

### Description

Series PMV Precision Metering Valves are designed for accurate and repeatable flow control of fluids and gases. Valves feature a one-piece forged body and a screwed bonnet design. Stainless steel 3 degree tapered stem seals bubble tight into an Acetal soft seat. With panel mounting and lockable adjustment standard, these valves offer cost effective solutions for precise metering.

### **Features**

- Straight or Angle Flow Patterns
- Forged Body Brass or Stainless Steel Construction
- NPT or Dual Ferrule Tube Connections
- Unique Soft Seat Provides Positive Shut Off
- Wear Compensating Knob Adjustment
- Locking Screw Prevents Inadvertent Flow Changes
- Stem Threads are isolated from System Fluid
- 100% Factory Tested for Leakage

### **Technical Data**

Maximum Operating Pressure @ 100° F

Brass and Stainless: 1000 Psig (68.9 Bar)

Stem Taper: 3 Degree (included angle)

Stem Pitch: 40 Threads per inch Orifice: 0.055" (1.4 mm)

Flow Coefficient (Cv): 0.04

**Panel Mounting** 

Panel Mount Hole: 9/16" (14.3 mm)
Max Panel Mount Thickness: 1/8" (3.3 mm)

Factory Preset for zero flow at positive stop with 150 Psig (10.34 Bar)

Temperature Range:

Seal Dependent (See How To Order)

### **Materials of Construction**

| Component             | Valve Body Material                               |                             |  |  |  |  |
|-----------------------|---|-----------------------------|--|--|--|--|
| Component             | Brass   | Stainless Steel             |  |  |  |  |
| Body                  | Forged Brass,<br>ASTM 377                         | Forged 316 SS,<br>ASTM A182 |  |  |  |  |
| Bonnet                | Brass, ASTM B16,<br>Nickel Plated                 | 316 SS, ASTM<br>A479        |  |  |  |  |
| Stem                  | 316 SS, ASTM A479                                 |                             |  |  |  |  |
| Knob and<br>Panel Nut | Brass, ASTM B16, Nickel Plated                    |                             |  |  |  |  |
| Seat Insert           | Acetal CoPolymer, ASTM D4181                      |                             |  |  |  |  |
| O-Ring                | Buna-N, Neoprene,<br>Ethylene Propylene or Viton® |                             |  |  |  |  |
| Set Screw (2)         | 18-8 SS, ASTM A182                                |                             |  |  |  |  |

Nickel Plating per ASTM B689

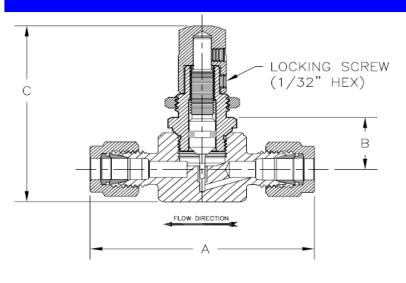
Stem Threads and O-Rings are lubricated with Krytox®

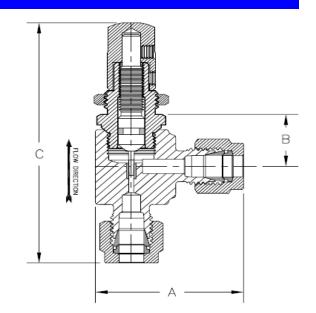






# PRECISION METERING VALVE



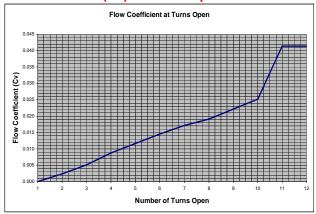


#### **Dimensional Data**

| Model Code | Port Configuration |                           | Dimensions in inches (mm) |                |                 |                     |                 |                  |
|------------|--------------------|---------------------------|---------------------------|----------------|-----------------|---------------------|-----------------|------------------|
|            | Inlet              | Port Configuration Outlet | Configuration             | Orifice        | OAL<br>"A"      | Panel To<br>C/L "B" | Height<br>"C"   | Knob<br>Diameter |
| PMV-2T     | 1/8" Tube          |                           | Straight                  |                | 2.07<br>(52.58) | .62<br>(15.75)      | 2.10<br>(53.34) | 0.50<br>(12.7)   |
| PMV-4T     | 1/4" Tube          |                           |                           |                | 2.31<br>(58.70) |                     | 2.10<br>(53.34) |                  |
| PMV-2TA    | 1/8" Tube          |                           | Angle                     |                | 1.43<br>(36.20) |                     | 2.75<br>(69.72) |                  |
| PMV-4TA    | 1/4" Tube          |                           |                           |                | 1.53<br>(38.74) |                     | 2.89<br>(73.30) |                  |
| PMV-2F     | 1/8" Female NPT    |                           | Straight                  |                | 1.63<br>(41.28) |                     | 2.10<br>(53.34) |                  |
| PMV-2FA    |                    |                           | Angle                     | 0.055<br>(1.4) | 1.19<br>(30.15) |                     | 2.50<br>(63.50) |                  |
| PMV-2PTA   | 1/8" Male NPT      | 1/8" Tube                 | Angle                     |                | 1.43<br>(36.20) |                     | 2.53<br>(64.14) |                  |
| PMV-2P     | 1/8" Male NPT      |                           | Straight                  | -<br>-<br>-    | 1.63<br>(41.28) |                     | 2.10<br>(53.34) |                  |
| PMV-2PA    |                    |                           | Angle                     |                | 1.19<br>(30.15) |                     | 2.53<br>(64.14) |                  |
| PMV-4P     | 1/4" Male NPT      |                           | Straight                  |                | 1.96<br>(49.78) |                     | 2.10<br>(53.34) |                  |
| PMV-4PA    |                    |                           | Angle                     |                | 1.35<br>(34.37) |                     | 2.71<br>(68.83) |                  |

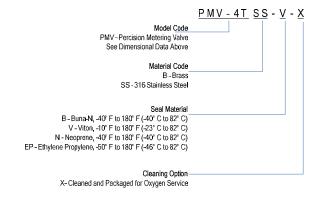
Note: Dimensions shown with Bi-Lok nuts finger-tight. Dimensions are in inches (millimeters), for reference only and subject to change. All valve bodies are 3/4" (19 mm) wide. NPT Threads per ASME B1.20.1

# Flow Coefficient (Cv) @ Turns Open



Note: Valves may require up to one full turn before flow is evident.

### **How To Order**



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PROPER COMPONENT SELECTION – When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.



