



OIML Certificate

OIML Member State
The Netherlands

Number R137/2012-A-NL1-26.03 revision 0
Project number 3972518
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Issuing authority NMI Certin B.V.
Person responsible: M.Ph.D. Schmidt

Applicant and Manufacturer Flow Meter Group B.V.
Innovatieweg 32
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The Netherlands

Identification of the certified type **A Rotary Displacement Gas Meter**
Type: FMR
FMR-Dual
FMR-HTB

Characteristics See following page(s)

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 See table 2, 3 and 4

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.

This certificate and supporting reports comply with the requirements of OIML-CS-PD-07 clause 6.2.

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Issuing Authority **NMI Certin B.V., OIML Issuing Authority NL1**
6 August 2026

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

- No. NMI-11200085-02 dated 27 February 2012 that includes 51 pages;
- No. NMI-13200659-01 dated 13 January 2014 that includes 20 pages;
- No. NMI-14200712-02a dated 15 February 2018, that includes 20 pages;
- No. NMI-3706252-01 dated 5 November 2024, that includes 13 pages;
- No. NMI-3972518-02 dated 6 August 2026, that includes 20 pages.

Characteristics of the measuring instrument

In Table 1 the general characteristics of the measuring instrument are presented.
In Table 2, 3, and 4 the characteristics of the family of instruments are presented.
The construction of the measuring instrument is recorded in the Documentation folder no. T10372-11.

Table 1 General characteristics

Minimum – maximum flow rate	See table 2, 3, and 4
Maximum pressure	See table 2, 3, and 4
Environmental classes	M1 / E2
Ambient temperature range	-25 – +55 °C (FMR/FMR-Dual) -10 – +55 °C (FMR-HTB)
Gas temperature range	-25 – +55 °C (FMR/FMR-Dual) -10 – +55 °C (FMR-HTB)
Orientation	Horizontal / vertical up / vertical down (all orientations)
Flow direction	Uni-directional (indicated with arrow)
Intended for the measurement of	Gas volume
Power supply voltage	Not Applicable
Software identification	Not Applicable

Lubrication

The lubrication oil to be applied in the reservoir of FMR and FMR-Dual is: Aeroshell Fluid 12 (pour point: -60 °C) for operational temperatures beneath +5° C.

The lubrication oil to be applied in the reservoir of FMR-HTB is: Aeroshell Fluid 12 (pour point: -60 °C) or Shell Morlina 10 (pour point: -30 °C).

Table 2, 3, and 4 General characteristics of the family of instruments

The FMR, FMR-HTB, and FMR-Dual meters have the following characteristics:

Table 2 : Essential characteristics FMR							
Volume ^[1] V [dm ³]	G-value	maximum Q _{max} [m ³ /h]	minimum Q _{min} [m ³ /h]	minimum Q _t [m ³ /h]	maximum p _{max} [bar]	Diameter D [mm]	Accuracy class
0,25	G6	10	0,25	0,5	101	40 or 50 ^[2]	1,0
	G10	16	0,25	0,8	101	40 or 50 ^[2]	1,0
	G16	25	0,25	1,25	101	40 or 50 ^[2]	1,0
	G25	40	0,25	2	101	40 or 50 ^[2]	1,0 or 1,5
0,39	G10	16	0,25	0,8	101	40 or 50 ^[3]	1,0
	G16	25	0,25	1,25	101	40 or 50 ^[3]	1,0
	G25	40	0,25	2	101	40 or 50 ^[3]	1,0 or 1,5
	G40	65	0,25	3,2	101	40 or 50 ^[3]	1,0 or 1,5
0,61	G16	25	0,25	1,25	101	40 or 50	1,0
	G25	40	0,25	2	101	40 or 50	1,0 or 1,5
	G40	65	0,25	3,2	101	40 or 50	1,0 or 1,5
	G65	100	0,25	5	101	40 or 50	1,0 or 1,5
0,73	G16	25	0,2	1,25	101	40 or 50	1,0
	G25	40	0,2	2	101	40 or 50	1,0 or 1,5
	G40	65	0,2	3,2	101	40 or 50	1,0 or 1,5
	G65	100	0,2	5	101	40 or 50	1,0 or 1,5
	G100	160	0,4	8	12	50 or 80	1,0 or 1,5
0,85	G25	40	1	2	101	50 or 80	1,0
	G40	65	1	3,2	101	50 or 80	1,0
	G65	100	1	5	101	50 or 80	1,0
	G100	160	1	8	12	50 or 80	1,0 or 1,5
0,99	G25	40	1	2	101	50 or 80	1,0
	G40	65	1	3,2	101	50 or 80	1,0
	G65	100	1	5	101	50 or 80	1,0
	G100	160	1	8	101	50 or 80	1,0 or 1,5
1,16	G40	65	0,4	3,2	101	50 or 80	1,0 or 1,5
	G65	100	0,4	5	101	50 or 80	1,0 or 1,5
	G100	160	0,4	8	101	50 or 80	1,0 or 1,5
	G160	250	0,65	12,5	12	50 or 80	1,0 or 1,5
1,45	G65	100	0,6	5	101	80 or 100	1,0 or 1,5
	G100	160	0,6	8	101	80 or 100	1,0 or 1,5
	G160	250	0,6	12,5	101	80 or 100	1,0 or 1,5
1,81	G65	100	0,6	5	101	80 or 100	1,0 or 1,5
	G100	160	0,6	8	101	80 or 100	1,0 or 1,5
	G160	250	0,6	12,5	101	80 or 100	1,0 or 1,5
	G250	400	1	20	12	80 or 100	1,0 or 1,5
1,98	G100	160	1	8	101	80 or 100	1,0 or 1,5
	G160	250	1	12,5	101	80 or 100	1,0 or 1,5
	G250	400	2,5	20	12	80 or 100	1,0 or 1,5

[1]

On the name plate of the rotary meter the cyclic volume can be given in two possible formats:

- with two digits behind the comma as stated in the tables above, or
- 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.

