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Diaphragm Meters
American Meter is the industry's leading supplier of diaphragm meters with models for applications from domestic service to large industrial users. The housing consists of a one-piece cast aluminum alloy body and aluminum alloy top and covers. American Meter diaphragm meters have an outstanding record for durability and reliability. Features include:

- light, compact profiles
- durable valve material to minimize wear
- one-piece body design to eliminate the need for machined joints and gaskets, and the possibility of internal leakage
- molded, convoluted diaphragms for smooth operation and long life
- low-friction seals
- adjustable tangents
- rugged flag rods for positive alignment and sustained accuracy
- large, self-lubricating bearings
- two-part epoxy primer and acrylic finish coat
- automatic meter reader compatibility

Diaphragm Meter Options
All diaphragm meters can be supplied with temperature compensation. This feature converts the volume of gas measured at actual (line) temperatures from -30° to +140° F (-34° to 60° C) to the equivalent volume at standard 60° F (15° C) base temperature.

Meters can also be supplied with your choice of a circle-type, odometer index, or pressure-compensating index.

Meter Accessories
Meters can be supplied with the following accessories (see pages 15-17).

- index types
- security seals
- index box (non-yellowing)
- meter bar
- vent elbow
- offset valve body

Meter Capacities

<table>
<thead>
<tr>
<th>Line Pressure</th>
<th>AT-210</th>
<th>AT-250</th>
<th>AC-250</th>
<th>AM-250</th>
<th>AR-250</th>
<th>AL-425</th>
<th>AC-630</th>
<th>AL-800</th>
<th>AL-1000</th>
<th>AL-1400</th>
<th>AL-2300</th>
<th>AL-5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 psig (17 mBarg)</td>
<td>210 (5.9)</td>
<td>250 (7.1)</td>
<td>425 (12.0)</td>
<td>630 (17.8)</td>
<td>800 (22.7)</td>
<td>1000 (28.3)</td>
<td>1400 (39.6)</td>
<td>2300 (65.1)</td>
<td>5000 (141.6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 psig (14 mBarg)</td>
<td>424 (12.0)</td>
<td>550 (15.6)</td>
<td>955 (27.0)</td>
<td>1390 (39.4)</td>
<td>1850 (52.4)</td>
<td>2400 (68.0)</td>
<td>3265 (92.5)</td>
<td>5440 (154.0)</td>
<td>12000 (339.8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 psig (345 mBarg)</td>
<td>462 (13.1)</td>
<td>593 (16.8)</td>
<td>1100 (31.1)</td>
<td>1515 (42.9)</td>
<td>2100 (59.5)</td>
<td>2700 (76.5)</td>
<td>3700 (104.8)</td>
<td>6200 (175.6)</td>
<td>13500 (382.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 psig (690 mBarg)</td>
<td>–</td>
<td>–</td>
<td>1350 (38.2)</td>
<td>1710 (48.4)</td>
<td>2600 (73.6)</td>
<td>3400 (96.3)</td>
<td>4600 (130.3)</td>
<td>7700 (218.1)</td>
<td>1700 (481.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 psig (1.4 Barg)</td>
<td>–</td>
<td>–</td>
<td>1700 (48.1)</td>
<td>2010 (56.9)</td>
<td>3200 (89.6)</td>
<td>4100 (116.1)</td>
<td>5600 (158.6)</td>
<td>9400 (266.2)</td>
<td>20600 (583.4)</td>
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<tr>
<td>25 psig (1.7 Barg)</td>
<td>–</td>
<td>–</td>
<td>1880 (53.2)</td>
<td>2160 (61.2)</td>
<td>3500 (99.1)</td>
<td>4600 (130.3)</td>
<td>6200 (175.6)</td>
<td>10400 (294.5)</td>
<td>23000 (654.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 psig (3.4 Barg)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>5100 (144.4)</td>
<td>6600 (186.9)</td>
<td>9000 (254.9)</td>
<td>15000 (424.8)</td>
<td>33000 (934.6)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>75 psig (5.2 Barg)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>6600 (186.9)</td>
<td>8540 (241.8)</td>
<td>11650 (329.9)</td>
<td>19400 (549.4)</td>
<td>42700 (1209.1)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>100 psig (6.9 Barg)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>7800 (220.9)</td>
<td>10100 (286.0)</td>
<td>13800 (390.8)</td>
<td>23000 (651.4)</td>
<td>50500 (1430.2)</td>
<td></td>
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</tr>
</tbody>
</table>

