

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Member State of OIML  
Germany



OIML Certificate No.  
**R49/2006-DE1-13.02**  
Revision 1

## OIML CERTIFICATE OF CONFORMITY

### Issuing Authority

Name: Physikalisch-Technische Bundesanstalt  
Address: Bundesallee 100, 38116 Braunschweig  
Person responsible: Dr. Gudrun Wendt

### Applicant

Name: Hydrometer GmbH  
Address: Industriestraße 13, 91522 Ansbach  
GERMANY

Manufacturer of the certified type is the applicant.

### Identification of the certified type

Water meter with mechanical indicating device or electronic indicating device  
Type: WESAN WP, WESAN WP E

Further characteristics see page 3

This Certificate attests the conformity of the above identified type (represented by the sample or samples identified in the associated Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 49-1 (Edition 2006) Metrological and technical requirements  
R 49-2 (Edition 2006) Test methods  
R 49-3 (Edition 2006) Test report format

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

This Certificate does not bestow any form of legal international approval.

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OIML Certificate No.  
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The conformity was established by the results of tests and examinations provided in the associated OIML Basic Type Evaluation Reports

PTB-1.5-4065542, dated 2013-12-05, that includes 150 pages  
PTB-1.5-4071139, dated 2014-08-15, that includes 131 pages

## Certificate history

Issue no.	Date	Description of modification
Initial	2013-12-05	-----
1	2014-08-18	Nominal diameters DN 80, DN100 and DN 125 added

## The Issuing Authority

Dr. G. Wendt  
Head of Department

18.08.2014

## The OIML Member

Dr. R. Schwartz  
Vice-President

18.08.2014

*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 of the associated Test Report(s) is not permitted, although either may be reproduced in full.

# Physikalisch-Technische Bundesanstalt

OIML Certificate No.  
**R49/2006-DE1-13.02**  
Revision 1

Identification of the certified type - page 1 continued

Type details WESAN WP, WESAN WP E

## Nominal diameter DN 50 (R 50, R 63) for orientation H and tilted sideways

Flow range:

$Q_1$ [m <sup>3</sup> /h]	0,8	0,63
$Q_2$ [m <sup>3</sup> /h]	1,28	1,02
$Q_3$ [m <sup>3</sup> /h]	40	40
$Q_4$ [m <sup>3</sup> /h]	50	50
$Q_2/Q_1$	1,6	
$Q_3/Q_1$	50	63

## Nominal diameter DN 65 (R 50, R 63, R80, R100, R125) for orientation H

Flow range:

$Q_1$ [m <sup>3</sup> /h]	1,26	1	0,79	0,63	0,5
$Q_2$ [m <sup>3</sup> /h]	2,02	1,6	1,26	1,01	0,81
$Q_3$ [m <sup>3</sup> /h]	63	63	63	63	63
$Q_4$ [m <sup>3</sup> /h]	78,75	78,75	78,75	78,75	78,75
$Q_2/Q_1$	1,6				
$Q_3/Q_1$	50	63	80	100	125

## Nominal diameter DN 65 (R 50, R 63) for orientation H and tilted sideways

Flow range:

$Q_1$ [m <sup>3</sup> /h]	1,26	1	0,79
$Q_2$ [m <sup>3</sup> /h]	2,02	1,6	1,26
$Q_3$ [m <sup>3</sup> /h]	63	63	63
$Q_4$ [m <sup>3</sup> /h]	78,75	78,75	78,75
$Q_2/Q_1$	1,6		
$Q_3/Q_1$	50	63	80

# Physikalisch-Technische Bundesanstalt

OIML Certificate No.  
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**Revision 1**

**Nominal diameter DN 80 (R 40, R50, R63, R80, R100, R125), for orientation H and tilted sideways, rising pipe and falling pipe**

Flow range:

Q <sub>1</sub> [m <sup>3</sup> /h]	1,59	1,25	1,59	1,25	1	0,8
Q <sub>2</sub> [m <sup>3</sup> /h]	2,54	2	2,54	2	1,6	1,28
Q <sub>3</sub> [m <sup>3</sup> /h]	100					
Q <sub>4</sub> [m <sup>3</sup> /h]	125					
Q <sub>2</sub> /Q <sub>1</sub>	1,6					
Q <sub>3</sub> /Q <sub>1</sub>	40	50	63	80	100	125

**Nominal diameter DN 100 (R40, R50, R63, R80, R 100, R 125, R160, R200), for orientation H and tilted sideways, rising pipe and falling pipe**

Flow range:

Q <sub>1</sub> [m <sup>3</sup> /h]	4	3,2	2,54	2	1,6	1,28	1	0,8
Q <sub>2</sub> [m <sup>3</sup> /h]	6,4	5,12	4,06	3,2	2,56	2,048	1,6	1,28
Q <sub>3</sub> [m <sup>3</sup> /h]	160							
Q <sub>4</sub> [m <sup>3</sup> /h]	200							
Q <sub>2</sub> /Q <sub>1</sub>	1,6							
Q <sub>3</sub> /Q <sub>1</sub>	40	50	63	80	100	125	160	200

**Nominal diameter DN 125 (R40, R50, R63, R80, R 100, R 125, R160, R200), for orientation H and tilted sideways, rising pipe and falling pipe**

Flow range:

Q <sub>1</sub> [m <sup>3</sup> /h]	4	3,2	2,54	2	1,6	1,28	1	0,8
Q <sub>2</sub> [m <sup>3</sup> /h]	6,4	5,12	4,06	3,2	2,56	2,048	1,6	1,28
Q <sub>3</sub> [m <sup>3</sup> /h]	160							
Q <sub>4</sub> [m <sup>3</sup> /h]	200							
Q <sub>2</sub> /Q <sub>1</sub>	1,6							
Q <sub>3</sub> /Q <sub>1</sub>	40	50	63	80	100	125	160	200

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## Accuracy class, orientation, temperature range and environmental conditions

Accuracy class	$\leq 30^{\circ}\text{C}$	$> 30^{\circ}\text{C}$
	$\pm 2\% (Q_2 \leq Q \leq Q_4)$	$\pm 3\% (Q_2 \leq Q \leq Q_4)$
	$\pm 5\% (Q_1 \leq Q \leq Q_2)$	$\pm 5\% (Q_1 \leq Q \leq Q_2)$
Orientation	H and tilted sideways and DN 80, 100, 125 rising pipe and falling pipe	
Water temperature range	0,1°C to 50°C	
Minimum straight length of inlet / outlet pipe	0 mm / 0 mm	
Environmental conditions	Class B	

## Pressure range and pressure loss

Nominal diameter	$P_{\min}$	$P_{\max}$	$\Delta P$
DN 50	0,3 bar (0,03MPa)	16 bar (1,6 MPa)	$\Delta P 25$
DN 65			$\Delta P 16$
DN 80			$\Delta P 25$
DN 100			$\Delta P 40$
DN 125			$\Delta P 40$