



ROOTS[®] Meters & Instruments

DATA SHEET

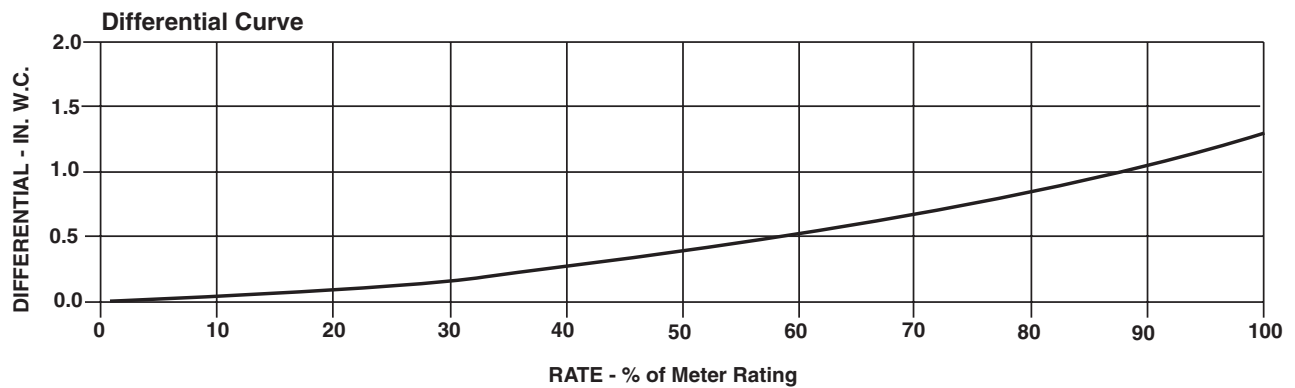
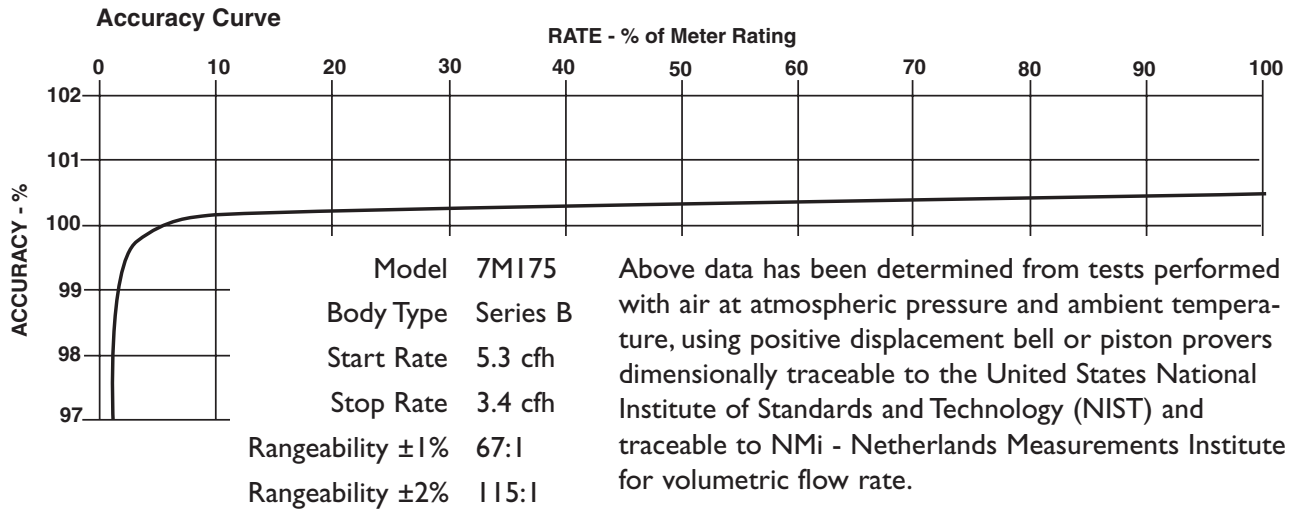
SERIES B3: 7MI75 ROOTS[®] Meter

| | UNITS | Imperial | UNITS | Metric |
|---|----------|--------------|---------------------|--------------|
| Temperature Range | deg. F | -40 to +140 | deg. C | -40 to +60 |
| Base Rating (Q Max.) | acfh | 7000 | m ³ /h | 200,0 |
| 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 | 67:1 | ratio | 67:1 |
| Rangeability +/- 2% | ratio | 115:1 | ratio | 115:1 |
| Start Rate | cfh | 5.33 | m ³ /h | 0,1509 |
| Stop Rate | cfh | 3.39 | m ³ /h | 0,0960 |
| Flow Rate @ 0.5" w.c., Gas | cfh | 5400 | m ³ /h | 152,9 |
| Avg. Differential, 100% Flow | in. w.c. | 1.6 | mbar | 4,0 |
| Max. Pressurization Rate | psig/sec | 5 | kPa/sec | 35 |
| Max. Operating Speed | rpm | 1867 | rpm | 1867 |
| Gear Ratio | ratio | 160:1 | ratio | 564,9038:1 |
| Displaced Volume/Revolution | cf | 0.0625 | m ³ | 0,001770 |
| Drive Rate, CD | cf/rev | 10 | m ³ /rev | 1 |
| Drive Rate, TD | cf/rev | 100 | m ³ /rev | 10 |
| Temp. Compensating Range (TC,TD) | deg. F | -20 to +120 | deg. C | -29 to +49 |
| Min. Odometer Reading | cf | 0.2 | m ³ | 0,02 |
| Odometer Turnover | yrs. | 1.63 | yrs. | 5,77 |
| Nominal Pipe Size | in. | 3 | mm | 80 |
| Flange-to-Flange | in. | 9-1/2 | mm | 241,3 |
| Flange Connection | ANSI | 125#FF | ANSI | 125#FF |
| Bolts per Flange | qty. | 4 | qty. | 4 |
| Bolt Size ¹ | in. | 5/8 - 11 | in. | 5/8 - 11 |
| Flange Bolt Hole Depth | in. | 15/16 | mm | 23,8 |
| Bolt Torque: Lubricated/Non-Lub. | ft.-lb. | 55/60 | N-m | 74/81 |
| Restricting Orifice (120%) | in. | 13/16 | mm | 20,638 |
| Oil Capacity – Side Inlet | oz. | 3 | ml | 89 |
| Oil Capacity – Top Inlet | oz. | 21.9 | ml | 648 |
| <i>Counter Version (CTR)²</i> | | | | |
| Net Weight | lbs. | 52 | kg | 23,6 |
| Shipping Weight | lbs. | 58 | kg | 26,3 |
| Carton Size | in. | 34x 13 x 12 | cm | 86 x 33 x 31 |
| <i>Counter with Instrument Drive (CD)²</i> | | | | |
| Net Weight | lbs. | 58 | kg | 26,3 |
| Shipping Weight | lbs. | 64 | kg | 29,0 |
| Carton Size | in. | 38 x 15 x 16 | cm | 97 x 38 x 41 |

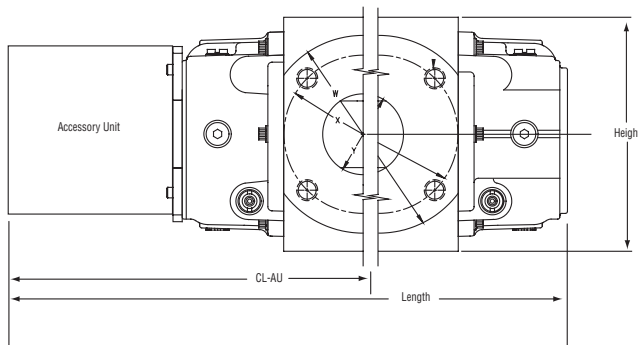
NOTES:

¹ Bolt Length varies by application.

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



| 7M175 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 | 17-13/16 | 452 | 8-7/8 | 225 | 9-1/2 | 241 | 11-5/16 | 273 | D054518-000 |
| CD / TD | 21-19/32 | 548 | 8-7/8 | 225 | 9-1/2 | 241 | 15-3/32 | 383 | D054432-000 |
| CPS / TPS | 19-15/16 | 506 | 8-7/8 | 225 | 9-1/2 | 241 | 13-7/16 | 341 | D054671-000 |
| IMC/C | 23-3/16 | 589 | 8-7/8 | 225 | 9-1/2 | 241 | 14-15/16 | 379 | D056487-000 |
| IMC/W | 24-3/16 | 614 | 8-7/8 | 225 | 9-1/2 | 241 | 17-11/16 | 449 | D056703-000 |



To order

Specify: Meter Series, Size and Type (i.e., ROOTS Meter Series B3 7M175 CD).

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

For Pulsar, 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.



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