MASS FLOW MEASUREMENT

KEY FEATURES:
- Measurement of both Gases & Liquids
- Available as Flow Switch
- 316L Electro-Polished Stainless Steel Material
- 15 RA or Better Internal Finish
- Robust Welded Construction
- "CIP / SIP" Clean in place design
- 100:1 Turndown Available
- Unobstructed Flow Path
- No Moving Parts
- Negligible Pressure Drop
- Tri-Clamp and Tube End Connections
- Available in sizes from ¾" OD to 2" OD Tube
- Designed & Manufactured in the USA

FEATURES FOR YOUR 3A SANITARY APPLICATIONS:

MODEL# 600-9SAN3A Sanitary Thermal Mass Flow Meters

Why Insist on 3A Approved Instrument:
- Independently inspected to meet Flow Meter Standard 28-05 from 3-A Organization
- Materials of Construction meet Good Manufacturing Practice (GMP)
- Designed for easy cleaning and inspection to protect from contamination
- Accepted by USDA & FDA
- 3-A symbol recognized around the world

Revision 09/2017
Thermal Instrument Mass Flow Meters have been used across many industries in a variety of liquid and gas applications for more than 50 years. Back in the 1980’s, we introduced our unobstructed in-line model for sanitary applications. With the 3-A Certification you can have the confidence that our flow meters and switches are accepted by the USDA, FDA, and other regulatory agencies for your food and beverage processes. 3-A has set the standards for fabrication and design of sanitary equipment to help protect the public health. Thermal Instrument provides a variety of sizing and process connections to aid in measuring and monitoring your critical food and beverage processes. Contact Thermal Instrument or one of our sales partners to find out more information.

**Performance:**
- Media: Liquid or Gas
- Accuracy: ± .50% of Full Scale or 2% of Reading. Full Scale over calibrated range.
- Repeatability: ± 0.2% of Rate
- Response Time: 1 to 2 Seconds for Gases. < 500ms for Liquids.
- Turndown: Up to 100:1
- Fluid Temperature: Span ± 50°F from operating temperature

**Standard Installation:**
10 pipe diameters before meter and 5 pipe diameters after meter without any piping changes (Note: We can calibrate to installation conditions if above cannot be met)

**Design:**
- Material: 316L Electro-Polished Stainless Steel
- Internal Finish: 15 RA or Better
- Sizing: ¾” to 2” OD
- Flow Path: Unobstructed
- Connections: Tri-Clamp, Tube Ends
- Clean in Place (CIP/ SIP)
- Non-Wetted Redundant Flow Sensors

**Electronic Transmitter Options:**
- Integral: Model # 9500P
- Remote: Model #’s 9500P, 9200B, 926A
- Outputs: Flow, Totalized Flow, and Temperature (Optional)
- Output Signal: 4-20mADC, Pulse, Hart, RS485 Modbus
- Display: 8 Digit Flow & Totalized Flow
- Power: AC or DC

**Certification:**
- 3A–SSI # 28-05
- ANSI 3A/ 00-00-2014

**Flow Range**

* Values below are based on GPM of Water and SCFM of Air

<table>
<thead>
<tr>
<th>Size</th>
<th>Flow Range in GPM</th>
<th>Flow Range in SCFM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inch</td>
<td>Min.</td>
<td>Max.</td>
</tr>
<tr>
<td>¾”</td>
<td>0.12</td>
<td>12</td>
</tr>
<tr>
<td>1”</td>
<td>0.25</td>
<td>25</td>
</tr>
<tr>
<td>1½”</td>
<td>0.6</td>
<td>60</td>
</tr>
<tr>
<td>2”</td>
<td>1.0</td>
<td>100</td>
</tr>
</tbody>
</table>

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