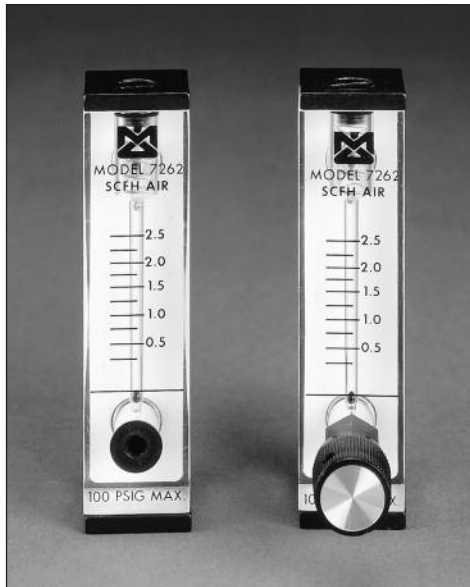


## Model PM-1000 Series Economical Acrylic Flowmeters



### Description

The PM-1000 Series acrylic flowmeters are a practical, low-cost approach to low flow rate indication of gases. A broad range of industrial applications involving non-corrosive fluids, normal atmospheres and less stringent accuracy demands are within the scope of this simplified, plain tapered tube design. State-of-the-art manufacturing techniques ensure each meter meets the performance demands of these applications.

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

Complete annealing during production ensures each meter body is stress free. No plastic threading is used, eliminating crazing and fracture of the acrylic. An extruded aluminum support frame for the meter body absorbs all connection strain. Support frame flanges and lock nuts provide for a variety of panel mounting arrangements. The simplified design of this meter allows quick, easy maintenance. High impact strength of the acrylic meter block completes this dependable design.

### Design Features

- Reduced scale parallax
- 37mm scale length
- Low end flow measurement of 0.2 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 air (special other direct reading scales available) |
| Shipping Weight:    | 1 lb   |

### Materials of Construction

|                                   |   |
|-----------------------------------|---|
| Wetted End Plugs and Valve Parts: | Brass, 316 stainless – standard; Aluminum – optional          |
| Valve Stem                        | 316 stainless steel   |
| Seal Materials:                   | Buna-N, Viton – standard; EPR, Kalrez – optional              |
| Meter Block:                      | Clear, cast acrylic plastic with plain tapered bore           |
| Piping Connections:               | Brass, or 316 stainless steel – standard; Aluminum – optional |
| Float Materials:                  | Black glass or 316 stainless steel                            |
| Scale:                            | Permanently screened on meter body, length 37mm               |

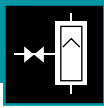
### Dimensions PM-1000 Flowmeter

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 PM-1000 Series Economical Flowmeters (continued)

### Flow Tube Capacities For PM-1000 Series Flowmeters, 37mm, Direct Reading

| English Scale |             | Metric Scale |             | Float Material  |
|---------------|-------------|--------------|-------------|-----------------|
| Tube No.      | Air (SCFH)* | Tube No.     | Air (SLPM)* |                 |
| N203          | 0.2-2.6     | N201         | 0.1-1.2     | Glass           |
| N204          | 0.5-5       | N202         | 0.2-2.4     | Stainless Steel |
| P403          | 1-14        | P401         | 0.5-6       | Glass           |
| P404          | 2-26        | P402         | 1-12        | Stainless Steel |
| Q603          | 5-60        | Q601         | 2.5-30      | Glass           |
| Q604          | 20-120      | Q602         | 10-55       | Stainless Steel |

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

### 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"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

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

#### MODEL SERIES

N = Model PM-1000 Plastic Flowmeter with NXXX Flow Tube Capacity

P = Model PM-1000 Plastic Flowmeter with PXXX Flow Tube Capacity

Q = Model PM-1000 Plastic Flowmeter with QXXX Flow Tube Capacity

#### 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)

XXXX = See Capacity Table For PM-1000 Series Flowmeters

#### ADDITIONAL OPTIONS

- Bezel and bracket assemblies are available for mounting PM-1000. Contact Matheson for details

- +/- 1% Accuracy, Full Scale, With Certification, Reference Scales

- +/- 10% Accuracy, Full Scale, With Certification

- Silk Screen Charge

- Clean for O<sub>2</sub> Service