



ROOTS® Meters & Instruments

DATA SHEET

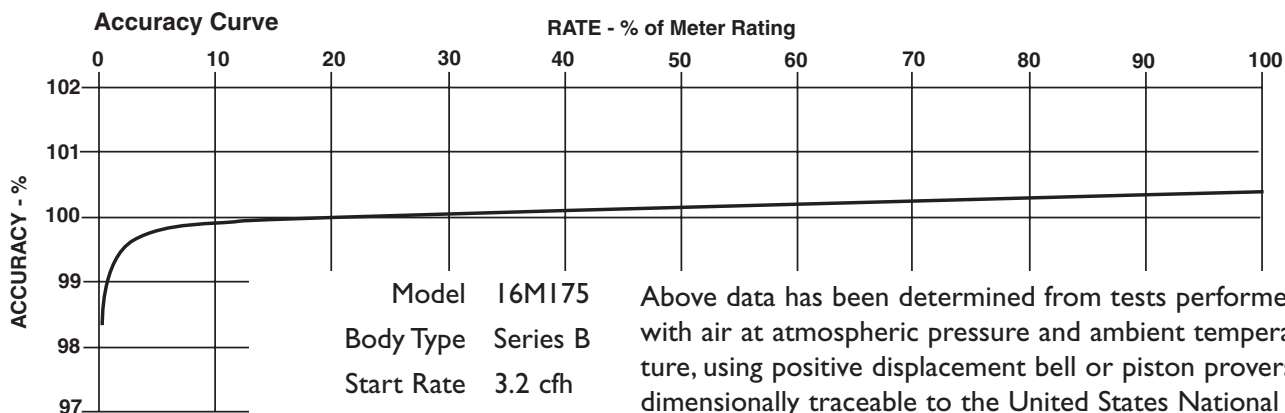
SERIES B3: 16MI75 ROOTS® Meter

	UNITS	Imperial	UNITS	Metric
Temperature Range	deg. F	-40 to +140	deg. C	-40 to +60
Base Rating (Q Max.)	acfh	16000	m ³ /h	450,0
Max. Operating Pressure (MAOP)	psig	175	kPa	1200
Leak Test (125% MAOP)	psig	219	kPa	1510
Static Test (2 x MAOP)	psig	350	kPa	2400
Rangeability +/- 1%	ratio	116:1	ratio	116:1
Rangeability +/- 2%	ratio	223:1	ratio	223:1
Start Rate	cfh	3.2	m ³ /h	0,0917
Stop Rate	cfh	1.9	m ³ /h	0,0535
Flow Rate @ 0.5" w.c., Gas	cfh	9950	m ³ /h	281,8
Avg. Differential, 100% Flow	in. w.c.	2.1	mbar	5,2
Max. Pressurization Rate	psig/sec	5	kPa/sec	35
Max. Operating Speed	rpm	1800	rpm	1800
Gear Ratio	ratio	675:1	ratio	238,2352:1
Displaced Volume/Revolution	cf	0.148148	m ³	0,004195
Drive Rate, CD	cf/rev	100	m ³ /rev	1
Drive Rate, TD	cf/rev	1,000	m ³ /rev	10
Temp. Compensating Range (TC,TD)	deg. F	-20 to +120	deg. C	-29 to +49
Min. Odometer Reading	cf	2.0	m ³	0,02
Odometer Turnover	yrs.	7.1	yrs.	2,5
Nominal Pipe Size	in.	4	mm	100
Flange-to-Flange	in.	9-1/2	mm	241,3
Flange Connection	ANSI	125#FF	ANSI	125#FF
Bolts per Flange	qty.	8	qty.	8
Bolt Size ¹	in.	5/8 - 11	in.	5/8 - 11
Flange Bolt Hole Depth	in.	1-1/16	mm	23,8
Bolt Torque: Lubricated/Non-Lub.	ft.-lb.	55/60	N-m	74/81
Restricting Orifice (120%)	in.	1-7/32	mm	26,194
Oil Capacity - Side Inlet	oz.	3	ml	89
Oil Capacity - Top Inlet	oz.	21.9	ml	648
Counter Version (CTR) ²				
Net Weight	lbs.	85	kg	38,6
Shipping Weight	lbs.	94	kg	42,6
Carton Size	in.	34 x 13 x 12	cm	86 x 33 x 31
Counter with Instrument Drive (CD) ²				
Net Weight	lbs.	86	kg	39,0
Shipping Weight	lbs.	95	kg	43,1
Carton Size	in.	38 x 15 x 16	cm	97 x 38 x 41

