



# OIML Certificate of Conformity

**OIML Member State**  
The Netherlands

Number **R137/2012-NL1-15.01**  
Project number 14200712  
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Issuing authority NMI Certin B.V.  
Person responsible: C. Oosterman

Applicant and manufacturer Flow Meter Group B.V.  
Meniststraat 5c  
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The Netherlands

Identification of the certified type **A rotary piston gas meter**  
Type: FMR and FMR-Dual

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):

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

Accuracy class See table 2 and 3.

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**  
30 January 2015



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

- No. NMI-14200712-02 dated 30 January 2015 that includes 36 pages.

### Characteristics of the gas meter:

Table 1 gives the general characteristics of both meter types. Table 2, 3 and 4 on the following pages specify in detail the characteristics and essential parts of the FMR and FMR-Dual rotary piston gas meters.

Destined for the measurement of	Gas volume
Ambient temperature range	-25 °C / +55 °C
Gas temperature range	-25 °C / +55 °C
Orientation	Horizontal / Vertical up / Vertical down (all orientations)
Flow direction	Uni-directional (indicated with arrow)
Power supply voltage	Not applicable
Software identification	Not applicable

Table 2: Essential characteristics FMR									
Volume* V [dm <sup>3</sup> ]	G-value	Qmax [m <sup>3</sup> /h]	minimum Qmin [m <sup>3</sup> /h]	Qt [m <sup>3</sup> /h]	maximum P <sub>max</sub> [bar]	Diameter D [mm]	Basic transfer relationship		Accuracy class
							revolutions	[m <sup>-3</sup> ]	
0,25	G6	10	0,25	0,5	101	Threaded	4004,325	1	1,0
	G10	16	0,25	0,8	101	Threaded	4004,325	1	1,0
	G16	25	0,25	1,25	101	Threaded	4004,325	1	1,0
	G25	40	0,25	2	101	Threaded	4004,325	1	1,0 or 1,5
0,39	G10	16	0,25	0,8	101	40 or 50	2574,268	1	1,0
	G16	25	0,25	1,25	101	40 or 50	2574,268	1	1,0
	G25	40	0,25	2	101	40 or 50	2574,268	1	1,0 or 1,5
	G40	65	0,25	3,2	101	40 or 50	2574,268	1	1,0 or 1,5
0,61	G16	25	0,25	1,25	101	40 or 50	1638,163	1	1,0
	G25	40	0,25	2	101	40 or 50	1638,163	1	1,0 or 1,5
	G40	65	0,25	3,2	101	40 or 50	1638,163	1	1,0 or 1,5
	G65	100	0,25	5	101	40 or 50	1638,163	1	1,0 or 1,5
0,73	G16	25	0,2	1,25	101	40 or 50	1378,968	1	1,0
	G25	40	0,2	2	101	40 or 50	1378,968	1	1,0 or 1,5
	G40	65	0,2	3,2	101	40 or 50	1378,968	1	1,0 or 1,5
	G65	100	0,2	5	101	40 or 50	1378,968	1	1,0 or 1,5
	G100	160	0,4	8	12	50 or 80	1378,968	1	1,0 or 1,5
1,16	G40	65	0,4	3,2	101	50 or 80	861,8609	1	1,0 or 1,5
	G65	100	0,4	5	101	50 or 80	861,8609	1	1,0 or 1,5
	G100	160	0,4	8	101	50 or 80	861,8609	1	1,0 or 1,5
	G160	250	0,65	12,5	12	50 or 80	861,8609	1	1,0 or 1,5
1,45	G65	100	0,6	5	101	80 or 100	689,484	1	1,0 or 1,5
	G100	160	0,6	8	101	80 or 100	689,484	1	1,0 or 1,5
	G160	250	0,6	12,5	101	80 or 100	689,484	1	1,0 or 1,5
1,81	G65	100	0,6	5	101	80 or 100	552,8925	1	1,0 or 1,5
	G100	160	0,6	8	101	80 or 100	552,8925	1	1,0 or 1,5
	G160	250	0,6	12,5	101	80 or 100	552,8925	1	1,0 or 1,5
	G250	400	1	20	12	80 or 100	552,8925	1	1,0 or 1,5
1,98	G100	160	1	8	101	80 or 100	504,5638	1	1,0 or 1,5
	G160	250	1	12,5	101	80 or 100	504,5638	1	1,0 or 1,5
	G250	400	2,5	20	12	80 or 100	504,5638	1	1,0 or 1,5
3,17	G160	250	1,6	12,5	101	80 or 100	315,352	1	1,0 or 1,5
	G250	400	1,6	20	101	80 or 100	315,352	1	1,0 or 1,5
	G400	650	2,5	32	12	80 or 100	315,352	1	1,0 or 1,5
5,15	G250	400	2,5	20	101	100 or 150	194,0625	1	1,0 or 1,5
	G400	650	2,5	32	101	100 or 150	194,0625	1	1,0 or 1,5
	G650	1000	6,25	50	12	100 or 150	194,0625	1	1,0 or 1,5

\* See remark on next page.

Table 3: Essential characteristics FMR-Dual									
Volume* V [dm <sup>3</sup> ]	G-value	Qmax [m <sup>3</sup> /h]	minimum Qmin [m <sup>3</sup> /h]	Qt [m <sup>3</sup> /h]	maximum p <sub>max</sub> [bar]	Diameter D [mm]	Basic transfer relationship		Accuracy class
							revolutions	[m <sup>-3</sup> ]	
2,41	160	250	1	12,5	21	80 or 100	414,462	1	1,0 or 1,5
	250	400	2,5	20	21	80 or 100	414,462	1	1,0 or 1,5
3,96	250	400	2,5	20	21	100 or 150	252,282	1	1,0 or 1,5
	400	650	4	32	21	100 or 150	252,282	1	1,0 or 1,5
	650	1000	4	32	12	150 or 200	252,282	1	1,0 or 1,5
6,34	400	650	4	32	21	150 or 200	157,676	1	1,0 or 1,5
	650	1000	6,5	50	21	150 or 200	157,676	1	1,0 or 1,5

- \* On the name plate of the rotary meter the cyclic volume can be given in two possible formats:
1. with two digits behind the comma as stated in table 2 and 3, or
  2. with a number containing 6 significant digits. In this case a HF pulse value can be accurately derived from the spinning rotors with an optical sensor.

meter size	Minimum number of drums		control-element [m <sup>3</sup> ]
	before the comma		
G6	5	3	0,0002
G10 – G65	6	2	0,002
G100 – G650	7	1	0,02

**Installation conditions:**

For this rotary meter specific installation conditions are not applicable.