

Honeywell

E-Mon Rotary Gas Meters

SPECIFICATION DATA



Standard Counter (STD CTR)

STD CTR meters register the non-compensated, displaced gas volume in actual cubic feet (cf). The meter module is available with either a side or end reading (for most meter sizes) counter. The ability to rotate the counter module in 90° increments allows the meter to be mounted in any orientation, while still offering full accessibility when reading the counter.

Temperature Compensated Counter (TC)

TC meters measure the non-compensated, displaced gas volume in actual cubic feet (cf) and convert this volume to a base temperature condition. Both the non-compensated and temperature compensated gas volumes are registered on counters. The temperature compensation is performed from -40 to +122 °F, with a typical error of less than 0.5 %.

PRINCIPLE OF OPERATION

Gas entering the inlet of the meter produces a differential pressure within the meter chamber, which causes the impellers to rotate (Fig. 1). Timing gears synchronize the impellers to turn in opposite directions. The volume of gas within each measuring chamber half is displaced by the rotation of each impeller. The rotation of the impellers is translated into specific units of volume (cf) by means of a precision gear train. The volume is, in turn, registered on a digital counter.

MATERIAL SPECIFICATIONS

Pressure Body and Covers: Cast aluminum alloy.

Impellers: Extruded aluminum alloy.

Impeller shafts: High grade alloyed steel.

O-rings/Gaskets: Synthetic elastomer.

Bearings: High Carbon Steel.

Magnet coupling: Hard ferrite ceramic magnet.

Timing gears: Steel alloy.

Reduction gears: Steel alloy.

Plastic components: Brand name engineered thermoplastics.

Meter Type: Rotary Positive Displacement Gas Meter.

Application: Natural gas and other non-corrosive gases on request.

Installation: See Fig. 2.

Operating temperature: -40 to +122 °F

Counter: Up to 8-digit counter (with various numerical configurations on request).

Flat face flange connections: ANSI 150

Meters are equipped with pulse output for interfacing with interval data recorders, EMS/BMS, etc.:

2M models = 10 Cubic Ft/pulse

3M and larger = 100 Cubic Ft/pulse



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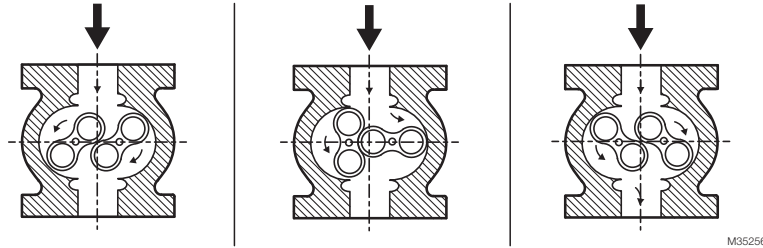


Fig. 1.

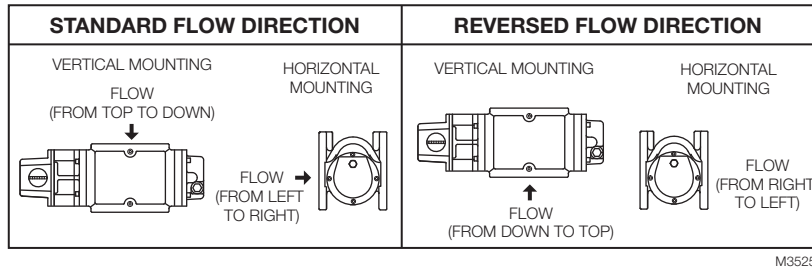


Fig. 2.

