		V 3112

OIML Member State Czech Republic	**OIML Certificate No.** R49/2013-A-CZ1-24.04 Revision 2

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: Hangzhou Laison Technology Co. Ltd.

Address: No. 525 Xixi Road, Hangzhou, Zhejiang, 310007, China

Manufacturer

Name: Hangzhou Laison Technology Co. Ltd.

Address: No. 525 Xixi Road, Hangzhou, Zhejiang, 310007, China

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

water meter - ultrasonic
type LXC, Temperature class: T30, T50; accuracy class 2

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

Český metrologický institut
-3-

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-V158-24 revision 1 dated 18 September 2025 that includes 47 pages including annex 1
- OIML test report No. 6015-PT-P5010-24 that includes 78 pages including annex 1, annex 2
- Test report No. 6011-PT-SW006-24 that includes 5 pages including annex 1
- OIML test report 6015-PT-P0001-25 that includes 9 pages including annex 1 and annex 2

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

0511-UL-V158-24

OIML Certificate History

Revision No.	Date	Description of the modification
-	1 July 2024	Issuing certificate
Revision 1	27 February 2025	Addition of a new technical parameter - U0D0
Revision 2	19 December 2025	Correction of typo in CRC checksum

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

Date: 19 December 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.

Measuring system description

The water meters type LXC consist of a brass body with screw threads, a pair of ultrasonic transducers and the electronic indicating device. The electronic indicating device is formed by an LCD display which is equipped with a photosensitive button for rapid test. The display shows the delivered volume for forward flow as a default.

The water meters consist of two-parts plastic cover with protruding brass screw threads. The plastic parts are connected by two screws and prepared for ensuring the integrity of water meter.

The water meters type LXC are powered by a permanent battery with voltage 3.6 V and lifetime 10 years.

The water meters shall be installed to H↑ horizontal position with the indicating device at the top, H→ horizontal position with the indicating device at the side and V↑ vertical position with flow from bottom to top and with the indicating device at the side.

Marking and inscriptions

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

- Water meter type
- Unit of measurement (m3)
- Numerical value Q3 in m3/h (Q3 ×.×) and the ratio Q3 / Q1,
- Manufacturer´s name, registered trade name or registered trade mark
- Year of manufacture, two last digits of the year of manufacture, or the month and year of manufacture
- Serial number (as near as possible to the indicating device)
- Direction of flow, by means of an arrow (on display)
- Maximum admissible pressure (MAP ××)
- The temperature class (T××)
- The pressure loss class (Δp ××)
- The installation sensitivity class (Ux Dx)
- Power voltage
- Environmental classification
- Electromagnetic environmental class
- Software version
- Hardware version
- Type approval sign according to national regulations

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. Example is in Figure 2.

Characteristics

Basic technical data of water meters type LXC:

Manufacturer:	Hangzhou Laison Technology Co. Ltd.		
Model name:	LXC		
Nominal diameter:	*15*	*20*	*25*
Type details:			
Q_1 [m³/h]:	flowrates are shown in Table *Basic metrological data (flowrates)*		
Q_2 [m³/h]:			
Q_3 [m3/h]:			
Q_4 [m³/h]:			
Q_3/Q_1:	400		
Q_2/Q_1:	1.6		
Q_4/Q_3:	1.25		

