

ROTARY METERS SERIES FMR



- ✓ **1-1/2"-6"**
- ✓ **ANSI-150, ANSI-300**
- ✓ **17-23,000 acfh**
- ✓ **MID, PED, ATEX approved**
- ✓ **CARTRIDGE DESIGN**
- ✓ **LOW SENSIVITY TO INSTALLATION STRESS**
- ✓ **EASY LOCAL REPAIR**
- ✓ **ON-SITE CLEANING**
- ✓ **INTEGRATED THERMO WELLS**
- ✓ **TAMPER PROOF INDEX**
- ✓ **CLASS 1 OR CLASS 1.5**
- ✓ **>>1:160 RANGE**

The FMG series of rotary gas meters is designed to meet the highest demands of reliable and accurate measurement of gas flow. The meters fully comply with the EN12480 and OIML R137. A compact exchangeable aluminum cartridge allows local repair and on-site cleaning. Installation stresses caused by connecting piping are minimal due to the robust design and construction of the casing and cartridge. The aluminum casing (body and cover) is designed for working pressures up to 21 bar (300 psi) with a safety factor of 5. Square impellers and improved positioning of main bearings and shafts makes the meter less susceptible to overload and pressure shocks.

An aluminum index and protection of the LF pulsars with the associated magnets helps prevent manipulation of the meter by externally applied magnets or other external forces. Tampering of meters with strong neodymium magnets is a major concern of utility companies in many parts of the world. This type of manipulation is very difficult to detect and or prove, therefore, prevention of such actions is the best cure. Further, in order to be prepared for the "smart grid", the index can be equipped with an intelligent encoder. A unique proprietary oiling system, where-by the oil is distributed directly to the timing gears by means of a disc, eliminates oil loss at high impeller speed and will lubricate the timing gears at very low loads. All plugs and oil sight glasses are in the front of the meter, allowing the meter to be installed in very compact installations.

OPTIONS: ENCODER / MULTIPLE CONNECTORS / MULTIPLE THERMO WELLS / TOTALLY SEALED / INSTRUMENT DRIVE / SIDE READING/EXTERNAL BYPASS/HF PICKUP



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Technical Data	imperial metric	2.5M G40	3.5M G65	5.5M G100	7M -	9M G160	9M G160
Displaced volume	cf	0.025	0.025	0.041	0.050	0.063	0.063
Nominal Pipe Size	in.	1-1/2	2	3	3	3	4
Base Rating (Qmax)	acfh	2500	3500	5500	7000	9000	9000
Rangeability +/-1%	ratio	65	100	100	100	100	100
Rangeability +/- 2%	ratio	100	160	160	160	160	160
Coverage	imperial metric	15C-2.5M G16-G40	15C-3.5M G16-G65	2M-5.5M G40-G100	3M-7M -	3M-9M G65-G160	3M-9M G65-G160
Max. Operating	psig	300	300	300	300	300	300
Temperature Range	deg. F	-40 to +140					
Start Rate	cfh	2.0	2.0	2.8	2.8	3.5	3.5
Stop Rate	cfh	1.8	1.8	2.1	2.1	2.8	2.8
Average Differential @	in. w. c.	0.7	0.7	0.7	1.0	1.1	1.0
Drive Rate Index, ID	cf/rev	10	10	10	10	10	10
Flange-to-Flange	in.	6-3/4	6-3/4	6-3/4	6-3/4	6-3/4	6-3/4
Flange Connection	ANSI	150#FF	150#FF	150#FF	150#FF	150#FF	150#FF
Net Weight ⁽²⁾	lbs.	26	26	31	35	41	41

Technical Data	imperial metric	9M G160	16M G250	23M G400	23M G400	3.5M G65	7M G100
Displaced volume	cf	0.069	0.111	0.180	0.180	0.041	0.063
Nominal Pipe Size	in.	3	4	4	6	2	3
Base Rating (Qmax)	acfh	9000	16000	23000	23000	3500	7000
Rangeability +/-1%	ratio	100	100	100	100	65	65
Rangeability +/- 2%	ratio	160	160	160	160	100	100
Coverage	imperial metric	3M-9M G65-G160	7M-16M G100-G250	7M-23M G160-G400	7M-23M G160-G400	2M-3.5M G40-G65	3M-7M G65-G100
Max. Operating	psig	300	300	300	232	450	450
Temperature Range	deg. F	-40 to +140					
Start Rate	cfh	4.2	5.3	7.0	7.0	2.8	3.5
		0.12	0.15	0.20	0.20	0.08	0.01
Stop Rate	cfh	3.5	4.2	5.6	5.6	2.1	2.8
Average Differential @	in. w. c.	1.6	1.0	2.2	1.7	0.7	1.1
Drive Rate Index, ID	cf/rev	10	100	100	100	10	10
Flange-to-Flange	in.	9-1/2	9-1/2	9-1/2	16	on request	on request
Flange Connection	ANSI	150#FF	150#FF	150#FF	150#FF	300#RF	300#RF
Net Weight ⁽²⁾	lbs.	70	84	110	136	37	51

Corrected Capacity at Metering Pressure – in MSCFH

PSIG	Model	2.5M	3.5M	5.5M	7M	9M	11M	16M	23M
1		2614	3659	5750	7318	9409	11500	16728	24046
5		3293	4610	7244	9219	11853	14487	21073	30292
10		4141	5798	9111	11595	14908	18221	26504	38099
15		4990	6986	10978	13971	17963	21955	31935	45906
20		5838	8174	12845	16348	21018	25689	37366	53714
25		6687	9362	14711	18724	24073	29423	42797	61521
30		7536	10550	16578	21100	27128	33157	48228	69328
40		9233	12926	20312	25852	33238	40625	59090	84942
50		10930	15302	24046	30604	39348	48092	69952	100557
60		12627	17678	27780	35356	45458	55560	80815	116171
70		14325	20054	31514	40109	51568	63028	91677	131785
80		16022	22430	35248	44861	57678	70496	102539	147400
90		17719	24807	38982	49613	63788	77963	113401	163014
100		19416	27183	42716	54365	69898	85431	124263	178629
110		21113	29559	46449	59117	76008	92899	135126	194243
120		22811	31935	50183	63870	82118	100367	145988	209857
130		24508	34311	53917	68622	88228	107834	156850	225472
140		26205	36687	57651	73374	94338	115302	167712	241086
150		27902	39063	61385	78126	100448	122770	178574	256701
160		29599	41439	65119	82878	106558	130238	189437	272315
170		31297	43815	68853	87631	112668	137705	200299	287929
180		32994	46191	72587	92383	118778	145173	211161	303544
190		34691	48568	76320	97135	124888	152641	222023	319158
200		36388	50944	80054	101887	130998	160109	232885	334773
250		44874	62824	98724	125648	161548	197447	287196	412845