[2]

These meters are equipped with a threaded connection.

[3]

These meters can be equipped with a flange or threaded connection.

Table 2 : Essential characteristics FMR

3,17	G160	250	1,6	12,5	101	80 or 100	1,0 or 1,5
	G250	400	1,6	20	101	80 or 100	1,0 or 1,5
	G400	650	2,5	32	12	80 or 100	1,0 or 1,5
3,96	G250	400	2,5	20	101	100 or 150	1,0 or 1,5
	G400	650	4	32	101	100 or 150	1,0 or 1,5
	G650	1000	4	32	12	150 or 200	1,0 or 1,5
5,15	G250	400	2,5	20	101	100 or 150	1,0 or 1,5
	G400	650	2,5	32	101	100 or 150	1,0 or 1,5
	G650	1000	6,25	50	12	100 or 150	1,0 or 1,5

Table 3 : Essential characteristics FMR-HTB

Volume ^[4] V [dm ³]	G-value	maximum Q _{max} [m ³ /h]	minimum Q _{min} [m ³ /h]	minimum Q _t [m ³ /h]	maximum p _{max} [bar]	Diameter D [mm]	Accuracy class
0,61	G16	25	0,65	1,25	101	40 or 50	1,0
	G25	40	0,65	2	101	40 or 50	1,0
	G40	65	0,65	3,25	101	40 or 50	1,0
	G65	100	0,65	5	101	40 or 50	1,0
0,99	G65	100	1	5	101	50 or 80	1,0
	G100	160	1	8	101	50 or 80	1,0
1,45	G100	160	1,25	8	101	80 or 100	1,0
	G160	250	1,25	12,5	101	80 or 100	1,0
3,17	G160	250	3,2	12,5	101	80 or 100	1
	G250	400	3,2	20	101	80 or 100	1

^[4] See footnote [1] regarding the cyclic volume.

Table 4 : Essential characteristics FMR-Dual ^[5]

Volume ^[4] V [dm ³]	G-value	maximum Q _{max} [m ³ /h]	minimum Q _{min} [m ³ /h]	minimum Q _t [m ³ /h]	maximum p _{max} [bar]	Diameter D [mm]	Accuracy class
0,5	G40 G65	65 100	0,4 0,65	3,2 5	21 / 101 21 / 101	50 or 80 50 or 80	1,0 or 1,5 1,0 or 1,5
0,78	G65 G100	100 160	0,65 1	5 8	21 / 101 21 / 101	50 or 80 80 or 100	1,0 or 1,5 1,0 or 1,5
1,22	G100 G160	160 250	1 1,6	8 12,5	21 / 101 21 / 101	80 or 100 80 or 100	1,0 or 1,5 1,0 or 1,5
1,98	G160 G250	250 400	1,6 2,5	12,5 20	21 / 101 21 / 101	80 or 100 80, 100 or 150	1,0 or 1,5 1,0 or 1,5
1,46	G100 G160	160 250	1 1,6	8 12,5	21 / 101 21 / 101	80 or 100 80 or 100	1,0 or 1,5 1,0 or 1,5
2,32	G160 G250	250 400	2,5 4	12,5 20	21 / 101 21 / 101	80 or 100 80, 100 or 150	1,0 1,0
2,9	G250 G400	400 650	2,5 4	20 32	21 / 101 21 / 101	80, 100 or 150 100 or 150	1,0 or 1,5 1,0 or 1,5
2,41	160 250	250 400	1 2,5	12,5 20	21 / 101 21 / 101	80 or 100 80 or 100	1,0 or 1,5 1,0 or 1,5
3,96	250 400 650	400 650 1000	2,5 4 4	20 32 32	21 / 101 21 / 101 21 / 101	100 or 150 100 or 150 150 or 200	1,0 or 1,5 1,0 or 1,5 1,0 or 1,5
6,34	400 650	650 1000	4 6,5	32 50	21 / 101 21 / 101	150 or 200 150 or 200	1,0 or 1,5 1,0 or 1,5
10,3	G650 G1000	1000 1600	6,5 10	50 80	21 / 101 21 / 101	150 or 200 150 or 200	1,0 or 1,5 1,0 or 1,5

All the registers are built up as follows:

meter size	Minimum number of drums		control-element [m ³]
	before the comma	behind the comma	
G6	5	3	0,0002
G10 – G65	6	2	0,002
G100 – G1000	7	1	0,02

Installation conditions:

For this rotary meter specific installation conditions are not applicable.

[4] See footnote [1] regarding the cyclic volume.

[5]

The FMR-Dual can be delivered as a low pressure ($P_{\max} = 21$ bar) or a high pressure ($P_{\max} = 101$ bar) variant. The two different housings used for the specific pressure rating are given in document no. 10372/7-02 page 12 ($P_{\max} = 21$ bar) and page 15 ($P_{\max} = 101$ bar).



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Revision History

Revision	Date	Change(s)
0	06-08-2026	Initial issue.