



# ROOTS<sup>®</sup> Meters & Instruments

## DATA SHEET

### SERIES B3-HPC: 3MI480 ROOTS<sup>®</sup> Meter

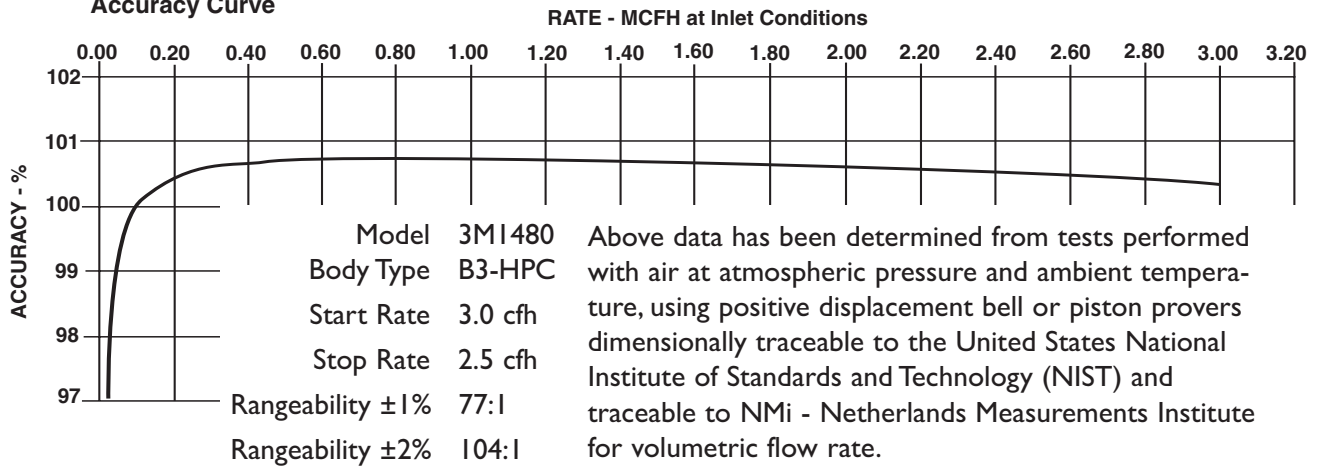
|   | <b>UNITS</b> | <b>Imperial</b> | <b>UNITS</b>        | <b>Metric</b> |
|---|--------------|-----------------|---------------------|---------------|
| Temperature Range                                     | deg. F       | -40 to +140     | deg. C              | -40 to +60    |
| Base Rating (Q Max.)                                  | acfh         | 3000            | m <sup>3</sup> /h   | 85,0          |
| Max. Operating Pressure (MAOP)                        | psig         | 1480            | kPa                 | 10200         |
| Leak Test (125% MAOP)                                 | psig         | 1850            | kPa                 | 12750         |
| Static Test (2 x MAOP)                                | psig         | 2960            | kPa                 | 20400         |
| Rangeability +/- 1%                                   | ratio        | 77:1            | ratio               | 77:1          |
| Rangeability +/- 2%                                   | ratio        | 104:1           | ratio               | 104:1         |
| Start Rate  | cfh          | 3               | m <sup>3</sup> /h   | 0,0850        |
| Stop Rate   | cfh          | 2.5             | m <sup>3</sup> /h   | 0,0708        |
| Flow Rate @ 0.5" w.c., Gas                            | cfh          | 1860            | m <sup>3</sup> /h   | 52,7          |
| Avg. Differential, 100% Flow                          | in. w.c.     | 1.3             | mbar                | 3,4           |
| Max. Pressurization Rate                              | psig/sec     | 5               | kPa/sec             | 35            |
| Max. Operating Speed                                  | rpm          | 2500            | rpm                 | 2500          |
| Gear Ratio  | ratio        | 500:1           | ratio               | 176,4705:1    |
| Displaced Volume/Revolution                           | cf           | 0.0200          | m <sup>3</sup>      | 0,000566      |
| Drive Rate, CD  | cf/rev       | 10              | m <sup>3</sup> /rev | 0,1           |
| Min. Odometer Reading                                 | cf           | 0.2             | m <sup>3</sup>      | 0,002         |
| Odometer Turnover                                     | yrs.         | 3.8             | yrs.                | 1,34          |
| Nominal Pipe Size                                     | in.          | 2               | mm                  | 50,8          |
| Flange-to-Flange                                      | in.          | 10-3/4          | mm                  | 273           |
| Flange Connection                                     | ANSI         | 600#RF          | ANSI                | 600#RF        |
| Bolts per Flange                                      | qty.         | 8               | qty.                | 8             |
| Bolt Size <sup>1</sup>                                | in.          | 5/8 - 11        | in.                 | 5/8 - 11      |
| Flange Bolt Hole Depth                                | in.          | 1-1/8           | mm                  | 28,6          |
| Bolt Torque: Lubricated/Non-Lub.                      | ft.-lb.      | 80              | N-m                 | 108           |
| Restricting Orifice (100%)                            | in.          | 7/16            | mm                  | 111,125       |
| Oil Capacity - Side Inlet                             | oz.          | 2.8             | ml                  | 83            |
| Oil Capacity - Top Inlet                              | oz.          | 7.2             | ml                  | 213           |
| <i>Counter Version (CTR)<sup>2</sup></i>              |              |                 |                     |               |
| Net Weight  | lbs.         | 107             | kg                  | 48,5          |
| Shipping Weight                                       | lbs.         | 132             | kg                  | 59,9          |
| Carton Size   | in.          | 26 x 15 x 16    | cm                  | 66 x 38 x 40  |
| <i>Counter with Instrument Drive (CD)<sup>2</sup></i> |              |                 |                     |               |
| Net Weight  | lbs.         | 110             | kg                  | 49,9          |
| Shipping Weight                                       | lbs.         | 135             | kg                  | 61,2          |
| Carton Size   | in.          | 26 x 15 x 16    | cm                  | 66 x 38 x 40  |

