



ROMET™



ECM2®-AT/RM5000
BUTTON-LESS VERSION

OPTIONAL PORTABLE
KEYBOARD

MECHANICAL BACKUP INDEX OPTIONAL
PATENT PENDING

ELECTRONICALLY COMPENSATED METERS

ECM2®-AT

FULL AUDIT-TRAIL

SPECIFICATIONS – ECM2® - AT

Correction

- Temperature
- Pressure
- Live supercompressibility NX-19, SGERG-88 or AGA8
- Low flow compensation (Romet meters only) expands meter rangeability to 200:1

Accuracy

- Total conversion error $\pm 0.5\%$ typical

Temperature

- Flowing gas temperature: -40°F to 122°F -40°C to 50°C
- Standard ambient operating temperature: -40°F to 122°F -40°C to 50°C
- Resolution: 0.2°F (0.11°C)
- One point calibration
- Temperature error: $\pm 0.5^{\circ}\text{F}$ 0.3°C typical; $\pm 0.9^{\circ}\text{F}$ 0.5°C maximum

Pressure

- Measurement in absolute (psia or kPa or bara)
- Display in absolute and gauge (psia and psig)
- Transducer digitally compensated
- Supercompressibility calculated using NX-19, SGERG-88 or AGA8
- Three point calibration
- Standard operating ranges

Imperial	Metric	
10 to 25 psia	90 to 150 kPa	0.9 to 1.5 bar
10 to 50 psia	100 to 250 kPa	1.0 to 2.5 bar
20 to 100 psia	100 to 500 kPa	1.0 to 5.0 bar
40 to 200 psia	250 to 1300 kPa	2.5 to 13.0 bar

- 1/4" NPT female pipe thread connection
- Pressure measurement error: $\pm 0.3\%$ typical; $\pm 0.5\%$ max.

Input Pulses

- High frequency solid state sensor

Output Pulses

- Form "A" opto-isolated solid state 3 outputs + 1 optional
- Corrected volume 1 output + 1 optional
- Uncorrected volume 1 output
- Alarm 1 output
- Operating voltage: 25 VDC Maximum
- Current: 10 mA Maximum
- Standard pulse width: 50 ms with selectable pulse spacing

Security

- Four digit password on menus that can effect metrology
- Sealable internal program switch
- Sealable screws on the enclosure

Alarms

- Low battery
- Pressure or temperature sensor malfunctions
- Computer malfunction
- Pressure under/over range
- Temperature under/over range
- Flow rate under/over range



ROMET Limited

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ROMET and ROMET & DESIGN are registered trademarks of Romet Limited.

Romet Limited's gas metering technology is protected under U.S. Patent No. 4,910,519 and 6,453,721 and Canadian Patent No. 1,293,568.

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Data Storage

- Last hourly corrected and uncorrected volume indexes
- Calibration data
- Set-up parameters
- Malfunctions and alarms along with date and time
- Peak flow value along with date and time
- Peak flow reset date and time
- Pressure max/min date and time
- Temperature max/min date and time
- Flow rate max/min date and time

Audit Trail

- Event logger 200 events
- Alarm logger 101 alarms
- Selectable 40 days of hourly intervals (maximum 21 items) up to 151 days of hourly intervals (minimum 4 items)
- Data exportable to Excel

User Interface

- Displays:
 - parameter value: LCD 7 segment, 8 digit
 - parameter description: LCD Dot Matrix, 16 characters
- Available as button-less with optional portable keyboard or as front face mounted push buttons
- Button-less version provided with scroll button to read Custom Display parameters and any alarms

RS232 Communication

- ECM2-AT-PRO software to take full advantage of RS232 port (Windows based)
- Direct connection or link through modem
- Compatible with third party protocol (Contact Romet for information)

Upgrading Firmware

- Flash memory programmed through connector in the battery compartment

Electrical

- Powered by alkaline battery pack (4D cells) - 4 years normal or sealed lithium battery pack - 8 years normal
- Backup battery to retain data in RAM during main battery exchange
- Circuitry: 3.3V surface mount technology
- Intrinsically safe, rated for Class 1, Div 1, Group D
- CSA LR59221

Mounting

- For Romet and other manufacturers of TC pressure bodies, (Contact Romet for information)
- Option to mount to Romet standard pressure body using an external temperature sensor
- Pressure connected externally
- Horizontal mounting option available on specified models

Physical Characteristics

- Cast aluminum enclosure with plastic windows (UV stabilized)
- Dimensions: 5.25" x 8.56" x 4.06" (133 mm x 218 mm x 103 mm)
- Module weight: 7.20 lb/3.27 kg (AT version)

Note: Backup index option add to dimension C and D for:

- i) RM1000, RM1500/RM30, RM40 +0.93", 24 mm
- ii) RM2000 to RM5000/RM55 to RM140 +0.56", 14 mm
- iii) RM7000 to RM23000/RM200 to RM650 +0.68", 17 mm
- iv) G16, G25 +24 mm
- v) G40 to G100 +14 mm
- vi) G160 to G400 +17 mm

For meter dimensions, refer to ECM2-PTZ in literature
"ELECTRONICALLY COMPENSATED ROTARY METERS,
ECM2®-PTZ/ECM2®"

1080 Matheson Boulevard East, Mississauga, Ontario, Canada L4W 2V2

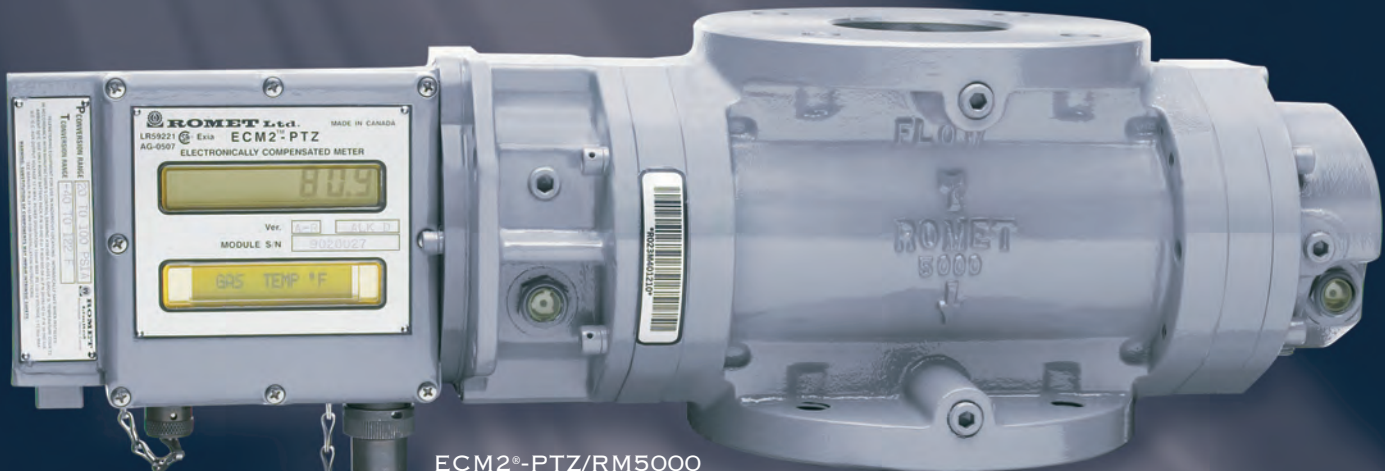
Phone: (905) 624-1591 Toll Free Phone (U.S.A. only): (800) 387-3201

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Websites: www.rometlimited.com and www.rometinternational.com



