



**OIML Member State**  
The Netherlands

# OIML Certificate

Number R137/2012-A-NL1-22.03 revision 1  
Project number 3512545  
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Issuing authority NMI Certin B.V.  
Person responsible: M.Ph.D. Schmidt

Applicant and Manufacturer Zhejiang Cangnan instrument Group Co., Ltd.  
No. 345, Strait Avenue, Lingxi Town, Cangnan County  
Wenzhou City, Zhejiang Province  
P.R. China 325800

Identification of the certified type **A rotary displacement gas meter**  
Type: RM Series

Characteristics See page 2 and further

This OIML Certificate is issued under scheme A

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 137-1 (2012) "Gas meters"**

Accuracy class 1.0

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**  
19 June 2023

Certification Board

**NMI Certin B.V.**  
Thijsseweg 11  
2629 JA Delft  
The Netherlands  
T +31 88 636 2332  
[certin@nmi.nl](mailto:certin@nmi.nl)  
[www.nmi.nl](http://www.nmi.nl)

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The conformity was established by the results of tests and examinations provided in the associated reports:

- NMI-14200731-02 dated 4 June 2015 that includes 19 pages;
- NMI-SO14200462-02 dated 20 February 2014 that includes 13 pages;
- NMI-10200626-02 dated 29 May 2012 that includes 51 pages.
- NMI-3512545-01 dated 30 June 2022 that includes 20 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.

**Table 1 General characteristics**

Destined for the measurement of	Gas volume
Environmental classes	M1 / E2
Accuracy class	1,0
Maximum pressure	20 bar
Ambient temperature range	-25 °C / +55 °C
Gas temperature range	-25 °C / +55 °C
Designed for	Condensing humidity
Orientation Non MPV*	horizontal, vertical up
Orientation MPV*	horizontal, vertical up and vertical down (all orientations)
Flow direction	Uni-directional (indicated with arrow)
Power supply voltage	Not applicable
Software identification	Not applicable

\* MPV, see table 2 for further specification.

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

Cyclic volume [dm <sup>3</sup> ]	Type	Version	Q <sub>max</sub> [m <sup>3</sup> /h]	Q <sub>t</sub> [m <sup>3</sup> /h]	Q <sub>min</sub> [m <sup>3</sup> /h]	Nominal diameter [mm]
0,26	G16	-	25	1,25	0,5	40
	G25	-	40	2	0,5	40
0,69	G10	MPV	16	1,25	0,5	40 / 50
	G16	MPV	25	1,25	0,5	40 / 50
	G25	MPV	40	2	0,5	40 / 50
	G40	MPV	65	3,25	0,5	40 / 50
	G65	MPV	100	5	0,5	40 / 50
1,11	G40	MPV	65	3,25	0,8	50 / 80
	G65	MPV	100	5	0,8	50 / 80
	G100	MPV	160	8	0,8	50 / 80
2,31	G65	MPV	100	10	1,25	80
	G100	MPV	160	12,5	1,25	80
	G160	MPV	250	12,5	1,25	80
2,98	G100	MPV	160	8	2	80 / 100
	G160	MPV	250	12,5	2	80 / 100
	G250	MPV	400	20	2	80 / 100
3,88	G250	SYNC MPV	400	20	3,25	100 / 150
	G400	SYNC MPV	650	32,5	3,25	100 / 150
5,97	G400	SYNC MPV	650	32,5	5	150
	G650	SYNC MPV	1000	50	5	150

Remarks regarding table 2:

1. MPV indicates that the meter optionally can be manufactured as a Multi Position Version.
2. SYNC indicates that the meter is always equipped with a double pair of impellers.
3. The overload flow rate (Q<sub>t</sub>) for all rotary meters is equal to  $1,2 \cdot Q_{max}$ .
4. The working pressure range for all rotary displacement gas meters is atmospheric up to and including 20 bar(g).

**Table 3 Verification scale interval**

Type	Cyclic volume	number of drums		control- element  [m <sup>3</sup> ]
		before the comma	behind the comma	
G10 – G100	≤1,11	6	2	0,002
G100 – G650	≤2,31	7	1	0,02

### Installation conditions

Non MPV meters can be installed in two flow directions, left to right or top to bottom.

MPV meters can be installed in horizontal, vertical up and vertical down position.

Regarding flow disturbance there are no specific installation requirements.

### Revision history

Revision	Date	Description of the modification
Initial	30 June 2022	Initial issue
1	19 June 2023	Address Update