Model PG-1000 Series
Economical Acrylic Flowmeter with Glass Flow Tube

Description
The PG-1000 Series Flowmeters are designed to allow reliable flow indication of gases at low capacities, while maintaining a rugged, economical plastic construction. A glass metering tube ensures dependable, accurate performance throughout the meter’s capacity range.

The PG-1000 Series flowmeters are direct reading for air, and are available in either English or Metric units. Choose between a black glass or stainless steel float.

The superior construction features of the PG-1000 Series Flowmeters result in a sturdy design with optimum gas metering characteristics. Complete annealing during production ensures each meter body is stress free. Threadless plastic blocks eliminate crazing and fracture, and the metal support frame absorbs all connection strain.

The glass metering tube is sealed directly into the acrylic body by means of a spring-loaded O-ring, and is interchangeable. The scale is permanently fused on the metering tube, close to the flow area, to reduce parallax and improve readout.

Design Features
- Precision tapered glass metering tube
- Reduced scale parallax
- Removable tube for capacity change
- 50mm scale length
- Low end flow measurement of 0.06 SCFH
- 10 to 1 or greater meter range
- Low pressure drop
- Meter support frame flanges allow variety of panel mounting positions
- Control valve available installed at inlet or outlet

Specifications
- Pressure Rating: 100 psig maximum operating pressure
- Temperature Rating: 160°F maximum operating temperature
- Accuracy: ±10% of full scale flow rate
- Repeatability: 1% of scale reading
- Range: 10 to 1 or greater, i.e., 100% to 10% of full scale
- Scale Readings: Direct reading for air (special other direct reading scales available)
- Shipping Weight: 1 lb

Materials of Construction
- Wetted End Plugs and Valve Parts: Brass, 316 stainless steel – standard; Aluminum – optional
- Valve Stem: 316 stainless steel
- Seal Materials: Buna-N, Viton – standard; EPR, Kalrez – optional
- Meter Block: Clear, cast acrylic plastic with removable glass metering tube; extruded aluminum support frame
- Piping Connections: Brass or 316 stainless steel – standard; Aluminum – optional
- Float Materials: Black glass or 316 stainless steel
- Scale: Ceramic ink on glass tube, length 50mm

Dimensions PG-1000 Flowmeter
See pages 371 for engineering drawing.

Don’t See It Here?
Matheson offers a complete line of variable area flowmeters. Our standard, more common configuration options are shown here. However, if you don’t see what you are looking for, contact us. We manufacture flowmeters for liquids as well as gases, and can use other end block materials, such as aluminum, Kynar and Monel, and other seal materials such as Teflon, EPR and Kalrez. In addition, we can provide the valve on the outlet of the meter rather than the inlet, and we offer other connection fittings, including NPT, tube and hose, in a variety of sizes. Lastly, we have an enormous library of flow calibrations and correlation tables for dozens of other gases and a wide range of conditions.

So, if you don’t see it here, give us a call. We’ll build to suit your specific needs.
## Model PG-1000 Series
### Economical Flowmeters (continued)

### Flow Tube Capacities For PG-1000 Series Flowmeters, 50mm, Direct Reading

<table>
<thead>
<tr>
<th>English Scale</th>
<th>Metric Scale</th>
<th>Float Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube No.</td>
<td>Air (SCFH)*</td>
<td>Tube No.</td>
</tr>
<tr>
<td>U005</td>
<td>0.01-0.06</td>
<td>U001</td>
</tr>
<tr>
<td>U006</td>
<td>0.02-0.1</td>
<td>U002</td>
</tr>
<tr>
<td>U007</td>
<td>0.02-0.18</td>
<td>U003</td>
</tr>
<tr>
<td>U008</td>
<td>0.1-0.4</td>
<td>U004</td>
</tr>
<tr>
<td>U203</td>
<td>0.1-1</td>
<td>U201</td>
</tr>
<tr>
<td>U204</td>
<td>0.2-2</td>
<td>U202</td>
</tr>
</tbody>
</table>

### Ordering Information

<table>
<thead>
<tr>
<th>Model Series</th>
<th>Number of Metering Tubes</th>
<th>End Blocks/ Seal Material</th>
<th>Valve Types</th>
<th>Connections</th>
<th>Accessories</th>
<th>Connection Orientation</th>
<th>Flow Tube (Capacities)</th>
</tr>
</thead>
</table>

### Model Number Generator For PG-1000 Series Flowmeters

**MODEL SERIES**
- U = Model PG-1000 Plastic Flowmeter with Glass Flow Tube

**NUMBER OF METERING TUBES**
- 1 = Single Tube Unit

**END BLOCKS/SEAL MATERIAL**
- 3 = Chrome Plated Brass with Buna-N Seals
- 4 = 316 Stainless Steel with Viton Seals

**VALVE TYPES**
- E = Valve on Inlet
- G = No Valve

**CONNECTIONS**
- 1 = 1/8” NPT Female (std)
- 6 = 1/4” Hose (3/16”-3/8” Hose Tapered)

**ACCESSORIES (ORDER SEPARATELY)**
- 0 = None
- 5 = Base Plate

**CONNECTION ORIENTATION**
- 1 = Back In and Back Out

**FLOW TUBE (CAPACITIES)**
- UXXX = See Capacity Table Above

### ADDITIONAL OPTIONS
- Bezel and bracket assemblies are available for mounting PG-1000 meters. Contact Matheson for details
- +/- 1% Accuracy, Full Scale, With Certification, Reference Scales
- +/- 10% Accuracy, Full Scale, With Certification
- Silk Screen Charge
- Clean for O2 Service

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*All flow rates are at 70°F and 14.7 psia

A 37mm scale is available, please consult Matheson.