ROMET™



ECM2®-PTZ/RM5000
BUTTON-LESS VERSION



OPTIONAL
PORTABLE KEYBOARD



ECM2®/RM3000
WITH FRONT FACE MOUNTED
PUSH BUTTONS



MECHANICAL BACKUP
INDEX OPTIONAL
PATENT PENDING

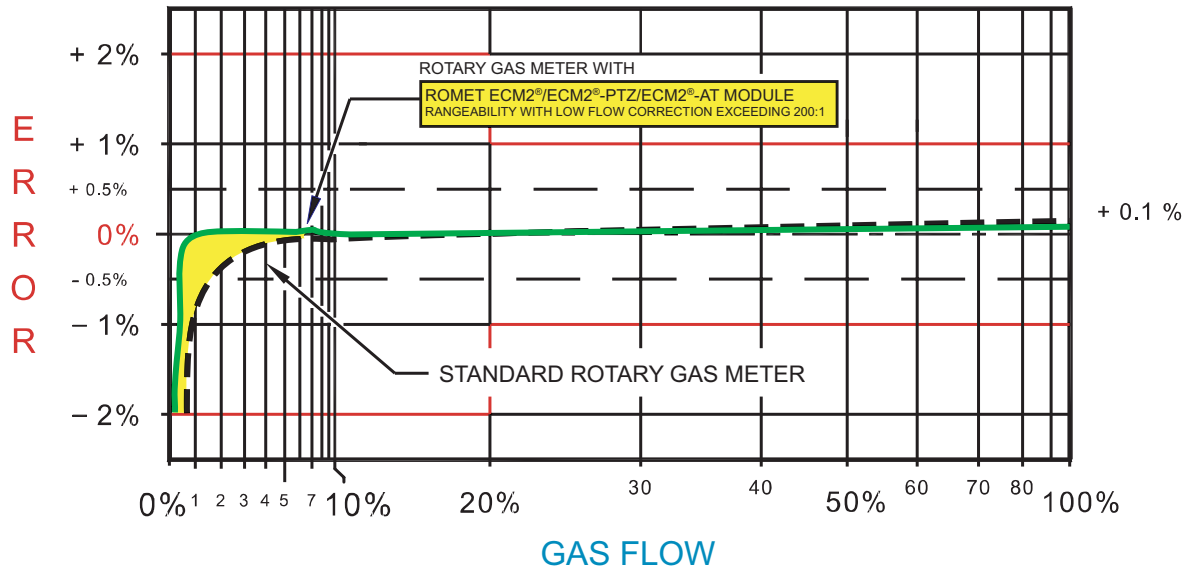
ELECTRONICALLY COMPENSATED METERS

ECM2®-PTZ/ECM2®

DELIVERING A MEASURABLE DIFFERENCE

- **Rangeability exceeds 200:1** with less than 1% error with low flow feature
- **Pilot flow rates** as low as 0.8 cfh (0.02m³/h) can be measured
- **Live T or PTZ conversion** with errors of less than 0.2% (T version) and 0.5% (PTZ version)
- **Live supercompressibility calculation** employing NX-19 (PTZ version)

ROTARY GAS METER ACCURACY CURVES



PROTECTING THE INTEGRITY OF YOUR GAS REGISTRATION

- **All key data is protected in the event of a power loss**
 - Last hourly unconverted and converted indexes along with the date and time
 - Set-up configuration of all parameters
 - Calibration data
 - Access password
 - Peak flow rate, including date and time of occurrence
 - Alarms, including activation date and time
- **Unauthorized access is prevented** by a combination of a password, sealable program switch and seal screws on the enclosure
- **Battery monitoring program** provides an advanced low battery alarm
- **System status is monitored** and an alarm activated in the event of a malfunction

UNIVERSAL SOLUTION TO YOUR GAS MEASUREMENT REQUIREMENTS

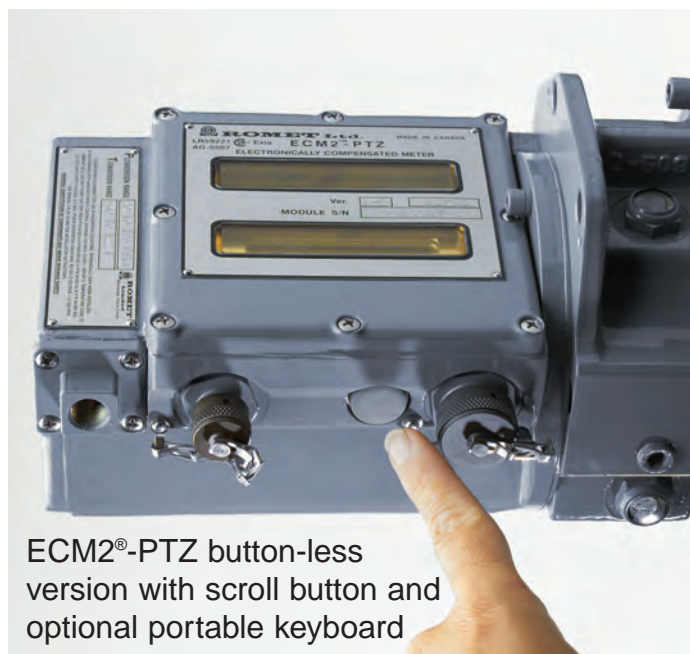
- **Adapts to all Romet meters, plus other selected manufacturers, such as the LMMA series.**
- **Reduces inventories**
- **Upgrade mechanical TC modules**
- **Universal mounting system** allows the module to be positioned vertically for both vertical and horizontal meter installations



ECM2® with front face mounted push buttons

USER FRIENDLY

- **Easy calibration** with one test point for temperature (T & PTZ versions) and three test points for pressure (PTZ version)
- **Large, easy to read dual display** eliminates the need for confusing parameter codes by displaying numeric value along with the associated description
- **Live flow rate** is displayed at the touch of a button, eliminating manual “clocking” of the meter
- **Quick access to key parameters, live flow rate and any activated alarms** has been made easy by using a single scroll button
- **Peak flow rate monitoring** provides a check that the meter is correctly sized
- **Upload key parameter values quickly** to a PC using the ECM2® software (PTZ version with external communication box option, for shop use only)
- **Reliable interface to AMR** provided by three programmable solid state pulse outputs (converted, unconverted and alarm)
- **Proving test times reduced by 90%** when verifying meter body accuracy
- **TC conversion accuracy performed in as little as 30 seconds** with the TC Test Mode
- **Large selection of parameters** stored in a non-volatile EEPROM memory



- **Optional Portable Keyboard** offers a convenient alternative to front face push buttons
- **Upgrading of the firmware program** can be downloaded quickly and conveniently to flash memory using a PC (PTZ version)



PERFORMANCE DATA – ECM2® - PTZ/ECM2®

Accuracy

- Temperature conversion error typically less than $\pm 0.2\%$
- Combined PTZ conversion error typically less than $\pm 0.5\%$
- Calculation error less than 0.01%

Temperature

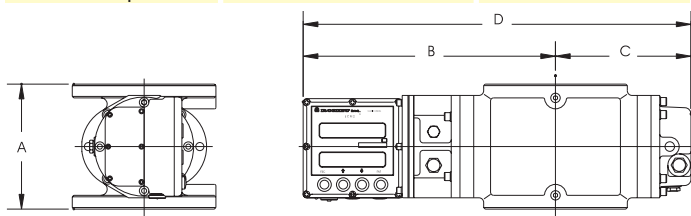
- Measurement error typically less than $\pm 0.5^\circ\text{F}/0.3^\circ\text{C}$
- Ambient operating range: -40°F to 122°F (-40°C to 50°C)
Higher temperature ranges available on request
- Conversion range: -40°F to 122°F (-40°C to 50°C)
- Resolution: $0.2^\circ\text{F}/0.11^\circ\text{C}$

Pressure (PTZ only)

- Absolute pressure measurement
- Displayed in both absolute and gauge units
- Digitally compensated
- $1/4"$ NPT female thread connection

Pressure ranges ECM2®-AT

Imperial	Metric	
10 to 25 psia	90 to 150 kPa	0.9 to 1.5 bar
10 to 50 psia	100 to 250 kPa	1.0 to 2.5 bar
20 to 100 psia	100 to 500 kPa	1.0 to 5.0 bar
40 to 200 psia	250 to 1300 kPa	2.5 to 13.0 bar



Electronics

- Alkaline batteries (typically 3 years life - T version) (typically 4 years life - PTZ version) or lithium battery pack (typically 6 years life - T version) (typically 8 years life - PTZ version)
- Backup battery for data retention of RAM memory during a main battery replacement (PTZ only)
- Super-capacitor to power the clock during a main battery exchange
- Circuitry: 3.3V surface mount technology
- Intrinsically safe rating: Class 1: Div. 1; Group D
CSA LR 59221; UL 29R1.

