



OIML Member State
Czech Republic

OIML Certificate No.
R49/2024-A-CZ1-25.06

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: HEBEI SHANGHONG METERS TECHNOLOGY CO., LTD
Address: Room 2-2502, Wanxiang Tiancheng Business Plaza, Qiaoxi District, Shijiazhuang city, Hebei, China

Manufacturer

Name: HEBEI SHANGHONG METERS TECHNOLOGY CO., LTD
Address: Room 2-2502, Wanxiang Tiancheng Business Plaza, Qiaoxi District, Shijiazhuang city, Hebei, China

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

water meter - multi jet, dry dial
LXSG-15E/S, LXSG-20E/S, LXSG-25E/S, Temperature class: T30, T50

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): 2024

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-V013-24 dated 21 October 2025 that includes 49 pages including annex 1

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

0511-UL-V013-24

OIML Certificate History

Revision No.	Date	Description of the modification
-	23 October 2025	Issuing certificate

The OIML Issuing Authority

RNDr. Pavel Klenovský
Head of Certification Body

Date: 23 October 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 LXSG-15E/S, LXSG-20E/S, LXSG-25E/S are designed to measure, memorise and display the volume at metering conditions of water passing through the measurement transducer in the sense of the Directive 2014/32/EU of the European Parliament and of the Council of the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (implemented in Czech Republic by Government Order No. 120/2016 Coll.), as amended.

The water meters type types LXSG-15E/S, LXSG-20E/S, LXSG-25E/S are multi jet rotary vane wheel water meters with dry mechanical indicating device.

The water meters types LXSG-15E/S, LXSG-20E/S, LXSG-25E/S consist of brass (E) or plastic (S) body with connecting screw threads, a coupling nut and with inlet strainer for dimension DN 15 and adjusting screw, a adjusting plastic gasket and adjusting plug, a wet measuring unit with a plastic bottom strainer with measuring chamber, a rotary vane wheel (turbine component) and tightening gasket, gearing box, a magnetic shield ring, a central gear, a mechanical register with pointers and numbered drums, a brass or plastic cap with a plastic lid. The mechanical register is formed by numbered rollers with five drums (black) and four pointers. The access to the adjusting screw is protected by sealed screw.

The water meters types LXSG-15E/S, LXSG-20E/S, LXSG-25E/S shall be installed to operate in horizontal position only with the indicating device positioned at the top.

Marking and inscriptions

The water meters types type LXSG-15E/S, LXSG-20E/S, LXSG-25E/S shall be clearly and indelibly marked with the following information:

- Unit of measurement (m^3)
- Numerical value Q_3 in m^3/h ($Q_3 \times \times$) and the ratio Q_3 / Q
- OIML certificate of conformity number or/and type approval sign according to national regulations
- Name of trademark of the manufacturer
- 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 (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 ($MAP \times \times$)
- Letter H (horizontal position with the indication device positioned on the top)
- The temperature class ($T \times \times$)
- The pressure loss class ($\Delta p \times \times$)
- The installation sensitivity class ($U \times D \times$)

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

Manufacturer:	HEBEI SHANGHONG METERS TECHNOLOGY CO., LTD		
Model number:	LXSG-15E/S, LXSG-20E/S, LXSG-25E/S		
Nominal diameter:	15	20	25
Type details:			
$Q_1 [m^3/h]$:	flowrates are shown in Table Basic metrological data (flowrates)		
$Q_2 [m^3/h]$:			

