

**OIML Member State**  
The Netherlands

Number R49-1/2006-NL1-13.01 revision 6  
Project number 13200719  
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Issuing authority	NMi Certin B.V. Person responsible: C. Oosterman
Applicant and manufacturer	KROHNE Altometer Kerkeplaat 12 3313 LC Dordrecht The Netherlands
Identification of the certified type	<b>A water meter</b> Type : OPTIFLUX x300C; OPTIFLUX x000F + IFC300y *  Water meter intended for the metering of cold potable water, model "OPTIFLUX x300C; OPTIFLUX x000F + IFC300y*", class 1 and 2.
Characteristics	See page 2 and further

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

- R49-1/2006 (E):** Metrological and technical requirements
- R49-2/2006 (E):** Test methods
- R49-3/2006 (E):** Test Report format

Remarks \*) With x being 1, 2, 4, 5 or 6 and with y being F or W.

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above.  
This Certificate does not bestow any form of legal international approval.

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Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**  
17 November 2014



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The notification of NMi Certin B.V. as Issuing Authority can be verified at [www.oiml.org](http://www.oiml.org)

Parties concerned can lodge objection against this decision, within six weeks after the date of submission, to the general manager of NMi (see [www.nmi.nl](http://www.nmi.nl)).





# OIML Certificate of Conformity

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The conformity was established by the results of tests and examinations provided in the associated OIML Test Reports:

- No. R49-1/2003-NL1-06.01 that includes 193 pages (including Annexes);
- No. NMI-12200395-01 that includes 9 pages (including Annexes);
- No. NMI-12200544-01 that includes 9 pages (including Annexes);
- No. NMI-12200544-02 that includes 9 pages (including Annexes);
- No. NMI-13200264-02 that includes 50 pages (including Annexes);
- No. NMI-14200030-01 that includes 50 pages (including Annexes).

## Identification of the certified pattern

Water meter intended for metering cold potable water, based on an electromagnetic principle, designed to measure reverse flow, with straight inlet and outlet length, with no flow conditioner and equipped with an electronic calculating/indicating device.

Metrological characteristics:

Type	:	OPTIFLUX x300C <sup>[1]</sup> , complete water meter OPTIFLUX x000F <sup>[1]</sup> + IFC300y <sup>[1]</sup> , combined water meter		
Maximum admissible pressure (bar)	:	16		
Min/max admissible temperature (°C)	:	0,1/50		
Orientation	:	All positions		
Environmental class	:	C		
Power supply	:			
Type	:	AC	DC	AC/DC
U <sub>max</sub>	:	230 V	24 V	24 V
U <sub>min</sub>	:	100 V	12 V	24 V
Frequency	:	50 – 60 Hz	-	AC: 50 - 60 Hz

<sup>[1]</sup> With x being 1, 2, 4, 5 or 6 and with y being F or W.



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Meter size	DN25	DN32	DN40	DN50	DN65	DN80	DN100	
Minimum flow rate Q1 (m <sup>3</sup> /h)	0,040	0,0625	0,0625	0,10	0,1587	0,254	0,3968	
Transitional flow rate Q2 (m <sup>3</sup> /h)	0,064	0,10	0,10	0,16	0,25	0,40	0,6	
Permanent flow rate Q3 (m <sup>3</sup> /h)	16	25	25	40	100	160	250	
Overload flow rate Q4 (m <sup>3</sup> /h)	20	31,3	31,3	50	125	200	312,5	
Nominal diameter (mm)	25	32	40	50	65	80	100	
Accuracy Class	2				1			
Indicating range (m <sup>3</sup> ) <sup>[2][4]</sup>	99.999				999.999			
Verification scale interval (m <sup>3</sup> ) <sup>[3][4]</sup>	0,0001						0,001	

Meter size	DN125	DN150	DN200	DN250	DN300
Minimum flow rate Q1 (m <sup>3</sup> /h)	0,6349	0,6349	1,0	1,6	2,5
Transitional flow rate Q2 (m <sup>3</sup> /h)	1,0	1,0	1,6	2,6	4,0
Permanent flow rate Q3 (m <sup>3</sup> /h)	400	400	1000	1600	2500
Overload flow rate Q4 (m <sup>3</sup> /h)	500	500	1250	2000	3125
Nominal diameter (mm)	125	150	200	250	300
Accuracy Class	1				
Indicating range (m <sup>3</sup> ) <sup>[2][4]</sup>	999.999		9.999.999		
Verification scale interval (m <sup>3</sup> ) <sup>[3][4]</sup>	0,001				

<sup>[2]</sup> The indicating range is programmable, stated here is the minimum indicating range.

