Double Check T-10® Backflow Meter

Today, utilities are faced with cross-connection regulations while challenged to meet rising homeland security initiatives. The Neptune® T-10® Double Check backflow meter delivers a positive drip-tight seal for protection from the reverse flow of non-potable liquids brought about by a cross-connection breach. The \( \frac{5}{8} \)" T-10 Double Check backflow meter may be used in the following applications:

**Problem**
- Fire protection systems
- Residential services
- Plumbing systems
- Other systems requiring low hazard protection

The \( \frac{5}{8} \)" T-10 Double Check backflow meter can be fully upgraded to all Neptune ARB® Utility Management Systems™ components, such as ProRead™, ProCoder™, E-CODER®R900i™, E-CODER®R450i™ or the E-CODER®R900i™. When coupling the E-CODER®R900i, E-CODER®R450i, or the E-CODER®L900i™ with the T-10 backflow meter, Neptune is able to offer an innovative solution for utilities that implement a backflow program. The reverse flow detection of the E-CODER®R900i, E-CODER®R450i, and E-CODER®L900i offer utilities 365 days of 15-minute interval reverse flow monitoring to ensure that the device is functioning properly.

**Construction**
The \( \frac{5}{8} \)" T-10 Double Check backflow meter has the same standard laying length (7 \( \frac{1}{2} \) inches) as a regular \( \frac{5}{8} \)" T-10 water meter while including an integral backflow device in the same meter design. The measuring element in the T-10 Double Check backflow meter is the same as our standard T-10 water meter; therefore, this product has the same extended low-flow accuracy that meets or exceeds the latest AWWA C700 standard. In normal flow conditions, the independently operating check valves remain closed until there is a demand for water. Each of the checks is designed to open at approximately one psi pressure differential in the direction of flow. At cessation of flow or under a back pressure condition, both checks will close until normal flow is resumed.

**Approvals**
The T-10 Double Check backflow meter is NSF/ANSI 372 certified and approved by the ASSE (American Society for Sanitation Engineering) 1015. It is rated as a \( \frac{1}{2} \)" backflow device.
### Dimensions

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>A in/mm</th>
<th>B in/mm</th>
<th>E-CODER/R900/ E-CODER/R450/ ProCoder/R900i or ProCoder/R450i in/mm</th>
<th>Std. ARB in/mm</th>
<th>E-CODER/R900/ E-CODER/R450/ ProCoder/R900i or ProCoder/R450i in/mm</th>
<th>Threads NPSM</th>
<th>E OD in/mm</th>
<th>F in/mm</th>
<th>G in/mm</th>
<th>Approx. Weight lbs/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾&quot;</td>
<td>7 ¾ 191</td>
<td>7 ¾ 197</td>
<td>2 ¾ 70</td>
<td>4 ¼ 108</td>
<td>2 ¾ 73</td>
<td>3 ¾ 92</td>
<td>2 ¾ 92</td>
<td>¾&quot; - 14</td>
<td>1.030</td>
<td>26</td>
</tr>
<tr>
<td>½&quot; x ¾&quot;</td>
<td>7 ¾ 191</td>
<td>7 ¾ 197</td>
<td>2 ¾ 70</td>
<td>4 ¼ 108</td>
<td>2 ¾ 73</td>
<td>3 ¾ 92</td>
<td>2 ¾ 92</td>
<td>1&quot; - 11 ½</td>
<td>1.290</td>
<td>33</td>
</tr>
</tbody>
</table>

### Operating Characteristics

**Normal Operating Range**
- @100% Accuracy (±1.5%)
- @95% - 101% Accuracy

**AWWA Standard Low Flow**
- 0.11 to 4.55 m³/h
- 0.23 to 4.5 m³/h

<table>
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<tr>
<th>Meter Size</th>
<th>Normal Operating Range @100% Accuracy (±1.5%)</th>
<th>AWWA Standard</th>
<th>Low Flow @ 95% - 101% Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾&quot;</td>
<td>½ to 20 US gpm 0.11 to 4.55 m³/h</td>
<td>1 to 20 US gpm 0.23 to 4.5 m³/h</td>
<td>¼ US gpm 0.03 m³/h</td>
</tr>
</tbody>
</table>

### Systems Compatibility

Adaptability to all present and future systems for flexibility is available only with Neptune’s ARB® Utility Management Systems™.

**Maximum Operating Water Pressure**
- 175 psi

**Maximum Operating Water Temperature**
- T-10 meter accuracy rated to +80°F
- Backflow assembly rated to +110°F

**Register**
- Direct reading: synthetic polymer box and cover, bronze box and cover
- Remote reading: ARB V, ProRead, ProCoder, E-CODER, E-CODER/R900i, E-CODER/R450i, E-CODER/L900i, TRICON/S, TRICON/E3

**Reverse Flow Protection**
- Two stainless steel spring-loaded check valves

### Measuring Chamber
- Positive displacement, nutating T-10 disc

### Bottom Caps
- Synthetic polymer
- Cast iron
- Lead free, high-copper alloy

### Environmental Conditions
- Operating temperature: -22°F to +149°F (-30°C to +65°C)
- Storage temperature: -40°F to +158°F (-40°C to +70°C)
- Operating humidity: 0 to 95% non-condensing

### Warranty
Neptune provides a limited warranty with respect to its T-10 water meters for performance, materials, and workmanship. When desired, maintenance is easily accomplished either by replacement of major assemblies or individual components.

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#winyourday
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