* Capacity data based upon natural gas with specific gravity of 0.60.
AR-250

- Nominal capacity = 250 scfh (7.1 Sm³/h)
- Maximum pressure rating = 5 psig (345 mBarg)
- Top In-Top Out (TITO) or Bottom In-Top Out (BITO) Connections

WEIGHT = 7 lbs.

Reference Materials
Handling and Installation . . . . . . . . . . . . IM-3715
Parts List . . . . . . . . . . . . . . . . . . . . . . . . . PL-3880
**AT-210 and AT-250**

AT-210
- Nominal capacity = 210 scfh (5.9 Sm³/h)
- Maximum pressure rating = 5 psig or 10 psig (345 or 690 mBarg)
- Connections suited for tin case meter replacement
- 5 LT connection size

AT-250
- Nominal capacity = 250 scfh (7.1 Sm³/h)
- Maximum pressure rating = 5 psig or 10 psig (345 or 690 mBarg)
- Connections suited for tin case meter replacement
- 10 LT connection size

**Applications**
The AT-210 and AT-250 were designed specifically for the field replacement of older meters. Center-to-center connections of 11.25” and 13.38” respectively, fit existing meter set assemblies, saving the costs of repiping.

---

**Reference Materials**
Handling and Installation . . . . . IM-3715
Operation/Maintenance Manual & Video . . . . . . . . 52722P002
Parts List . . . . . . . . . . . . . . . . . . PL-3835
AC-250

- Nominal capacity = 250 scfh (7.1 Sm³/h)
- Maximum pressure rating = 5 psig or 10 psig (345 or 690 mBarg)
- Top connections

WEIGHT = 12 lbs.

Reference Materials
Handling and Installation . . . . . IM-3715
Parts List . . . . . . . . . . . . . . . . PL-3835
**AM-250**

- Nominal capacity = 250 scfh (7.1 Sm³/h)
- Maximum pressure rating = 5 psig or 10 psig (345 or 690 mBarg)
- Side connections: (3/4"-14 NPT)

**Applications**

The ideal meter for measuring gas to mobile-home parks, for LPG applications, or wherever US standard pipe thread connections are desirable. Properly installed, this meter will accurately measure gas loads ranging from one pilot light to its full, recommended capacity.

**Reference Materials**

- Handling and Installation ..... IM-3715
- Operation/Maintenance
- Manual & Video ............... 52722P002
- Parts List ..................... PL-3835

WEIGHT = 12 lbs.
AL-425

- Nominal capacity = 425 scfh (12.0 Sm³/h)
- Maximum pressure rating = 10 psig or 25 psig (690 mBarg or 1.7 Barg)
- Top connections

WEIGHT = 21 lbs.

Reference Materials
Handling and Installation . . . . . . IM-3715
Operation/Maintenance
Manual & Video . . . . . . . . . . . . . . . . . . . . . . . . . . . . 52722P002
Parts List . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . PL-3806
AC-630
- Nominal capacity = 630 scfh (17.8 Sm³/h)
- Maximum pressure rating = 25 psig (1.7 Barg)
- Top connections

WEIGHT = 21 lbs.

Reference Materials
Handling and Installation . . . . . IM-3715
Operation/Maintenance
Manual & Video . . . . . . . . . . . . . 52722P002
Parts List . . . . . . . . . . . . . . . . . PL-3850
**AL-800 and AL-1000**

**AL-800**
- Nominal capacity = 800 scfh (22.6 or Sm³/h)
- Maximum pressure rating = 20 psig or 100 psig (1.4 or 6.9 Barg)
- Top connections

**AL-1000**
- Nominal capacity = 1,000 scfh (28.3 or Sm³/h)
- Maximum pressure rating = 25 psig or 100 psig (1.7 or 6.9 Barg)
- Top connections

