Dresser* D800 Diaphragm Replacement Meter

Legacy of superior long-term rotary meter performance in a compact oil-free design
GE Oil & Gas incorporates field-proven rotary meter technology in a compact, full-feature housing for commercial applications. The Dresser D800 meter offers improved natural gas measurement accuracy and lower cost of ownership over commercial diaphragm meters.

**Superior Meter Accuracy**
Building upon the sustained long term accuracy of Dresser metering products, the Dresser D800 Meter sets a new standard in rotary meter performance. With an exceptional average start rate of only 0.30 ACFH (stop rate of 0.15 ACFH) and a rapid ramp up to +/- 1% accuracy at only 8 ACFH, the D800 ensures a sustained, non-adjustable measurement accuracy from pilot loads up to 1700 ACFH.

**Replaces Commercial Diaphragm Meters**
- Permanently lubricated bearings
- Fixed non-adjustable accuracy
- Excellent low flow capabilities
- Ferrule (spud) size and dimensions matching most 800/1000 Class diaphragm meters
- Reduced size and weight
- Mechanical flow indication (0.0074 cf/rev)
- PT1000 RTD Temperature compensation
- 20-year average battery life

**Improving upon Existing Commercial Diaphragm Meters**
- Bi-directional installation
- Theft prevention attributes
- Compatible with common meter shop proving systems
- Non-volatile memory retains 150 days of hourly time-stamped data
- User selectable/scrollable display screens
- Magnetic display scrolling

**Reduced Size and Weight for Ease of Installation and Handling**
Designed for convenience, the D800 mounts directly to existing Class 800 and Class 1000 diaphragm meter sets using common connection sizes. Additionally, the 50% reduction in weight and 70% reduction in size allows for easier and safer handling whether in the shop, travelling to the job site, or actually installing the meter. Benefits are also derived from the reduced shipping size/weight and warehousing space.

**Dresser D800 Meter Size Compared to 800 Class Diaphragm Meter**

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*Front View Side View*
Advanced Low Flow Capability
From starting flow rate to full capacity the D800 provides excellent measurement accuracy with superior rangeability and start/stop rates.

Low Flow Performance

<table>
<thead>
<tr>
<th>Flow Rate (CFH)</th>
<th>Accuracy %</th>
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<tbody>
<tr>
<td>0.3 CFH (start rate)</td>
<td>90%</td>
</tr>
<tr>
<td>1 CFH</td>
<td>90%</td>
</tr>
<tr>
<td>2 CFH</td>
<td>95%</td>
</tr>
<tr>
<td>5 CFH</td>
<td>98%</td>
</tr>
<tr>
<td>8 CFH</td>
<td>99%</td>
</tr>
<tr>
<td>12 CFH</td>
<td>100%</td>
</tr>
</tbody>
</table>

Rangeability

<table>
<thead>
<tr>
<th>Range</th>
<th>800 CFH</th>
<th>1700 CFH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>100:1</td>
<td>212:1</td>
</tr>
<tr>
<td>2%</td>
<td>160:1</td>
<td>340:1</td>
</tr>
<tr>
<td>3%</td>
<td>266:1</td>
<td>566:1</td>
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</tbody>
</table>

NOTE: The performance data shown is averaged and is indicative of meter performance. Individual meter characteristics may vary.
Full Feature Electronic Index
The D800 electronic index enables users to customize the odometer display. Powered by a lithium thionyl chloride battery pack, the D800 also provides two scalable pulse output signals, a fault output and 150 days of hourly logs. Fixed factor pressure correction is also a user selectable feature.

Communication
■ MeterWare Software - communication software compatible with multiple Dresser meters and instruments
■ IrDA (Infra Red) communications interface
  • Configuration (User Terminal)
  • Prover Testing
  • Temperature calibration
  • Firmware upgrades

Pulse Outputs
■ 2 Form A Normally Open (NO) pulse outputs
  • Select compensated, non-compensated, fault or disabled for each channel
  • Scalable volume representation
  • Pulse duration of 50, 150, or 250 ms
■ 1 Form B Normally Closed (NC) fault output
  • Pulses every 30 sec when in fault mode
  • Pulse duration of 500 ms
■ Automated Meter Reading (AMR) bracket with concealed connections

Testing
■ Compatible with common sonic nozzle proving systems
■ 2 minute proving with Dresser Model 5 Transfer Prover

Certifications
■ CSA : Class 1, Div 1, Group A, B, C and D Certification
■ Meets internationally recognized standards for moisture ingress protection (IP 65 and IP 66)
■ Electromagnetic Compliance per IEC standards
■ Electrostatic Discharge compliance per IEC standards
■ Measurement Canada approval pending

Specifications

Temperature Measurement System
■ Extremely Stable Class A, PT1000 precision RTD
■ Range: -40 to 140°F (-40 to 60°C)
■ Total ambient temperature effect: Less than 0.1°F (0.05°C) over entire temperature range

Temperature Accuracy
■ -40 to 32 °F: +/- 0.4 °F  (-40 to 0°C: +/- 0.2 °C)
■ 32 to 140°F: +/- 0.5°F  (0 to 60°C: +/- 0.3 °C)

Environmental Conditions
■ Ambient temperature range: -40 to 140°F (-40 to 60°C)
■ Ambient humidity range: 0 to 100% non-condensing

Warranty
■ D800 Meter – 2 years
■ Battery – 12 years