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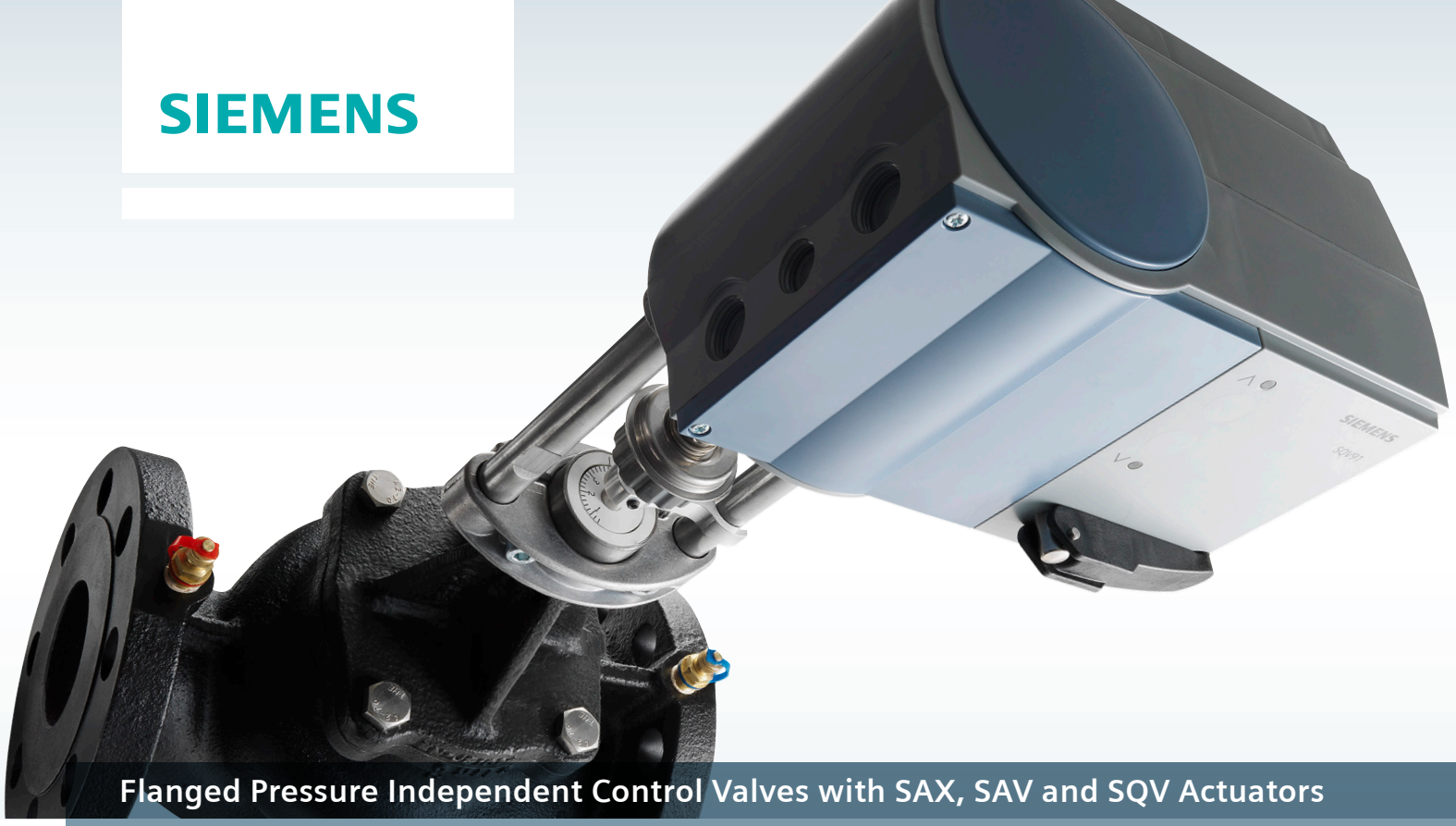

Flanged Pressure Independent Control Valves with SAX, SAV and SQV Actuators

Optimize Large Hydronic Systems

Gain maximum control in a wide range of applications

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

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.

VALVES				ACTUATORS					
									
				Non-Spring Return				Spring Return	
				SAX61.03U 0 to 10V	SAX81.03U Floating	SAV61.00U 0-10V	SAV81.00U Floating	SQV91P30U Normally Open	SQV91P40U Normally Closed
								Floating, 0-10V, 4-20mA	
Valve Body	Line Size, Inch (mm)	ANSI Class	Maximum Flow	Actuator Prefix Code					
				371	372	378	379	238	239
599-07310	2-1/2 (65)	125	110	371-07310	373-07310	-	-	238-07310	239-07310
599-07315			154	371-07315	373-07315	-	-	238-07315	239-07315
599-07320		250	110	371-07320	373-07320	-	-	238-07320	239-07320
599-07325			154	371-07325	373-07325	-	-	238-07325	239-07325
599-07311	3 (80)	125	150	371-07311	373-07311	-	-	238-07311	239-07311
599-07316			190	371-07316	373-07316	-	-	238-07316	239-07316
599-07321		250	150	371-07321	373-07321	-	-	238-07321	239-07321
599-07326			190	371-07326	373-07326	-	-	238-07326	239-07326
599-07312	4 (100)	125	300	-	-	378-07312	379-07312	238-07312	239-07312
599-07317			395	-	-	378-07317	379-07317	238-07317	239-07317
599-07322		250	300	-	-	378-07322	379-07322	238-07322	239-07322
599-07327			395	-	-	378-07327	379-07327	238-07327	239-07327
599-07313	5 (125)	125	485	-	-	378-07313	379-07313	238-07313	239-07313
599-07318			595	-	-	378-07318	379-07318	238-07318	239-07318
599-07323		250	485	-	-	378-07323	379-07323	238-07323	239-07323
599-07328			595	-	-	378-07328	379-07328	238-07328	239-07328
599-07314	6 (150)	125	650	-	-	378-07314	379-07314	238-07314	239-07314
599-07319			860	-	-	378-07319	379-07319	238-07319	239-07319
599-07324		250	650	-	-	378-07324	379-07324	238-07324	239-07324
599-07329			860	-	-	378-07329	379-07329	238-07329	239-07329

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