

LZV Series

MOTORIZED VALVES

Installation Guide

Description

LZV series motorized valves are used to control flow in chilled or hot water systems. The valve is driven by a hysteresis synchronous motor with spring return. Normally open and normally closed actuator models are available.

Features

- Suitable for Heating/Cooling Systems
- Long Life Synchronous Motor
- Stainless Steel Shaft with EPDM Ball and Seals
- Can be used on applications with high make up water
- "Sure Lock" connection between valve body and actuator
- Euro-styled fireproof plenum rated engineered housing
- High differential pressure close off, low noise
- Universal Replacement for most competitive models



Pictured:
LZV-3

Sequence Of Operation

When a signal is received from a thermostat or other control device, the valve is energized allowing chilled/hot water to flow through the valve. When the room temperature rises (heating) or falls (cooling) to its set point, the thermostat de-energizes the valve. The valve returns to the closed position via a return spring and flow is interrupted. An optional end switch rated at 250 VAC, 3 Amps is available to switch auxiliary loads.

Available Models

LZV series motorized valve base plates and covers are made of engineered ABS plenum fire rated plastic. All LZV Series valves feature high differential pressure close off, low noise and reliable characteristics. They are designed to withstand high temperature conditions for maximum application flexibility including concealed fan coil applications.

LZV series motorized valves feature "**Sure Lock**" actuator and valve body connections to ensure proper engagement of the body to the actuator.

Material and Technical Data

MATERIAL	Valve Body	Forged Brass
	Seal Material	EPDM
	Chassis & Cover	Fire-rated ABS Engineered Plastic
Working Media	Chilled / Hot water / Glycol mix, up to 50%	
Fluid Temperature	36 to 200 °F	
Pressure Rating	300 PSI	
Input Voltage	24 VAC / End Switch: 250 VAC; 3 Amps	
Power	6.5 W	
Driving Parts	Driven by synchronous motor / spring return	
Operation Timing	Motor: fully open 15 sec after power on / Spring: 5 to 7sec after power off	
Ambient Temperature	32 ~ 140 °F	
Storage Temperature	-4 to 149 °F Max. no condensation	

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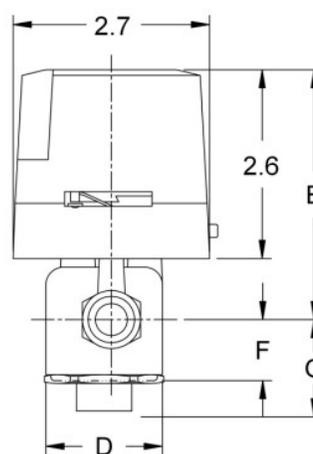
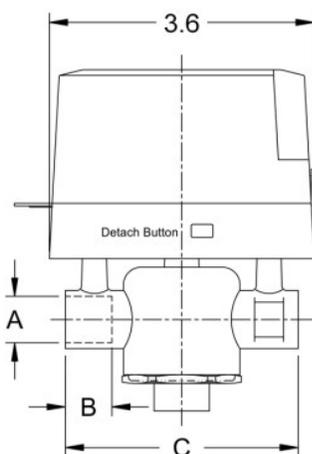
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Material and Technical Data, cont'd

ITEM #	MODEL	TYPE	Cv	SIZE	CLOSE-OFF PRESSURE	POWER SUPPLY
800-703	LZV-2	Normally closed 2-Way	3.8	1/2"	44 PSI	24 Vac, 50-60 HZ
800-704NE	LZV-2		5.4	3/4"	22 PSI	
800-704	LZV-2		8.0	1"	11.6 PSI	
800-705	LZV-2		11.7	1-1/4"	11.6 PSI	
800-706	LZV-2					
800-713	LZV-3	3-Way On/Off Zone Valve	3.8	1/2"	29 PSI	
800-714	LZV-3		5.4	3/4"	22 PSI	
800-715	LZV-3		6.7	1"	14.5 PSI	
800-716	LZV-3		9.8	1-1/4"	11.6 PSI	

MODEL	DIMENSIONS (SWEAT)						
	A	B	C	D	E	F (2-way)	G (3-way)
1/2", 2-Way	5/8	0.63	3.1	1.58	3.5	0.83	--
1/2", 3-Way						--	1.26
3/4", 2-Way	7/8	0.75	3.5	1.8		0.83	--
3/4", 3-Way						--	1.26
1", 2-Way	1-1/8	0.78	3.5	1.8		0.94	--
1", 3-Way						--	1.42
1-1/4", 2-Way	1-3/8	0.79	3.7	1.8		0.94	--
1-1/4", 3-Way						--	1.73