Input

- High frequency solid state sensor

Pulse output

- Unconverted, converted and alarm
- Opto-isolated, form "A" (25VDC Maximum, 10 mA Maximum)
- Pulse width of 50 ms with selectable "off" time
- Multipliers - Imperial: x10cf, x100cf, x1000cf, x10000cf
Metric: x0.1m³, x1m³, x10m³, x100m³

Physical characteristics

- Module weight: 5.30 lb/2.40 kg (T version)
7.20 lb/3.27 kg (PTZ version)

Note: Backup index option add to dimension C and D for:

- i) RM1000, RM1500/RM30, RM40 +0.93", 24 mm
- ii) RM2000 to RM5000/RM55 to RM140 +0.56", 14 mm
- iii) RM7000 to RM23000/RM200 to RM650 +0.68", 17 mm
- iv) G16, G25 +24 mm
- v) G40 to G100 +14 mm
- vi) G160 to G400 +17 mm

ROMET METER SIZE	A (inches)	B* (inches)	C (inches)	D* (inches)	ANSI 125/150 F.F. flange dimensions***	WEIGHT** (lbs.)
RM1000 / RM30	6.75	9.89	3.28	13.17	2"	16.5
RM1500 / RM40	6.75	10.26	3.65	13.91	2"	19.2
RM2000 / RM55	6.75	10.89	4.95	15.84	2"	23.6
RM3000 / RM85	6.75	11.71	5.78	17.49	2"	24.2
RM5000 / RM140	6.75	13.44	7.50	20.94	3"	29.8
RM7000 / RM200	9.50	13.10	7.08	20.18	3"	47.1
RM11000 / RM300	9.50	15.47	9.45	24.92	4"	57.7
RM16000 / RM450	9.50	16.04	10.01	26.05	4"	65.6
RM23000 / RM650	9.50	18.04	12.01	30.05	4"	73.0
RM25000 / RM700	16.00	14.38	8.76	23.14	6"	126.0
RM38000 / RM1100	16.00	16.82	11.20	28.02	6"	158.0

ROMET METER SIZE	A (mm)	B* (mm)	C (mm)	D* (mm)	DIN FLANGE (mm)	ANSI 125/150 F.F. flange dimensions***	WEIGHT** (kg)
G16	171	251	83	334	40	2"	7.5
G25	171	261	93	353	40	2"	8.7
G40	171	281	131	412	40 or 50	2"	11.0
G65	171	307	156	463	50	2"	12.0
G100	171	356	206	562	80	3"	14.7
G160	241	359	206	565	80 or 100	3"	23.8
G250	241	407	254	661	100	4"	29.8
G400	241	458	305	763	100	4"	33.1
G400-150	406	365	223	588	150	6"	57.0
G650	406	427	284	712	150	6"	72.0

* Add 1.50" (38 mm) to dimensions B and D for ECM2®-PTZ, ECM2®-AT.

** Add 1.90 lb / 0.87 kg to weight for ECM2®-PTZ, ECM2®-AT.

*** Noted that the maximum operating pressure (MAOP) is 175 psig/12 bar/1206 kPa. For higher pressure ratings contact Romet.



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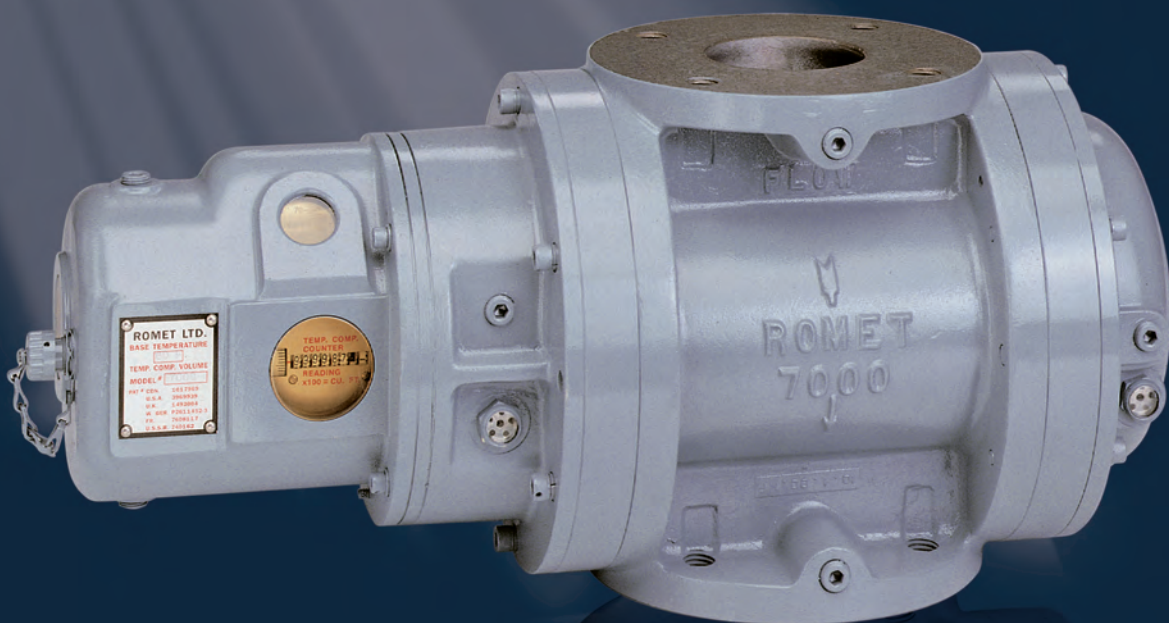
Romet Limited's gas metering technology is protected under U.S. Patent No. 4,910,519 and 6,453,721 and Canadian Patent No. 1,293,568.

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ROMET™



RM7000 TC
WITH INTERNAL PULSER

ROTARY GAS METERS
RM IMPERIAL SERIES

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.

A remote instrument (e.g. Romet EVC2®B) or automatic meter reading (AMR) device may be connected to the meter with the addition of an optional internal or external pulser assembly. The equivalent instrument drive module (STD ID or DCID) can be retrofitted to a STD CTR meter body.

STANDARD INSTRUMENT DRIVE (STD ID) - DCID OPTIONAL

STD ID / DCID meters measure the non-compensated, displaced gas volume in actual cubic feet (cf). The meter module produces a specific displaced volume with each rotation of the instrument drive. The instrument drive platform accommodates most electronic (e.g. Romet EVC2®B) and mechanical instruments. The instrument drive module can be rotated in 90° increments to facilitate the mounting of the meter in any orientation.

DCID - Option

The **D**igital **C**ounter **I**nstrument **D**rive meter offers the convenience of a meter module with an end reading counter to register the non-compensated volume.

TEMPERATURE COMPENSATED COUNTER (TC) - TCID OPTIONAL

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°F to +122°F, with a typical error of less than 0.5%.

TCID - Option

The **T**emperature **C**ompensated **I**nstrument **D**rive produces a specific compensated volume with each rotation of the instrument drive. The instrument drive platform accommodates most electronic (e.g. Romet EVC2®B) and mechanical instruments.

ROMET ADVANTAGE

Romet Limited has been manufacturing high quality performance rotary gas meters for over twenty-five years. Our modern, vertically integrated plant provides for virtually all in-house manufacturing, allowing our meters to be produced to very high quality specifications. This includes state-of-the-art CNC

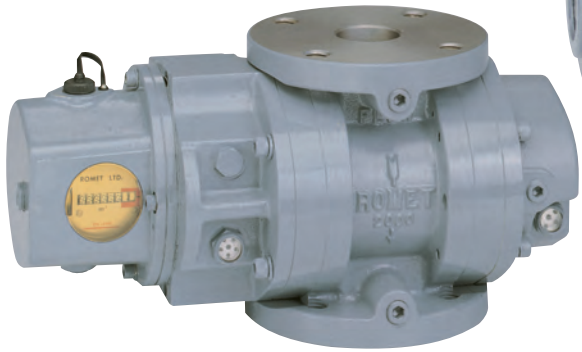
machining, plastic injection molding, computerized anodizing, extensive R & D and engineering facilities. Romet rotary meters deliver an excellent combination of accuracy and rangeability to generate the optimum in gas registration. Our unique designs provide reliable long-term service with features such as:

- **Metal gears** to provide reliable, "install and forget" confidence in your cash register.
- **Pinned timing gear to impeller construction** permanently locks the meter Accuracy, preventing the shifting of the impeller timing due to sudden load demands or contaminants passing through the meter.
- **Simple internal construction** makes servicing quick and easy. Romet meters have as much as 30% fewer parts than the competition.
- **Common parts** throughout the family of meter sizes minimizes the inventory of spare parts.
- **Rugged, aluminum and steel** design delivers long reliable service.
- **5 Year Warranty on parts and labour** is the best in the gas industry.

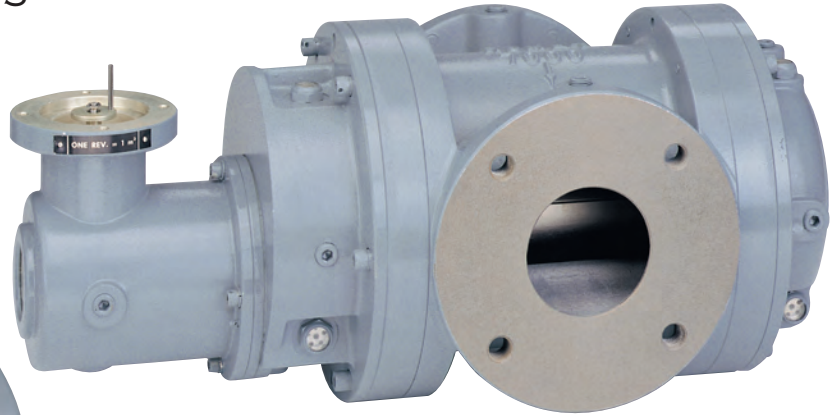
Our extensive expertise within the international gas industry and the ability to work with our customers has made Romet the leader in rotary meter technology.

