

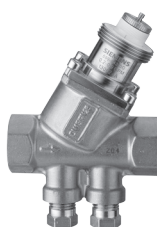
Two-Way PICV **NEW!**

Control Valve, Adjustable Flow Limiter, and Automatic Pressure Regulator

1/2 to 2" Brass Body

ANSI Class 250

Normally Open or Normally Closed



1/2 and 3/4" Two-Way NO
Pressure Independent Control Valve.



1/2 to 1-1/4" Two-Way NC
Pressure Independent Control Valve.



1-1/2 to 2" Two-Way NC
Pressure Independent Control Valve.

Description

The 1/2- to 1-1/4-inch normally closed and 3/4-inch normally open Pressure Independent Control Valves have a 5 mm stroke, and work with the SSD Series Electronic Actuators. The 1/2-inch normally open valves have a 2.5 mm stroke and also work with SSD Actuators. The 1-1/2 to 2-inch valves have a 6.5 mm stroke, and work with the SQD Series Electronic Actuators. The actuators require a 24 volt power supply to provide floating or 0 to 10 Vdc control.

Typical applications include control of hot or chilled water or water-glycol solutions up to 50% in closed loop systems.

Features

- Control valve with integrated pressure regulator and adjustable flow limiter
- Direct-coupled, universal bonnet
- ANSI Class 250 valve body
- ANSI Class IV leakage @ 200 psi (1/2 and 3/4 inch) normally open valves
- ANSI Class IV leakage @ 45 psi (1/2 to 1-1/4 inch) normally closed valves
- ANSI Class III leakage @ 50 psi (1-1/2 to 2-inch) normally closed valves
- Linear Flow Characteristic
- Brass trim with stainless steel stem

Applications

For use in HVAC applications with the Pressure Independent Control SSD or SQD Electronic Actuator, to control hot or chilled water or 50% water-glycol solution in closed loop systems.

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Valves

Two-Way PICV Specifications

Body Material	Brass
Stem	Stainless Steel
Line Size	1/2-inch to 2-inch (15 mm to 50 mm)
Action	2-Way
Valve Body Rating	ANSI 250
Close-off Pressure/Leakage Rate	
1/2 and 3/4-inch, NO	200 psi/Class IV (0.01%)
1/2 to 1-1/4-inch, NC	45 psi/ANSI Class IV (0.01%)
1-1/2 to 2-inch, NC	33 psi/0.05% 50 psi/ANSI Class III (0.1%)
Medium Temperature Range	34°F to 250°F (1°C to 120°C)
Flow Characteristic	Linear
Connection	NPT threaded
Actuator Specifications	
Operating Voltage	
SSD81U/SSD81.5U	24 Vac
SSD61U	24 Vac/dc
SSD61.5U	24 Vac
SQD	24 Vac
Frequency	60 Hz
Power Consumption (Normal Operation)	
SSD81U	0.8 VA
SSD81.5U	2 VA
SSD61U	2.5 VA
SSD61.5U	2 VA
SQD65U	4.5 VA
SQD85.03U	2 VA

Signal	
SSD81U, SSD81.5U	Floating
SQD85.03U	
SSD61U, SSD61.5U	0 to 10 Vdc
SQD65U	
Run Time	5 mm Stroke 2.5 mm Stroke
SSD81U	150 seconds 75 seconds
SSD81.5U	125 seconds 70 seconds
SSD61U	90 seconds 45 seconds
SSD61.5U	30 seconds 15 seconds
SQD85.03U, SQD65U (6.5 mm Stroke)	43 seconds
Force	
SSD (NSR)	>56 lb (250 N)
SSD (SR)	67 lb (300 N)
SQD	>90 lb (400 N)
Agency Certification	
UL	Meets UL 873
cUL	Certified to Canadian Standard C22.2 No. 24.93
Mounting Location	NEMA 1 (Interior only)

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Valves

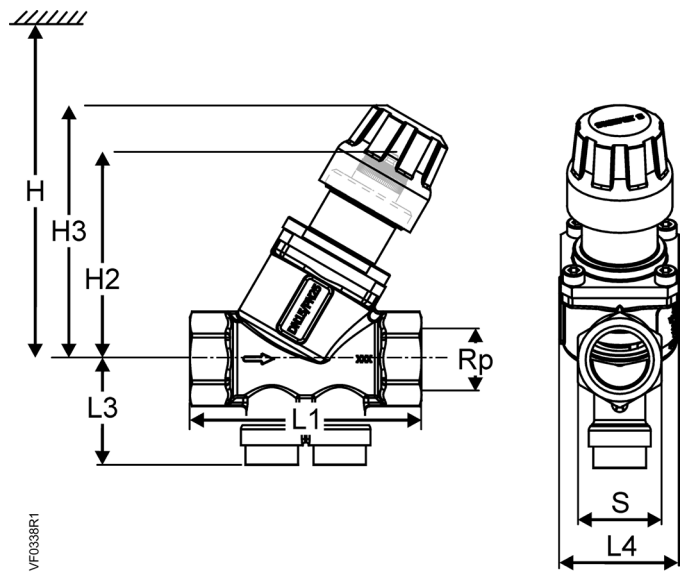
Valve Body Flow Range

Size	Δp min (psi)	Δp max (psi)	GPM Flow Range	NO	NC
1/2	2.5	58	0.2 to 0.9	599-04310	—
	3.0		0.5 to 2.5	599-04311	—
	2.3		0.3 to 2.7	—	599-04300
	2.6		1.0 to 7.5	—	599-04301
3/4	2.3		0.5 to 4.5	—	599-04302
	3.5		1.0 to 5.8	599-04312	—
	3.2		1.0 to 8.9	—	599-04303
1	3.2		1.0 to 8.9	—	599-04304
1-1/4	2.6		2.5 to 13.2	—	599-04305
1-1/2	3.8		10 to 31	—	599-04306
2	4.6		11 to 37	—	599-04307

