



# ROOTS® Meters & Instruments

## DATA SHEET

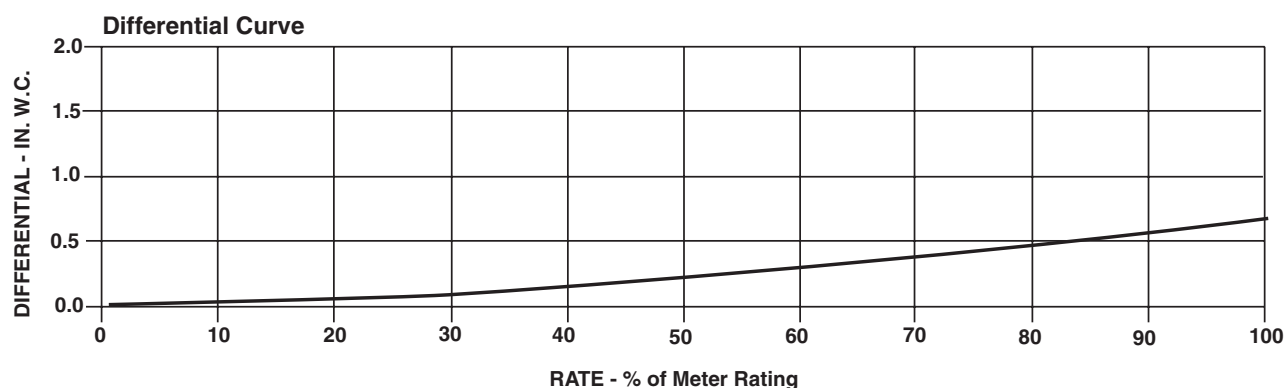
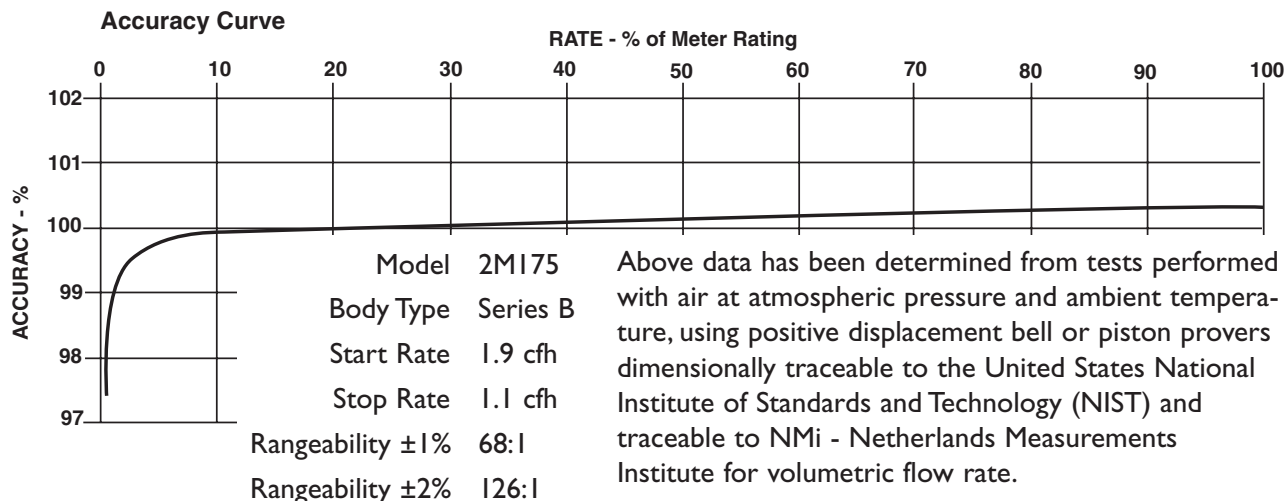
### SERIES B3: 2MI75 ROOTS® Meter

