



## Metering Valve



**IPS Metering Valve (MV)** use a tapered plug-stem to give a fine adjustment to the flow in addition to a full, open, or positive shutoff position.

Our Metering Valves come in two configurations: Straight Flow Pattern (standard) and Angled Flow Pattern (special). IPS Metering Valves are considered low pressure valves.

The PTFE all-wetted surface design works equally well with ultra clean DI water and harsh chemical media. As with all Metering Valves, we recommend filtering the media prior to entering the valve.

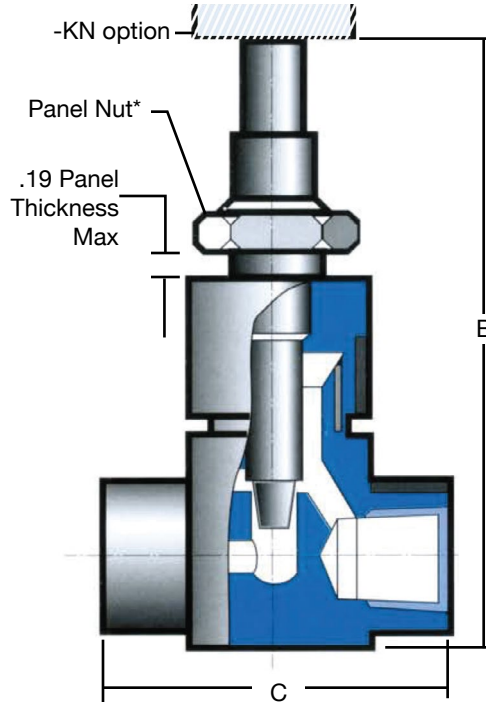
### Specifications:

|                            |                                |
|----------------------------|--------------------------------|
| <b>Media Pressure</b>      | 25 in HG to 60 psi maximum     |
| <b>Media Temperature</b>   | -30°C (-22°F) to 110°C (230°F) |
| <b>Ambient Temperature</b> | -18°C (0°F) to 80°C (176°F)    |

### Metering Valve Flow Characteristics:

| Metering Valve Orifice | Maximum Flow H2O (gpm) | Maximum Flow Air (scfm) | Turns Full Open Valve |
|------------------------|------------------------|-------------------------|-----------------------|
| 0.094" Orifice         | 0.67                   | 3.90                    | 5 ±1                  |
| 0.125" Orifice         | 1.37                   | 8.10                    | 5 ±1                  |
| 0.188" Orifice         | 2.73                   | 14.03                   | 10 ±1                 |
| 0.250" Orifice         | 2.90                   | 15.19                   | 10 ±1                 |
| 0.313" Orifice         | 9.77                   | 52.04                   | 10 ±1                 |
| 0.375" Orifice         | 11.33                  | 61.52                   | 10 ±1                 |
| 0.438" Orifice         | 20.33                  | 106.88                  | 10 ±1                 |
| 0.500" Orifice         | 22.19                  | 112.76                  | 10 ±1                 |

H2O & Air Flow based on nominal 70°F DI Water & Shop Air at 50 psi



\*Stem Style Adjustment Knob supplied with the panel mount version. This is the standard Metering Valve configuration.

-KN Option is a large Diameter Knob. The unit is not panel mountable. See photo for difference.

## Metering Valve: ORDERING FORMAT

**MV — 22 P — A — KN**

**Metering Valve**

**Port & Orifice Size**

**Optional Large Diameter Knob**

**Orientation**

A = Straight Flow Pattern  
B = Angled Flow Pattern

**Port Configuration**

P = Pipe Female NPT  
T = Tube  
FF = Fractional Flared  
M = Pipe Male NPT

### Porting w/ Max Orifice

| PIPE  |                             | Straight |      | Angled |      |
|-------|-----------------------------|----------|------|--------|------|
|       |                             | B        | C    | B      | C    |
| 22    | 1/8" FNPT & 0.125" Orifice  | 3.04     | 1.50 | 3.42   | 1.13 |
| 44    | 1/4" FNPT & 0.250" Orifice  | 3.16     | 2.00 | 3.60   | 1.44 |
| 66    | 3/8" FNPT & 0.375" Orifice  | 4.79     | 2.75 | 5.35   | 2.19 |
| 88    | 1/2" FNPT & 0.500" Orifice  | 5.04     | 3.13 | 5.79   | 2.38 |
| TUBE  |                             | B        | C    | B      | C    |
| 21    | 1/8" TUBE & 0.094" Orifice  | 3.04     | 1.50 | 3.42   | 1.13 |
| 43    | 1/4" TUBE & 0.188" Orifice  | 3.16     | 2.00 | 3.60   | 1.44 |
| 65    | 3/8" TUBE & 0.313" Orifice  | 4.79     | 2.75 | 5.35   | 2.19 |
| 87    | 1/2" TUBE & 0.436" Orifice  | 5.04     | 2.75 | 5.79   | 2.19 |
| FLARE |                             | B        | C    | B      | C    |
| 42    | 1/4" FLARE & 0.125" Orifice | 3.16     | 2.88 | 4.04   | 1.88 |
| 64    | 3/8" FLARE & 0.250" Orifice | 5.22     | 3.62 | 5.79   | 2.62 |
| 86    | 1/2" FLARE & 0.375" Orifice | 5.22     | 3.82 | 6.14   | 2.72 |

If you do not find your configuration available please call the IPS factory

### IPS Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
2. Call us for special applications. We can manufacture our Valves with special mounting and interface dimensions.
3. Upon request, alternate material selection from those listed will allow for expanding temperature ratings or other performance characteristics.
4. Unauthorized disassembly of this product will void the original factory one-year product warranty. For further details please contact your local Distributor or our factory directly.