Q_3 [m³/h]:			
Q_4 [m³/h]:			
Q_3/Q_1 :	≤ 160 ¹		
Q_2/Q_1 :	1.6		
Q_4/Q_3 :	1.25		
Measuring principle:	multi jet		
Accuracy class:	2		
Temperature class:	T30		
Water pressure class:	MAP 16		
Pressure loss class:	ΔP 63		
Maximum admissible temperature [°C]:	30		
Maximum admissible pressure [MPa]:	1.6		
Orientation limitation:	Horizontal with the dial at the top		
Resolution of the indicating device [dm³]:	0.1		
Indicating range [dm³]:	99 999		
Resolution of the device for rapid testing pulses/liter]:	80.0833315	-	37.384617
EUT testing requirements (OIML R 49-2:2024, 8.1.8):			
Category:	Positive displacement meters and turbine meters		
Case:	A		
Installation details:			
Connection type (screw thread):	G ¾ B	G 1 B	G1¼”B
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:	in-line		
Orientation:	horizontal		
Length [mm]:	165 brass and plastic body	190 brass and plastic body	225 brass body 260 plastic body
Reverse flow:	Not designed to measure		
Information specified by the manufacturer (information in the table below are not certified)			
Mechanical environment class (OIML R 49-1:2024/ Directive 2014/32/EU):	B / M1		
Data output options (litres/ pulses):	10 / 100 / 1000		

¹ The ratio Q_3 / Q_1 shall be chosen according to paragraph 4.1.4 of OIML R 49-1:2024

Basic metrological data (flowrates)

Manufacturer:	HEBEI SHANGHONG METERS TECHNOLOGY CO., LTD						
Model number:	LXSG-15E/S						
Nominal diameter:	15						
Type details:							
Q_1 [m ³ /h]:	0.016	0.020	0.025	0.031	0.040	0.050	0.063
Q_2 [m ³ /h]:	0.025	0.032	0.040	0.050	0.063	0.080	0.100
Q_3 [m ³ /h]:	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Q_4 [m ³ /h]:	3.13	3.13	3.13	3.13	3.13	3.13	3.13
Q_3/Q_1 :	160	125	100	80	63	50	40

Manufacturer:	HEBEI SHANGHONG METERS TECHNOLOGY CO., LTD						
Model number:	LXSG-20E/S						
Nominal diameter:	20						
Type details:							
Q_1 [m ³ /h]:	0.025	0.032	0.040	0.050	0.063	0.080	0.100
Q_2 [m ³ /h]:	0.040	0.051	0.064	0.080	0.102	0.128	0.160
Q_3 [m ³ /h]:	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Q_4 [m ³ /h]:	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Q_3/Q_1 :	160	125	100	80	63	50	40

Manufacturer:	HEBEI SHANGHONG METERS TECHNOLOGY CO., LTD						
Model number:	LXSG-25E/S						
Nominal diameter:	25						
Type details:							
Q_1 [m ³ /h]:	0.039	0.050	0.063	0.079	0.100	0.126	0.158
Q_2 [m ³ /h]:	0.063	0.081	0.101	0.126	0.160	0.202	0.252
Q_3 [m ³ /h]:	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Q_4 [m ³ /h]:	7.88	7.88	7.88	7.88	7.88	7.88	7.88
Q_3/Q_1 :	160	125	100	80	63	50	40

Securing components and verification marks

The types LXSG-15E/S, LXSG-20E/S, LXSG-25E/S meters have to be sealed by connecting the brass or plastic cover to the adjusting screw using a wire with a lead seal such that the cover and the adjusting screw cannot be turned without damaging the seal or the sealing wire. The location of seal is described in Figure 1.

Figure 1: The water meter type LXSG-15E/S, LXSG-20E/S, LXSG-25E/S – view and sealing:

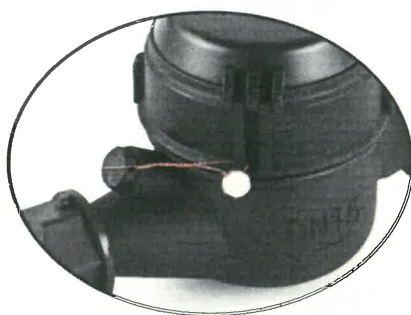


Figure 2: Example of the water meter type LXSG-15E/S, LXSG-20E/S, LXSG-25E/S – register:

