

## STANDARD DIGITAL COUNTER (STD CTR)

STD CTR meters register the non-compensated, displaced gas volume in actual cubic feet (cfh). 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  $EVC2^{TM}$ ) 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 (cfh). 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 $^{\text{TM}}$ ) 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 Digital Counter Instrument Drive 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 (cfh) 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 Temperature Compensated Instrument Drive produces a specific compensated volume with each rotation of the instrument drive. The instrument drive platform accommodates most electronic (e.g. Romet EVC2™) 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 inhouse 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

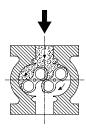
Our extensive expertise within the international gas industry and the ability to work with our customers has made Romet the leader in rotary meter technology.

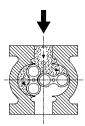


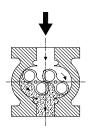
### PRINCIPLE OF OPERATION

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 (m³) by means of a precision gear train. The volume is, in turn, registered on a digital counter.







# **MATERIAL SPECIFICATION**

Pressure Body and Covers:

Impellers:
Extruded aluminum alloy
Expeller shafts:
High grade alloyed steel
O-rings/Gaskets:
Bearings:
High Carbon Steel

 Magnet coupling:
 Hard ferrite ceramic magnet

Timing gears:Steel alloyReduction gearsSteel alloy

Plastic components: Brand name engineering thermoplastics

# **TECHNICAL DATA**

Meter Type: Rotary Positive Displacement Gas Meter.

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

Installation:

STANDARD FLOW DIRECTION

VERTICAL MOUNTING

FLOW

FLOW

FROM IDEPT
TO RIGHT)

FLOW

(FROM DOWN TO TOP)

REVERSED FLOW DIRECTION

VERTICAL MOUNTING

HORIZONTAL
MOUNTING

FLOW

FLOW
(FROM RIGHT
TO LEFT)

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

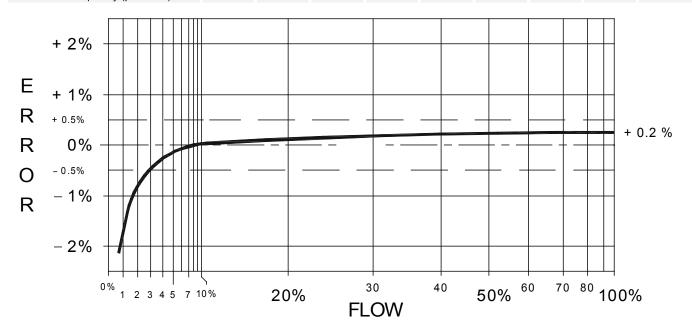
Pressure access plugs for differential testing and/or oil replacement

Service tool kit



# PERFORMANCE SPECIFICATION

	RM1000	RM1500	RM2000	RM3000	RM5000	RM7000	RM11000	RM16000	RM23000
MAOP (psig)	175	175	175	175	175	175	175	175	175
Q <sub>MAX</sub> (cfh)	1000	1500	2000	3000	5000	7000	11000	16000	23000
Differential Pressure @ Q <sub>MAX</sub> (I.W.C.)*	0.46	0.53	0.59	0.67	0.74	0.80	0.82	1.42	2.76
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	10	10	10	10	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



# ROMET METER TYPICAL ACCURACY CURVE

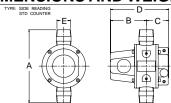
The rangeabiliity of Romet meters meet or exceed international standards

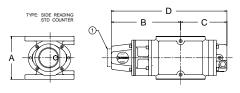




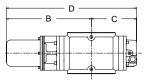


# **DIMENSIONS AND WEIGHTS**





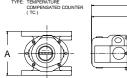


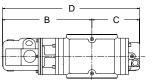


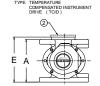
#### STANDARD COUNTER (STD CTR)

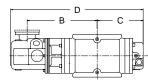
METER SIZE	A inches	B inches	C inches	D inches	E inches	WEIGHT lbs	ANSI 125 FLANGE	A inches	B inches	C inches	D inches	A inches	B inches	C inches	D inches	WEIGHT lbs
RM1000	10.50	5.01	3.08	8.09	1.5" NPT	12	2"	6.75	5.01	3.08	8.09	N/A	N/A	N/A	N/A	15.0
RM1500	10.50	5.39	3.44	8.83	1.5" NPT	13	2"	6.75	5.39	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)







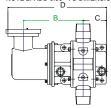


#### TEMPERATURE COMPENSATED (TC)

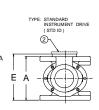
#### TEMPERATURE COMPENSATED INSTRUMENT DRIVE (TCID)

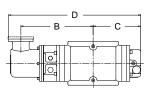
METER SIZE	A inches	B inches	C inches	D inches	WEIGHT lbs	ANSI 125 FLANGE	A inches	B inches	C inches	D inches	E inches	WEIGHT inches
RM2000	6.75	11.07	4.75	15.82	29.0	2"	6.75	8.08	4.75	15.88	7.37	33.0
RM3000	6.75	11.90	5.58	17.48	31.0	2"	6.75	8.90	5.58	17.53	7.37	36.0
RM5000	6.75	13.62	7.30	20.92	34.0	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

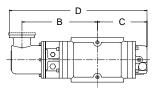












STANDARD INSTRUMENT DRIVE (STD ID) & DIGITAL COUNTER INSTRUMENT DRIVE (DCID)

METER SIZE	A inches	B inches	C	D inches	E inches	ANSI 125 FLANGE	A inches	B inches	C inches	D inches	E inches	A inches	B inches	C	D inches	E inches	WEIGHT lbs
RM1000	10.50	7.80	3.08	12.86	1.5 NPT	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	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	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	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	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	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	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	4"	9.50	13.94	9.84	25.78	8.75	9.50	13.94	9.84	25.78	8.75	68.0
RM23000 NOTE2: ADDE	N/A ED 13mm TO	N/A DIMENSION	N/A E FOR THE	N/A ADDITION O	N/A OF A PLATFORI	4" M	9.50	15.94	11.84	29.78	8.75	9.50	15.94	11.84	29.78	8.75	74.0