



# Dresser D800 and D1000

## Diaphragm Replacement Meters

Legacy of superior long-term rotary meter performance in a compact oil-free design

Dresser Natural Gas Solutions (NGS) incorporates field-proven rotary meter technology in a compact, full-feature housing for commercial applications. The Dresser D800 and D1000 meters offer 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 and D1000 meters set 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 and D1000 provide 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 (24 lbs. vs 50+ pounds)
- Mechanical flow indication (0.0074 cf/rev)
- PT1000 RTD Temperature compensation
- 20-year average battery life

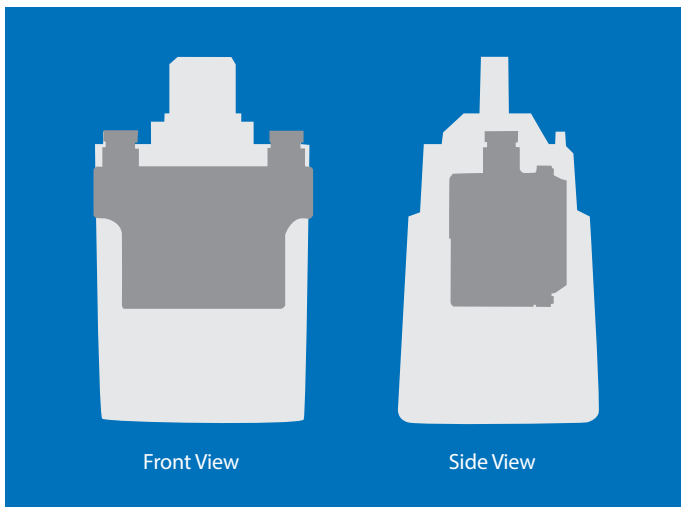
## Improving upon Existing Commercial Diaphragm Meters

- 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

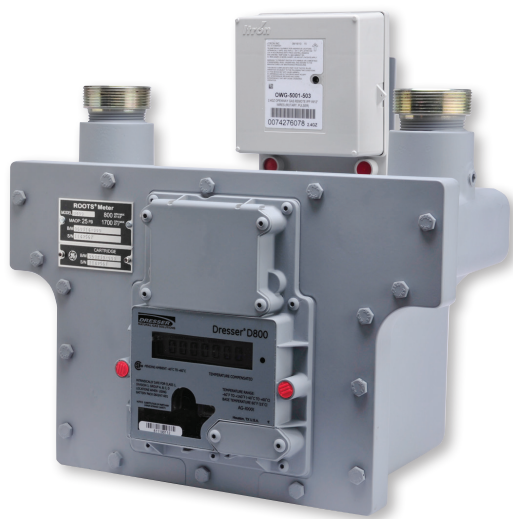
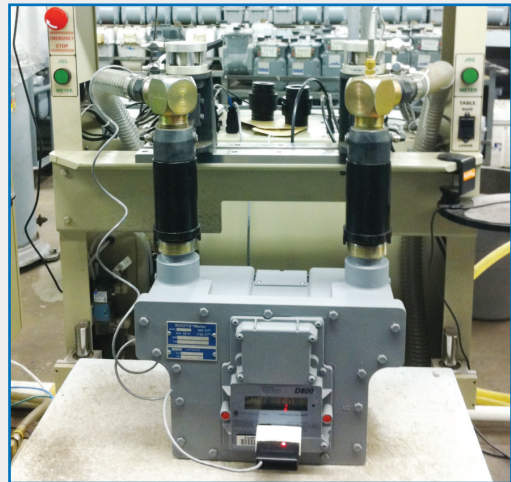
Designed for convenience and weighing only 24 pounds, the D800 and D1000 meters mount directly to existing Class 800 and Class 1000 diaphragm meter sets using common connection sizes. Additionally, the 50% reduction in weight and 70% reduction in size allows for easier and safer handling whether in the shop, traveling to the job site, or actually installing the meter. Benefits are also derived from the reduced shipping size/weight and warehousing space.

Dresser D800/D1000 Meter Size Compared to 800/1000 Class Diaphragm Meter



## Testing Flexibility for the Shop and Field

The versatile D800/D1000 provides multiple testing capabilities to meet the needs of your organization and regulatory agency with a variety of testing options. While easily tested on common sonic nozzle provers, the meters test equally well on bell provers and transfer provers, including the Dresser Model 5 Transfer Prover. As always, Differential Pressure Testing is a standard Dresser meter capability with test ports conveniently located on the meter inlet and outlet and the flow rate displayed electronically.