ROTARY GAS METERS - *RM IMPERIAL SERIES*

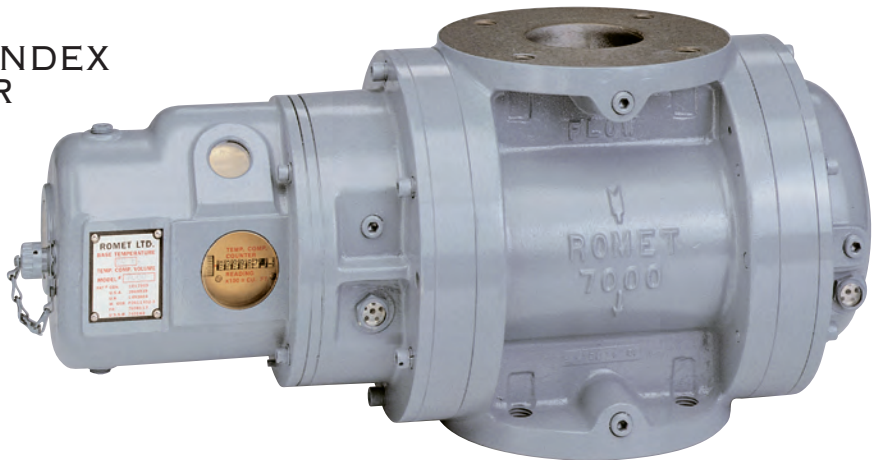
VARIOUS GAS METER TYPES



RM2000 STD CTR SIDE INDEX
WITH INTERNAL PULSER



RM7000 DCID



RM7000 TC
WITH INTERNAL PULSER



RM1000 STD CTR SIDE INDEX

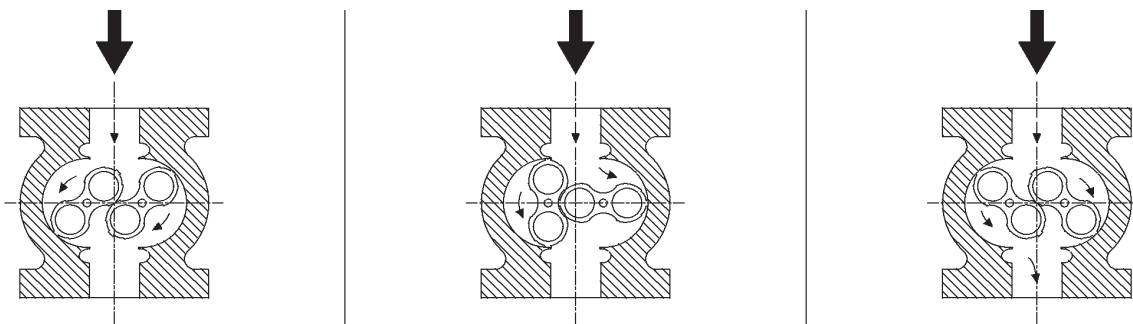


RM5000 TCID

PRINCIPLE OF OPERATION

Gas entering the inlet of the meter produces a differential pressure within the meter chamber, which causes the impellers to rotate. 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.

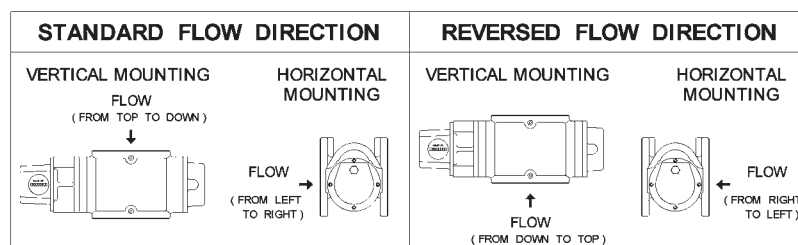


MATERIAL SPECIFICATIONS

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

TECHNICAL DATA

Meter Type:	Rotary Positive Displacement Gas Meter.
Application:	Natural gas and other non-corrosive gases on request.
Installation:	



Operating temperature:	-40°F to +122°F
Counter:	Up to 8-digit counter (with various numerical configurations on request)
Flat face flange connections:	ANSI 150
Output Pulse Connectors:	"Binder" or "Cannon" 6 pin Female (other connectors on request)
Instrument Drive:	Various platforms are available to accommodate most instrument manufacturers
Options:	L.F. (low frequency) pulser H.F. (high frequency) pulser Reverse flow modification Stainless steel bearings, timing gears and/or external hardware
Optional Accessories:	Meter oil Screen Tees Pressure access plugs for differential testing and/or oil replacement Service tool kit

PERFORMANCE SPECIFICATIONS

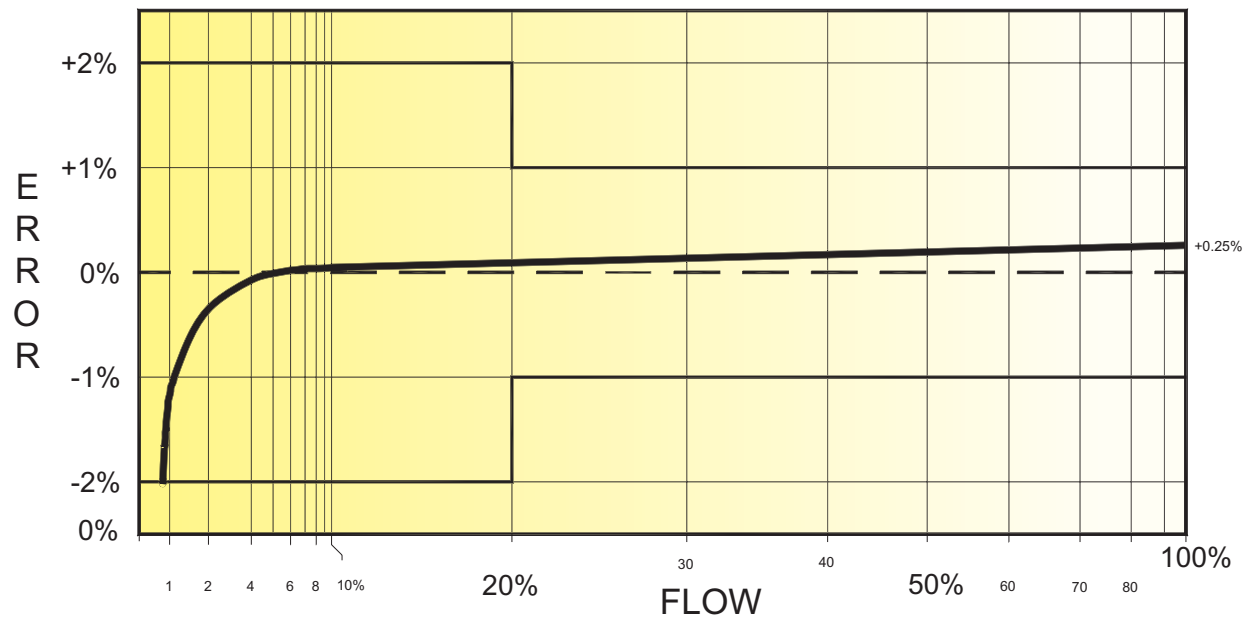
	RM1000	RM1500	RM2000	RM3000	RM5000	RM7000	RM11000	RM16000	RM23000
MAOP (psig)	175	175	175	175	175	175	175	175	175
Q _{MAX} (cfh)	1000	1500	2000	3000	5000	7000	11000	16000	23000
Differential Pressure @ Q _{MAX} (I.W.C.)*	0.46	0.53	0.59	0.67	0.74	0.80	0.82	1.42	1.92
Typical Start Flow (cfh)	0.9	1.0	3.7	3.8	4.0	4.8	4.9	5.1	5.9
Counter Resolution (cf)	1	1	1	1	1	1	1	10	10
Instrument Drive Rate (cf/revolution)	10	10	10/100	10/100	10/100	10/100	10/100	100	100
L.F. Pulse Resolution (cf/pulse)	10	10	10	10	10	10	10	100	100
H.F. Pulse Frequency (pulse/cf)	1254	900	653	450	272	163	101	92	71

*Differential Pressure values based on natural gas at 7" I.W.C.

