

### OIML Certificate

**OIML Member State** 

The Netherlands

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Issuing authority Person responsible:

NMi Certin B.V. C. Oosterman

Applicant and

Shanghai Kent Instrument Co. Ltd.

Manufacturer

Kangfa Road No. 169, Tinglin Town, Jinshan District, Shanghai, China

Identification of the certified type

An electromagnetic water meter

Type: KEFD

Characteristics

See page 2 and further

This OIML Certificate is issued under scheme B

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

**R 49-1 (2013)** "Water meters intended for the metering of cold potable water and hot water"

Accuracy class + + + 2

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.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority

NMi Certin B.V., OIML Issuing Authority NL1

18 December 2018

C. Oosterman

Head Certification Board

NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht the Netherlands T +31 78 6332332 certin@nmi.nl This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability.

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The conformity was established by the results of tests and examinations provided in the associated report(s):

No. NMi-1900937-01 dated 18 December 2018 that includes 114 pages.

#### Characteristics of the measuring instrument

In Table 1 the general characteristics of the measuring instrument are presented.

Table 2 gives an overview of the general characteristics of the family of instruments.

The construction of the measuring instrument is recorded in the Documentation folder no. T11068-1.

#### **Table 1 General characteristics**

Measuring principle	Electromagnetic		
Accuracy class	2, , , , , , , , , , , , , , , , , , ,		
Environmental class + + + + + + +	M1 / O (installed outdoors)		
Electromagnetic environment	E2 + + + + + + + + + + + + + + + + + + +		
Temperature range ambient	-25 °C / +55 °C		
Water temperature class	T50 (+0,1 °C / +50 °C)		
Maximum admissible pressure (MAP)	1,0 MPa (10 bar) + + + + + + + + + + + + + + + + + + +		
Orientation	All positions (Horizontal, vertical or diagonal)		
Flow profile sensitivity class	U5 and D3 (5 x DN upstream and 3 x DN downstream)		
Reverse flow + + + + + + + +	The sensor is designed to measure reverse flow		
Pressure loss class	Δp 40 (0,40 bar)		
Power supply	Non-replaceable battery (3,2 – 3,7 V)		
Software identification	Version number: 3.85 Checksum: 62536		

#### **Table 2 General characteristics of the family of instruments**

	Ø in- and	Flow rates [m³/h]			Ratio	
Meter size	outlet [mm]	Minimum Q1	Transitional Q2	Permanent Q3	Overload Q4	Q3/Q1
40	40	0,16	0,25	25	31,25	160
50	50	0,25	0,4	40	50	160
+ 65+ +	+ + 65 + +	+ +0,40 + +	+ 0,63 + +	+ +63+ +	+ 78,75 +	+ + 160+ +
+ 80+ +	+ + 80 + +	+ +0,63 + +	+ + 1+ + +	100	125 +	+ + 160+ +



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Ø in- and		Flow rates [m³/h]				Ratio
Meter size	outlet [mm]	Minimum Q1	Transitional Q2	Permanent Q3	Overload Q4	Q3/Q1
100	100	1 1 1 1	1,6	160	200	160
125 +	+ 125+ +	+ + 1,6 + +	+ +2,5 + +	250	312,5	+ + 160+ +
+ 150 +	+ + 150+ +	+ + 2,5 + +	+ + 4+ + +	400 +	+ 500+ +	+ + 160+ +
200	200	4 + 4	6,3	630	787,5	160
250	250	6,3	10	1000	1250	160
+ 300 +	+ + 300+ +	+ + 10 + +	+ +16 + +	+ 1600 +	+ 2000 +	+ + 160+ +

#### Table 3 General characteristics of the indicating device

Meter size	Indicating range [m³]	Verification scale interval [m³]
DN40, DN50, DN65, DN80, DN100, DN125, DM150, DN200, DN250, DN300	9999999,9999	0,0001

01