Beverage Turbine Flow Meter Series 300

Low flow, chemically resistant flowmeter

The beverage flowmeter is designed specifically for the drinks dispense industries including beer, wines and spirits. They give high performance and competitive pricing with flows ranges up to 10 lpm (2.4 gpm). They have totally non-metallic wetted components which makes them the ideal choice for the metering of food-based products and even ultra-pure water. The standard inlet tubes are 3/8” push on pipe connectors, for OEM use alternatives are available. The bearings are made of sapphire for long life and reliability, the body is molded in a choice of thermo-plastics (PVDF as standard) and the ‘O’ ring seal is typically Viton™ but may be any elastomer.

At the heart of the meter is a precision turbine that rotates freely on robust sapphire bearings and contains chemically resistant rare-earth magnets that are detected through the chamber wall by a Hall effect detector. The output is a stream of NPN pulses that are readily interfaced with most electronic display or recording devices. The combination of materials and technology ensures a long life product with reliable operation throughout. Complies with Special Purpose Food Equipment and Devices NSF / ANSI 169.

Features

- Manufactured in PVDF with rare-earth magnets and sapphire bearings
- Pressure rating 10 bar (145 psi)
- Temperature rating up to 100 °C (212 °F)
- 3/8” Push on pipe connectors, John Guest style
- High accuracy and repeatability
- Pulse output NPN
- Supply 5 to 24 Vdc
- Complies with NSF / ANSI 169
- Cable lengths – 2 m (6 ft), 3 m (10 ft), 5 m (16 ft) and 10 m (33 ft)

Flow Ranges and Pulses

<table>
<thead>
<tr>
<th>Model</th>
<th>Range liter/min</th>
<th>Range gal/min</th>
<th>Linearity %</th>
<th>Frequency Hz</th>
<th>K-factor 1/liter</th>
<th>K-factor 1/gallon</th>
<th>Body color</th>
</tr>
</thead>
<tbody>
<tr>
<td>010</td>
<td>0.6…..10.0</td>
<td>0.159…..2.642</td>
<td>± 1.0% FSD</td>
<td>235</td>
<td>1420</td>
<td>5375</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>1.0…..10.0</td>
<td>0.264…..2.642</td>
<td>± 2.5% of Reading</td>
<td>235</td>
<td>1420</td>
<td>5375</td>
<td>white</td>
</tr>
</tbody>
</table>

Table 1
Technical Specifications

- **Linearity:** see table 1
- **Repeatability:** ±0.1%
- **Pulse output:** NPN, Hall Effect – switch current 10 mA max.
- **Pressure rating:** 10 bar (145 psi)
- **Viscosity / particles:** up to 10 cP / less than 90 micron
- **Temperature rating:** 0 °C (32 °F) up to 100°C (212 °F)
- **Body and internals:** PVDF, Sapphire, Rare-earth magnets
- **Seals:** Viton O ring standard
- **Connections:** 3/8” Push on pipe connectors, John Guest style
- **Power supply:** 5 – 24 Vdc; 7.5 mA typical
- **Food grade:** complies with NSF / ANSI 169

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Model Numbering System

<table>
<thead>
<tr>
<th>Flow range</th>
<th>Model number</th>
<th>Body color</th>
<th>Cable length X</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6 …10.0 lpm</td>
<td>300-010-Xm</td>
<td>White</td>
<td>2m (6ft), 3 m (10ft), 5m (16 ft), 10m (33ft)</td>
</tr>
</tbody>
</table>