MODELS

NTC- up to 3,000 CFH:

- HGM-RL3M1
- HGM-RL3M125
- HGM-RL3M150
- HGM-RL3M2

NTC- up to 5,000 CFH:

- HGM-RL5M150
- HGM-RL5M2
- HGM-RL5M250
- HGM-RL5M3

NTC- up to 7,000 CFH:

- HGM-RL7M150
- HGM-RL7M2
- HGM-RL7M250
- HGM-RL7M3

NTC- up to 11,000 CFH:

- HGM-RL11M2
- HGM-RL11M250
- HGM-RL11M3
- HGM-RL11M4

NTC- up to 16,000 CFH:

- HGM-RL16M2
- HGM-RL16M250
- HGM-RL16M3
- HGM-RL16M4

NTC- up to 23,000 CFH:

- HGM-RL23M2
- HGM-RL23M250
- HGM-RL23M3
- HGM-RL23M4

NTC- up to 38,000 CFH:

- HGM-RL38M6

NTC- up to 56,000 CFH:

- HGM-RL56M6

TC- up to 2,000 CFH:

- HGM-RL2M1TC
- HGM-RL2M125TC
- HGM-RL2M150TC
- HGM-RL2M2TC

TC- up to 3,000 CFH:

- HGM-RL3M1TC
- HGM-RL3M125TC
- HGM-RL3M150TC
- HGM-RL3M2TC

TC- up to 5,000 CFH:

- HGM-RL5M150TC
- HGM-RL5M2TC
- HGM-RL5M250TC
- HGM-RL5M3TC

TC- up to 7,000 CFH:

- HGM-RL7M150TC
- HGM-RL7M2TC
- HGM-RL7M250TC
- HGM-RL7M3TC

TC- up to 11,000 CFH:

- HGM-RL11M2TC
- HGM-RL11M250TC
- HGM-RL11M3TC
- HGM-RL11M4TC

TC- up to 16,000 CFH:

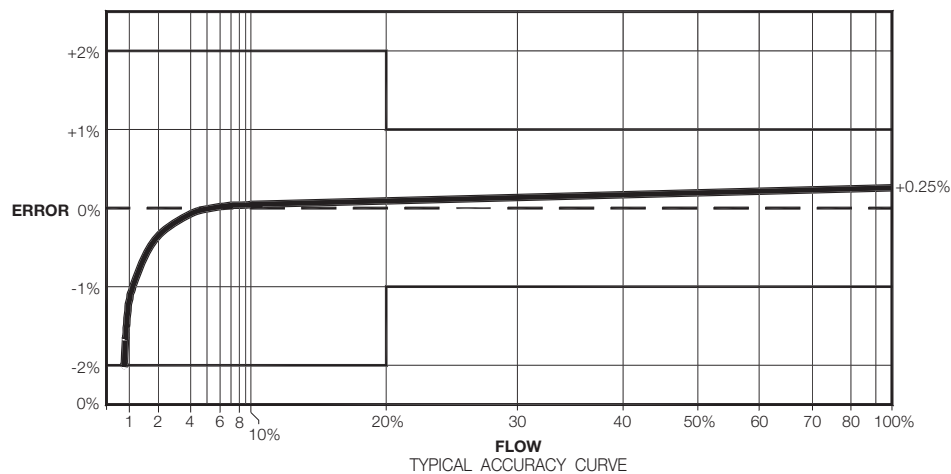
- HGM-RL16M2TC
- HGM-RL16M250TC
- HGM-RL16M3TC
- HGM-RL16M4TC

TC- up to 23,000 CFH:

- HGM-RL23M2TC
- HGM-RL23M250TC
- HGM-RL23M3TC
- HGM-RL23M4TC

Table 1. Performance specifications.

METER	Base Rating	14" WC	1 PSIG	2 PSIG	3 PSIG	5 PSIG	10 PSIG	25 PSIG
RL-2M	2,000	2,034	2,102	2,300	2,400	2,700	3,400	5,400
RL-3M	3,000	3,051	3,154	3,400	3,600	4,000	5,000	8,100
RL-5M	5,000	5,086	5,256	5,700	6,000	6,700	8,400	13,500
RL-7M	7,000	7,120	7,358	8,000	8,400	9,400	11,800	18,900
RL-11M	11,000	11,188	11,563	12,500	13,200	14,700	18,500	29,700
RL-16M	16,000	16,274	16,819	18,200	19,300	21,400	26,900	43,200
RL-23M	23,000	23,393	24,178	26,100	27,700	30,800	38,600	62,000
RL-38M	38,000	38,650	39,946	43,200	45,700	50,900	63,800	102,500
RL-56M	56,000	56,958	58,867	54,000	64,500	75,000	94,000	151,000



