



OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 1 of 7

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	A water meter Type : OPTIFLUX x300C; OPTIFLUX x000F + IFC300y *
Characteristics	Water meter intended for the metering of cold potable water, model "OPTIFLUX x300C; OPTIFLUX x000F + IFC300y*", class 1 and 2. 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**
25 September 2017



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OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 2 of 7

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 ^[1] , complete water meter OPTIFLUX x000F ^[1] + IFC300y ^[1] , 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 _{max}		230 V	24 V	24 V
U _{min}		100 V	12 V	24 V
Frequency		50 – 60 Hz	-	AC: 50 - 60 Hz

^[1] With x being 1, 2, 4, 5 or 6 and with y being F or W.



OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 3 of 7

Meter size	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Minimum flow rate Q1 (m ³ /h)	0,040	0,0625	0,0625	0,10	0,1587	0,254	0,3968
Transitional flow rate Q2 (m ³ /h)	0,064	0,10	0,10	0,16	0,254	0,4063	0,6349
Permanent flow rate Q3 (m ³ /h)	16	25	25	40	100	160	250
Overload flow rate Q4 (m ³ /h)	20	31,25	31,25	50	125	200	312,5
Nominal diameter (mm)	25	32	40	50	65	80	100
Accuracy Class	2				1		
Indicating range (m ³) ^{[2][4]}	99.999				999.999		
Verification scale interval (m ³) ^{[3][4]}	0,0001						0,001

Meter size	DN125	DN150	DN200	DN250	DN300
Minimum flow rate Q1 (m ³ /h)	0,6349	0,6349	1,0	1,6	2,5
Transitional flow rate Q2 (m ³ /h)	1,0159	1,0159	1,6	2,56	4,0
Permanent flow rate Q3 (m ³ /h)	400	400	1000	1600	2500
Overload flow rate Q4 (m ³ /h)	500	500	1250	2000	3125
Nominal diameter (mm)	125	150	200	250	300
Accuracy Class	1				
Indicating range (m ³) ^{[2][4]}	999.999		9.999.999		
Verification scale interval (m ³) ^{[3][4]}	0,001				

^[2] The indicating range is programmable, stated here is the minimum indicating range.

^[3] The verification scale interval is programmable, stated here is the maximum value.

^[4] 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.



OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 4 of 7

Meter size	DN350	DN400	DN450	DN500	DN600
Minimum flow rate Q1 (m ³ /h)	5,0	8,0	8,0	12,6	39,375
Transitional flow rate Q2 (m ³ /h)	8,0	12,8	12,8	20,16	63
Permanent flow rate Q3 (m ³ /h)	2500	4000	4000	6300	6300
Overload flow rate Q4 (m ³ /h)	3125	5000	5000	7875	7875
Nominal diameter (mm)	350	400	450	500	600
Accuracy Class	1				
Indicating range (m ³) ^{[2][4]}	9.999.999				
Verification scale interval (m ³) ^{[3][4]}	0,01				0,1

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

Meter size	DN1200	DN1300	DN1400	DN1500	DN1600
Minimum flow rate Q1 (m ³ /h)	200	312,5	312,5	312,5	312,5
Transitional flow rate Q2 (m ³ /h)	320	500	500	500	500
Permanent flow rate Q3 (m ³ /h)	16000	25000	25000	25000	25000
Overload flow rate Q4 (m ³ /h)	20000	31250	31250	31250	31250
Nominal diameter (mm)	1200	1300	1400	1500	1600
Accuracy Class	1				
Indicating range (m ³) ^{[2][4]}	99.999.999				
Verification scale interval (m ³) ^{[3][4]}	0,1	1			



OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 5 of 7

	Meter size	DN1800
Minimum flow rate Q1 (m ³ /h)		500
Transitional flow rate Q2 (m ³ /h)		800
Permanent flow rate Q3 (m ³ /h)		25000
Overload flow rate Q4 (m ³ /h)		31250
Nominal diameter (mm)		1800
Accuracy Class		1
Indicating range (m ³) ^{[2][4]}		99.999.999
Verification scale interval (m ³) ^{[3][4]}		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 with displayable checksum:

Electronic revision number	Identification	Software version	Checksum
3.4.0_	Sensor Electronic	2.2.1_00000004	7100 7100
	Main Software	3.0.6_00008547	38E8 38E8
	User Interface Software	3.4.0_20170106	5311 28AE
	IO2 (Exi IO configurations)	2.2.3_00008548	2207 2207
	IO2 (Modular IO and Modbus configurations)	2.2.3_00008549	8E6A 8E6A
3.4.1_	Sensor Electronic	2.2.1_00000004	7100 7100
	Main Software	3.0.7_00008665	B08B B08B
	User Interface Software	3.4.0_20170106	5311 28AE
	IO2 (Exi IO configurations)	2.2.3_00008548	2207 2207
	IO2 (Modular IO and Modbus configurations)	2.2.3_00008549	8E6A 8E6A

The software versions and checksums are visible by means of the next menu items:

- B3.7: test > information > CRC
- C5.1.7: setup > device > device info > CRC

– 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_ ; 3.3.7_ and 3.3.8_.



OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 6 of 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.

Production location

The water meter is produced at one of the following production locations:

- KROHNE Altometer
Kerkeplaat 12
3313 LC Dordrecht
The Netherlands
- KROHNE Measurement Technology (Shanghai) Co., Ltd.
No. 555 Minshen Road, Songjiang Industrial Zone
Shanghai 201612
China



OIML Certificate of Conformity

OIML Member State
The Netherlands

Number R49-1/2006-NL1-13.01 revision 10
Project number 1901529
Page 7 of 7

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
7	31 May 2016	Addition of a meter size
8	9 September 2016	Addition of electronic revision number
9	22 March 2017	Addition of electronic revision number
10	25 September 2017	Addition of electronic revision number and meter sizes