NOTES:

¹ Bolt Length varies by application.

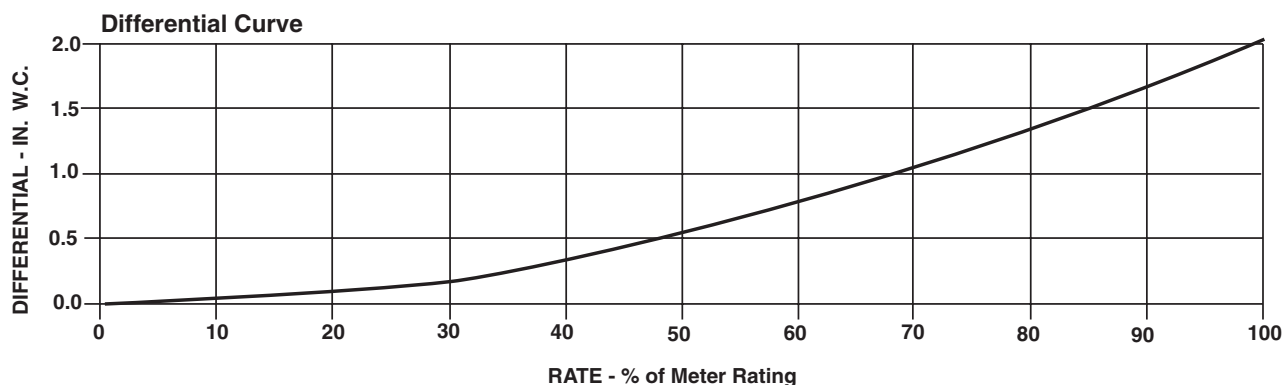
² Weights and dimensions available for CPS, TC, TD, TPS upon request.



Rangeability $\pm 1\%$ 116:1

Rangeability $\pm 2\%$ 223:1

Above data has been determined from tests performed with air at atmospheric pressure and ambient temperature, using positive displacement bell or piston provers dimensionally traceable to the United States National Institute of Standards and Technology (NIST) and traceable to NMi - Netherlands Measurements Institute for volumetric flow rate.



16M175 Series B3	Overall Length		Overall Height		Width (Flange/Flange)		Centerline to Accessory End (CL-AU)		Request Detailed Drawing Number
	inches	mm	inches	mm	inches	mm	inches	mm	
CTR / TC	26-1/16	662	8-7/8	225	9-1/2	241	15-7/16	392	D054518-000
CD / TD	29-27/32	758	8-7/8	225	9-1/2	241	19-7/32	488	D054432-000
CPS / TPS	28-3/16	716	8-7/8	225	9-1/2	241	17-9/16	446	D054671-000
IMC/C	31-7/16	798	8-7/8	225	9-1/2	241	19-1/16	484	D056487-000
IMC/W	32-7/16	824	8-7/8	225	9-1/2	241	21-13/16	554	D056703-000

To order

Specify: Meter Series, Size and Type
(i.e., ROOTS Meter Series B3 16M175 CD).

For CD or TD, specify Inlet (Top or Side) and
ID Rotation (CW-B or CCW-A).

For Pulser, specify Single or Dual Connectors and
Connector Type (MS Circular, Conduit or Cable Gland).

For more specific ordering information on the electronic
products, request: TS:SSP, TS:IMC/C or S: IMC/W.

Contact the factory for other available information,
options, or special requests.

