

OIML Member State

The Netherlands

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Issuing authority Person responsible

NMi Certin B.V. C. Oosterman

Applicant and Manufacturer

GFO Flow Solutions B.V. Magnesiumstraat 14 6031 RV Nederweert The Netherlands

Identification of the certified type

A rotary displacement gas meter

Type: GFO-RM

Characteristics

See page 2 and 3

This OIML Certificate is issued under scheme B

1 0

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

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

24 May 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 www.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 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.

Characteristics of the gas meter

Table 1 gives the general characteristics of the meter type. Tables 2 and 3 specify in detail the essential characteristics and verification scale interval.

Table 1 General characteristics

Destined for the measurement of	Gas volume M2		
Mechanical class			
Electromagnetic class + + + + + +	Not applicable (the meter has no electronics)		
Ambient temperature range + + + + +	+ + + + + + -25 °C / +55 °C + + + + + + +		
Gas temperature range	+ + + + + + + -25°C/+55°C + + + + + + +		
Designed for humidity conditions	Not applicable (the meter has no electronics)		
Orientation + + + + + + + + + + + + + + + + + + +	Non MPV: horizontal, vertical up 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 + + + + + + +		

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Table 2 Essential characteristics

Cyclic volume	Туре	Version	Q _{max}	+ + + + + + + + + + + + + + + + + + +	Qmin + + +	Nominal diameter
[dm³]	+ + + + +		[m³/h]	[m³/h]	[m³/h]	
++++	G10	+ + + +	+ +16 + +	+ 1,25 +	+ 0,5+ +	+ + 40+ +
0,26	G16		25	1,25	0,5	40
+ + + + +	G25	+ + + +	40	+ +2+ +	0,5	+ + 40+ +
+ + + + +	+ G10	MPV	+ +16 + +	+ 1,25 +	+ 0,5+ +	+40 / 50 +
+ + + + +	G16	MPV	25	1,25	0,5	40 / 50
0,69	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
+ + + + +	G40	MPV	65	3,25	0,8	50 / 80
+ +1,11 + +	+ G65 +	MPV	+ +100 + +	+ +5+ +	+ 0,8+ +	+ +50 / 80 +
+ + + + +	G100	MPV	† †160 † †	+ +8+ +	0,8	50 / 80
+ + + + +	G65	MPV	100	12,5	1,25	80
2,31	+ G100 + -	MPV	+ +160 + +	+ 12,5 +	1,25	+ + 80+ +
+ + + + +	+ G160 + -	+ MPV	+ +250 + +	+ 12,5 +	+ 1,25 +	+ + 80+ +
+ + + + +	G100	MPV	160	8	2	80 / 100
2,98	G160	MPV	250	12,5	2 + +	80 / 100
+ + + + +	+ G250 + -	+ MPV +	+ +400 + +	+ +20 +	+ +2 + +	+ -80 / 100 +
+ + + + +	G250	SYNC MPV	400	20	3,25	100 / 150
+ -3,88 + +	G400	SYNC MPV	650	32,5	3,25	100 / 150
+ + + + +	+ G400 +	SYNC MPV	+ +650 + +	+ 32,5 +	+ +5 + +	+ + 150+ +
5,97	+ G650 + -	SYNC MPV	1000	+ +50+ +	+ +5 + +	+ + 150+ +

Remarks regarding table 2:

- 1. MPV indicates that the meter is optionally 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_r) 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).



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Table 3 Verification scale interval

+	Type	number	control-element	
+		before the comma	behind the comma	m ³]
+	+ + G10 – G65 + +	+ + + + 6+ + + +	+ + + +2 + + + +	+ + + 0,002 + + + +
+	G100 – G650	+ + + + 7 + + + +	+ + + + + + + + +	+ + + +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.