



OIML Member State
Czech Republic

OIML Certificate No.
R49/2013-A-CZ1-2021.01

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 - multi jet, dry dial
LXSG-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2

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 report:

- No. 0511-ER-0001-21 dated 15 April 2021 that includes 52 pages including annex 1
- Test report No. 6015-PT-P5001-21 that includes 53 pages including annex 1

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

0511-UL-V012-21

OIML Certificate History

| Revision No. | Date | Description of the modification |
|--------------|-----------|---------------------------------|
| Addition 0 | 19.4.2021 | Issuing certificate |
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The OIML Issuing Authority

RNDr. Pavel Klenovský
Director General

Date: 19 April 2021



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 types LXSG-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2, where 'xx' means nominal diameter, 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-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2 are multi jet rotary vane wheel water meters with dry mechanical indicating device types RLN1 and RLN2. The water meters contain following types ('xx' means nominal diameter):

- LXSG-xxE5/RLN1: brass body and the indicating device type RLN1;
- LXSG-xxE5/S/RLN1: plastic body and the indicating device type RLN1;
- LXSG-xxE5/RLN2: brass body and the indicating device type RLN2;
- LXSG-xxE5/S/RLN2: plastic body and the indicating device type RLN2.

The water meters types LXSG-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2 consist of a brass (types LXSG-xxE5/RLN1 and LXSG-xxE5/RLN2) or plastic (types LXSG-xxE5/S/RLN1 and LXSG-xxE5/S/RLN2) body with connecting screw threads, an inlet strainer and adjusting screw, a plastic gasket, a wet measuring unit with a plastic distributor with tangential holes and a shaft, a rotary vane wheel and cover plate, a magnetic coupling (wet and dry side), a rubber O-ring and a plastic gasket, a brass (or plastic) ring closing the wet part, two pieces magnetic shields, a mechanical indicating device with pointers and numbered drums, a plastic cover with a plastic lid. The mechanical indicating devices types RLN1 and RLN2 are formed by numbered rollers with seven drums (5 black and 2 red drums) and two pointers. The adjustment is realized by adjusting screw. The access to the adjusting screw is protected by sealed screw.

The water meters types LXSG-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2 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-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2 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 ($U_x D_x$)

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-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2:

| | | |
|--|--|--|
| Manufacturer: | Wenling Younio Water Meter Co., Ltd. | |
| Model number: | LXSG-15E5/RLN1 LXSG-15E5/S/RLN1 LXSG-15E5/RLN2 LXSG-15E5/S/RLN2 | LXSG-20E5/RLN1 LXSG-20E5/S/RLN1 LXSG-20E5/RLN2 LXSG-20E5/S/RLN2 |
| Nominal diameter: | 15 | 20 |
| Type details: | | |
| 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 : | 100; 80; 63; 50; 40 | |
| Q_2/Q_1 : | 1.6 | |
| Q_4/Q_3 : | 1.25 | |
| Measuring principle: | multijet, dry dial | |
| 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 % for water having a temperature ≤ 30 °C ±3 % for water having a temperature > 30 °C | |
| Temperature class: | T30 or T50 | |
| Water pressure class: | MAP10 or MAP16 | |
| Pressure loss class: | ΔP 63 | |
| Environmental class: | - | |
| Electromagnetic environment: | - | |
| Maximum admissible temperature [°C]: | 50 | |
| Maximum admissible pressure [MPa]: | 1.6 | |
| Orientation limitation: | horizontal with the indicating device at the top | |
| Indicating range [m ³]: | 99 999 | |
| Resolution of the indicating device [m ³]: | 0.00005 or 0.00002 | |
| Resolution of the device for rapid testing [m ³]: | - | |
| EUT testing requirements (OIML R 49-2:2013, 8.1.8): | | |
| Category: | Positive displacement meters and turbine meters | |
| Case: | A | |
| Installation details: | | |
| Connection type (screw thread): | G ¾ B | G 1 B |
| The installation sensitivity class: | U0 D0 | |
| Minimum straight length of inlet pipe [mm]: | 0 | |

| | |
|--|---|
| Minimum straight length of outlet pipe [mm]: | 0 |
| Flow conditioner (details if required): | No |
| Mounting: | in-line |
| Orientation: | H↑ (horizontal with the indicating device at the top) |
| Other relevant information: | - |
| Length [mm]: | 165 or 190 |

Basic metrological data (flowrates)

| | | | | | | | | | | |
|----------------------------|---|-------|-------|-------|-------|---|-------|-------|-------|-------|
| Manufacturer: | Wenling Younio Water Meter Co., Ltd. | | | | | | | | | |
| Model number: | LXSG-15E5/RLN1; LXSG-15E5/S/RLN1; LXSG-15E5/RLN2; LXSG-15E5/S/RLN2 | | | | | LXSG-20E5/RLN1; LXSG-20E5/S/RLN1; LXSG-20E5/RLN2; LXSG-20E5/S/RLN2 | | | | |
| Nominal diameter: | 15 | | | | | 20 | | | | |
| Q_1 [m ³ /h]: | 0.025 | 0.031 | 0.040 | 0.050 | 0.063 | 0.040 | 0.050 | 0.063 | 0.080 | 0.100 |
| Q_2 [m ³ /h]: | 0.040 | 0.050 | 0.063 | 0.080 | 0.100 | 0.064 | 0.080 | 0.102 | 0.128 | 0.160 |
| Q_3 [m ³ /h]: | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Q_4 [m ³ /h]: | 3.13 | 3.13 | 3.13 | 3.13 | 3.13 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Q_3/Q_1 : | 100 | 80 | 63 | 50 | 40 | 100 | 80 | 63 | 50 | 40 |

Securing components and verification marks

The types LXSG-xxE5/RLN1; LXSG-xxE5/S/RLN1; LXSG-xxE5/RLN2; LXSG-xxE5/S/RLN2 meters have to be sealed by connecting the plastic cover to the adjusting screw using a wire with a lead (plastic) seal such that the cover and the adjusting screw cannot be turned without damaging the seal or the sealing wire.