

# Electric Actuated 3-Way Ball Valves – Quick Close

L-Port, Lead Free Brass, Full Port 3/4" to 2" NPT

5678 QC

#### **Features**

- Quick close actuator 2, 4 or 8 second cycle times
- Full Port Lead Free Brass Diverter Valve
- Energized PTFE ball seats for lower torque and longer life
- Triple PTFE/FKM stem seal packing
- Valve certified NSF372 & NSF/ANSI/CAN 61-2020 for potable/drinking water
- · Visual valve position indicator
- Rugged aluminum Type 4X weatherproof enclosure
- · Heavy duty motors with overload protection
- · Anti-condensation heater, thermostatically controlled
- Manual override with end of travel mechanical stops
- Two auxiliary limit switches included
- Actuator listed per UL429 and CSA C22.2

#### **Applications**

Electric actuated flow diverter or selector valves are typically used to control the flow of water, air, oil and other media compatible with the materials of construction. Ideal where lead free and NSF approved construction are required for potable drinking water as well as general industrial applications. Suitable for steam service up to 25 PSI with optional high temperature mounting kit and vacuum service to 29"Hg. Actuator designed for 70% duty cycle.

#### Operation

Electric actuated valve uses power-to-open (Pos. 2) and power-to-close (Pos.1), stays in the last known position with power failure. On receipt of a continuous voltage signal, the motor runs and via a rugged all metal gear drive rotates the ball 90°. The motor is automatically stopped by internal cams striking limit switches. On receipt of a reversing continuous signal, the motor turns in the opposite direction reversing the valve position. Electrical wiring is directly to terminal strip via included cable connector or optional 1/2" NPT Conduit adapters. Standard manual override can be used for setup and power failure situations.

#### Construction

Valve Body	Lead free brass C69300
Ball/Stem	316 stainless steel
Ball Seats	(4) PTFE (Teflon) energized with FKM (Viton)
Stem Seals	PTFE (Teflon) with (2) additional FKM (Viton) seals
Gear Drive	Heavy duty alloy steel and aluminium bronze worm
Actuator Enclosure	Aluminum polyester powder coated, Type 4X, IP67
Visual Valve Position Indicator	Clear polycarbonate cover, red/yellow open-closed
Fasteners	Stainless Steel
Auxiliary Limit Switches	2 x SPST 3A@125VAC resistive



### **Description**

Electrically operated Full Port 3-way L-type flow pattern ball valve has four energized PTFE ball seats allowing for full pressure at any port. Leak free triple PTFE/FKM stem seal design. Rugged Type 4X corrosion resistant actuator includes a manual override, position confirm limit switches, thermostatically controlled anti-condensation heater, and overtorque protection.

#### **Approvals**

#### **Actuators**







- Type 4X, IP67 weatherproof enclosure
- CE conformance- EN 60204-1:2006
- ISO5211 Mounting

#### Valves

- IAPMO RT certified to:
  - NSF/ANSI 372 2020 Drinking Water
  - NSF/ANSI 61 2020
- Meets design MSS-SP-110





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### **Construction Features**



## Pressure-Temperature\*

Pressure Rating: 400 PSI CWP (27 Bar) non-shock

25 PSI saturated steam with high temp kit, 29" Hg vacuum

**Ball Valve Temperature Rating**: -4 to 344° F (-20 to 173° C) **Actuator Temperature Rating**: -13 to 131° F (-25 to 55° C)

\*See P/T chart



Visual Valve Position Indicator

### Pressure/Temperature Chart (PSI/°F)

P/T Chart									
PSI	400 400 400 400 375 275								
°F	0	50	100	176	200	266			

# Pressure/Temperature Chart (Bar/°C)

P/T Chart									
Bar	27 27 27 27 26 19								
°C	-18	10	38	80	93	130			



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# **Specifications** (English units)

Stock Number	Pipe Size (NPT)	Orifice Size (inch)	Cv Flow Factor	Pressure Max.(PSI)*	Cycle Time/90° (seconds)	Voltage	Current (amps)	Electrical Dwg.	Quick Close Accessory	
120 VAC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVE: L-PORT QUICK CLOSE version										
567806C	3/4	0.8	10.0	400	2	110 VAC, 50/60Hz	0.8	В	A561825	
567808C	1	1.0	16.0	400	2	110 VAC, 50/60Hz	0.8	В	A561825	
567810C	1-1/4	1.2	31.0	400	4	110 VAC, 50/60Hz	0.8	В	A561850	
567812C	1-1/2	1.5	49.0	400	4	110 VAC, 50/60Hz	0.8	В	A561850	
567816A	2	2.0	82.0	400	8	110 VAC, 50/60Hz	1.2	В	A561862	
24 VDC ELE	CTRIC ACT	UATED 3-W	AY LF BRA	ASS BALL VA	LVE: L-PORT	QUICK CLOSE version				
567847C	3/4	0.8	10.0	400	4	DC24	6.0	G	A561851	
567849C	1	1.0	16.0	400	4	DC24	6.0	G	A561851	
567850C	1-1/4	1.2	31.0	400	4	DC24	6.0	G	A561851	
567851C	1-1/2	1.5	49.0	400	4	DC24	6.0	G	A561851	
567852A	2	2.0	82.0	400	8	DC 24	6.0	G	A561865	

<sup>\*</sup> Pressure at 176° F (reduce pressure for higher temperatures, see P/T chart)



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# **Specifications** (Metric units)

