



Member state
Czech Republic

OIML Certificate No.
R49/2006-CZ-14.05

OIML CERTIFICATE OF CONFORMITY

Issuing Authority

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

Applicant

Name: Ningbo Water Meter Co., LTD.
Address: 355 Hongxing Road, Jiangbei District
315032 Ningbo
China

Manufacturer of the certified type

Name: Ningbo Water Meter Co., LTD.
Address: 355 Hongxing Road, Jiangbei District
315032 Ningbo
China

Identification of the certified type

Water meter
Type: WPI-SDC

For further characteristics see page 3 and 4

This certificate attests the conformity of above identified type (represented by the sample or samples identified in the associated test report) with the requirements of the following Recommendation(s) of the International Organization of Legal Metrology (OIML):

R 49, edition 2006, for accuracy class 2

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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-P0006-12 from 12th January 2012 that includes 73 pages including annexes.

Measuring system description:

The water meters type WPI-SDC are single jet vane wheel meters with axis of the vane wheel perpendicular to the flow direction. The water meters type WPI-SDC consist of a cast iron or ductile iron body with connecting flanges and an exchangeable measuring unit. The measuring unit is connected to the body by a flange cover which is fixed by four screws and sealed by a rubber o-ring.

The measuring unit consists of a plastic holder with bushes for an impeller, an impeller with a stainless steel shaft, a calibration plate, a transmission, a center gear with a magnetic coupling, the flange cover made of iron and brass (or full brass) with an adjusting screw, a turning plastic register house fixed by an immovable plastic plate, a plastic bracket for an indicating device (in case of a copper can register only) a dry mechanical indicating device (plastic register) or a super dry mechanical indicating device (copper can register) and an upper plastic cover.

The indicating device of the water meters type WPI-SDC is equipped by numbered rollers with six drums and two rotary pointers and by a star wheel with six arms which can be used for rapid testing.

The water meters type WPI-SDC can be equipped by a reed impulse transmitter which can be used for remote reading.

The water meters type WPI-SDC shall be installed to operate in horizontal position with the indicating device positioned at the top.


The Issuing Authority
Jan Kalandra




The CIML Member
Pavel Klenovský

12 December 2014

12 December 2014

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 the associated test report is not permitted although either may be reproduced in full.

Characteristics:

Basic technical data of water meters type WPI-SDC from DN 50 to DN 125:

Nominal diameter (DN) [mm]:	50	65	80	100	125
Overload flowrate (Q_4) [m^3/h]:	≤ 78.8	≤ 78.8	≤ 125	≤ 200	≤ 313
Permanent flowrate (Q_3) [m^3/h]:	$\leq 63^1$	$\leq 63^1$	$\leq 100^1$	$\leq 160^1$	$\leq 250^1$
Transitional flowrate (Q_2) [m^3/h]:	≥ 2.52	≥ 2.52	≥ 4.00	≥ 6.40	≥ 10.0
Minimum flowrate (Q_1) [m^3/h]:	≥ 1.57	≥ 1.57	≥ 2.50	≥ 4.00	≥ 6.25
Ratio Q_3 / Q_1 :	$\leq 40^2$				
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):	$\pm 5\%$				
Maximum permissible error for the upper flowrate zone (MPE _u):	$\pm 2\%$ for water having a temperature $\leq 30\text{ }^\circ\text{C}$ $\pm 3\%$ for water having a temperature $> 30\text{ }^\circ\text{C}$				
Temperature class:	T30 and T50				
Water pressure classes:	MAP 16				
Pressure-loss classes:	$\Delta P 25$	$\Delta P 10$	$\Delta P 10$	$\Delta P 10$	$\Delta P 10$
Indicating range (6+2) [m^3]:	999 999				
Resolution of the indicating device [m^3]:	0.001				
Resolution of the device for the rapid testing [pulse/L]:	0.52834	0.35664	0.24000	0.16364	0.12308
Flow profile sensitivity classes:	U10 D5				
Orientation limitation:	H				
Length L [mm]:	200	200	225	250	250
Connection type:	Flange connection				
Reed switch power supply (U_{max} / I_{max}):	max. 24 V / 0.01 A				
Reed switch K-faktor [impulse / L]:	0.01 and 0.001				

¹ The value of Q_3 shall be chosen from the R5 line of ISO 3:1973.

² The ratio Q_3 / Q_1 shall be chosen from the R10 line from ISO 3:1973 and this value shall be higher than 10.

Basic technical data of water meters type WPI-SDC from DN 150 to DN 300:

Nominal diameter (DN) [mm]:	150	200	250	300
Overload flowrate (Q_4) [m^3/h]:	≤ 500	≤ 788	≤ 1250	≤ 2000
Permanent flowrate (Q_3) [m^3/h]:	$\leq 400^1$	$\leq 630^1$	$\leq 1000^1$	$\leq 1600^1$
Transitional flowrate (Q_2) [m^3/h]:	≥ 16.0	≥ 25.2	≥ 40.0	≥ 64.0
Minimum flowrate (Q_1) [m^3/h]:	≥ 10.0	≥ 15.7	≥ 25.0	≥ 40.0
Ratio Q_3 / Q_1 :	$\leq 40^2$			
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):	$\pm 5\%$			
Maximum permissible error for the upper flowrate zone (MPE _u):	$\pm 2\%$ for water having a temperature $\leq 30\text{ }^\circ\text{C}$ $\pm 3\%$ for water having a temperature $> 30\text{ }^\circ\text{C}$			
Temperature class:	T30 and T50			
Water pressure classes:	MAP 16			
Pressure-loss classes:	$\Delta P 10$	$\Delta P 10$	$\Delta P 10$	$\Delta P 10$
Indicating range (6+2) [m^3]:	9 999 999			
Resolution of the indicating device [m^3]:	0.01			
Resolution of the device for the rapid testing [pulse/L]:	0.078329	0.038636	0.024000	0.016364
Flow profile sensitivity classes:	U10 D5			
Orientation limitation:	H			
Length L [mm]:	300	350	450	500
Connection type:	Flange connection			
Reed switch power supply (U_{max} / I_{max}):	max. 24 V / 0.01 A			
Reed switch K-factor [impulse / L]:	0.001 and 0.0001			

¹ The value of Q_3 shall be chosen from the R5 line of ISO 3:1973.

² The ratio Q_3 / Q_1 shall be chosen from the R10 line from ISO 3:1973 and this value shall be higher than 10.