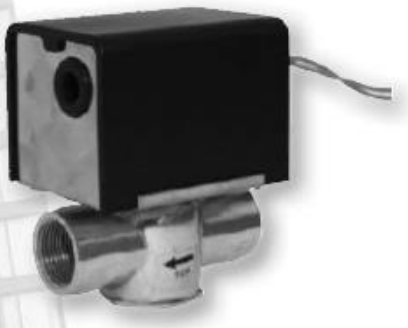
7

ZONE VALVES

- Designed to fit in compact areas where On/Off control is required.
- Actuator installation is a snap with an easy, one-handed removal or engagement.
- Actuator has a synchronous motor that winds the return spring and moves the valve paddle to the desired position.
- Economical operation allows for low current draw and multiple valves per transformer.
- Enhanced motion gear action reduces motor wear and provides smooth, quiet operation with no water hammer and dependable close off.

Applications

For high rise and commercial applications where higher close-off is required: fin tube casing, fan coils, radiant panels and duct coils. Zone valves control the flow of hot and chilled water through coils and heat exchangers.



2-Way/3-Way Zone Valves with Rotary Actuator 24 VAC, 120VAC, or 230 VAC

Applications

- Fan coil units and baseboards where fail safe operation or 2-wire control is required
- Hydronic systems with variable or constant flow

Mode of Operation

Zone valves provide a convenient way to create individual zones or equipment isolation in a hydronic system.
Utilizing one pump along with multiple zone valves, flow can be started, stopped, or diverted through the system
to provide individual room or area comfort control and energy savings.

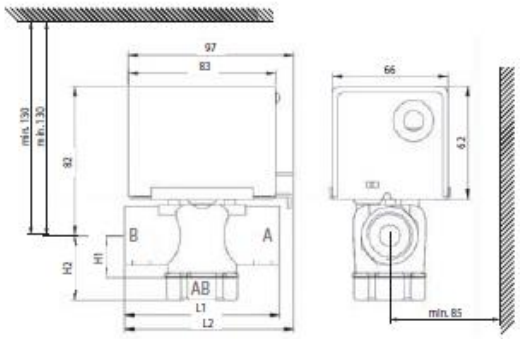
Product Features

Zone valve is designed to fit in compact areas where on/off control is required using 24 VAC, 120VAC or 230VAC.

Technical Data

Operating Pressure Limits	300 PSI (100kPa)
Server	hot and chilled water, up to 50% glycol
Motor Voltage	24VAC @ 50/60Hz, 110/120VAC @ 50/60Hz, 230VAC @ 50Hz/60Hz
Power Consumption	6.5Watts, 7 VA
Stroke Speed	power stroke 13 to 18 seconds, spring return stroke 4 to 5 seconds
Seat Leakage	zero leakage 100% bubble-tight close-off
Body Materials	
Body	forged brass
Stem	nickel-plated
Seat	brass
Paddle	NBR
Actuator Materials	stainless steel base plate, plastic cover
Ambient Temperature limits	
Shipping & Storage	-40° to +160° (-40 to +71°)
Operating fluid	32° to 200° (0 to 93°)
Operating Ambient	32° to 104° (0 to 40°)

Dimensions

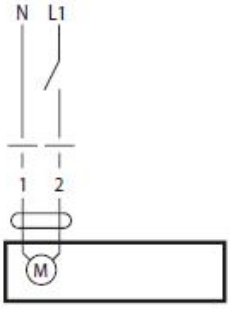


Type	DN	Inches	L1	L2	H1	H2
EXT-SW-E15	15	1/2"	70	86	23	–
EXT-SW-E20	20	3/4"	70	86	37	–
EXT-SW-E25	25	1"	87	93	23	–
EXT-SW-E15	15	1/2"	87	93	–	37
EXT-SW-E20	20	3/4"	94	95	–	25
EXT-SW-E25	25	1"	94	95	–	42

2-Way Sweat Valves				
Part Numbers	Size in [DN]	Cv [Kvs]	Δ P	Weight
EXT-SW-SE152C1	1/2" [15]	1	74	.70Kg
EXT-SW-SE152C2	1/2" [15]	2.5	49	.70Kg
EXT-SW-SE152C3	1/2" [15]	3.5	29	.70Kg
EXT-SW-SE202C3	3/4" [20]	3.5	29	.85Kg
EXT-SW-SE202C5	3/4" [20]	5	25	.85Kg
EXT-SW-SE252C8	1" [25]	8	19	1.00Kg
3-Way Sweat Valves				
EXT-SW-SE153C1	1/2" [15]	1.5	74	.75Kg
EXT-SW-SE153C2	1/2" [15]	3	49	.75Kg
EXT-SW-SE153C3	1/2" [15]	5	29	.75Kg
EXT-SW-SE203C3	3/4" [20]	3	29	.90Kg
EXT-SW-SE203C5	3/4" [20]	5	25	.90Kg
EXT-SW-SE253C8	1" [25]	8	19	1.05Kg
2-Way NPT Valves				
EXT-SW-NE152C1	1/2" [15]	1	74	.70Kg
EXT-SW-NE152C2	1/2" [15]	2.5	49	.70Kg
EXT-SW-NE152C3	1/2" [15]	3.5	29	.70Kg
EXT-SW-NE202C3	3/4" [20]	3.5	29	.85Kg
EXT-SW-NE202C5	3/4" [20]	5	25	.85Kg
EXT-SW-NE252C8	1" [25]	8	19	1.00Kg
3-Way NPT Valves				
EXT-SW-NE153C1	1/2" [15]	1.5	74	.75Kg
EXT-SW-NE153C2	1/2" [15]	3	49	.75Kg
EXT-SW-NE153C3	1/2" [15]	5	29	.75Kg
EXT-SW-NE203C3	3/4" [20]	3	29	.90Kg
EXT-SW-NE203C5	3/4" [20]	5	25	.90Kg
EXT-SW-NE253C8	1" [25]	8	19	1.05Kg