Dresser D800 with Automated Meter Reading (AMR) device installed.

### Low Flow Performance

#### Accuracy

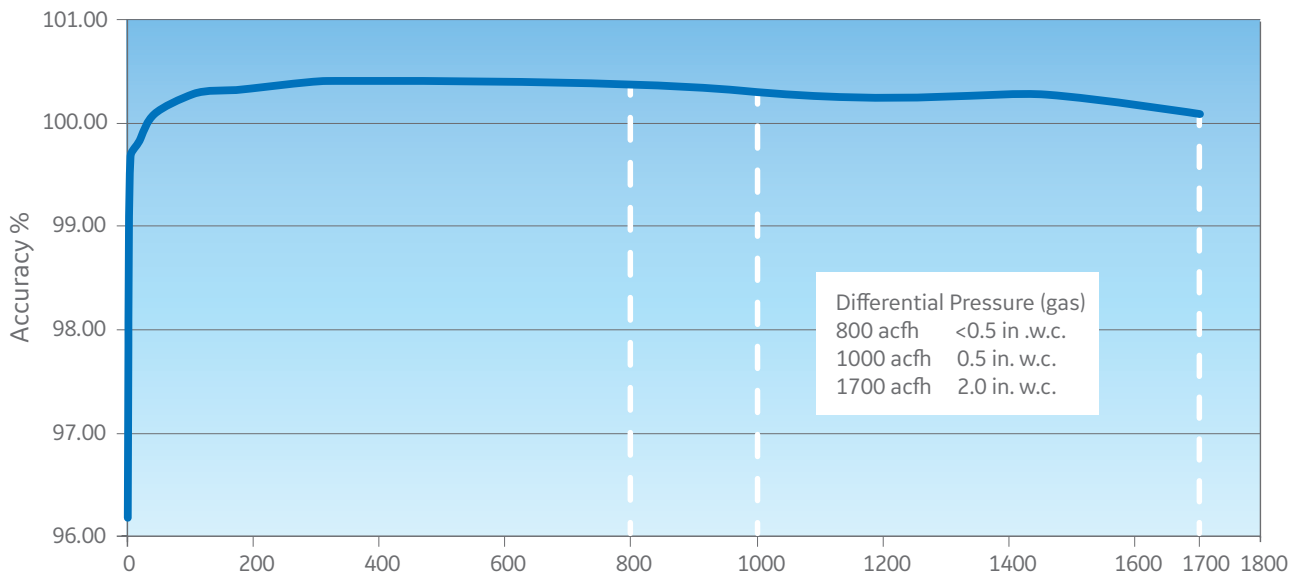
0.30 CFH (start rate)	
1 CFH	90%
2 CFH	95%
5 CFH	98%
8 CFH	99%
12 CFH	100%

#### Rangeability

Range	800 CFH	1000 CFH	1700 CFH
1%	100:1	125:1	212:1
2%	160:1	200:1	340:1
3%	266:1	333:1	566:1

## Advanced Low Flow Capability

From starting flow rate to full capacity the D800/D1000 provides excellent measurement accuracy with superior rangeability and start/stop rates.



NOTE: The performance data shown is averaged and is indicative of meter performance. Individual meter characteristics may vary.



## Full Feature Electronic Index

The D800/D1000 electronic index enables users to customize the odometer display. Powered by a lithium thionyl chloride battery pack, the index also provides two scalable pulse output signals, a fault output signal 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 Approved (AG-0611)

## Standards

- Dresser D800/D1000 meters are manufactured in accordance with ANSI B109.3 for Rotary Type Gas Displacement Meters.

## 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

### Ferrule (Spud) Connections

- 30LT/45LT/#3, #4 Sprague/#5 Sprague/1-1/2" FNPT
- Spud to Spud: 11 inches (279.4 mm)

### Maximum Operating Pressure (MAOP)

- 25 psig

### Net Weight

- 24 lbs (10.8 kg)

### Warranty

- D800/D1000 Meter – 2 years
- Battery – 12 years

### Dresser Meters & Instruments

16240 Port Northwest Drive

Houston, TX 77041

T: 1-800-521-1114

F: 1-800-335-5224

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Dresser D800 D1000 Brochure NGS.MI.0005b  
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