### Dimensions (inches)

<table>
<thead>
<tr>
<th>MAOP (psig)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Weight lbs.</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AL-800</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>20</td>
<td>14.12</td>
<td>18.50</td>
<td>4.81</td>
<td>11.00</td>
<td>19.12</td>
<td>4.38</td>
<td>13.25</td>
<td>50</td>
<td>1-1/4”–30 LT</td>
</tr>
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<td></td>
<td>1-1/2”–45 LT</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>#3-4 Sprague</td>
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<td>19.19</td>
<td>4.19</td>
<td>11.00</td>
<td>19.12</td>
<td>4.38</td>
<td>13.25</td>
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<td>14.62</td>
<td>18.75</td>
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<td>4.38</td>
<td>16.62</td>
<td>70</td>
<td>1-1/2” NPT (F)</td>
</tr>
<tr>
<td>100</td>
<td>14.62</td>
<td>19.81</td>
<td>4.12</td>
<td>11.00</td>
<td>19.75</td>
<td>4.38</td>
<td>16.62</td>
<td>70</td>
<td>#3-4 Sprague</td>
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<tr>
<td><strong>AL-1000</strong></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>14.12</td>
<td>18.50</td>
<td>4.81</td>
<td>11.00</td>
<td>19.12</td>
<td>4.38</td>
<td>13.25</td>
<td>54</td>
<td>1-1/2”–45 LT</td>
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<td></td>
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<td>1-1/2” NPT (F)</td>
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<tr>
<td>25</td>
<td>14.12</td>
<td>19.25</td>
<td>4.06</td>
<td>11.00</td>
<td>19.12</td>
<td>4.38</td>
<td>13.25</td>
<td>54</td>
<td>2”–100 LT</td>
</tr>
<tr>
<td>25</td>
<td>14.12</td>
<td>20.25</td>
<td>3.06</td>
<td>11.00</td>
<td>19.12</td>
<td>4.38</td>
<td>13.25</td>
<td>54</td>
<td>#5 Sprague</td>
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<td>14.62</td>
<td>18.75</td>
<td>5.19</td>
<td>11.00</td>
<td>19.75</td>
<td>4.38</td>
<td>16.62</td>
<td>78</td>
<td>1-1/2” NPT (F)</td>
</tr>
</tbody>
</table>

**Reference Materials**
- Handling and Installation . . . . IM-3701
- Parts List . . . . . . . . . . . . . . PL-3807
**AL-1400**

- Nominal capacity = 1,400 scfh (39.6 Sm³/h)
- Maximum pressure rating = 100 psig (6.9 Barg)
- Side connections
- *Available as remanufactured meter only*

<table>
<thead>
<tr>
<th>Reference Materials</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling and Installation</td>
<td>IM-3701</td>
</tr>
<tr>
<td>Parts List</td>
<td>PL-3808</td>
</tr>
</tbody>
</table>
**AL-2300**

- Nominal capacity = 2,300 scfh (65.1 Sm³/h)
- Maximum pressure rating = 100 psig (6.9 Barg)
- Side connections
- *Available as remanufactured meter only*

<table>
<thead>
<tr>
<th>MAOP (psig)</th>
<th>Dimensions (inches)</th>
<th>Weight (lbs.)</th>
<th>Connections</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>A 33.31 B 21.00 B¹ – C 21.62 D 29.06 E 17.88 F 18.25 G 4.25</td>
<td>175</td>
<td>4&quot; NPT(F)</td>
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<td>100</td>
<td>– – 32.00 – – – –</td>
<td>192</td>
<td>4&quot; Flanged</td>
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</table>

**Reference Materials**

Handling and Installation . . . . . . IM-3701
Parts List . . . . . . . . . . . . . . . . . . . . . PL-3809
**AL-5000**

- Nominal capacity = 5,000 scfh (141.6 Sm³/h)
- Maximum pressure rating = 100 psig (6.9 Barg)
- Side connections
- *Available as remanufactured meter only*

<table>
<thead>
<tr>
<th>MAOP (psig)</th>
<th>Dimensions (inches)</th>
<th>Weight lbs.</th>
<th>Connections</th>
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<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>B'</td>
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<td>AL-5000</td>
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<td>26.25</td>
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<td>100</td>
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</table>

**Reference Materials**

Handling and Installation. . . . . . . . . . . IM-3701
Parts List. . . . . . . . . . . . . . . . . . . . . . . PL-3810
**Meter Accessories**

**INDEX TYPES**

**Location Indication Only**

American Meter offers various index types for local totalization of gas flow. Shown below are a standard circle-type index, a metric-odometer index, and a pressure-compensating index. See bulletin PL 3800 for a complete listing of indexes available.

