H/V		
Water temperature range	°C	0 to 50		
Meter temperature class	-	T30, T50		
Maximum admissible pressure MAP	bar	16		
Pressure loss class Δp	bar -	0,40 40	0,25 25	0,25 25
Maximum permissible error in upper flowrates range $Q_2 \le Q \le Q_4$	%	± 2 (at $\Theta \le 30°C$) ± 3 (at $\Theta > 30°C$)		
Maximum permissible error in lower flowrates ranges $Q_1 \le Q < Q_2$	%	± 5		
Scale interval	m^3	0,001		
Scale interval in testing mode	L	0,001		

Capacity of calculator	m^3	999999,999
Capacity of calculator in testing mode	L	999999,999
Mechanical class	-	M1
Climatic class	°C	-25 to +55
Electromagnetic class	-	E2
Environmental classification	-	O
Flow profile sensitivity class	-	U10D5
Battery	-	Non-replaceable, li-batteries 3,6 V, lifetime more than 10 years

4. 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 value;
h) maximum admissible pressure (MAP);
i) temperature class where it differs from T30;
j) letter H, if the meter can only be operated in the horizontal position, letter V, if the meter can only be operated in the vertical position;
k) pressure loss class where it differs from Δp 63 (Δp);
l) the latest date by which the meter shall be replaced (given in the check mode sequence in the display);
m) environmental classification (can be given on a document supplied separately);
n) installation sensitivity class (where it differs from U0/D0);
o) electromagnetic environmental class (can be given on a document supplied separately);
p) type approval sign according to national regulations.

4.1 Designation of trademark on the water meter

Manufacturer can used following trademark on its water meters:

Comcore

5. Security measures

The water meter shall be protected against unauthorised manipulation and opening as follows 2 methods (Fig.: 3):

- (A method) grey sticker - that connect the upper cover of the electronic unit and the lower cover of the measuring section;
- (B method) black sticker - that connect the upper cover of the electronic unit and the transparent cover.

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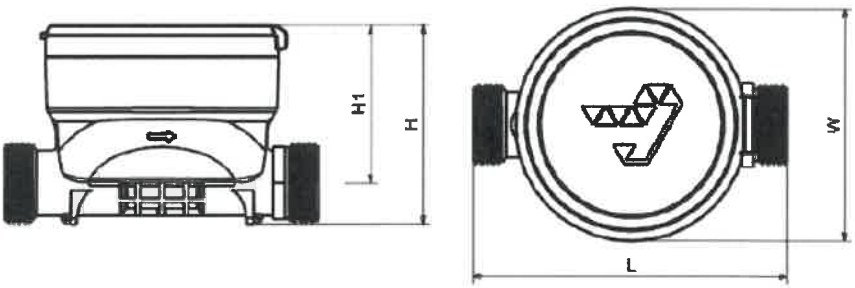
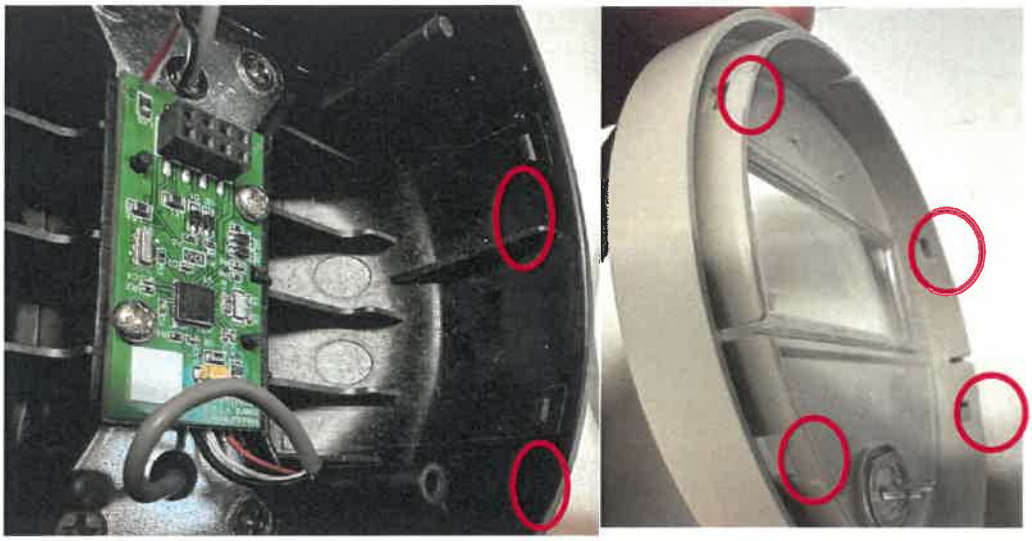
6. Figures

Fig 1: Illustrative views of the water meter type EUW300

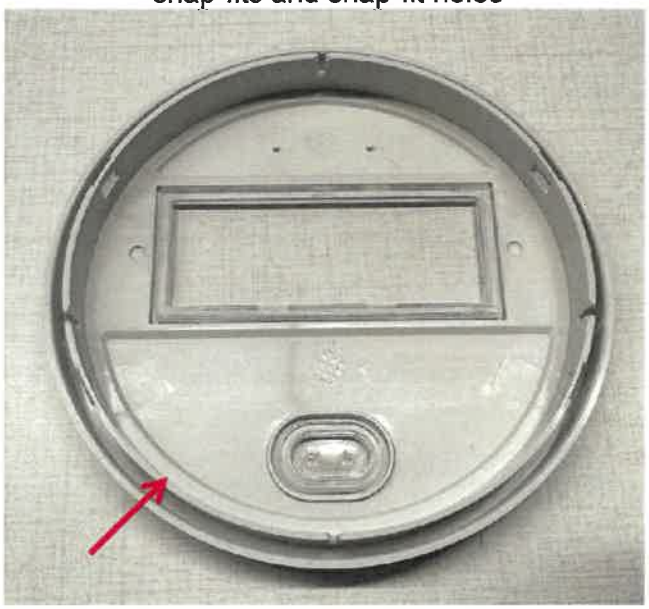


Type	DN size	L (mm)	W (mm)	H (mm)	H1 (mm)	thread (mm)
EUW300	DN15	110	96,3	78	64	G ¾
	DN20	130		82	65	G1
	DN25	150		88,5	67,5	G1 ¼

Fig. 2: Dimensions of the water meters type EUW300



snap-fits and snap-fit holes



groove

Fig. 3: Sealing of the water meter EUW300