



Member state  
Czech Republic

OIML Certificate No.  
R49/2006-CZ-14.04

## 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

**Single jet water meter**  
**Type: SJ-SDC PLUS**

Further characteristics see page 3

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**

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-P0004-12 from 12<sup>th</sup> January 2012 that includes 87 pages including annexes.

**Measuring system description:**

The water meters type SJ-SDC PLUS are single jet rotary vane wheel water meters with dry mechanical indicating device (Plastic Can Calculator).

The water meters type SJ-SDC PLUS variant D2 consist of a brass body with connecting threads and inlet strainer, a regulating plate, a bush for impeller with agate bearing, a rotary vane impeller with magnetic ring and stainless steel shaft, a rubber O-ring, a pressure plate with agate bearing, a brass inner screw ring, a plastic gasket (optional), two antimagnetic protection rings, a dry mechanical indicating device, a plastic cover with a closing ring or a plastic clamp on cover.

The water meters type SJ-SDC PLUS variant D4 consist of a brass body with connecting threads and inlet strainer, an adjusting screw, a regulating plate, a bush for impeller with agate bearing, a rotary vane impeller with magnetic ring and stainless steel shaft, a plastic gasket, a rubber O-ring, a pressure plate with agate bearing, a brass inner screw ring, two antimagnetic protection rings, a dry mechanical indicating device and a plastic cover with a closing ring.

There are three variants for composition of the mechanical indicating device: variant with 5 numbered rollers and 4 rotary pointers, variant with 8 numbered rollers and 1 rotary pointer and variant with 7 numbered rollers and 2 rotary pointers. There is a star wheel with 6 arms on the indicating device which can be used for rapid testing. There are two variants for reading of the numbered rollers in case of an indicating device with 8 rollers and 1 pointer: variant with top reading and variant with inclined reading.

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

  
**The Issuing Authority**  
Jan Kalandra



  
**The OIML Member**  
Pavel Klenovský

12 December 2014

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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 SJ-SDC PLUS DN 15 to DN 25:

Nominal diameter (DN) [mm]:	15	20	25
Ratio $Q_3 / Q_1$ :	$\leq 200$ <sup>1</sup>		
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 <sub>l</sub> ):	$\pm 5\%$		
Maximum permissible error for the upper flowrate zone (MPE <sub>u</sub> ):	$\pm 2\%$ 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, T50, T30/90 and T90		
Water pressure classes:	MAP 16		
Pressure-loss classes:	$\Delta P$ 63		
Indicating range [m <sup>3</sup> ]:	99 999		
Resolution of the indicating device [m <sup>3</sup> ]:	0.00005 or 0.00002		
Resolution of the device for the rapid testing [pulse/L]:	62.0000	40.5000	22.2353
Flow profile sensitivity classes:	U0 D0		
Orientation limitation:	H		
Length L [mm]:	80 to 115	130	160
Connection type– Screw thread size:	G <sup>3</sup> / <sub>4</sub> B, G1B	G1B	G1 <sup>1</sup> / <sub>2</sub> B, G1 <sup>1</sup> / <sub>2</sub> B
Reed switch power supply ( $U_{\max} / I_{\max}$ ):	max. 24 V / 0.01 A		
Reed switch K-factor [impulse / L]:	0.001, 0.01, 0.1 and 1		

<sup>1</sup> The ratio  $Q_3 / Q_1$  shall be chosen from the R10 line from ISO 3:1973 and this value shall be at least 10.

Nominal diameter (DN):	Installation position:	Minimum flowrate ( $Q_1$ )	Transitional flowrate ( $Q_2$ )	Permanent flowrate ( $Q_3$ )	Overload flowrate ( $Q_4$ )
mm	-	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h	m <sup>3</sup> /h
15	H	$\geq 0.0125$	$\geq 0.0200$	$\leq 2.50$ <sup>1</sup>	$\leq 3.13$
20	H	$\geq 0.0200$	$\geq 0.0320$	$\leq 4.00$ <sup>1</sup>	$\leq 5.00$
25	H	$\geq 0.0315$	$\geq 0.0504$	$\leq 6.30$ <sup>1</sup>	$\leq 7.88$

<sup>1</sup> The value of  $Q_3$  shall be chosen from the R5 line of ISO 3:1973.