PICV Actuator Product Ordering

Description			Part No.	Actuator Prefix Code
	Electro-Mechanical	Floating, Spring Return	SSD81.5U	232
		0-10 Vdc, Spring Return	SSD61.5U	233
		Floating, Non-Spring Return	SSD81U	230
		0-10 Vdc, Non-Spring Return	SSD61U	231
	Electro-Mechanical	Floating, Non-Spring Return	SQD85.03U	234
		0-10 Vdc, Non-Spring Return	SQD65U	235

NO – 1/2 and 3/4 Inch Valves

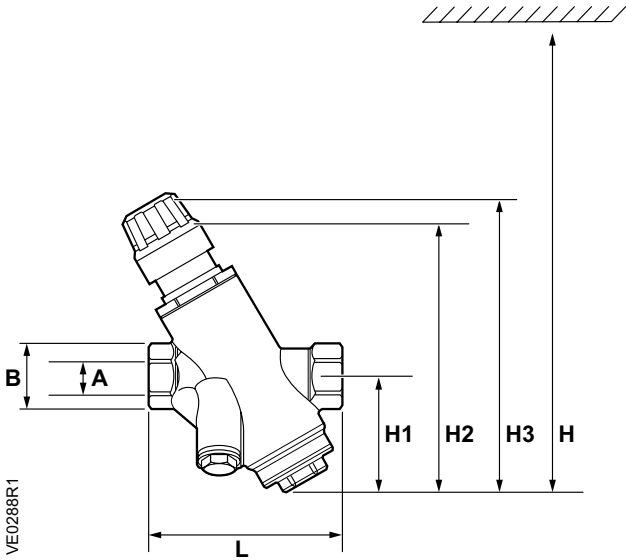


Dimensions shown in inches (mm).

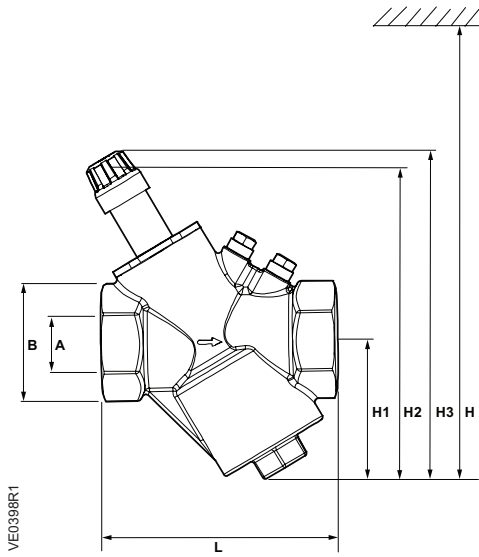
Valve Size Inches Rp	Dimensions								Weight lb. (kg)	
	S	L1	L3	L4	H2	H3	H			
1/2	1.1 (27)	3.0 (75)	1.6 (41)	1.5 (38)	2.6 (67.3)	3.2 (82.4)	14.6 (371)		1.1 (0.50)	
3/4	1.25 (32)	3.1 (79)	1.6 (41)	1.5 (38)	2.7 (67.5)	3.3 (82.5)	14.7 (374)		1.2 (0.53)	

Dimensions

NC – 1/2 to 1-1/4 Inch Valves



NC – 1-1/2 to 2-Inch Valves



Dimensions shown in inches (mm).

Valve Size in.	Dimensions							Weight lb. (kg)	
	A	B	L	H1	H2	H3	H		
1/2	.50 (15)	1.1 (27)	3.5 (88)	2.1 (53)	4.8 (123)	5.3 (135)	16.3 (414)	2.0 (0.9)	
	.50 (15)	1.1 (27)	3.5 (88)	2.1 (53)	4.8 (123)	5.3 (135)	16.3 (414)	2.0 (0.9)	
3/4	.75 (20)	1.3 (32)	3.5 (88)	2.1 (53)	4.8 (123)	5.3 (135)	16.3 (414)	2.0 (0.9)	
	.75 (20)	1.3 (32)	3.5 (88)	2.1 (53)	4.8 (123)	5.3 (135)	16.3 (414)	2.0 (0.9)	
1	1.0 (25)	1.5 (40)	3.6 (92)	2.1 (53)	4.8 (123)	5.3 (135)	16.3 (414)	2.0 (0.9)	
1-1/4	1.25 (32)	1.8 (46)	5.0 (125)	2.7 (69)	5.7 (145)	6.2 (158)	19.9 (505)	3.3 (1.5)	
1-1/2	1.5 (40)	2.1 (52)	5.7 (144)	3.4 (87)	7.6 (193)	8.1 (206)	14.0 (356)	2.5 (5.5)	
2	2.0 (50)	2.7 (68)	5.7 (145)	3.6 (93)	7.9 (200)	8.6 (219)	14.5 (368)	3.2 (7.1)	