For **RM38000** meter size refer to literature: "ROTARY GAS METERS, **RM38000**•RM1100•G650".

For **RM25000** meter size refer to literature: "ROTARY GAS METERS, **RM25000**•RM700•G400-150".

Also available in RM metric.



ROMET METER TYPICAL ACCURACY CURVE

The rangeability of Romet meters meets or exceeds international standards

Approved by or conforms to:

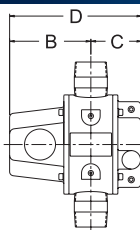
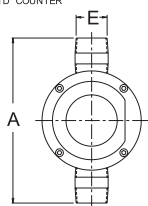
Canada
USA

Measurement Canada LMB-EG-08, AG-0316 and S-A-01.
B109.3 revised

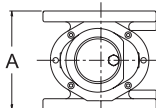


DIMENSIONS AND WEIGHTS

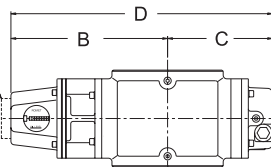
TYPE: SIDE READING
STD COUNTER



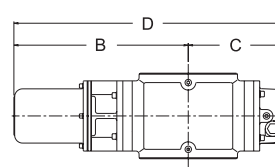
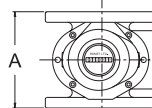
TYPE: SIDE READING
STD COUNTER



①



TYPE: END READING
STD COUNTER



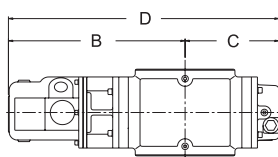
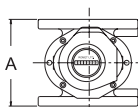
STANDARD COUNTER (STD CTR)

METER SIZE	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	WEIGHT (lbs)	ANSI 125/150 F.F. flange dimensions*	A (inches)	B (inches)	C (inches)	D (inches)	A (inches)	B (inches)	C (inches)	D (inches)	WEIGHT (lbs)
RM1000	10.50	5.01	3.08	8.09	1.5 NPT	12.0	2"	6.75	5.01	3.08	8.09	N/A	N/A	N/A	N/A	15.0
RM1500	10.50	5.39	3.44	8.83	1.5 NPT	13.0	2"	6.75	5.39	3.44	8.83	N/A	N/A	N/A	N/A	16.0
RM2000	N/A	N/A	N/A	N/A	N/A	N/A	2"	6.75	8.53	4.75	13.28	6.75	9.95	4.75	14.70	26.0
RM3000	N/A	N/A	N/A	N/A	N/A	N/A	2"	6.75	9.35	5.58	14.93	6.75	10.78	5.58	16.36	27.0
RM5000	N/A	N/A	N/A	N/A	N/A	N/A	3"	6.75	11.08	7.30	18.38	6.75	12.50	7.30	19.80	32.0
RM7000	N/A	N/A	N/A	N/A	N/A	N/A	3"	9.50	10.75	6.91	17.66	9.50	12.17	6.91	19.08	48.0
RM11000	N/A	N/A	N/A	N/A	N/A	N/A	4"	9.50	13.11	9.28	22.39	9.50	14.53	9.28	23.81	60.0
RM16000	N/A	N/A	N/A	N/A	N/A	N/A	4"	9.50	13.68	9.84	23.52	9.50	15.10	9.84	24.94	62.0
RM23000	N/A	N/A	N/A	N/A	N/A	N/A	4"	9.50	15.68	11.84	27.52	9.50	17.10	11.34	28.94	78.0

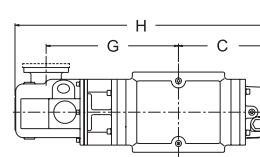
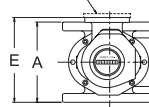
NOTE 1: ADD 1.12" TO DIMENSION D FOR THE ADDITION OF AN EXTERNAL PULSER (ONLY AVAILABLE ON SIDE READING COUNTER METERS)

*Noted that the maximum operating pressure (MAOP) is 175 psig. For higher pressure ratings, contact Romet.

TYPE: TEMPERATURE
COMPENSATED COUNTER
(TC)



TYPE: TEMPERATURE
COMPENSATED INSTRUMENT
DRIVE (TCID)

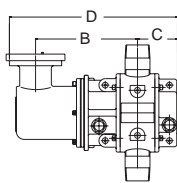
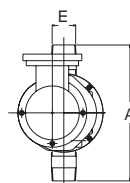


TEMPERATURE COMPENSATED (TC)

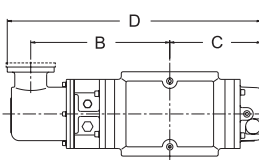
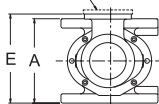
TEMPERATURE COMPENSATED INSTRUMENT DRIVE (TCID)

METER SIZE	A (inches)	B (inches)	C (inches)	D (inches)	WEIGHT (lbs)	ANSI 125/150 F.F. flange dimensions*	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	WEIGHT (lbs)
RM2000	6.75	11.07	4.75	15.82	29.0	2"	6.75	8.08	4.75	15.88	7.37	33.0
RM3000	6.75	11.90	5.58	17.48	31.0	2"	6.75	8.90	5.58	17.53	7.37	36.0
RM5000	6.75	13.62	7.30	20.92	34.0	3"	6.75	10.63	7.30	20.98	7.37	40.0
RM7000	9.50	13.48	6.91	20.39	54.0	3"	9.50	10.27	6.91	20.45	9.37	55.0
RM11000	9.50	15.85	9.28	25.13	64.0	4"	9.50	12.64	9.28	25.19	9.37	66.0
RM16000	9.50	16.41	9.84	26.25	69.0	4"	9.50	13.20	9.84	26.31	9.37	70.0
RM23000	9.50	18.41	11.84	30.25	84.0	4"	9.50	15.20	11.84	30.31	9.37	84.0

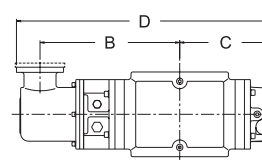
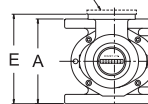
NOTE 2: ADD 0.50" TO DIMENSION E FOR THE ADDITION OF A PLATFORM *Noted that the maximum operating pressure (MAOP) is 175 psig. For higher pressure ratings, contact Romet.



TYPE: STANDARD
INSTRUMENT DRIVE
(STD ID)



TYPE: DIGITAL COUNTER
INSTRUMENT DRIVE
(DCID)



STANDARD INSTRUMENT DRIVE (STD ID) & DIGITAL COUNTER INSTRUMENT DRIVE (DCID)

METER SIZE	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	WEIGHT (lbs)	ANSI 125/150 F.F. flange dimensions*	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	WEIGHT (lbs)
RM1000	10.50	7.80	3.08	12.86	1.5 NPT	15.0	2"	6.75	7.80	3.08	12.86	7.37	6.75	7.80	3.08	12.86	7.37	15.0
RM1500	10.50	8.16	3.44	13.60	1.5 NPT	16.0	2"	6.75	8.16	3.44	13.60	7.37	6.75	8.16	3.44	13.60	7.37	16.0
RM2000	N/A	N/A	N/A	N/A	N/A	N/A	2"	6.75	8.79	4.75	15.54	7.37	6.75	8.79	4.75	15.54	7.37	26.0
RM3000	N/A	N/A	N/A	N/A	N/A	N/A	2"	6.75	9.61	5.58	17.19	7.37	6.75	9.61	5.58	17.19	7.37	27.0
RM5000	N/A	N/A	N/A	N/A	N/A	N/A	3"	6.75	11.34	7.30	20.64	7.37	6.75	11.34	7.30	20.64	7.37	32.0
RM7000	N/A	N/A	N/A	N/A	N/A	N/A	3"	9.50	11.01	6.91	19.92	8.75	9.50	11.01	6.91	19.92	8.75	48.0
RM11000	N/A	N/A	N/A	N/A	N/A	N/A	4"	9.50	13.38	9.28	24.66	8.75	9.50	13.38	9.28	24.66	8.75	56.0
RM16000	N/A	N/A	N/A	N/A	N/A	N/A	4"	9.50	13.94	9.84	25.78	8.75	9.50	13.94	9.84	25.78	8.75	68.0
RM23000	N/A	N/A	N/A	N/A	N/A	N/A	4"	9.50	15.94	11.84	29.78	8.75	9.50	15.94	11.84	29.78	8.75	74.0

NOTE 2: ADD 0.50" TO DIMENSION E FOR THE ADDITION OF A PLATFORM

*Noted that the maximum operating pressure (MAOP) is 175 psig. For higher pressure ratings, contact Romet.