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## Precision Plug Valve



The **IPS Precision Plug Valve (PPV)** is a precision machined manual valve manufactured from 100% virgin PTFE (all wetted surfaces) and PVDF Stem Nut. The PTFE body and stem perform equally well with harsh chemicals and ultra clean DI water.

The basic construction is a single through orifice with a tapered body that matches the tapered plug for positive shut-off.

Various orifice and port sizes are available as standard items. Other sizes and configurations are available on request.



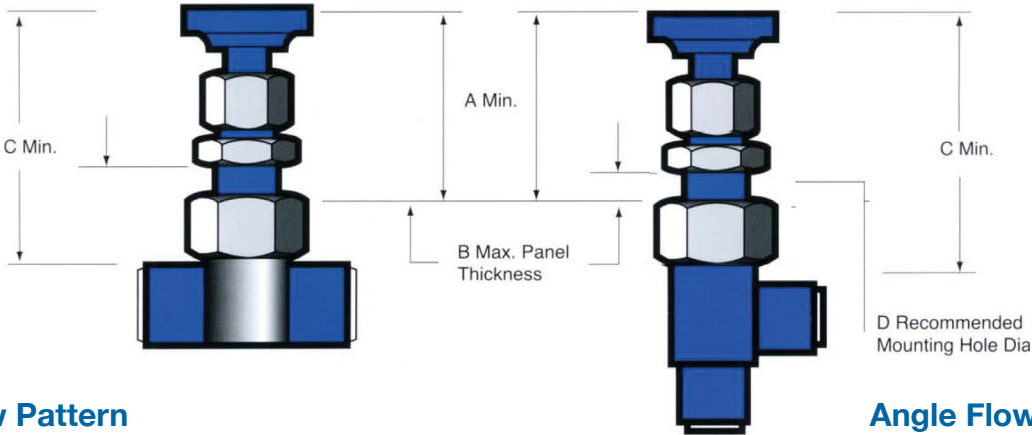
Our Precision Plug Valve are supplied in two configurations:

- Straight Flow Pattern ("A" = standard)
- Angled Flow Pattern ("B" = special)

### Specification:

|                    |              |  |
|--------------------|--------------|--|
| Operating Pressure | 0 – 60 psi   |  |
| Temperature Range  | Line Media:  | -55°C to + 100°C<br>(-67°F to + 212°F) |
|                    | Ambient:     | -55°C to + 71°C<br>(-67°F to + 160°F)  |
| Leak Rating        | Bubble Tight |  |

| PPV Port Size | A     | B     | C     | D     |
|---------------|-------|-------|-------|-------|
| 1/8 & 1/4     | 2.13" | 0.19" | 2.75" | 0.75" |
| 3/8 & 1/2     | 2.19" | 0.31" | 2.88" | 0.81" |



**Straight Flow Pattern**  
("A" = standard)

**Angle Flow Pattern**  
("B" = special)

**Precision Plug Valve: ORDERING FORMAT**

**PPV - X X X - X**

**Porting w/ Max Orifice**

| PIPE  |                             |
|-------|-----------------------------|
| 22    | 1/8" FNPT & 0.125" Orifice  |
| 44    | 1/4" FNPT & 0.250" Orifice  |
| 66    | 3/8" FNPT & 0.375" Orifice  |
| 88    | 1/2" FNPT & 0.500" Orifice  |
| TUBE  |                             |
| 21    | 1/8" TUBE & 0.063" Orifice  |
| 43    | 1/4" TUBE & 0.188" Orifice  |
| 65    | 3/8" TUBE & 0.313" Orifice  |
| 87    | 1/2" TUBE & 0.436" Orifice  |
| FLARE |                             |
| 42    | 1/4" FLARE & 0.125" Orifice |
| 64    | 3/8" FLARE & 0.250" Orifice |
| 86    | 1/2" FLARE & 0.375" Orifice |

**Model Designation**  
A - Straight Pattern Valve  
B - Angle Body Valve

**End Connections**  
P = FNPT  
T = Tube  
FF = Fractional Flared

| Orifice (in) | GPM H2O at 22°C | Air CFM at 20 psi |
|--------------|-----------------|-------------------|
| 0.063        | 1.0             | 4.2               |
| 0.125        | 1.6             | 7.1               |
| 0.188        | 2.1             | 9.2               |
| 0.250        | 2.6             | 9.3               |
| 0.313        | 3.0             | 11.1              |
| 0.375        | 3.4             | 12.8              |

**PPV valves have a 6 (+/-1) Manual Turn Range**

**IPS Product Notes:**

1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
2. Call us for special applications. We can manufacture our Valves with special mounting and interface dimensions.
3. Upon request, alternate material selection from those listed will allow for expanding temperature ratings or other performance characteristics.
4. Unauthorized disassembly of this product will void the original factory one-year product warranty. For further details please contact your local Distributor or our factory directly.