NOTES:

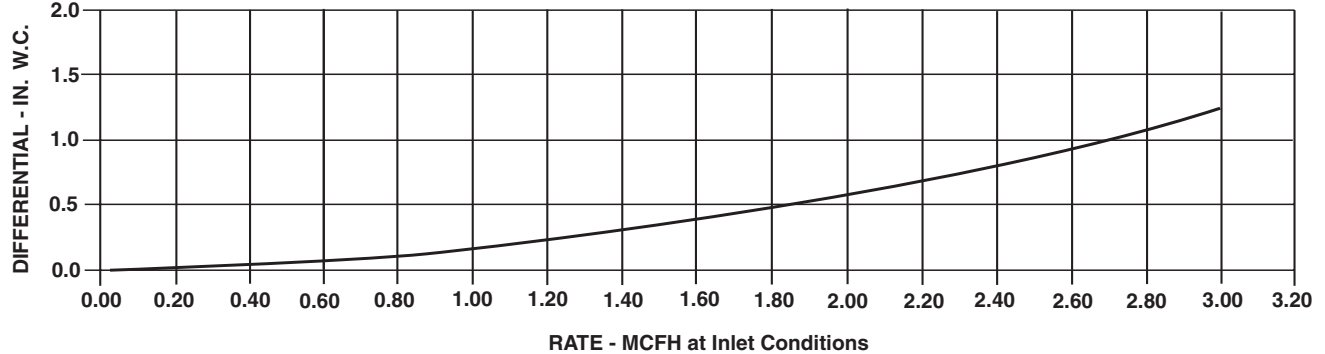
<sup>1</sup> Bolt Length varies by application.

<sup>2</sup> Weights and dimensions available for CPS upon request.

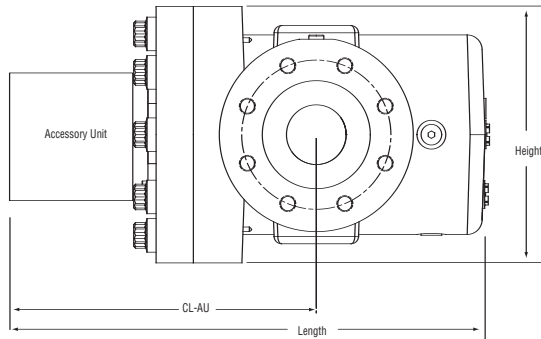
### Accuracy Curve



### Differential Curve



| 3MI480 Series B3-HPC | 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                  | 16-1/32        | 407 | 8-5/8          | 218 | 10-3/4                | 273 | 10-1/4                              | 260 | D054757-000                     |
| CD                   | 19-27/32       | 504 | 8-5/8          | 218 | 10-3/4                | 273 | 14-1/16                             | 358 | D054434-000                     |
| CPS                  | 18-7/32        | 462 | 8-5/8          | 218 | 10-3/4                | 273 | 12-7/16                             | 316 | D054758-000                     |



### To order

Specify: Meter Series, Size and Type (i.e., ROOTS Meter Series B3-HPC 3MI480 CTR).

For CD, 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 or TS: MC.

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



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