



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

English Scale		Metric Scale		Float Material
Tube No.	Air (SCFH)*	Tube No.	Air (SCCM)*	
U005	0.01-0.06	U001	2.5-25	Glass
U006	0.02-0.1	U002	5-50	Glass
U007	0.02-0.18	U003	20-100	Glass
U008	0.1-0.4	U004	50-200	Stainless Steel
U203	0.1-1	U201	50-500	Glass
U204	0.2-2	U202	100-1000	Stainless Steel
(SLPM)*				
U305	0.2-4.4	U301	0.1-2	Glass
U306	1-6	U302	0.2-3	Stainless Steel
U307	1-8	U303	0.2-4	Stainless Steel
U308	1-10	U304	0.5-5	Stainless Steel

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

A 37mm scale is available, please consult Matheson.

Ordering Information

Model Series	Number of Metering Tubes	End Blocks/ Seal Material	Valve Types	Connections	Accessories	Connection Orientation	Flow Tube (Capacities)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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
- +/- 5% Accuracy, Full Scale, With Certification
- +/- 10% Accuracy, Full Scale, With Certification
- Silk Screen Charge
- Clean for O₂ Service