



DESCRIPTION

The **599 Series** zone valves work with any SFA/P Series or SSA/P Series electric actuator. The actuators provide two-position, three-position or 0-10 VDC control. Typical applications include hot or chilled water for zones with radiators, floor heating via manifolds, fan coil units, cooling ceilings, wall-mounted boilers, and VAV applications.

FEATURES

- **Direct-coupled universal bonnet**
- **Direct-coupled installation without tools**
- **Manual override with hex wrench**
- **Visual position indication**

SIEMENS



Two-way

Three-way



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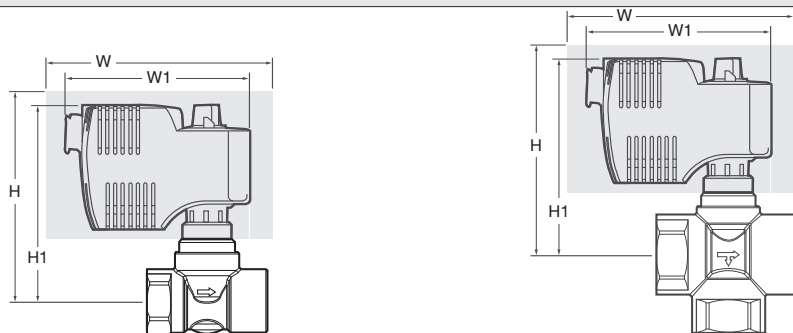
CONTROL VALVES

SPECIFICATIONS

Size	1/2", 3/4", 1"	Stroke Time	Two-position actuators: 35 seconds; three-position (floating) actuators: 150 seconds; proportional (0-10 VDC) actuators: 34 seconds
Cv Range	1, 2.5, 4, 4.1, 7	Operating Temperature	41° to 122°F (5° to 50°C)
Stroke	0.1" (2.5 mm)	Operating Humidity	0 to 90% RH non-condensing
Body Pattern	2-way, 3-way diverting	Weight	Two-position actuators: 1.2 lb (0.54 kg); three-position (floating) actuators: 0.5 lb (0.25 kg); proportional (0-10 VDC) actuators: 0.5 lb (0.25 kg)
Flow Characteristic	Linear	Enclosure Rating	NEMA 1 (indoor only)
Leakage Rating	ANSI Class III (0.1% of rated capacity)	Approvals	CE, EMC directive 89/336/EEC, 73/23/EEC low voltage; UL873, cUL Certified to Canadian Standard C22.2 No. 24-93
Body Rating	ANSI Class 125	Warranty	2 years
Media Temperature Range	34° to 230°F (1° to 110°C)		
Supply Voltage	24 VAC ±20%, 120 VAC ±20%, 50/60 Hz		
Supply VA	Two-position actuators: 9.8 VA; three-position (floating) actuators: 0.8 VA; proportional (0-10 VDC) actuators: 2.5 VA		
Control Signal	Two-position, three-position (floating), and 0-10 VDC proportional		
Action	Two-way valves are stem-up-to-open; three-way valves are diverting; normal position is determined by choice of actuator		

DIMENSIONS

in (cm)



Valve Line Size	H1		H		W1		W	
	2-way	3-way	2-way	3-way	2-way	3-way	2-way	3-way
SR 0.5 (1.5)	4.38 (11.2)	4.38 (11.2)	12.38 (31.5)	12.38 (31.5)	4.38 (11.2)	4.38 (11.2)	12.38 (31.5)	12.38 (31.5)
0.75 (2)	4.38 (11.2)	4.38 (11.2)	12.38 (31.5)	12.38 (31.5)	4.38 (11.2)	4.38 (11.2)	12.38 (31.5)	12.38 (31.5)
1 (2.5)	4.38 (11.2)	4.38 (11.2)	12.38 (31.5)	12.38 (31.5)	4.38 (11.2)	4.38 (11.2)	12.38 (31.5)	12.38 (31.5)
NSR 0.5 (1.5)	4.26 (10.8)	4.26 (10.8)	12.26 (31.1)	12.26 (31.1)	3.26 (8.3)	3.26 (8.3)	11.26 (28.6)	11.26 (28.6)
0.75 (2)	4.26 (10.8)	4.26 (10.8)	12.26 (31.1)	12.26 (31.1)	3.26 (8.3)	3.26 (8.3)	11.26 (28.6)	11.26 (28.6)
1 (2.5)	4.26 (10.8)	4.26 (10.8)	12.26 (31.1)	12.26 (31.1)	3.26 (8.3)	3.26 (8.3)	11.26 (28.6)	11.26 (28.6)



