



OIML Member State
Czech Republic

OIML Certificate No.
R49/2013-A-CZ1-2023.03
Revision 1

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: Wenling Younio Water Meter Co., Ltd.
Address: No. 1039 Jiulong Av. Chengxi, Wenling, Zhejiang, 317500 Zhejiang (China)

Manufacturer

Name: Wenling Younio Water Meter Co., Ltd.
Address: No. 1039 Jiulong Av. Chengxi, Wenling, Zhejiang, 317500 Zhejiang (China)

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

water meter – single jet, dry dial
LXSG-xxD3e, LXSG-xxD3e/RLN1, LXSG-xxD3n/RLN1

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 reports:

- No. 0511-ER-V007-23 dated 28 March 2023 that includes 51 pages including annex 1
 - o Test report No. 6015-PT-P5004-23 that includes 71 pages including annex 1, 2
- No. 0511-ER-V004-24 dated 24 January 2024 that includes 47 pages including annex 1
 - o Test report No. 6015-PT-P5001-24 that includes 63 pages including annex 1, 2

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

0511-UL-V007-23

OIML Certificate History

Revision No.	Date	Description of the modification
-	31 March 2023	Issuing certificate
Revision 1	26 February 2024	Adding of ratio R160 for water meter LXSG-xxD3n/RLN1

The OIML Issuing Authority

RNDr. Pavel Klenovský
Head of Certification Body

Date: 26 February 2024



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-xxD3e, LXSG-xxD3e/RLN1, LXSG-xxD3n/RLN1 are designed to measure, memorise and display the volume at metering conditions of water passing through the measurement transducer. The water meters type LXSG-xxD3e, LXSG-xxD3e/RLN1, LXSG-xxD3n/RLN1 are single jet rotary vane wheel water meters with dry mechanical indicating device.

The water meters contain following models:

- LXSG-xxD3e: brass body and the indicating device with eight drums (5 black and 3 red drums) and one pointer;
- LXSG-xxD3e/RLN1: brass body and the indicating device type RLN1 with eight drums (5 black and 3 red drums) and one pointer;
- LXSG-xxD3n/RLN1: brass body and the indicating device type RLN1 with seven drums (5 black and 2 red drums) and two pointers.

The water meters type LXSG-xxD3e, LXSG-xxD3e/RLN1, LXSG-xxD3n/RLN1 consist of a brass body with connecting screw threads, an inlet strainer, a bottom plate, a rotary vane wheel and cover plate, a magnetic coupling (wet and dry side), a rubber O-ring and a plastic (PPO) gasket, a plastic ring closing the wet part (locking ring), with two magnetic shields, a mechanical indicating device with pointers and numbered drums, a plastic cover and a plastic lid. The mechanical indicating device is formed by numbered rollers with eight drums and one pointer or with seven drums and two pointers. The mechanical indicating device RLN1 type is pre-equipped by inductive pointer. The adjustment is realized by a bottom plate. The access to a bottom plate is protected by a cover with plastic locking ring.

The water meters type LXSG-xxD3e, LXSG-xxD3e/RLN1, LXSG-xxD3n/RLN1 shall be installed to operate in horizontal position only with the indicating device positioned at the top.

Marking and inscriptions

The water meters types LXSG-20 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
- 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 ($MAP \times \times$)
- Letter H↑ (horizontal position with the indicating device at 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

Basic technical data of water meters types LXSG-15D3e and LXSG-15D3e:

Model number:	LXSG-15D3e	LXSG-20D3e
Nominal diameter:	15	20
Q_1 [m^3/h]:	flowrates are shown in Table Basic metrological data (flowrates)	
Q_2 [m^3/h]:		
Q_3 [m^3/h]:		
Q_4 [m^3/h]:		
Q_3/Q_1 :	160; 125; 100; 80; 63; 50; 40	

