

CONTROL VALVES

TWO-POSITION ZONE VALVES Z200/Z300 SERIES



DESCRIPTION

The Caleffi Z200/Z300 Series zone valves are high-quality, cost-competitive, two-position, spring return valves made for chilled water, hot water, and 15 psig (103 kPa) steam applications. The Z200/Z300 Series zone valves feature, as standard, high temperature ratings and high close-off ratings. They are available in a full range of common sizes, connection types, and operating voltages.

FEATURES

- High-quality, long-life design
- High close-off pressures standard
- Drop-in replacement for existing zone valves
- Manual override lever for N.C. actuators
- Actuators available with end switch
- Front-mount, push-button actuator release
- Anti-water hammer gear motion
- Knockout for 1/2" conduit
- Available assembled or separate valve/actuator
- Hot/Chilled water and Low Pressure Steam



Z200411-Z12100



Z300411



3

CONTROL VALVES

SPECIFICATIONS	
Size	1/2", 3/4", 1", 1-1/4" (sweat connections only)
Cv Range	1.0, 2.5, 3.5, 5.0, 7.5
Connections	FNPT, Sweat (BSP, inverted flare and SAE flare available special order)
Body Pattern	2-way and 3-way (mixing/diverting)
Flow Characteristic	Quick Opening
Leakage Class	ANSI Class III (0.1%)
Maximum Closeoff Pressure	
Cv = 1.0	75 psid (517 kPa)
Cv = 2.5	50 psid (345 kPa)
Cv = 3.5	30 psid (207 kPa)
Cv = 5.0	25 psid (172 kPa)
Cv = 7.5	20 psid (137 kPa)
Maximum Pressure	300 psig (2067 kPa)
Materials Of Construction	Forged brass body, stainless steel stem, brass seat, EPDM paddle, aluminum actuator base plate, polycarbonate actuator housing
Media Compatibility	Hot and chilled water, up to 50% glycol; 15 psig (103 kPa) maximum steam (2-way valves only)
Media Temperature Range	32° to 240°F (0° to 115°C)
Supply Voltage	24 VAC @ 7 VA models, 120 VAC models (208, 240, 277 VAC models available special order)
Supply VA	7VA
Conduit Connection	7/8" (2.2 cm) knockout for 1/2" conduit
Wiring	24 VAC actuators: 18" (45.7 cm) leads;
120 VAC actuators Auxiliary Switch	6" (15.2 cm) leads
Contact Rating	Model dependant; switch closes when actuator opens, operates with manual override
120 VAC actuators Actuator Compatibility	24 VAC actuators: 0.4A @ 24 VAC
3-way valves	5.0A @ 120-277 VAC
Drive Time	2-way valves: N.O. or N.C. actuator
Spring Return Time	N.C. actuator only
Manual Override	10 to 60 seconds
Operating Temperature	6 seconds
24 VAC, 120 VAC	Included on N.C. actuators only
208, 230, 277 VAC	
Humidity	32° to 104°F (0° to 40°C)
Weight	32° to 170°F (0° to 77°C)
	95% Non-Condensing
	1/2" valves: 0.70 lb (0.32 Kg)
	3/4" valves: 0.80 lb (0.36 Kg)
	1" valves: 0.90 lb (0.41 Kg)
	1-1/4" valves: 0.90 lb (0.41 Kg)
	Actuators: 0.92 lb (0.42 Kg)
Approvals	UL File #E239721, CE, plenum rating
Warranty	2 years