Note: Backup index option add to dimension C and D for:

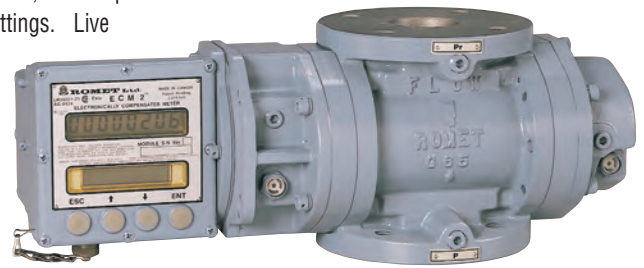
- i) RM1000, RM1500 +0.93"
- ii) RM2000 to RM5000 +0.56"
- iii) RM7000 to RM23000 +0.68"

ECM2® - LATEST INNOVATION IN ELECTRONIC COMPENSATION

The ECM2®/PTZ/AT (Electronically Compensated Meter) series sets a new standard in gas measurement. The universal module adapts to all Romet rotary meter sizes from the RM1000 to RM38000. Meter rangeability has been extended to over 200:1 with an error of less than $\pm 1\%$. Since the drag of a mechanical counter module has been eliminated, very low start flows (as low as 0.9 cfh) are achieved. The user-friendly menus can be easily scrolled with the convenient dual LCDs that show both the parameter description and value. The rugged front face mounted push buttons (or button-less version with scroll button

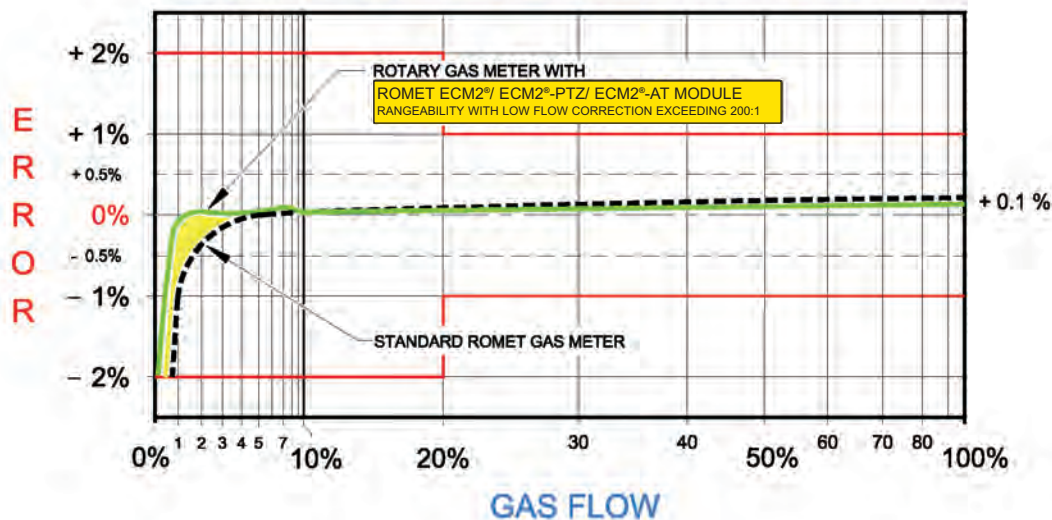
and optional portable keyboard) ensure reliable, quick access to this information. Measurement integrity is protected in the event of a power loss by a non-volatile EEPROM memory that stores the last hourly volumetric indexes, set-up configuration and calibration or settings. Live flow rates to “clock” the meter and peak flow rates to check meter sizing are just a few of the features found in the ECM2/PTZ/AT units. The ECM2 has a programmable fixed pressure factor for PFM applications while the ECM2-PTZ and ECM2-AT

have live pressure factors along with supercompressibility factors. The ECM2-AT has communication and full Audit Trail compatibilities.



ECM2® WITH FRONT FACE MOUNTED PUSH BUTTONS

ROTARY GAS METER ACCURACY CURVES



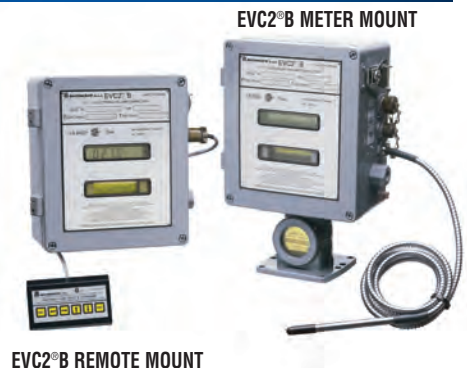
ECM2®/PTZ/AT TYPICAL ACCURACY CURVE

For ECM2® and ECM2®-PTZ refer to literature: “ELECTRONICALLY COMPENSATED METERS, ECM2®-PTZ/ECM2®”.
For ECM2®-AT refer to literature: “ELECTRONICALLY COMPENSATED METERS, ECM2®-AT, FULL AUDIT TRAIL”.

EVC2®B - THE VANGUARD IN ELECTRONIC

The Romet EVC2®B delivers exceptional accuracy and reliability in electronic volume compensation using the latest in low voltage, microprocessor electronics. The user-friendly menus can be scrolled using the inside front keypad or with a computer using the optional serial port. The dual LCD provides both the parameter description and the corresponding value, eliminating the use of codes and making user access quick and easy. A separate battery compartment within the

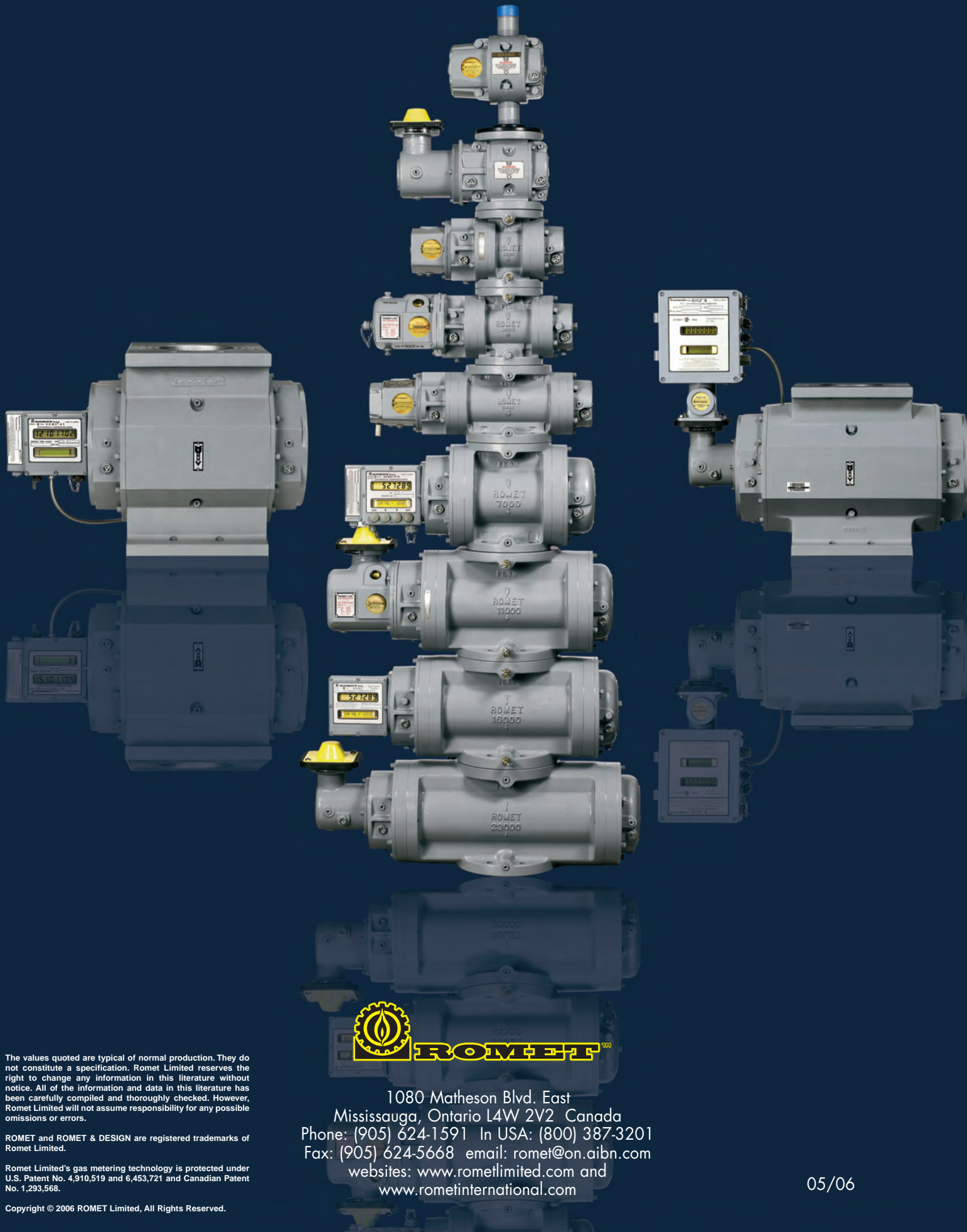
EVC2B enclosure permits the replacement of the battery without the necessity of entering the main enclosure for the electronics. The EVC2B security is protected by a combination of access codes and a sealable access door. The meter mount model mates to the standard instrument drive found on most rotary, turbine and larger diaphragm meters. The remote model allows for installations up to 350 feet from the meter.



