Micro Flow Vortex Gas Flowmeter

Achieves a 100:1 measurement range!

MVF Series flowmeters use a azbil Micro Flow (μF) sensor in the detector unit, allowing them to realize a wide measurement range that conventional vortex flowmeters cannot match.

Detector

A next-generation flowmeter that can help reduce installation costs!

Excellent for low flow rates. Wide coverage of ranges actually used!

As the graph shows, MVF Series flowmeters can handle a wide range of flow rates, from low to the highest rates that are actually used. For that reason, they can be depended on not only for flow management, but also for leakage or low flow detection.

Detector

azbil’s unique design uses a Micro Flow sensor in the detector.

Dimensions

(Unit : mm)

MVF050

MVF080

MVF100

MVF150

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Pleae, read ‘Terms and Conditions’ from following URL before the order and use.

http://www.azbil.com/products/bi/order.html

Azbil Corporation
Advanced Automation Company
Headquarters changed its name to Azbil Corporation on April 1, 2012.
1-12-2 Kawana, Fujisawa
Kanagawa 251-8522 Japan
URL: http://www.azbil.com

1st Edition : Sept. 2011-MO

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**Model numbers**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro Flow Vortex Gas Flowmeter</td>
<td>Port size 50A (2B)</td>
</tr>
<tr>
<td>Micro Flow Vortex Gas Flowmeter</td>
<td>Port size 80A (3B)</td>
</tr>
<tr>
<td>Micro Flow Vortex Gas Flowmeter</td>
<td>Port size 100A (4B)</td>
</tr>
<tr>
<td>Micro Flow Vortex Gas Flowmeter</td>
<td>Port size 150A (5B)</td>
</tr>
<tr>
<td>With temperature compensation, without pressure compensation</td>
<td>0.6 to 0.9 MPa range</td>
</tr>
<tr>
<td>With temperature and pressure compensation, 0 to 0.1 MPa range</td>
<td>1</td>
</tr>
<tr>
<td>With temperature and pressure compensation, 0 to 0.3 MPa range</td>
<td>2</td>
</tr>
<tr>
<td>With temperature compensation, with pressure compensation</td>
<td>3</td>
</tr>
<tr>
<td>With temperature and pressure compensation, without pressure compensation</td>
<td>4</td>
</tr>
<tr>
<td>With pressure compensation</td>
<td>5</td>
</tr>
</tbody>
</table>

When ordering, in addition to the model number be sure to specify the 4 to 20 mA span and the pulse weight: 0.1 m3/pulse, 1 m3/pulse, 10 m3/pulse (customer can specify a weight to be preset at the factory). For details, refer to the specification sheets.

**Brief specifications**

- **Flow rate measurement range**
  - For MVF100 (50A port): 8 to 458 m³/h (normal)
  - For MVF150 (100A port): 13 to 576 m³/h (normal)
  - For MVF150 (100A port): 23 to 7246 m³/h (normal)

- **Applicable gases**
  - Air, nitrogen, argon, oxygen (choose one elimination option), carbon dioxide, natural gas (15A), methane, propane, butane, and other inert gases and mixed gases outside the explosion limits.

- **Stoichiometric flow rate accuracy**
  - ±3.5 % rdg at 276 m³/h (normal) or more
  - ±2 % rdg at 51 m³/h or more

- **Pressure measurement range**
  - 0.1 MPa (normal)
  - 0.3 MPa (normal)
  - 1.0 MPa (normal)

- **Operating temperature range**
  - -15 to +90 °C

- **Operating pressure range**
  - MVF100 and MVF150: 0 to 1.5 MPa | MVF150L: 0 to 0.3 MPa

- **Flow rate accuracy at 0.1 MPa**
  - ±3 % rdg at 51 m³/h (normal) or more
  - ±2 % rdg at 10 m³/h (normal) or more

- **Rated supply voltage**
  - 24 Vdc

- **Power consumption**
  - 100 mA (max.)

- **Output signal** (4 to 20 mA)
  - Port size 80A (3B) port: 4 to 20 mA: max. 20 mA
  - Port size 100A (4B) port: 4 to 20 mA: max. 20 mA
  - Port size 150A (5B) port: 4 to 20 mA: max. 20 mA

- **Integrated pulse output** (1 output)
  - Port size 80A (3B) port: 1 pulse/120 m³/h
  - Port size 100A (4B) port: 1 pulse/1200 m³/h
  - Port size 150A (5B) port: 1 pulse/2400 m³/h

- **Communication function**
  - RS-485 interface, 3-wire type, 300 m max. wire length

- **Display**
  - Instantaneous flow rate indication: LCD, 8 digits
  - Instantaneous flow rate indication: LDR, 1 digit
  - Instantaneous flow rate indication: LDR, 2 digits
  - Instantaneous flow rate indication: LDR, 3 digits
  - Instantaneous flow rate indication: LDR, 4 digits
  - Total flow indication: LDR, 1 digit
  - Total flow indication: LDR, 2 digits

- **Gas-contacting material**
  - Butane
  - Propane
  - Methane

- **Converter case material**
  - Stainless steel

- **Mounting position**
  - Horizontal or vertical

- **Connection rating**
  - G1/2 female thread, 2 waterproof glands included

- **Weight**
  - Approx. 2.9 kg (excluding installation)