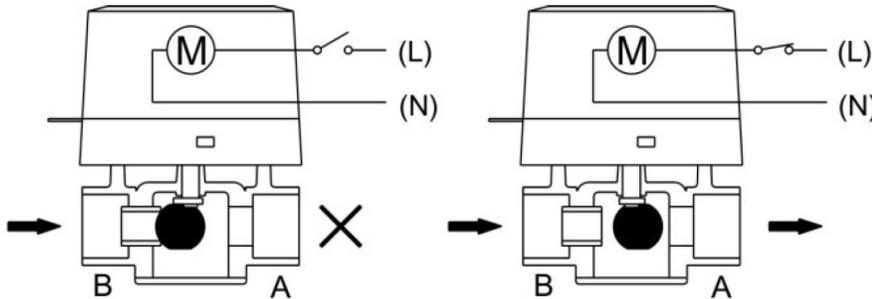
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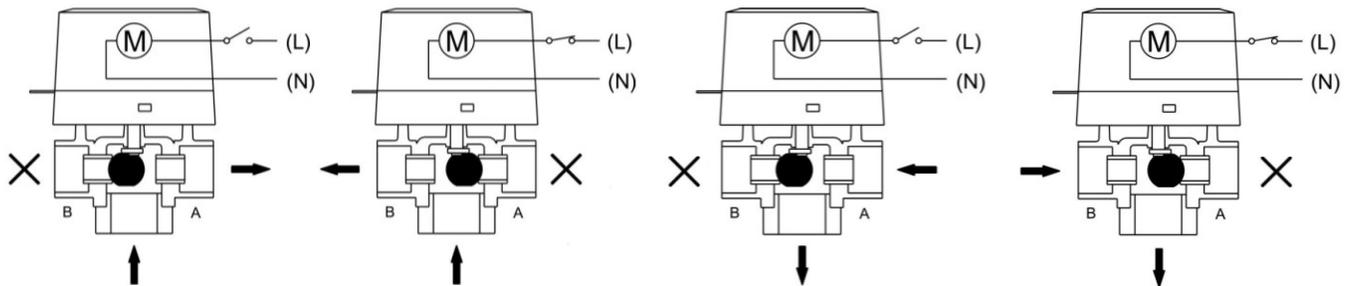
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Application Diagrams

2-Way Normally Closed Valve

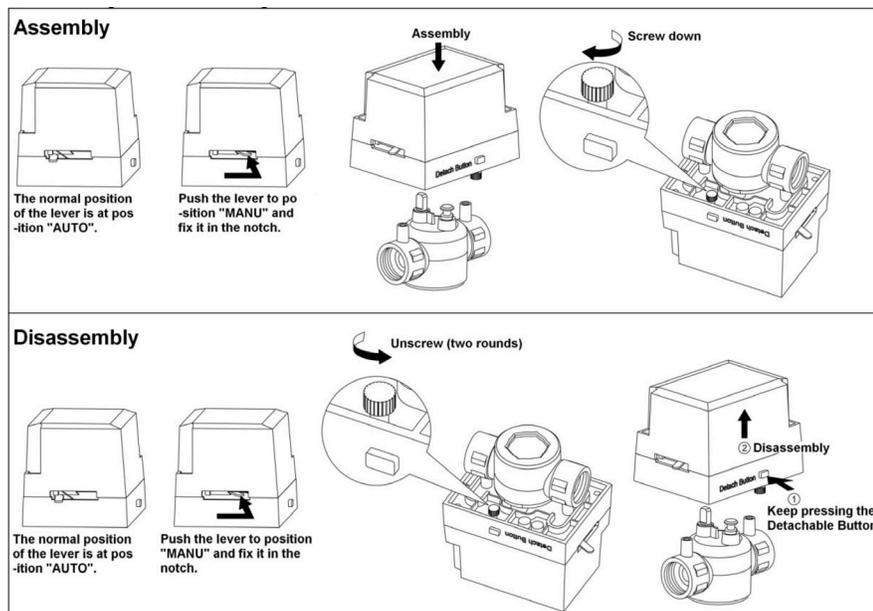


3-Way Diverting Valve



Installation

Assembly/Disassembly



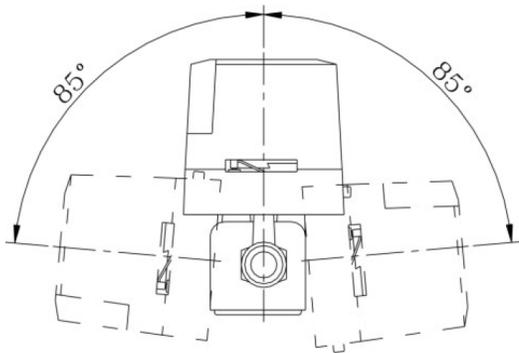
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Installation, cont'd

Permitted Angle of Installation



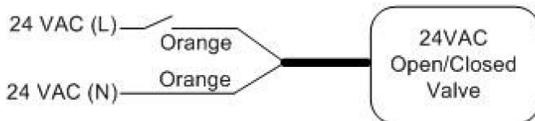
* **Notice:** When the valve is mounted on a vertical pipe, care must be taken so that condensation does not drip on the valve.



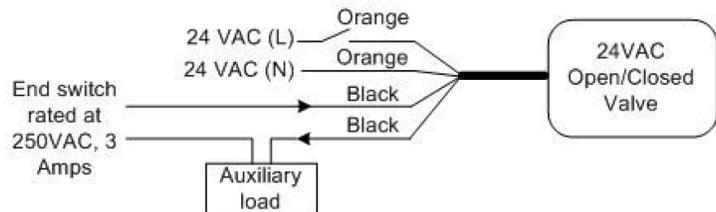
Notice:
 After installation,
 You must remove the lever stop
 before the valve is used.



Wiring Diagrams



24 VAC Actuator wiring detail



24 VAC Actuator wiring detail with end switch