Simplify planning, installation and commissioning of HVAC hydronic distribution systems and large air handling units while improving control and comfort. Siemens’ 2-1/2 to 6 inch Flanged Pressure Independent Control Valves (PICVs), with some of the highest flow capacities available in the market, dramatically expand the opportunities to apply PICV in more applications. Pressure independent Control Valves are another way Siemens helps building owners save on energy costs and achieve sustainability goals.

Siemens 3-in-1 Flanged PICVs maintain constant flow by automatically adjusting to differential pressure changes in the HVAC system. This significantly reduces or eliminates “hunting” for the right actuator setting, resulting in better control and increased comfort. PICVs improve system performance and optimize ΔT resulting in less pumping energy and contributing to more efficient loading of boilers and chillers.

**Highlights**

- 3-in-1 device includes a control valve, field adjustable flow limiter, and automatic pressure regulator
- Maximum flow preset is easily field adjustable
- Full stroke regardless of maximum flow setting for the best controllability
- ANSI 125 and ANSI 250 pressure classes
- Highest maximum flows available in the market
- SQV spring return actuators can be wired for floating, 0-10V or 4-20 mA control signals

Optimize Large Hydronic Systems

Gain maximum control in a wide range of applications
HVAC system inefficiencies and poor occupant comfort

Facility managers continue to focus on improving energy efficiency to reduce costs. Yet an often-overlooked area is hydronic heating and cooling systems. Many of these systems do not respond quickly or accurately to load, pressure and flow changes. Because hydronic systems are dynamic, water pressures change continuously in the system as valves open and close, pumps start, stop, and change speed, and pump impellers wear. With any change in pressure, there is a corresponding change in flow through the control loop, even if the heating or cooling load is constant. The results are wasted energy and difficulty maintaining consistent temperature and occupant comfort.

Improve efficiency and comfort through better hydronic control in HVAC applications

Unlike conventional control valves, Siemens PICVs respond to unavoidable system pressure fluctuations because the PICV's automatic differential pressure regulator constantly adjusts to pressure changes. The constant flow through the PICV, regardless of pressure fluctuations in the system, increases heat transfer through the coils. The result is maximized ΔT which significantly improves energy usage and cost savings by preventing an over-supply or under-supply of heating or cooling energy. Also, more accurate temperature control also enhances occupant comfort.

Siemens PICV have the unique advantage of always maintaining their full stroke, regardless of the maximum adjustable flow setting, to provide better control. Pair them with SQV spring return actuators and SAX or SAV non-spring return actuators with all control signal and failure mode combinations for a wide range of applications.