APPROVED BY OR CONFORMS TO:
 CANADA MEASUREMENT CANADA LMB-EG-08, AG-0316 AND S-A-01
 USA B109.3 REVISED

M35258

Fig. 3. Typical accuracy curve.
Approved by or conforms to:
Canada: Measurement Canada LMB-EG-08, AG-0316 and S-A-01.
USA: B109.3 revised

Table 2.

	Units	RL-2M	RL-3M	RL-5M	RL-7M	RL-11M	RL-16M	RL-23M	RL-38M	RL-56M
Pipe Size	in.	2	2	3	3	4	4	4	6	8
Base Rating	acfh	2,000	3,000	5,000	7,000	11,000	16,000	23,000	38,000	56,000
Diff. 100% Flow	in w.c.	0.59	0.67	0.74	0.8	0.82	1.42	1.92	3.3	3.6
Net Weight	lbs.	26	27	32	48	60	62	78	155	189

E-MON ROTARY GAS METERS

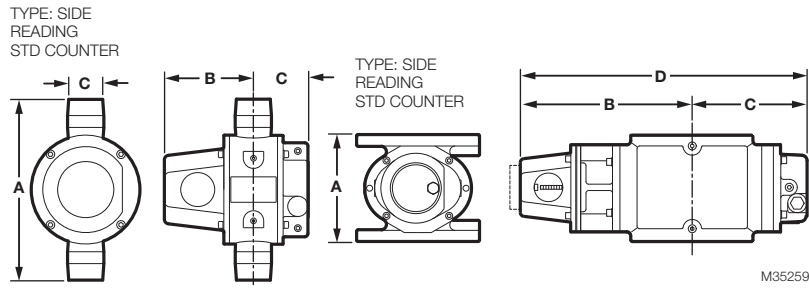


Fig. 4. Standard counter dimensions. Refer to Table 3.

Table 3. Standard counter dimensions. See Fig. 4.

	ANSI 125 FF Flange	A	B	C	D
Units	in.	in.	in.	in.	in.
RL-2M	2	6.75	8.53	4.75	13.28
RL-3M	2	6.75	9.35	5.58	14.93
RL-5M	3	6.75	11.08	7.30	18.38
RL-7M	3	9.5	10.75	6.91	17.66
RL-11M	4	9.5	13.11	9.28	22.39
RL-16M	4	9.5	13.68	9.84	23.52
RL-23M	4	9.5	15.68	11.84	27.52
RL-38M	6	16	14.46	11.37	25.83
RL-56M	6	16	17.96	14.87	32.83

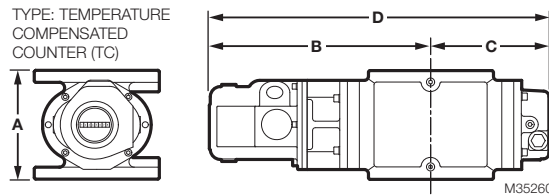


Fig. 5. Temperature compensated dimensions. Refer to Table 4.

Table 4. Temperature compensated dimensions. See Fig. 5.

	ANSI 125 FF Flange	A	B	C	D
Units	in.	in.	in.	in.	in.
RL-3M-TC	2	6.75	11.90	5.58	17.48
RL-5M-TC	3	6.75	13.62	7.30	20.92
RL-7M-TC	3	9.5	13.48	6.91	20.39
RL-11M-TC	4	9.5	15.85	9.28	25.13
RL-16M-TC	4	9.5	16.41	9.84	26.25
RL-23M-TC	4	9.5	18.41	11.84	30.25

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Home and Building Technologies

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