EVC2®B METER MOUNT

EVC2®B REMOTE MOUNT

For EVC2®B refer to literature: “ELECTRONIC VOLUME CORRECTOR, EVC2®B”.



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MODULE WITH METER
MOUNT VERSION
EVC2®B CORRECTOR

FEATURING ECM2®-AT
MODULE WITH REMOTE
TEMPERATURE PROBE,
LIVE PRESSURE AND
FULL AUDIT TRAIL

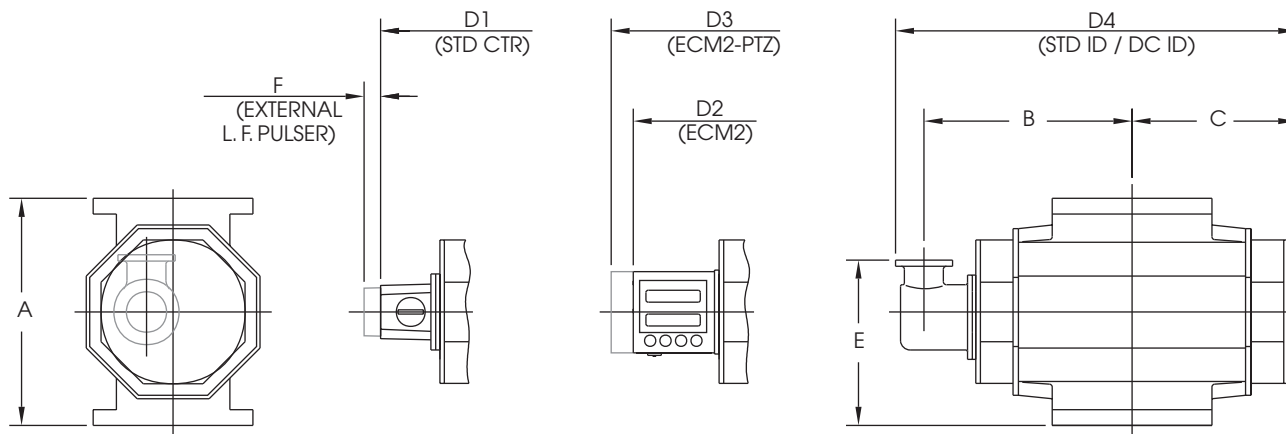


ROTARY GAS METERS
RM25000 • RM700 • G400-150

TECHNICAL SPECIFICATIONS

	RM25000 IMPERIAL	RM700 & G400-150 METRIC
MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP)	175 psig	1206 kPa (12 bar)
FLOW CAPACITY	25,000 acfh	700 m ³ /h
RANGEABILITY @ ± 1% ERROR	120:1	120:1
RANGEABILITY @ ± 2% ERROR	300:1	300:1
Q _{MIN} @ ± 1% ERROR	200 acfh	5.8 m ³ /h
Q _{MIN} @ ± 2% ERROR	83 acfh	2.3 m ³ /h
START FLOW RATE	8 acfh	0.22m ³ /h
DIFFERENTIAL @ START FLOW RATE	0.05 IWC	12 Pa (0.12mbar)
COUNTER RESOLUTION	10 cf	0.1m ³
INSTRUMENT DRIVE RATE	100 cf/rev	1.0m ³ /rev
LF PULSER (optional on STD CTR version)	100cf / pulse	1.0m ³ / pulse
WEIGHT	126 lbs	57.0kg
FLANGE SIZE	RM25000 & RM700	6" ANSI 125/150 F.F. flange dimension
	G400-150	PN16 150mm

*For other sizes, refer to Rotary Gas Meters RM Imperial and G Metric literature.



METER MODEL	A	B	C	D1	D2	D3	D4	E	F
RM25000	16.00"	12.28"	8.76"	20.62"	23.14"	24.64"	23.04"	12.00"	1.25"
G400-150 & RM700	406mm	312mm	223mm	524mm	588mm	626mm	585mm	305mm	32mm



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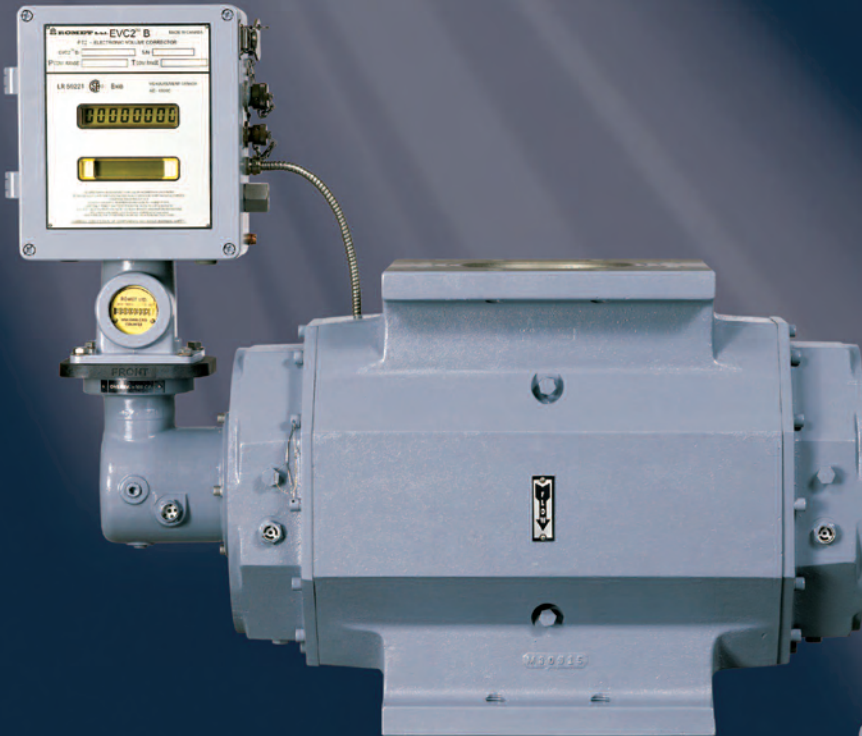
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ROMET™