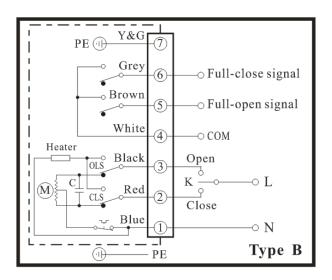
Stock Number	Pipe Size (NPT)	Orifice Size (mm)	Kv Flow Factor	Pressure Max.(Bar)*	Cycle Time/90°	Voltage	Current (amps)	Electrical Dwg.	Quick Close Accessory	
120 VAC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVE: L-PORT QUICK CLOSE version										
567806C	3/4	19.0	8.6	27	2	110 VAC, 50/60Hz	0.8	В	A561825	
567808C	1	25.0	14.0	27	2	110 VAC, 50/60Hz	0.8	В	A561825	
567810C	1-1/4	31.0	27.0	27	4	110 VAC, 50/60Hz	0.8	В	A561850	
567812C	1-1/2	38.0	42.0	27	4	110 VAC, 50/60Hz	0.8	В	A561850	
567816A	2	50.0	70.0	27	8	110 VAC, 50/60Hz	1.2	В	A561862	
24 VDC ELI	ECTRIC ACT	UATED 3-WA	Y LF BRAS	S BALL VAL	VE: L-PORT (	QUICK CLOSE version				
567847C	3/4	19.0	8.6	27	4	DC24	6.0	G	A561851	
567849C	1	25.0	14.0	27	4	DC24	6.0	G	A561851	
567850C	1-1/4	31.0	27.0	27	4	DC24	6.0	G	A561851	
567851C	1-1/2	38.0	42.0	27	4	DC24	6.0	G	A561851	
567852A	2	50.	70.0	27	8	DC 24	6.0	G	A561865	

<sup>\*</sup> Pressure at 80° C (reduce pressure for higher temperatures, see P/T chart)

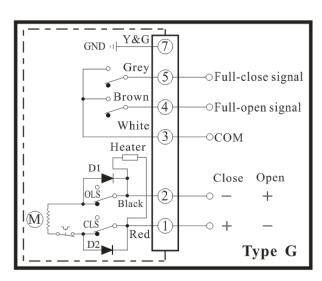


## **Electrical Wiring Diagram**

## **AC Voltages**



### **DC Voltages**



#### **Electric Actuated 3-Way L-port Valves**

Valworx electric actuated 3-way L-Port valves use power-to-open (pos.2) and power-to-close (pos.1), stays in the last known position with loss of power. The actuator will rotate the output drive 90° to change the position of the ball valve. Limit switches automatically stop the motor/gear drive in either position 1 or position 2 as required.

Two auxiliary limit switches are provided as standard to confirm valve position.

Rugged primary gear drive system is made of heat treated alloy steel for high strength, excellent wear resistance and high torque. Final stage aluminium bronze worm gear drive is self-locking, no motor brake required.

A manual override is provided for use in setup or power failure situations. The override is operated with a standard hex wrench (included).

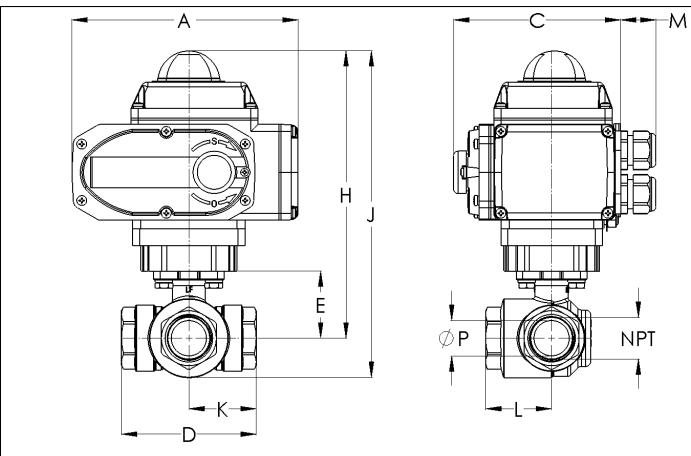
The standard 4 watt thermostatically controlled anticondensation heater will help prevent failures due to condensation buildup inside the actuator.

Robust aluminium alloy housing is corrosion-resistant, polyester powder coated, and weatherproof. The housing is rated Type 4X (IP67) and certified by CSA standards. Heavy duty motor is integral to the actuator housing, providing the smallest physical size to power ratio of typical actuators on the market.

Electrical wiring is directly to a terminal strip via included cable connectors, or optional 1/2" NPT Conduit adapters.



# **Dimensions:**



Pipe Size (NPT)		Α	С	D	E	Н	J	К	L	M	P	Weight
214	inch	7.7	5.0	3.3	1.7	7.1	10.3	1.6	1.6	1.0	0.8	12.3 lb
3/4	mm	196.5	126.0	83.0	43.0	180.3	261.6	41.5	41.5	25.0	19.0	5.6 kg
4	inch	7.7	5.0	3.8	1.9	8.3	10.5	1.9	1.8	1.0	1.0	13.0 lb
1	mm	196.5	126.0	95.6	47.6	210.8	566.7	47.8	46.8	25.0	25.0	5.9 kg
4.414	inch	7.7	5.0	4.2	2.2	8.6	10.8	2.1	2.0	1.0	1.2	13.9 lb
1-1/4	mm	196.5	126.0	107.0	55.0	218.4	274.3	53.5	51.0	25.0	31.0	6.3 kg
1.110	inch	7.7	5.0	5.0	2.6	9.1	11.3	2.9	2.4	1.0	1.5	16.8 lb
1-1/2	mm	196.5	126.0	126.0	65.5	231.1	287.0	63.0	60.0	25.0	38.0	7.6 kg
2	inch	10.1	6.3	5.9	3.0	10.1	12.0	2.9	2.7	1.0	2.0	30.1 lb
2	mm	256.0	160.0	149.0	77.0	256.0	306.0	74.5	69.0	25.0	50	13.7 kg