|                                                 | UNITS    | Imperial     | UNITS               | Metric       |
|-------------------------------------------------|----------|--------------|---------------------|--------------|
| Temperature Range                               | deg. F   | -40 to +140  | deg. C              | -40 to +60   |
| Base Rating (Q Max.)                            | acfh     | 2000         | m <sup>3</sup> /h   | 56,6         |
| 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    | 68:1         | ratio               | 68:1         |
| Rangeability +/- 2%                             | ratio    | 126:1        | ratio               | 126:1        |
| Start Rate                                      | cfh      | 1.9          | m <sup>3</sup> /h   | 0,0538       |
| Stop Rate                                       | cfh      | 1.1          | m <sup>3</sup> /h   | 0,0311       |
| Flow Rate @ 0.5" w.c., Gas                      | cfh      | 2000         | m <sup>3</sup> /h   | 56,6         |
| Avg. Differential, 100% Flow                    | in. w.c. | 0.65         | mbar                | 1,6          |
| Max. Pressurization Rate                        | psig/sec | 5            | kPa/sec             | 35           |
| Max. Operating Speed                            | rpm      | 1667         | rpm                 | 1667         |
| Gear Ratio                                      | ratio    | 500:1        | ratio               | 176,4705:1   |
| Displaced Volume/Revolution                     | cf       | 0.02         | m <sup>3</sup>      | 0,000566     |
| Drive Rate, CD                                  | cf/rev   | 10           | m <sup>3</sup> /rev | 0,1          |
| Drive Rate, TD                                  | cf/rev   | 100          | m <sup>3</sup> /rev | 1            |
| Temp. Compensating Range (TC,TD)                | deg. F   | -20 to +120  | deg. C              | -29 to +49   |
| Min. Odometer Reading                           | cf       | 0.2          | m <sup>3</sup>      | 0,002        |
| Odometer Turnover                               | yrs.     | 5.7          | yrs.                | 2,02         |
| Nominal Pipe Size                               | in.      | 2            | mm                  | 50,8         |
| Flange-to-Flange                                | in.      | 6-3/4        | mm                  | 172          |
| Flange Connection                               | ANSI     | 125#FF       | ANSI                | 125#FF       |
| Bolts per Flange                                | qty.     | 4            | qty.                | 4            |
| Bolt Size <sup>1</sup>                          | 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.      | 7/16         | mm                  | 11,113       |
| Oil Capacity – Side Inlet                       | oz.      | 1.25         | ml                  | 37           |
| Oil Capacity – Top Inlet                        | oz.      | 7.65         | ml                  | 226          |
| Counter Version (CTR) <sup>2</sup>              |          |              |                     |              |
| Net Weight                                      | lbs.     | 26           | kg                  | 11,8         |
| Shipping Weight                                 | lbs.     | 28           | kg                  | 12,7         |
| Carton Size                                     | in.      | 27 x 11 x 9  | cm                  | 69 x 28 x 23 |
| Counter with Instrument Drive (CD) <sup>2</sup> |          |              |                     |              |
| Net Weight                                      | lbs.     | 30           | kg                  | 13,6         |
| Shipping Weight                                 | lbs.     | 32           | kg                  | 14,5         |
| Carton Size                                     | in.      | 31 x 15 x 13 | cm                  | 79 x 38 x 33 |

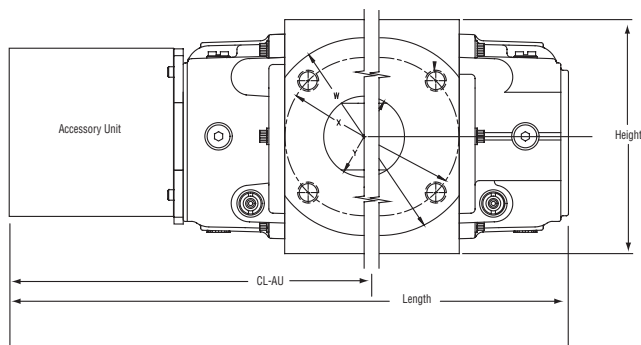
#### NOTES:

<sup>1</sup> Bolt Length varies by application.

<sup>2</sup> Weights and dimensions available for CPS, TC, TD, TPS upon request.



| 2M175<br>Series B3 | Overall Length |     | Overall Height |     | Width (Flange/Flange) |     | Centerline to<br>Accessory End (CL-AU) |     | Request Detailed<br>Drawing Number |
|--------------------|----------------|-----|----------------|-----|-----------------------|-----|----------------------------------------|-----|------------------------------------|
|                    | inches         | mm  | inches         | mm  | inches                | mm  | inches                                 | mm  |                                    |
| CTR / TC           | 15-29/32       | 404 | 6-31/32        | 177 | 6-3/4                 | 172 | 10-1/4                                 | 260 | D054517-000                        |
| CD / TD            | 19-25/32       | 503 | 6-31/32        | 177 | 6-3/4                 | 172 | 14-1/8                                 | 359 | D054431-000                        |
| CPS / TPS          | 18-1/32        | 458 | 6-31/32        | 177 | 6-3/4                 | 172 | 12-3/8                                 | 314 | D054670-000                        |
| IMC/C              | 19-13/32       | 493 | 6-31/32        | 177 | 6-3/4                 | 172 | 13-3/4                                 | 349 | D056486-000                        |
| IMC/W              | 20-13/32       | 518 | 6-31/32        | 177 | 6-3/4                 | 172 | 14-3/4                                 | 375 | D056702-000                        |



#### To order

Specify: Meter Series, Size and Type  
(i.e., ROOTS Meter Series B3 2M175 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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