EXT-SW-V1	24VAC, NC Actuator
EXT-SW-V2	120VAC, NC Actuator
EXT-SW-V4	230VAC, NC Actuator

Wiring Diagram

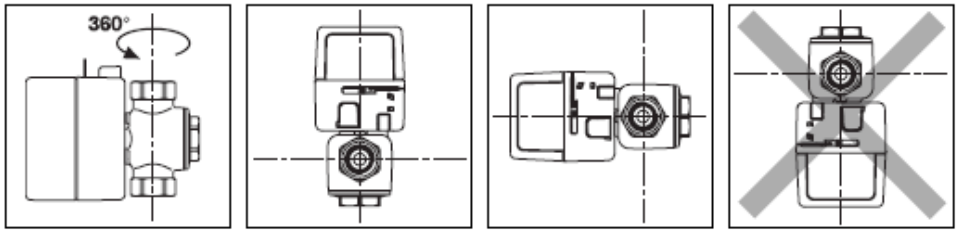


Rotary actuator	Rotary valve	
L1	B – A = 0%	
L1	B – A = 100%	

Rotary actuator	Rotary valve	
L1	AB – B = 0% AB – A = 100% B – A = 0%	
L1	AB – B = 100% AB – A = 0% B – A = 0%	

INSTALLATION

The valve can be installed vertically or horizontally, but not below horizontal.



– A 3-way valve cannot be transformed into a 2-way valve and visa versa.

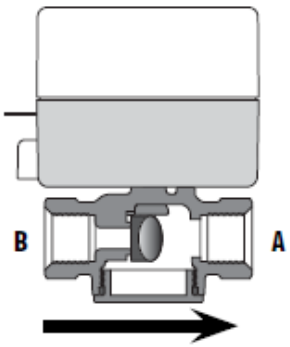
– The 2-way flow is from B to A (see diagram below) and must be installed so the paddle closes against the direction of flow.

– The 2-way valves can be installed on the supply or on the return; for correct installation it is necessary to respect the direction of flow indicated by the arrow on the body valve.

– 3-way zone valves can be rotated 180° for NO application.

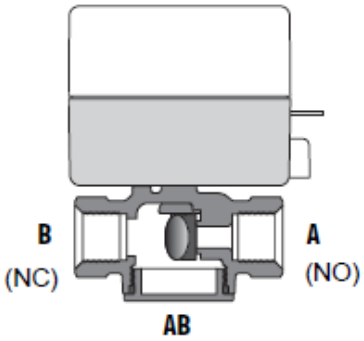
	2-WAY	3-WAY
N.C. without power	Port "A" closed	Port "B" closed Port "a" open Port "AB" open
N.C. open with power	Port "A" open	Port "B" open Port "a" closed Port "AB" open
N.C. manually open	Port "A" open	Port "B" open Port "A" open Port "AB" open

2-way Valve



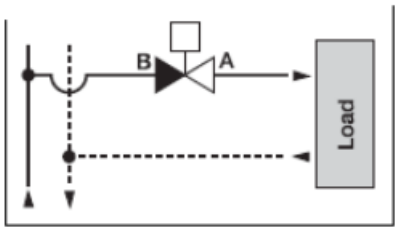
Normally closed actuator

3-way Valve

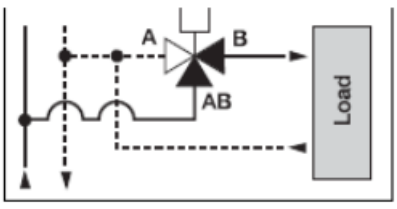


Normally closed actuator

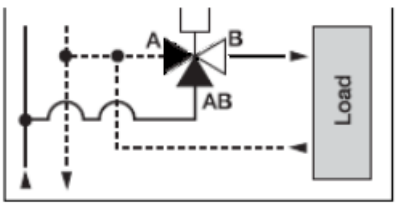
NO POWER	POWERED	NO POWER
Normally closed actuator	Normally closed actuator	Normally closed actuator



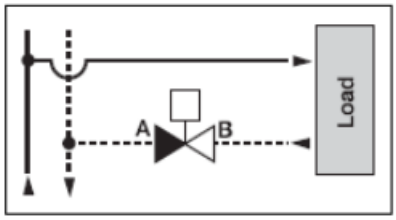
Installed on the supply



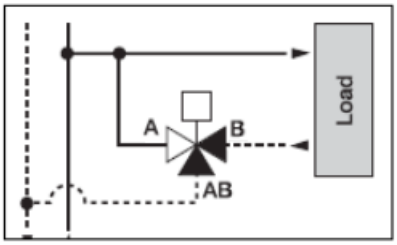
Installed on the supply in diverting configuration



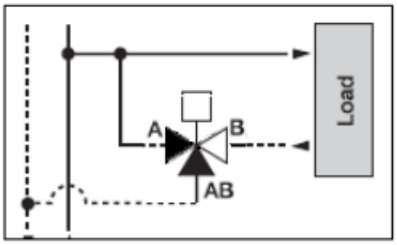
Installed on the supply in diverting configuration



Installed on the return



Installed on the return



Installed on the return