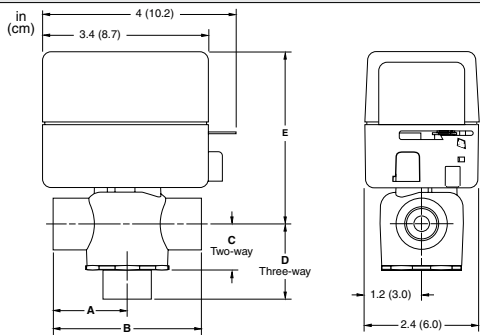
CONTROL VALVES

TWO-POSITION ZONE VALVES Z200/Z300 SERIES

3

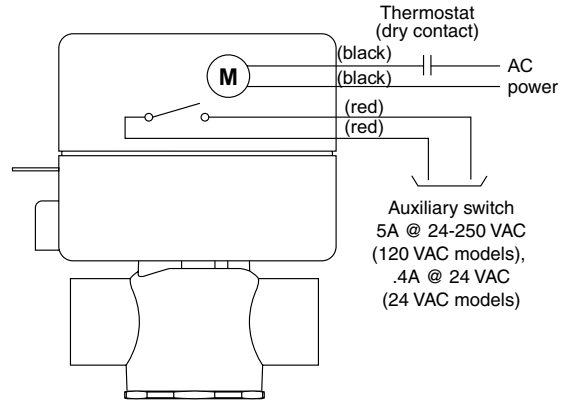
CONTROL VALVES

DIMENSIONS

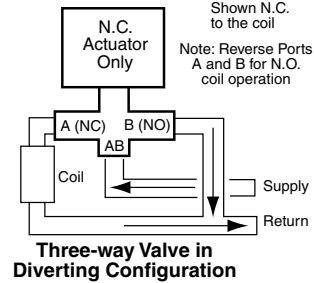
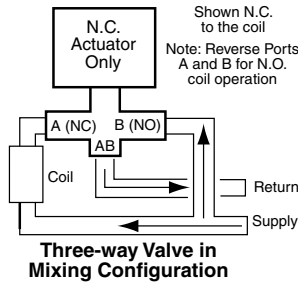
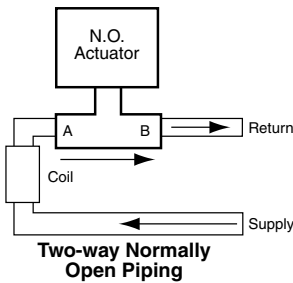
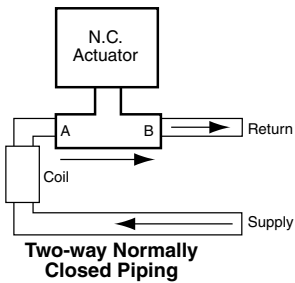


CONNECTION SIZE/TYPE	A	B	C	D	E
1/2" Sweat	1.3 (3.4)	2.6 (6.8)	0.9 (2.4)	1.3 (3.4)	3.5 (8.9)
3/4" Sweat	1.4 (3.5)	2.75 (7.0)	0.9 (2.4)	1.5 (3.8)	3.5 (8.9)
1" Sweat	1.7 (4.3)	3.4 (8.6)	0.9 (2.4)	1.6 (3.9)	3.7 (9.3)
1 1/4" Sweat	1.8 (4.6)	3.6 (9.2)	0.9 (2.4)	1.7 (4.3)	3.7 (9.3)
1/2" NPT	1.4 (3.6)	2.9 (7.2)	0.9 (2.4)	1.25 (3.2)	3.5 (8.9)
3/4" NPT	1.6 (3.9)	3.7 (7.8)	0.9 (2.4)	1.25 (3.2)	3.7 (9.3)
1" NPT	1.8 (4.6)	3.6 (9.2)	0.9 (2.4)	1.7 (4.3)	3.7 (9.3)

WIRING



PIPING



ORDERING INFORMATION

VALVE

MODEL	DESCRIPTION
Z200	Two-way
Z300	Three-way (requires N.C. actuator)
CONNECTION SIZE	
4	1/2"
5	3/4"
6	1"
7	1-1/4" (sweat connection only)
CONNECTION TYPE	
1	NPT
3	Sweat
CV RATING	
1	1.0 (1/2" only)
2	2.5 (1/2", 3/4")
3	3.5 (1/2", 3/4")
5	5.0 (3/4", 1")
7	7.5-8.0 (3/4", 1", 1-1/4")*

Z200 - 5 - 1 - 2

Example: Two-way, 3/4" NPT, Cv = 2.5

Note: Above combinations are regularly stocked at Kele. Valves are also available with BSP, inverted flare, and SAE flare connections; consult Kele for pricing and availability.

* 1-1/4" size only available with sweat connections.

ACTUATOR

MODEL	DESCRIPTION
Z1	Two-position spring return
FUNCTION	
1	N.C. with end switch, two- or three-way
2	N.C. without end switch, two- or three-way
3	N.O. with end switch, two-way only
4	N.O. without end switch, two-way only
VOLTAGE	
1000	24 VAC, 8" wire
3000	208 VAC, 6" wire
4000	230 VAC, 6" wire
5000	277 VAC, 6" wire
6000	120 VAC, 6" wire

Z1 - 2 - 3000 **Example:** Z123000 Normally closed, two-position, spring return, 208 VAC

To order a valve/actuator assembly, append the valve number with the actuator number, separated by a dash. Example: Z200512-Z122000 is a two-way, 3/4" NPT, Cv = 2.5 valve with a normally closed, two-position, spring return, 120 VAC actuator pre-assembled by Kele.

Other models available from Caleffi. Call Kele for more information.