<sup>[3]</sup> The verification scale interval is programmable, stated here is the maximum value.

<sup>[4]</sup> The display of the totalizer has 11 digits (including 1 digit for the decimal sign). The format of the totalizer must be such that demands of the indicating range and the verification scale interval are met.



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Meter size	DN350	DN400	DN450	DN500	DN600
Minimum flow rate Q1 (m <sup>3</sup> /h)	5,0	8,0	8,0	12,6	39,375
Transitional flow rate Q2 (m <sup>3</sup> /h)	8,0	12,8	12,8	20,2	63
Permanent flow rate Q3 (m <sup>3</sup> /h)	2500	4000	4000	6300	6300
Overload flow rate Q4 (m <sup>3</sup> /h)	3125	5000	5000	7875	7875
Nominal diameter (mm)	350	400	450	500	600
Accuracy Class	1				
Indicating range (m <sup>3</sup> ) <sup>[2][4]</sup>	9.999.999				
Verification scale interval (m <sup>3</sup> ) <sup>[3][4]</sup>	0,01				0,1

Meter size	DN700	DN800	DN900	DN1000	DN1100
Minimum flow rate Q1 (m <sup>3</sup> /h)	125	125	200	200	200
Transitional flow rate Q2 (m <sup>3</sup> /h)	200	200	320	320	320
Permanent flow rate Q3 (m <sup>3</sup> /h)	10000	10000	16000	16000	16000
Overload flow rate Q4 (m <sup>3</sup> /h)	12500	12500	20000	20000	20000
Nominal diameter (mm)	700	800	900	1000	1100
Accuracy Class	1				
Indicating range (m <sup>3</sup> ) <sup>[2][4]</sup>	99.999.999				
Verification scale interval (m <sup>3</sup> ) <sup>[3][4]</sup>	0,1				

Meter size	DN1200	DN1400	DN1600
Minimum flow rate Q1 (m <sup>3</sup> /h)	200	312,5	312,5
Transitional flow rate Q2 (m <sup>3</sup> /h)	320	500	500
Permanent flow rate Q3 (m <sup>3</sup> /h)	16000	25000	25000
Overload flow rate Q4 (m <sup>3</sup> /h)	20000	31250	31250
Nominal diameter (mm)	1200	1400	1600
Accuracy Class	1		
Indicating range (m <sup>3</sup> ) <sup>[2][4]</sup>	99.999.999		
Verification scale interval (m <sup>3</sup> ) <sup>[3][4]</sup>	0,1	1	

## Electronic revision number

The electronic revision number is used to lay down the software version and the hardware of the instrument. If either changes, the number is updated.

- Approved electronic revision numbers: 3.2.4\_ ; 3.2.6\_ ; 3.2.7\_ ; 3.3.0\_ ; 3.3.1\_ ; 3.3.2\_ ; 3.3.3\_ ; 3.3.5\_ and 3.3.7\_.

The electronic revision number is stored under menu items B3.6 and C5.1.6. See the manual in how to access the parameters.

Software specification:

The first approved version of the water meter didn't have an electronic revision number. The approved software version is identified as:

- Main software: 2.2.1. Menu items B3.3 and C5.1.5
- User interface: 3.1.0. Menu item B3.4 and C5.2.5

See the manual in how to access the parameters.

## Revision History

Revision	Date	Change(s)
Initial	24 May 2013	-
1	8 November 2013	Addition of several meter sizes
2	13 December 2013	Addition of several meter sizes
3	21 May 2014	Addition of electronic output board
4	5 September 2014	Addition of a meter size
5	6 October 2014	Addition of electronic revision number
6	17 November 2014	Addition of a meter size