



Member state
Czech Republic

OIML Certificate No.
R49/2013-CZ-17.03

OIML BASIC CERTIFICATE OF CONFORMITY

Issuing Authority

Name: Czech Metrology Institute
Address: Okružní 31,
638 00 Brno, CZ
Person responsible: Jan Kalandra

Applicant

Name: LIANYUNGANG LIANLI · FIRST METER CO., LTD.
Address: 9# Yuzhou South Road, Haizhou Development Zone,
Lianyungang, Jiangsu
China

Manufacturer of the certified type

Name: LIANYUNGANG LIANLI · FIRST METER CO., LTD.
Address: 9# Yuzhou South Road, Haizhou Development Zone,
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Identification of the certified type

Water meter
Type: PD97TRP

For further characteristics see page 2 to 4

This certificate attests the conformity of above identified Type (represented by the sample(s) identified in the OIML Basic Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 49, edition 2013, for accuracy class 2

This certificate relates only to the metrological and technical characteristics of the type of instrument covered by the relevant OIML Recommendation(s) identified above.

This 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. 6015-PT-P3001-17 from 4th January 2017 that includes 131 pages including annexes.

The conformity was established by the results of tests and examinations provided in the associated Test report No. 6015-PT-P3017-17 from 10th July 2017 that includes 84 pages including annexes.

Measuring system description:

The rotary piston water meters type PD97TRP are designed to measure, memorise and display the volume at metering conditions of water passing through the measurement transducer.

The water meters type PD97TRP are semi positive displacement rotary piston water meters with wet mechanical indicating device with protected registered drums.

The water meters type PD97TRP consist of a brass body (divided into two parts connected by screw) with connecting screw threads, an inlet strainer, a non return valve, a wet measuring unit with a piston and mechanical transmission, rubber O-ring, a mechanical indicating device protected by a plastic cover. The mechanical indicating device is formed by numbered rollers with eight drums. The numbered drums are installed in capsule filled by water and glycerine.

The continuous water flow in the measuring chamber is divided into many segments at a definite volume, and then totalizes these segments by the clockwork and register. The water to be measured flows into the meter from inlet of the body, passing through the strainer and coming into measuring mechanism from the lower portion of the chamber, the coming water with high pressure to push the rotating piston for its rotation. One rotation cycle of piston, one definite volume of water is measured.

The water meters type PD97TRP can be installed to operate in any position with the flow axis in the horizontal, vertical (from bottom to top and from top to bottom) and inclined plane and with the indicating device positioned at the top and at the side.

The water meters are not designed to measure reverse flow.

The water meters type PD97TRP can be equipped by a reed impulse transmitter which can be used for remote reading, that was not tested.



The OIML Issuing Authority
Pavel Klenovský

31 July 2017

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 Basic Type Evaluation Report (s) is not permitted, although either may be reproduced in full.

Characteristics:

Basic technical data of water meters type **PD97TRP** DN15 TO DN 25

Manufacturer:	LIANYUNGANG LIANLI · FIRST METER CO., LTD. 9# Yuzhou South Road, Haizhou Development Zone, Lianyungang, Jiangsu, China					
Model number:	PD97TRP					
Type details:						
Nominal diameter(DN)[mm]	15		20		25	
Overload flowrate(Q ₄)[m ³ /h]	3.13	2.00	5.00	3.13	7.88	5.00
Permanent flowrate(Q ₃)[m ³ /h]	2.50	1.60	4.00	2.5	6.30	4.00
Transitional flowrate(Q ₂)[m ³ /h]	0.25	0.026	0.04	0.04	0.63	0.064
Minimum flowrate(Q ₁)[m ³ /h]	0.0156	0.016	0.025	0.025	0.0394	0.004
Ratio Q ₃ /Q ₁ :	160	100	160	100	160	100
Ratio Q ₂ /Q ₁ :	1.6					
Ratio Q ₄ /Q ₃ :	1.25					
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 and T50					
Water pressure classes	MAP 16					
Pressure-loss classes	ΔP 63					
Indicating range[m ³]	9999.9999/99999.999					
Resolution of the indicating device[m ³]	0.00001/0.0001					
Flow profile sensitivity classes	U0 D0					
Orientation limitation	No limitation					
Length of horizontal water meter L[mm]	115 to 165		165 to 190		175 to 210	
Connection type-screw thread size	G3/4B		G1B		G11/4B	
Reed switch power supply(U _{max} /I _{max}):	Max.24V/0.01A					
Reed switch K-factor[impulse/L]	1/0.1					

Basic technical data of water meters type PD97TRP DN32 TO DN 40

Manufacturer:	LIANYUNGANG LIANLI · FIRST METER CO., LTD. 9# Yuzhou South Road, Haizhou Development Zone, Lianyungang, Jiangsu, China			
Model number:	PD97TRP			
Type details:				
Nominal diameter(DN)[mm]	32		40	
Overload flowrate(Q ₄)[m ³ /h]	12.50	7.88	20.00	12.50
Permanent flowrate(Q ₃)[m ³ /h]	10.00	6.30	16.00	10.00
Transitional flowrate(Q ₂)[m ³ /h]	0.10	0.101	0.16	0.16
Minimum flowrate(Q ₁)[m ³ /h]	0.0625	0.063	0.10	0.10
Ratio Q ₃ /Q ₁ :	160	100	160	100
Ratio Q ₂ /Q ₁ :	1.6			
Ratio Q ₄ /Q ₃ :	1.25			
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 and T50			
Water pressure classes	MAP 16			
Pressure-loss classes	ΔP 63			
Indicating range[m ³]	99999.999			
Resolution of the indicating device[m ³]	0.0001			
Flow profile sensitivity classes	U0 D0			
Orientation limitation	No limitation			
Length of horizontal water meter L[mm]	260		300	
Connection type-screw thread size	G1 1/2B		G2B	
Reed switch power supply(U _{max} /I _{max}):	Max.24V/0.01A			
Reed switch K-factor[impulse/L]	0.1			

Marking and inscriptions

The water meters type PD97TRP shall be clearly and indelibly marked with the following information:

- Unit of measurement (m³)
- Numerical value Q₃ in m³/h (Q₃ ×.×) and the ratio Q₃ / Q₁, (R 160 or R 100)
- 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 (MAP16)
- The temperature class (T50 or T30)
- The pressure loss class (Δp 63)
- The installation sensitivity class (U0 D0)

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.

Security measures

The PD97TRP meters have to be sealed by connecting the brass or composite parts of the body using a wire with a lead seal such that the parts of the body cannot be turned without damaging the seal or the sealing wire.