Q_2/Q_1 :	1.6	
Q_4/Q_3 :	1.25	
Accuracy class:	2	
Maximum permissible error for the lower flowrate zone	$\pm 5\%$	
Maximum permissible error for the upper flowrate zone	$\pm 3\%$ for water having a temperature $> 30\text{ }^{\circ}\text{C}$	
Temperature class:	T30/90	
Water pressure class:	MAP16	
Pressure loss class:	Δp 63	
Indicating range [m^3]:	99 999	
Resolution of the indicating device [m^3]:	0.00002 or 0.00005	
Flow profile sensitivity classes:	U0D0	
Orientation:	H↑ (horizontal with the indicating device at the top)	
Connection type (thread):	G $\frac{3}{4}$ B	G 1 B
Length [mm]:	110; 115	130

Basic technical data of water meters types LXSG-13D3e/RLN1 and LXSG-20D3e/RLN1:

Model number:	LXSG-13D3e/RLN1	LXSG-20D3e/RLN1
Nominal diameter:	15	20
Q_1 [m^3/h]:	flowrates are shown in Table <i>Basic metrological data (flowrates)</i>	
Q_2 [m^3/h]:		
Q_3 [m^3/h]:		
Q_4 [m^3/h]:		
Q_3/Q_1 :	160; 125; 100; 80; 63; 50; 40	
Q_2/Q_1 :	1.6	
Q_4/Q_3 :	1.25	
Accuracy class:	2	
Maximum permissible error for the lower flowrate zone	$\pm 5\%$	
Maximum permissible error for the upper flowrate zone	$\pm 2\%$ for water having a temperature $\leq 30\text{ }^{\circ}\text{C}$	
Temperature class:	T30, T50	
Water pressure class:	MAP10 or MAP16	
Pressure loss class:	Δp 63	
Indicating range [m^3]:	99 999	
Resolution of the indicating device [m^3]:	0.00002 or 0.00005	
Resolution of the device for rapid testing [impulse/ dm^3]:	129,16666	
Flow profile sensitivity classes:	U0D0	
Orientation:	H↑ (horizontal with the indicating device at the top)	
Connection type (thread):	G $\frac{3}{4}$ B	G 1 B
Length [mm]:	110; 115	130



Basic technical data of water meters types LXSG-13D3n/RLN1 and LXSG-20D3n/RLN1:

Model number:	LXSG-13D3n/RLN1	LXSG-20D3n/RLN1
Nominal diameter:	15	20
Q_1 [m ³ /h]:	flowrates are shown in Table <i>Basic metrological data</i> (flowrates)	
Q_2 [m ³ /h]:		
Q_3 [m ³ /h]:		
Q_4 [m ³ /h]:		
Q_3/Q_1 :	160; 125; 100; 80; 63; 50; 40	
Q_2/Q_1 :	1.6	
Q_4/Q_3 :	1.25	
Accuracy class:	2	
Maximum permissible error for the lower flowrate zone	±5%	
Maximum permissible error for the upper flowrate zone	± 2 % for water having a temperature ≤ 30 °C	
Temperature class:	T30, T50	
Water pressure class:	MAP10 or MAP16	
Pressure loss class:	Δp 63	
Indicating range [m ³]:	99 999	
Resolution of the indicating device [m ³]:	0.00002 or 0.00005	
Resolution of the device for rapid testing [impulse/dm ³]:	69,218	
Flow profile sensitivity classes:	U0D0	
Orientation:	H↑ (horizontal with the indicating device at the top)	
Connection type (thread):	G ¾ B	G 1B
Length [mm]:	110; 115	130

Basic metrological data (flowrates)

Manufacturer:	Wenling Younio Water Meter Co., Ltd.									
Model number:	LXSG-13D3e, LXSG-13D3e/RLN1, LXSG-13D3n/RLN1									
Nominal diameter:	15									
Q_1 [m ³ /h]:	0.063	0.050	0.040	0.031	0.025	0,020	0,016	-	-	-
Q_2 [m ³ /h]:	0.100	0.080	0.063	0.050	0.040	0,032	0,025	-	-	-
Q_3 [m ³ /h]:	2.5	2.5	2.5	2.5	2.5	2.5	2.5	-	-	-
Q_4 [m ³ /h]:	3.13	3.13	3.13	3.13	3.13	3.13	3.13	-	-	-
Q_3/Q_1 :	40	50	63	80	100	125	160	-	-	-