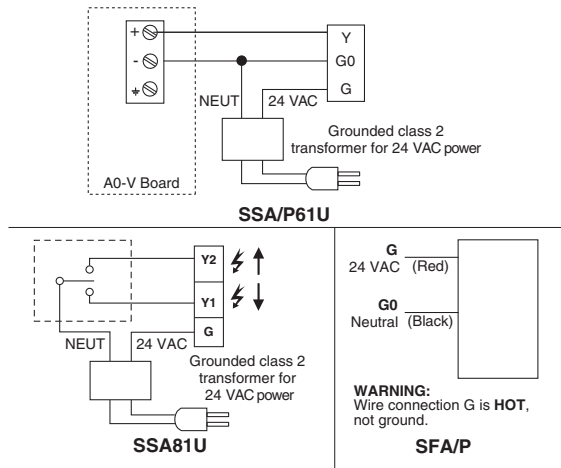
CONTROL VALVES

ZONE VALVES 599 SERIES

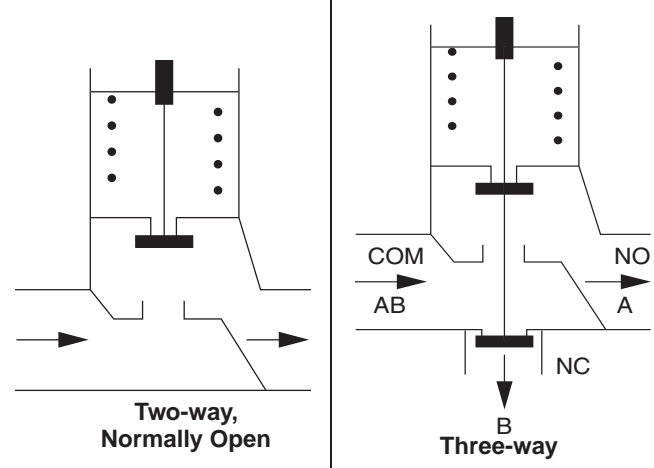
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CONTROL VALVES

WIRING



FLOW



ORDERING INFORMATION

2-Way	Line Size		Close Off		Flow Rate		Valve Body Only	120 VAC				24 VAC		
								Spring Return		Spring Return		Non-Spring Return		
								2 position		2-Position		3-position	0 to 10 VDC Modulating	
								Normally Closed	Normally Open	Normally Closed	Normally Open	Normally Closed	Normally Open	
	Inch	cm	psi	kPa	Cv	Kvs		SFA11U*	SFP11U*	SFA71U*	SFP71U*	SSA81U*	SSA61U*	SSP61U*
	Actuator Code 240	Actuator Code 241	Actuator Code 242	Actuator Code 243	Actuator Code 244	Actuator Code 245	Actuator Code 248							
NPT	0.5	1.5	44	303	1	0.85	599-00210	240-00210	241-00210	242-00210	243-00210	244-00210	245-00210	248-00210
	0.5	1.5	44	303	2.5	2	599-00211	240-00211	241-00211	242-00211	243-00211	244-00211	245-00211	248-00211
	0.5	1.5	44	303	4	3.4	599-00214	240-00214	241-00214	242-00214	243-00214	244-00214	245-00214	248-00214
	0.75	2	44	303	4.1	3.5	599-00212	240-00212	241-00212	242-00212	243-00212	244-00212	245-00212	248-00212
Sweat	1	2.5	22	152	7	6	599-00213	240-00213	241-00213	242-00213	243-00213	244-00213	245-00213	248-00213
	0.5	1.5	44	303	1	0.85	599-00510	240-00510	241-00510	242-00510	243-00510	244-00510	245-00510	248-00510
	0.5	1.5	44	303	2.5	2	599-00511	240-00511	241-00511	242-00511	243-00511	244-00511	245-00511	248-00511
	0.5	1.5	44	303	4	3.4	599-00514	240-00514	241-00514	242-00514	243-00514	244-00514	245-00514	248-00514
	0.75	2	44	303	4.1	3.5	599-00512	240-00512	241-00512	242-00512	243-00512	244-00512	245-00512	248-00512
	1	2.5	22	152	7	6	599-00513	240-00513	241-00513	242-00513	243-00513	244-00513	245-00513	248-00513

3-Way	Line Size		Close Off		Flow Rate		Valve Body Only	120 VAC				24 VAC		
								2 position		2-Position		3-position	0 to 10 VDC Modulating	
								SR AB → B	SR AB → A	SR AB → B	SR AB → A	Non-Spring Return	Non-Spring Return	
								SFA11U*	SFP11U*	SFA71U*	SFP71U*	SSA81U*	SSA61U*	SSP61U*
	Actuator Code 240	Actuator Code 241	Actuator Code 242	Actuator Code 243	Actuator Code 244	Actuator Code 245	Actuator Code 246							
NPT	0.5	1.5	44	303	1	0.85	599-00230	240-00230	241-00230	242-00230	243-00230	244-00230	245-00230	248-00230
	0.5	1.5	44	303	2.5	2	599-00231	240-00231	241-00231	242-00231	243-00231	244-00231	245-00231	248-00231
	0.5	1.5	44	303	4	3.4	599-00234	240-00234	241-00234	242-00234	243-00234	244-00234	245-00234	248-00234
	0.75	2	44	303	4.1	3.5	599-00232	240-00232	241-00232	242-00232	243-00232	244-00232	245-00232	248-00232
Sweat	1	2.5	22	152	7	6	599-00233	240-00233	241-00233	242-00233	243-00233	244-00233	245-00233	248-00233
	0.5	1.5	44	303	1	0.85	599-00530	240-00530	241-00530	242-00530	243-00530	244-00530	245-00530	248-00530
	0.5	1.5	44	303	2.5	2	599-00531	240-00531	241-00531	242-00531	243-00531	244-00531	245-00531	248-00531
	0.5	1.5	44	303	4	3.4	599-00534	240-00534	241-00534	242-00534	243-00534	244-00534	245-00534	248-00534
	0.75	2	44	303	4.1	3.5	599-00532	240-00532	241-00532	242-00532	243-00532	244-00532	245-00532	248-00532
	1	2.5	22	303	7	6	599-00533	240-00533	241-00533	242-00533	243-00533	244-00533	245-00533	248-00533

*Actuator only

Example: A 240-00210 is a 599-00210 valve body and SFA11U actuator assembly.
The valve and actuator can also be ordered separately.

SSTAG

RELATED PRODUCTS

Stainless steel tag on bead chain, 1" x 2" dogtag, custom engraved per order