![Standard, circle-type index](image)
![Metric-odometer index](image)
![Pressure-compensating index](image)

**SECURITY SEALS**

- Protect against unauthorized entry, meter bypassing and vandalism
- No special tools required – fits all meters

American Meter's security seals provide a deterrent to meter tampering that goes beyond seal wires and cover fasteners. The Security Seals are located at the index box, handhole plates and top cover.

The seal must be broken to remove the bolts. So you can see at-a-glance if any attempt has been made to tamper with the meter.

The unique “one-piece” bolt/seal design allows for easy removal and/or retrofit. The retrofit security seal system is available by kit or pieces.

![Security Seal # 52548 PO10](image)
![Receptacle # 55542 PO19 Screw # 19316 PO85-AC-250 Screw # 19316 PO86-AL-425](image)
![Receptacle turns freely after assembly. No stress from screw head.](image)

Screw is recessed in retainer collar then covered by replacement of security seal.

Security seals press fit into specifically designed screw retainer collars to deter tampering.

Screwdriver blade must break security seal to remove cover.

Broken security seal showing evidence of tampering.
Meter Accessories continued

METER BARS

The advantages that made meter bars indispensable for use with old-fashioned tin-case meters still apply today when installing modern cast-aluminum gas meters. Using American Meter’s meter bars provides a rock-solid installation that prevents stress from being transferred from piping to the meter itself. Thus, the chance for leakage or damage to the meter is substantially reduced. Additionally, the use of a meter bar facilitates fast and positive location of the regulator.

For long-lasting protection from environmental hazards, American Meter’s meter bars receive the same exclusive, seven-step conversion coating as our regulators.

Easy Installation

The meter bar clamps around the outside of the outlet side of the regulator body. The pipe connection is internally threaded to accept 3/4” x 3/4”, 3/4” x 1”, or 1” x 1” NPT downstream pipe sizes. The meter bars can be used with all American Meter 1200 Series pressure regulators in 90° valve-body configuration.

<table>
<thead>
<tr>
<th>Connection</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>METER BAR</td>
<td></td>
</tr>
<tr>
<td>3/4” x 3/4” NPT</td>
<td>72476G001</td>
</tr>
<tr>
<td>3/4” x 1” NPT</td>
<td>72476G003</td>
</tr>
<tr>
<td>1” x 1” NPT</td>
<td>72476G004</td>
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<tr>
<td>VENT ELBOW</td>
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</tr>
<tr>
<td>3/4” NPT</td>
<td>78041P025</td>
</tr>
<tr>
<td>SCREEN</td>
<td>70400P017</td>
</tr>
</tbody>
</table>
Index Box (Non-Yellowing)
One of the problems utilities across the country encounter every day is yellowed and hazed index boxes that cannot be read by Meter Readers. This causes misreads, no reads, and the expense of replacing the index box with gasket. Until now, the polycarbonate technology available to the industry wasn’t available to offer a solution.

American Meter Company now offers an index box with a protective hard coating to eliminate this yellowing problem. The half-coated index box below illustrates the effectiveness of this new technology. For more information on this unique, cost-saving feature, contact your local American Meter Company representative.
About Elster Group

Elster Group is the world's leading manufacturer and supplier of highly accurate, high quality, integrated metering and utilization solutions to the gas, electricity and water industries. In addition, through its subsidiary Ipsen International, it is the leading global manufacturer of high level thermo-chemical treatment equipment.

The group has over 8,500 staff, operations in 38 countries and serves over 115 markets around the world. Elster's high quality products and systems reflect the wealth of knowledge and experience gained from over 170 years of dedication to measuring precious resources and energy.