Manufacturer:	Wenling Younio Water Meter Co., Ltd.									
Model number:	LXSG-20D3e, LXSG-20D3e/RLN1, LXSG-20D3n/RLN1									
Nominal diameter:	20									
Q_1 [m ³ /h]:	0.100	0.080	0.063	0.050	0.040	0,032	0.025	-	-	-
Q_2 [m ³ /h]:	0.160	0.128	0.102	0.080	0.064	0,051	0.040	-	-	-
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 :	40	50	63	80	100	125	160	-	-	-



Securing components and verification marks

The LXSG-20 meters have to be sealed by connecting the brass screw head ring to the adjusting screw using a wire with a plastic seal such that the head ring and the adjusting screw cannot be turned without damaging the seal or the sealing wire.

Figure 1: The water meter type LXSG-xxD3e – view and sealing, example of register:

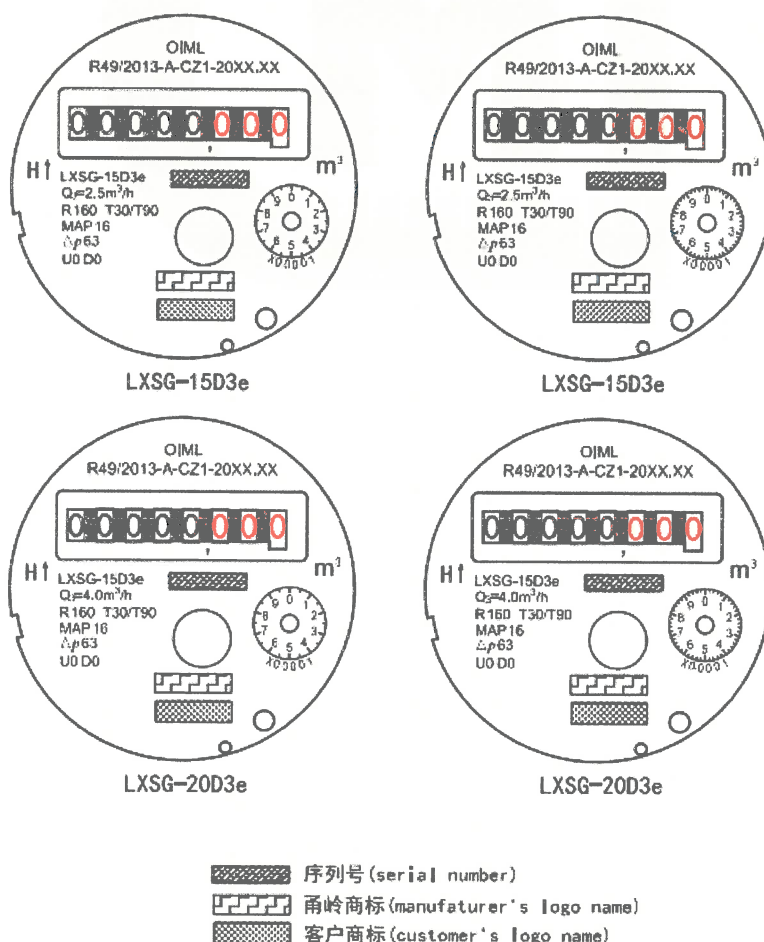
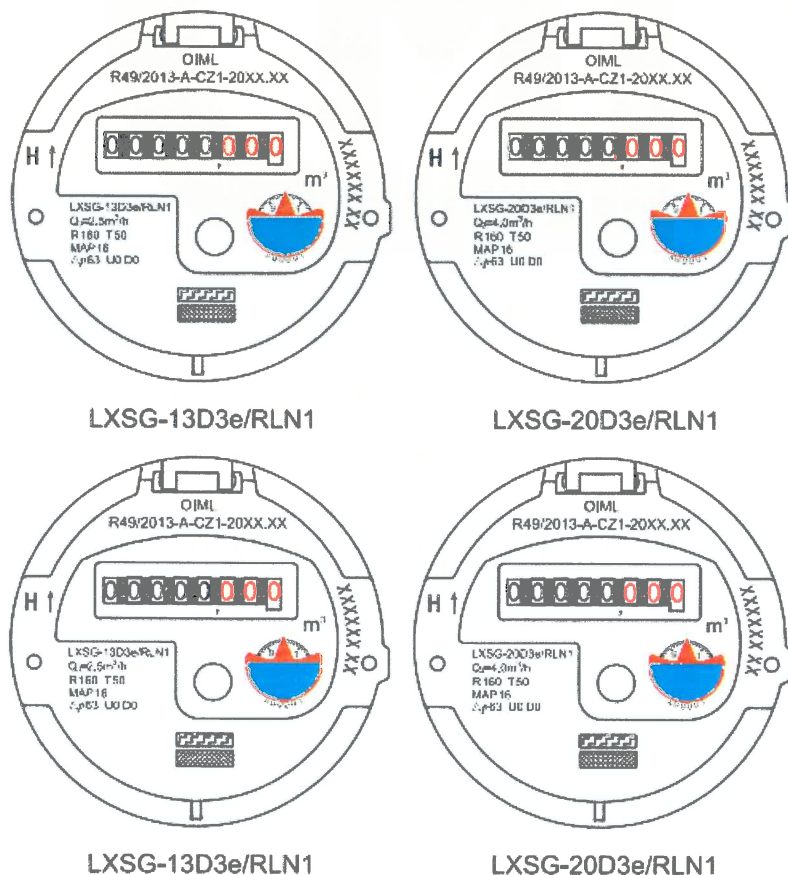


