

3-Way Diverting Ball Valves

3-Way Diverting Ball Valves

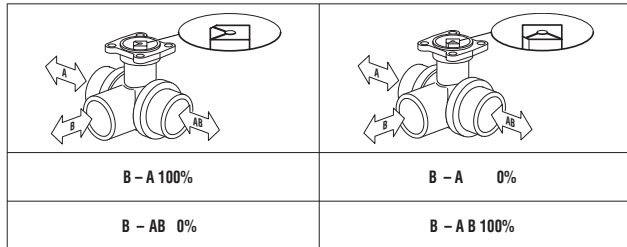
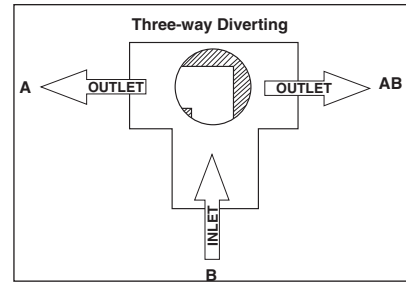
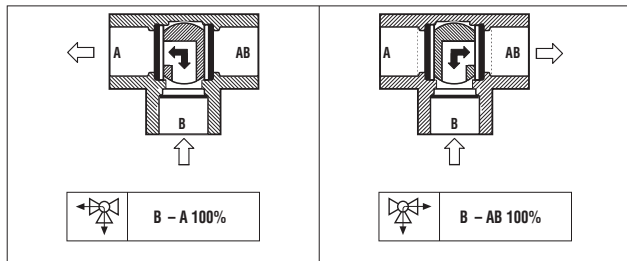
Three-way valve with chrome plated brass ball and nickel plated stem and NPT female ends

Technical Data

Service	chilled or hot water, 60% glycol
Flow characteristic	modified equal percentage
Media temp range	0°F to 250°F [-18°C to 120°C]
Maximum differential pressure (ΔP)	50 psi max
Leakage	0%

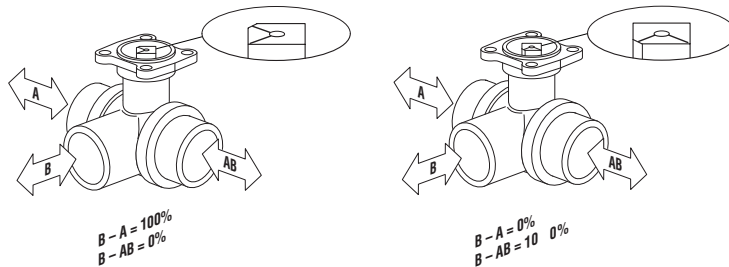
Flow Pattern

Three-way Diverting Ball Valve

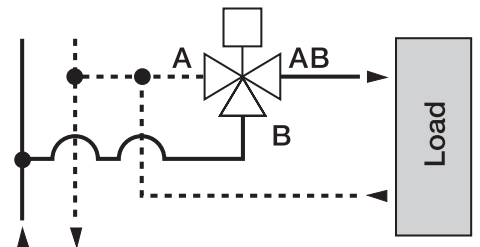


Operation/Installation

Ensure that the balls are in the correct position (marking on the stem).



Normally Open Actuator

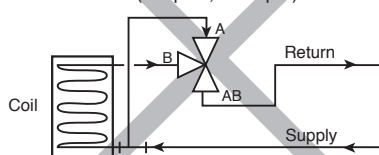


3-Way Diverting Ball Valves

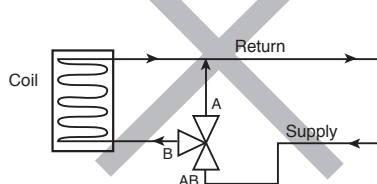
Instruction Manual



Three-Way Mixing Valve Piping Diagram
(2 Inputs, 1 Output)



Three-Way Diverting Valve Piping Diagram
(1 Input, 2 Outputs)



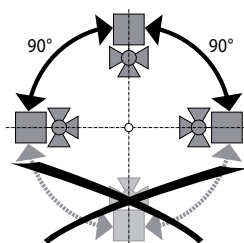
Incorrect Piping

WARNING! Do Not Pipe in this manner! Note Valve Porting!

Flow is not possible from A to AB. If B port is not piped as the common port, the valve must be re-piped. These valves are intended for closed loop systems. Do not install in an open loop system or in an application that is open to atmospheric pressure.

Mounting

The valves can be mounted in any position, except stem below horizontal.



The flange allows the actuator to be either parallel or perpendicular to the pipe; there are four orientations possible.

If field installing a spring return actuator, disconnect power and allow actuator to spring closed. Flip actuator over if necessary to achieve proper rotation direction. DO NOT USE THE REVERSING SWITCH TO DO THIS.

Three-way Valves Mounting

The B port is always the common inlet port. The A and AB ports are outlets.

Do not force. Do not use the actuator to turn the pipe or the stem. Do not use any toothed tool such as pliers, which may damage the stem.

- Check that the actuator rotates so that the valve seats for close off and also rotates open to achieve full Cv. Use the gear release or the AF crank to verify. For LF or NF models apply power and control signal if necessary.
- Install and tighten the hold down screw not more than 1/2 turn beyond the point where resistance is felt.

Warning!

- Valve should not be used for combustible gas applications. Gas leaks and explosions may result. Do not install in systems, which exceed the ratings of the valve.
- Avoid installations where valve may be exposed to excessive moisture, corrosive fumes, vibration, high ambient temperatures, elements, or high traffic areas with potential for mechanical damage.
- Valve assembly location must be within ambient ratings of actuator. If temperature is below -22°F a heater is required.
- The valve assembly will require heat shielding, thermal isolation, or cooling if combined effect of medium and ambient temperatures – conduction, convection, and radiation – is above 122°F for prolonged time periods at the actuator.
- Following standard procedure, a strainer should be installed before the coil and valve or in another appropriate place in the system.
- Visual access must be provided. Assembly must be accessible for routine schedule service. Contractor should provide unions for removal from line and isolation valves.
- Avoid excessive stresses. Mechanical support must be provided where reducers have been used and the piping system may have less structural integrity than full pipe sizes.
- Sufficient upstream and downstream piping runs must be provided to ensure proper valve capacity and flow response. Five diameters in each direction are recommended.
- Life span of valve stems and O-rings is dependent on maintaining non-damaging conditions. Poor water treatment or filtration, corrosion, scale, other particulate can result in damage to trim components. A water treatment specialist should be consulted.
- Normal thread engagement between male pipe thread and valve body should be observed. Pipe run that is in too far will damage the valve.



WARNING:

This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to

www.P65Warnings.ca.gov