**Industrial Positive Displacement Meter**  
Polymer, Magnetic Drive,  
External Threaded Spuds

**Size:** 5/8” x 1/2”, 5/8” x 3/4”, 3/4” x 3/4” and 3/4” x 1”

<table>
<thead>
<tr>
<th>Sizes</th>
<th>5/8” x 1/2”</th>
<th>5/8” x 3/4”</th>
<th>3/4” x 3/4”</th>
<th>3/4” x 1”</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% - 101% Accuracy GPM</td>
<td>1/4</td>
<td>1/4</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>98.5% - 101.5% Accuracy GPM</td>
<td>1 - 20</td>
<td>1 - 20</td>
<td>2 - 30</td>
<td></td>
</tr>
<tr>
<td>Continuous Flow GPM</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Maximum Flow GPM</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Operating Pressure psi</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature °F</td>
<td>120*</td>
<td>120</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>(67ºC)</td>
<td></td>
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**Sweep Hand Registers:**
- US Gallons: 10, 10, 10
- Cubic Feet: 1, 1, 1
- Cubic Meters: 1/10, 1/10, 1/10
- Imperial Gallons: 10, 10, 10

**Capacity of Register**
- US Gallons (millions): 10, 10, 10
- Cubic Feet (millions): 1, 1, 1
- Cubic Meters (millions): 1/10, 1/10, 1/10
- Imperial Gallons (millions): 10, 10, 10

**Register Type:** Permanently sealed direct reading register

**Materials:**
- **Main Case:** Modified Acetal Copolymer  
- **Top Plate:** Modified Acetal Copolymer
- **Body O-ring:** Neoprene Rubber   
- **Measuring Chamber:** Compounded Thermoplastic
- **Thrust Bearing Insert:** Loaded Nylon
- **Piston:** High Impact Polymer
- **Division Plate:** Loaded Nylon
- **Driving Bar:** Loaded Nylon
- **Strainer:** Polypropylene
- **Register Can:** 90% Copper Alloy
- **Domed Register Lens:** Tempered Glass
- **Register Housing & Lid:** Polymer

**Operation.** The C700 polymer meter is a positive displacement type meter operating on the oscillating piston principle. The product utilizes a piston that water use rotates in a measuring chamber, each piston revolution being equivalent to a known volume of water. The piston movement is transferred by magnetic drive to a straight reading sealed register which contains the appropriate reduction gearing.

**Compliance to Standards/Approvals.** The C700 polymer meter complies with all performance and material requirements of the American Water Works Association Standard C710 as most recently revised. The C700 polymer meter is NSF-61 Certified, complies with California Proposition 65 lead free requirements, and is California Department of Weights and Measures approved.

**Installation.** The meter must be installed in a clean pipe line, free from any foreign materials. Install the meter with direction of flow as indicated by the arrow molded in the meter case. The meter may be installed in horizontal or inclined lines.

**Application.** The meter is for use in POTABLE COLD WATER up to 120°F (50°C) and working pressures up to 150 psi. The meter will perform with accuracy registration of 100% + 1½% within the normal flows. Both pressure loss and accuracy tests are made before shipment. No adjustments need to be made before installation.
**Maintenance.** The measuring chamber assembly can be removed, repaired or replaced without removing the main case from the service line. Pretested measuring chamber assemblies are available for exchange or purchase, and spare parts are available from our central warehouse or designated regional locations. Elster AMCO Water staffs and operates a repair facility at its U.S. manufacturing plant in Ocala, Florida.

**Other Applications.** Deionized (DI) or reverse-osmosis (RO) water, water glycol solution (over 50% water), sodium hydroxide (20% solution), pool water (city water with bleach), and salt water.

**Construction.** The meter consists of a main case, an oscillating piston measuring chamber, a polymer strainer, a removable top plate and O-ring, and a magnetically driven register assembly. The main case is molded in plastic with raised characters showing model, size, and direction of flow. The measuring assembly is a top-in and a bottom-out design and consists of the measuring chamber with division plate, drive bar, magnet and a locator pin. The measuring chamber is held against its seat by the top plate. The threaded main case and top plate are assembled with an O-ring gasket. Each register assembly is secured to the maincase with a slotted head screw, is protected with a hinged lid and is positioned with its hinge over the inlet throat. The register can may be rotated and locked in any 360 degree position therein.

**Direct Read Register.** The magnetically driven register is contained within a 90% copper seamless can which is oven-cured at 150°F for 90 minutes to eliminate condensation. The 1/4" true tempered glass lens is domed and secured in an "L" shaped gasket. To assure easy reading, the totalizer wheels are large and color coded. The applicable size, model, registration, part number and date code are printed on the calibrated dial face. Moving clockwise during operation, the extra thin center sweep hand does not interfere with meter reading and the 1:1 ratio low-flow indicator will detect plumbing leaks.

**Connections.** Meter casing spuds have external straight threads conforming to ANSI B.1.20.1. Bronze or polymer coupling nuts and tailpieces are available. Both coupling nuts and tailpieces have external taper pipe threads conforming to ANSI B.1.20.1. Their lengths and thread sizes are as specified by AWWA Standards.

**Dimensions and Net Weights**

<table>
<thead>
<tr>
<th>Size</th>
<th>Dimension (inches)</th>
<th>Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8&quot; x 1/2&quot;</td>
<td>7 1/2 5 3/8 1 3/8 4 3/4</td>
<td>9 3/8 3 1/4</td>
</tr>
<tr>
<td>3/4&quot; x 3/4&quot;</td>
<td>9 5 15/16 1 15/16 4 3/4</td>
<td>9 3/8 3 1/4</td>
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<tr>
<td>3/4&quot; x 1&quot;</td>
<td>9 5 15/16 1 15/16 5</td>
<td>9 15/16 4 5/8</td>
</tr>
</tbody>
</table>

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The company’s policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.

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