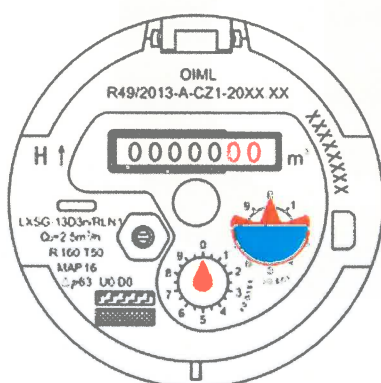
Figure 2: The water meter type LXSG-xxD3e/RLN1 – view and sealing:



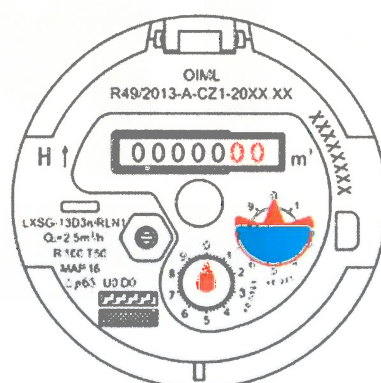
雨岭商标 (manufacturer's logo name)
客户商标 (customer's logo name)



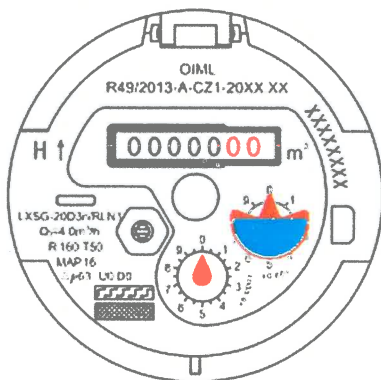
Figure 3: The water meter type LXSG-xxD3n/RLN1 – view and sealing



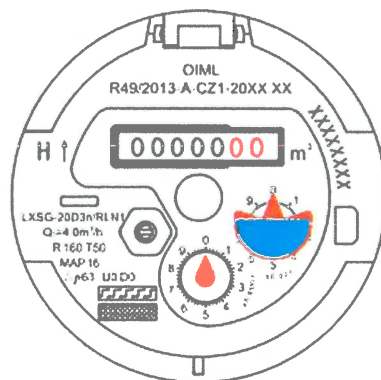
LXSG-13D3n/RLN1



LXSG-13D3n/RLN1



LXSG-20D3n/RLN1



LXSG-20D3n/RLN1

- 技术要求
1. 字面粗糙度为 $R_a \leq 0.4$.
 2. 字面印刷为黑色.

商岭商标 (manufacturer's logo name)
客户商标 (customer's logo name)