Measuring principle:	ultrasonic water meter		
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 %		
Temperature class:	T30; T50		
Water pressure class:	MAP16		
Pressure loss class:	*Δp63*		
Reverse flow:	*not designed to measure*		
Environmental class:	*O*		
Electromagnetic environment:	*E2 or E1*		
Maximum admissible temperature [°C]:	50		
Maximum admissible pressure [MPa]:	1.6		
Orientation limitation:	H↑ horizontal position with the indicating device at the top H→ horizontal position with the indicating device at the side V↑ vertical position with flow from bottom to top and with the indicating device at the side		
Indicating range [m^3]:	*99 999*		
Resolution of the indicating device [m^3]:	*0.000 001*		
Resolution of the device for rapid testing [pulse/dm^3]:	-		
EUT testing requirements (OIML R 49-2:2013, 8.1.8):			
Category:	Ultrasonic flow meter		
Case:	B		
Installation details:			
Connection type (screw thread):	G ¾"	G 1"	G 1 ¼"
Minimum straight length of inlet pipe [mm]:	0		
Minimum straight length of outlet pipe [mm]:	0		
Flow profile sensitivity class:	*U0D0*		
Flow conditioner (details if required):	No		
Mounting:	-		
Orientation:	H↑ horizontal position with the indicating device at the top H→ horizontal position with the indicating device at the side V↑ vertical position with flow from bottom to top and with the indicating device at the side		
Other relevant information:	-		
Length [mm]:	*165*	*195*	*160*
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):	Battery
U_{max} (V):	3.6
U_{min} (V):	3.2
Frequency:	-
Minimum battery life time [years]:	10
Software version (of legally relevant SW):	LS 612842
CRC checksum (of legally relevant SW):	8299 4EE2
Information specified by the manufacturer (information in the table below are not certified)	
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Applicable for water meters equipped with electronic ancillary device. Information specified by the manufacturer.

Basic metrological data (flowrates)

Manufacturer:	Hangzhou Laison Technology Co. Ltd.										
Model number:	LXC										
Nominal diameter:	15										
Type details:											
Q_1 [m³/h]:	0.053	0.050	0.040	0.050	0.025	0.020	0.016	0.013	0.010	0.008	0.006
Q_2 [m³/h]:	0.100	0.080	0.064	0.031	0.040	0.032	0.025	0.020	0.016	0.013	0.010
Q_3 [m³/h]:	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
Q_4 [m³/h]:	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
Q_3/Q_1:	40	50	63	80	100	125	160	200	250	315	400

Manufacturer:	Hangzhou Laison Technology Co. Ltd.										
Model number:	LXC										
Nominal diameter:	20										
Type details:											
Q_1 [m³/h]:	0.100	0.080	0.064	0.050	0.040	0.032	0.025	0.020	0.016	0.013	0.010
Q_2 [m³/h]:	0.160	0.128	0.102	0.080	0.064	0.051	0.040	0.032	0.026	0.020	0.016
Q_3 [m³/h]:	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Q_4 [m³/h]:	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Q_3/Q_1:	40	50	63	80	100	125	160	200	250	315	400

Manufacturer:	Hangzhou Laison Technology Co. Ltd.										
Model number:	LXC										
Nominal diameter:	25										
Type details:											
Q_1 [m³/h]:	0.158	0.0126	0.100	0.079	0.063	0.050	0.040	0.032	0.025	0.020	0.016
Q_2 [m³/h]:	0.252	0.202	0.160	0.126	0.101	0.081	0.063	0.050	0.040	0.032	0.025
Q_3 [m³/h]:	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300	6.300
Q_4 [m³/h]:	7.875	7.875	7.875	7.875	7.875	7.875	7.875	7.875	7.875	7.875	7.875
Q_3/Q_1:	40	50	63	80	100	125	160	200	250	315	400

Securing components and verification marks

The LXC meters have to be sealed by connecting two plastic rings between the two-parts plastic cover using a wire with a lead seal without damaging the seal or the sealing wire. The location of the seal is described in Figure 1.

Figure 1: The water meter type LXC – view and sealing, example of register:

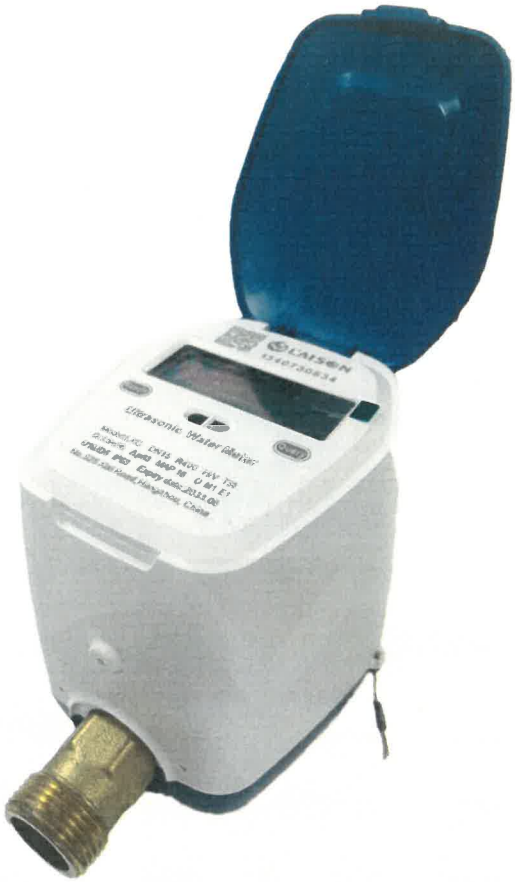
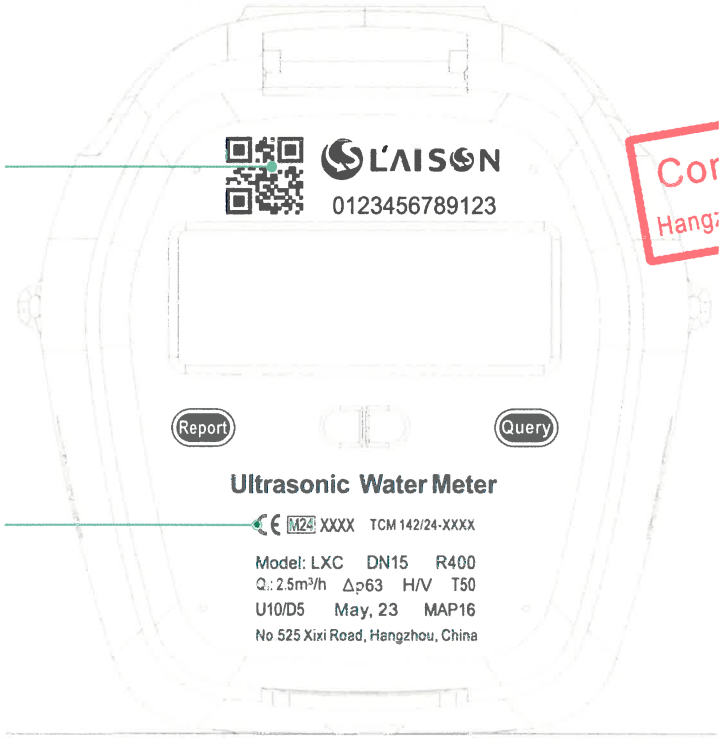
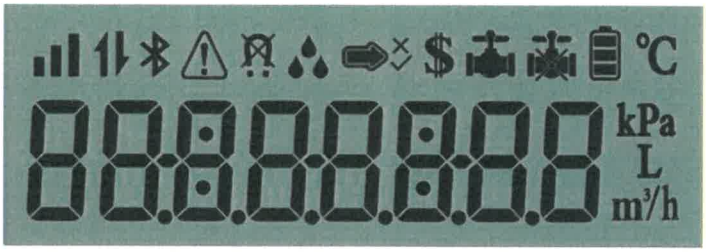


Figure 2: The water meter type LXC – marking, example of register and display:





Symbol	Meaning
	Strong signal strength, normal communication
	Good signal strength, normal communication
	Poor signal strength, unable to guarantee normal communication
	Data Transfer through LoRaWAN network
	Warning (error) message occur in meter
	Pipe is full of water
	Pipe is empty
	Sufficient battery capacity
	Normal battery capacity
	Low battery capacity alarm
°C	Water temperature
kPa	Water pressure (This feature is not supported)
L	Constant display represents volume unit. Flashing indicates the meter is in verification mode
m^3	Volume unit
m^3/h	Flow rate
	Bluetooth (we use it internally as a symbol for Infrared

	communication) (This feature is not supported)
	Magnetic interference (This feature is not supported)
	Water leak (This feature is not supported)
	currency symbol (This feature is not supported)
	Valve open (This feature is not supported)
	Valve closed (This feature is not supported)