FEATURING STD ID MODULE
WITH METER MOUNT VERSION
EVC2®B CORRECTOR

FEATURING ECM2®-PTZ
MODULE WITH REMOTE
TEMPERATURE PROBE AND
LIVE PRESSURE



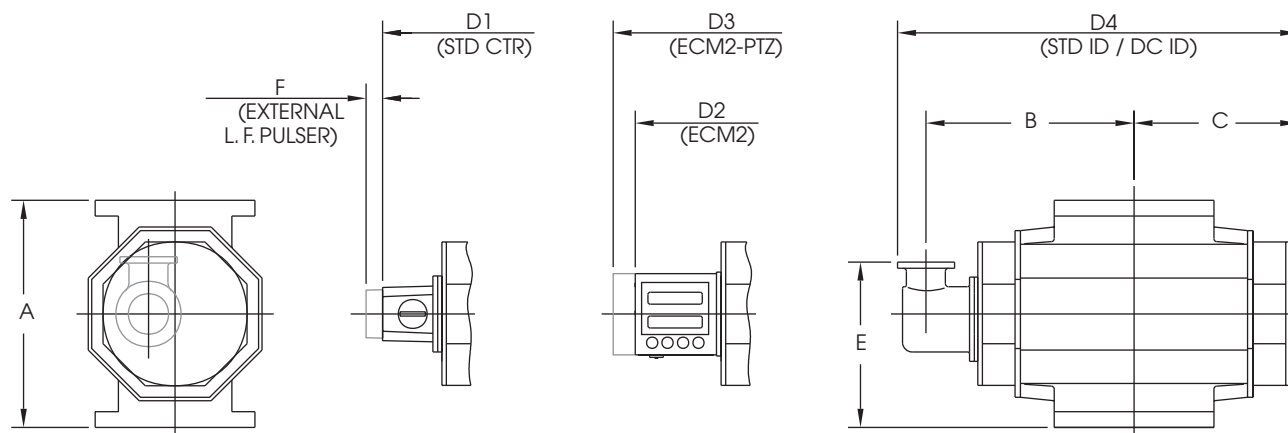
ROTARY GAS METERS

RM38000 • RM1100 • G650

TECHNICAL SPECIFICATIONS

	RM38000 IMPERIAL	RM1100 & G650 METRIC
MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP)	175 psig	1206 kPa (12 bar)
FLOW CAPACITY	38,000 acfh	1100 m ³ /h
RANGEABILITY @ ± 1% ERROR	150:1	150:1
RANGEABILITY @ ± 2% ERROR	300:1	300:1
Q _{MIN} @ ± 1% ERROR	253 acfh	7.3 m ³ /h
Q _{MIN} @ ± 2% ERROR	105 acfh	3.0 m ³ /h
START FLOW RATE	9.5 acfh	0.27m ³ /h
DIFFERENTIAL @ START FLOW RATE	0.06 IWC	15 Pa (0.15mbar)
COUNTER RESOLUTION	10 cf	0.1m ³
INSTRUMENT DRIVE RATE	100 cf/rev	1.0m ³ /rev
LF PULSER (optional on STD CTR version)	100cf / pulse	1.0m ³ / pulse
WEIGHT	155 lbs	70kg
FLANGE SIZE	RM38000 & RM1100	6" ANSI 125/150 F.F. flange dimension
	G650	PN16 150mm

*For other sizes, refer to Rotary Gas Meters RM Imperial and G Metric Series literature.



METER MODEL	A	B	C	D1	D2	D3	D4	E	F
RM38000	16.00"	14.72"	11.20"	25.50"	28.02"	29.52"	27.92"	12.00"	1.25"
G650 & RM1100	406mm	374mm	284mm	648mm	712mm	750mm	709mm	305mm	32mm



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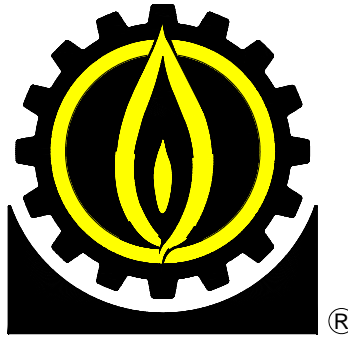
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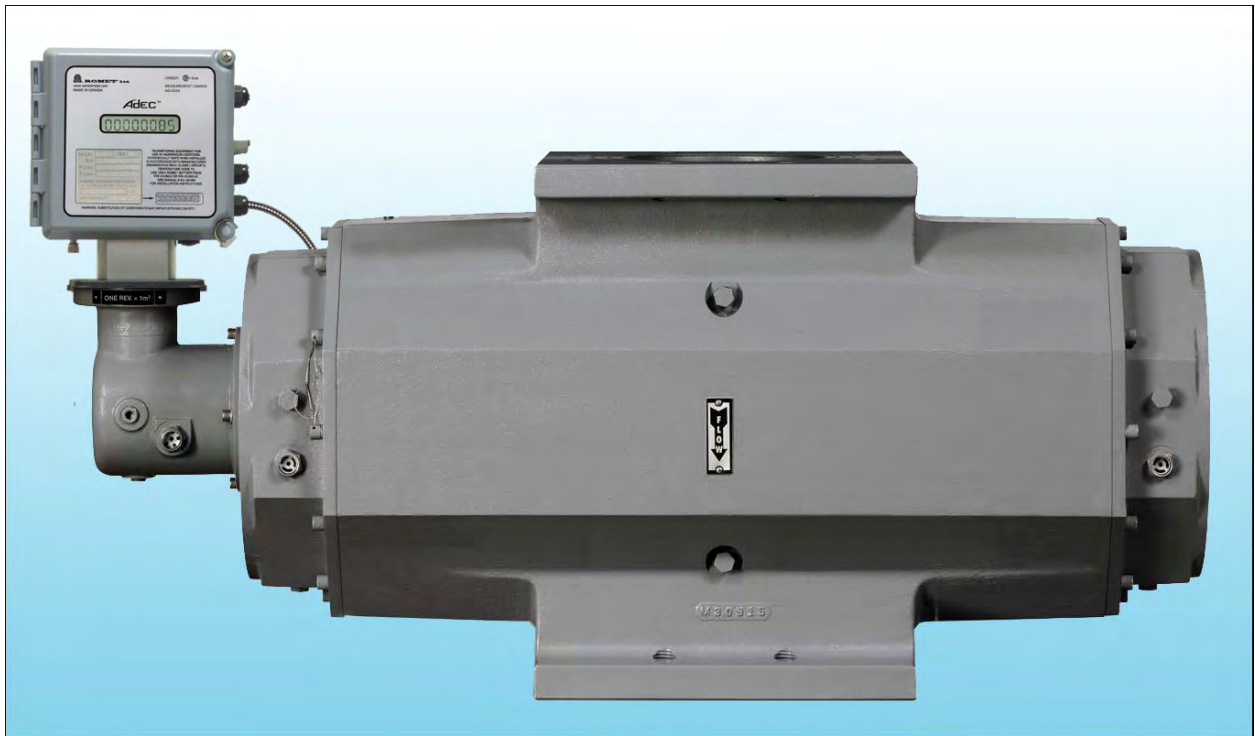
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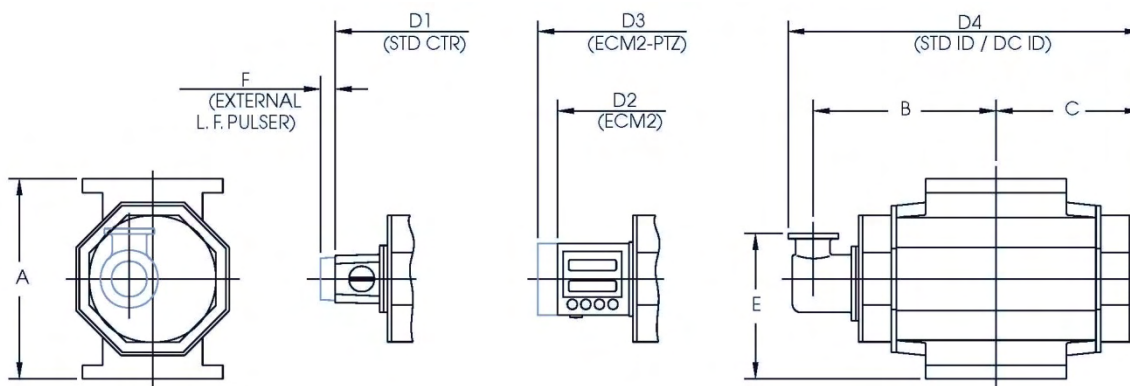
ROTARY GAS METERS

RM56000 . RM1600 . G1000

TECHNICAL SPECIFICATIONS

Meter Size	RM56000 Imperial	RM1600 & G1000 Metric
MAOP	175 psig	12 bar
Flow Capacity	56000 acfh	1600 m ³ /h
Rangeability @ ±1% Error	120:1	120:1
Rangeability @ ±2% Error	200:1	200:1
Qmin @ ±1% Error	467 acfh	13.2 m ³ /h
Qmin @ ±2% Error	280 acfh	8.0 m ³ /h
Start Flow Rate	26 acfh	0.74 m ³ /h
Differential @ Start Flow Rate	0.05 IWC	12.5 Pa (0.12 mbar)
Counter Resolution	10 cf	0.1 m ³
Instrument Drive Rate	100 cf/rev	1.0 m ³ /rev
LF Pulser (Optional on STD CTR Version)	100 cf/pulse	1.0 m ³ /pulse
Weight	189 lbs	86 kg
Flange Size	RM56000 & RM1600: 6" ANSI 125/150 F.F. G1000: PN16 150 mm	

*For other sizes, refer to Rotary Gas Meters RM Imperial and G Metric Series literature.



Meter Model	A	B	C	D1	D2	D3	D4	E	F
RM56000	16.00"	18.22"	14.70"	29.00"	31.50"	33.02"	34.92"	12.00"	1.25"
G1000 & RM1600	406 mm	463 mm	373 mm	737 mm	800 mm	839 mm	887 mm	305 mm	32 mm

Note: Add 0.37" (9.4 mm) to dimension C, D2 and D3 for backup index option.

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