Isolation Valve Integrated 100\% Port Ball Valve/Union/Readout Port


| Technical Data |  |
| :--- | :--- |
| Service | chilled or hot water, $60 \%$ glycol |
| Sizes | $1 / 2^{\prime \prime}, 3 / 4^{\prime \prime}, 1,111^{\prime \prime \prime}, 112^{\prime \prime}, 2^{\prime \prime}$ |
| Materials: | forged brass |
| Body | chrome plated/hot forged brass |
| Ball | extruded brass |
| Stem | forged brass |
| Union | forged brass |
| Tailpiece | extruded brass |
| Readout port body \& cap | Virgin PTFE |
| Seats | Virgin PTFE |
| Packing | Viton |
| O-rings | Nordel |
| Readout port | $0^{\circ} \mathrm{F}$ to $212^{\circ} \mathrm{F}\left[-18^{\circ} \mathrm{C} \mathrm{to} 100^{\circ} \mathrm{C}\right]$ |
| Media temp. range | $0 \%$ |
| Leakage |  |


| Dimensions |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r} \mathrm{Va} \\ \text { Nomin } \end{array}$ | Ive <br> al Size | $\begin{gathered} C_{v} \\ \text { Rating } \end{gathered}$ | Dimensions Inches [mm] |  |  |  |  |
| Inches | DN [mm] |  | A | B | C | D | E |
| $1 / 2{ }^{\prime \prime}$ | [12.70] | 20.25 | 4.07 [103.4] | 1,26" [32.00] | 1.53" [38.86] | 0.59" [14.99] | 2.95" [74.93] |
| $3 / 4$ " | [19.05] | 41.83 | 4.35 [110.5] | 1.26" [32.00] | 1.93" [49.02] | 0.79" [20.07] | 3.74" [95.00] |
| $3 / 4$ " | [19.05] | 41.83 | 4.80 [121.9] | 1.26" [32.00] | 1.93" [49.02] | 0.79" [20.07] | 3.74 " [95.00] |
| 1 " | [25.40] | 78.38 | 5.00 [127] | 1.42" [37.08] | 2.40" [60.96] | 1.00" [25.40] | 4.73" [120.10] |
| 1" | [25.40] | 78.38 | 5.45 [138.4] | 1.42" [37.08] | 2.40" [60.96] | 1.00" [25.40] | 4.73" [120.10] |
| $11 / 4 "$ | [31.75] | 132.10 | 5.43 [137.9] | 1.42" [37.08] | 2.59" [65.79] | 1.25" [31.75] | 4.72" [119.90] |
| $11 / 4$ " | [31.75] | 132.10 | 5.98 [151.9] | 1.42" [37.08] | 2.59" [65.79] | 1.25" [31.75] | 4.72" [119.90] |
| $11 / 2^{\prime \prime}$ | [38.10] | 206.96 | 6.16 [156.5] | 1.73" [43.94] | 3.22" [81.79] | 1.57" [39.88] | 4.72" [119.90] |
| $11 / 2$ " | [38.10] | 206.96 | 7.03 [178.6] | 1.73" [43.94] | 3.22" [81.79] | 1.57" [39.88] | 4.72" [119.90] |
| $2 "$ | [50.80] | 346.00 | 6.79 [172.5] | 1.73" [43.94] | 3.50" [88.90] | 2.00" [50.80] | 5.90" [149.90] |
| 2 " | [50.80] | 346.00 | 7.93 [201.4] | 1.73" [43.94] | 3.50" [88.90] | 2.00" [50.80] | 5.90" [149.90] |

Note: the Cv factor is the flow rate in GPM through the valve at a 1 PSID. For calculated pressure drop across the
Isolation valve, calculate $P=\left(\frac{G P M}{C_{V}}\right)^{2}$. Cv rating supplied in the chart.


## Application

This Isolation Valve combines the features of an isolation valve, union, and pressure temperature readout ports into a single unit. The full port design is favored by Engineers because it minimizes terminal unit piping pressure drop and the forged brass body ensures reliable leak-free performance.

This Isolation Valve greatly simplifies the contractor's job by eliminating up to nine piping connections, thus saving time, money, and potential leak points. The Isolation Valve requires only one third the space of the components it replaces, making tough piping jobs a snap.

- All Isolation Valves are equipped with a manual air vent.

| Connection Availability |  |
| :---: | :---: |
| Body end | female NPT $1 / 2$ " thru $2^{1 "}$ copper SWT $1 / 2^{\prime \prime}$ thru 2" |
| Tailpiece end | male NPT $1 / 2^{\prime \prime}$ thru 2" |
| Body end with one size reduction | female NPT $3 / 4$ " thru $2^{\prime \prime}$ copper SWT $3 / 4$ " thru 2" |
| Body end with two size reduction | female NPT 1" thru 2" copper SWT 1" thru 2" |


| Part Number |  |
| :---: | :---: |
| PPV1110 | $1 / 2$ " female w/manual air vent and P/T port |
| PPV1210 | $1 / 2$ " sweat w/manual air vent and P/T port |
| PPV2110 | $3 / 4 /$ female w/manual air vent and P/T port |
| PPV2210 | $3 / 4$ " sweat w/manual air vent and P/T port |
| PPV3110 | 1" female w/manual air vent and P/T port |
| PPV3210 | 1" sweat w/manual air vent and P/T port |
| PPV4110 | 1" to 3/4" female w/manual air vent and P/T port |
| PPV4210 | $1^{\prime \prime}$ to $3 / 4 /$ sweat w/manual air vent and P/T port |
| PPV5110 | $3 / 4 /$ to $1 / 2 /$ female $\mathrm{w} /$ manual air vent and P/T port |
| PPV5210 | $3 / 4$ to $11 / 2$ sweat w/manual air vent and P/T port |

Note: All reductions are on the tail piece side.
Only standard sizes are shown, consult factory for sizes $1 \frac{1}{4}$ " to 2 " inch sizes.

Custom Option: The Isolation Valve is available in a body side press option for sizes $1 / 2$ " through 2 ". The Isolation Press greatly simplifies the Contractor's job by eliminating up to nine piping connections, thus saving time, money and potenial leak points. The Isolation Press requires only one third the space of the components it replaces, making tough piping jobs a snap. The Isolation Press is designed for direct mechanical connection to ASTM B88-Type K, L and M copper tubing in the hard drawn condition.

