

### Features

- Industrial quality miniature actuator
- Full Port lead free direct mount 3-way brass ball valve
- Visual valve position indicator
- Rugged aluminum Type 4X and IP67 weatherproof enclosure
- Heavy duty motor with overload protection
- Manual override
- Two auxiliary limit switches used to confirm valve position
- Energized PTFE ball seats for lower torque and longer life
- Leak free Triple PTFE/FKM stem seal packing
- Actuator approvals by CSA and CE
- Valve certified NSF61 & NSF372 for potable/drinking water

### 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 media temperatures up to 266° F and steam up to 25 PSI with optional high temperature kit. Vacuum service up to 29"Hg. Actuator designed for 60% 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 connection by prewired cable with flying leads (3 meter/9.8 feet)

### Construction

<b>Valve Body</b>	Lead free brass C69300
<b>Ball/Stem</b>	316 stainless steel
<b>Ball Seats</b>	PTFE (Teflon) energized with FKM (Viton)
<b>Stem Seals</b>	PTFE (Teflon) with (2) additional FKM (Viton) seals
<b>Gear Drive</b>	Rugged all metal flat and worm gears, self locking
<b>Actuator Enclosure</b>	Anti-corrosive aluminum alloy, Rated Type 4X/ IP67
<b>Visual Valve Position Indicator</b>	Yellow indicator with transparent clear cover
<b>Fasteners</b>	Stainless Steel
<b>Auxiliary Limit Switches</b>	2 x SPST (3A@125VAC,30VDC resistive), on-off models



### 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. Features include compact size, rugged motor integral to actuator housing, all metal gears, manual override for emergency hand operation, visual valve position indicator and Type 4X/IP67 weatherproof enclosure.

### Approvals

#### Actuators

- Actuators certified by CSA and CE
- CSA models certified to UL429, CSA C22.2 and UL50E Type 4X enclosure
- CE- EM 60204-1:2006



#### Valves

- IAPMO RT certified to:
  - NSF/ANSI 372 - 2011 Drinking Water
  - NSF/ANSI 61 - 2015
  - Weighted average lead content < = 0.25%
- Meets design MSS-SP-110



### Construction Features

Rugged aluminum corrosion resistant Type 4X/IP67 weatherproof enclosure

Heavy duty integral motor design significantly reduces physical size of actuator

Electrical connection by prewired cable (3 meter)

316 stainless steel stem with PTFE and dual FKM (Viton) seals

316 stainless steel ball with energized PTFE seats for reduced torque and extended cycle life

Auxiliary Limit Switches(2) for confirming valve position

Self-locking all metal gear drive, no additional brake required

Manual Override with protective cover

Direct mount ISO5211 flange, no brackets required

Full Port lead free 3-way brass ball valve, NSF61 certified for use with potable/drinking water



Visual Valve Position Indicator

### 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 366° F (-20 to 186° C)

**Actuator Temperature Rating:** -22 to +140° F (-30 to 60° C)

\*See P/T chart

### 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

**Specifications: On-Off Valves (English units)**

Stock Number	Pipe Size (NPT)	Orifice Size (inch)	Cv Flow Factor	Pressure Max. (PSI)*	Cycle Time /90° (seconds)	Voltage	Current (amps)	Agency Approvals	Electrical Drawing
<b>110 VAC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVES: L-PORT</b>									
<b>568602</b>	1/4	0.39	3.2	400	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>568603</b>	3/8	0.39	3.5	400	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>568604</b>	1/2	0.59	4.5	400	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>568606</b>	3/4	0.75	10	400	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>24 VAC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVES: L-PORT</b>									
<b>568613</b>	1/4	0.39	3.2	400	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>568614</b>	3/8	0.39	3.5	400	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>568615</b>	1/2	0.59	4.5	400	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>568616</b>	3/4	0.75	10	400	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>24 VDC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVES: L-PORT</b>									
<b>568644</b>	1/4	0.39	3.2	400	11	DC24	0.7	CSA, CE	G
<b>568645</b>	3/8	0.39	3.5	400	11	DC24	0.7	CSA, CE	G
<b>568646</b>	1/2	0.59	4.5	400	11	DC24	0.7	CSA, CE	G
<b>568647</b>	3/4	0.75	10	400	11	DC24	0.7	CSA, CE	G

\* Pressure at 176° F (see P/T chart for maximum pressure at higher temperatures)

Voltage Tolerance: AC +/- 10%, DC +/- 5%, Duty Cycle: 60%

**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 gear drive system is made of all metal, self-locking, no motor brake required. A manual override is provided for use in setup or power failure situations.

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

Robust aluminium alloy housing is corrosion-resistant and weatherproof. The enclosure is rated Type 4X and IP67. Heavy duty motor is integral to the actuator housing providing a small physical size to power ratio.

Electrical wiring is by prewired cable with flying leads (3 meters/9.8 feet).

## Specifications: On-Off Valves (Metric units)

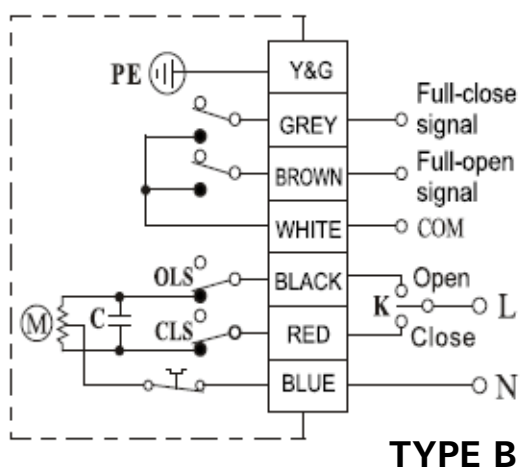
Stock Number	Pipe Size (NPT)	Orifice Size (mm)	Kv Flow Factor	Pressure Max. (Bar) *	Cycle Time /90° (seconds)	Voltage	Current (amps)	Agency Approvals	Electrical Drawing
<b>110 VAC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVES: L-PORT</b>									
<b>568602</b>	1/4	10	2.8	27	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>568603</b>	3/8	10	3.0	27	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>568604</b>	1/2	15	3.9	27	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>568606</b>	3/4	19	8.6	27	12	AC110 50/60Hz	0.3	CSA, CE	B
<b>24 VAC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVES: L-PORT</b>									
<b>568613</b>	1/4	10	2.8	27	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>568614</b>	3/8	10	3.0	27	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>568615</b>	1/2	15	3.9	27	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>568616</b>	3/4	19	8.6	27	12	AC24 50/60Hz	1.7	CSA, CE	B
<b>24 VDC ELECTRIC ACTUATED 3-WAY LF BRASS BALL VALVES: L-PORT</b>									
<b>568644</b>	1/4	10	2.8	27	11	DC24	0.7	CSA, CE	G
<b>568645</b>	3/8	10	3.0	27	11	DC24	0.7	CSA, CE	G
<b>568646</b>	1/2	15	3.9	27	11	DC24	0.7	CSA, CE	G
<b>568647</b>	3/4	19	8.6	27	11	DC24	0.7	CSA, CE	G

\* Pressure at 80° C (see P/T chart for maximum pressure at higher temperatures)

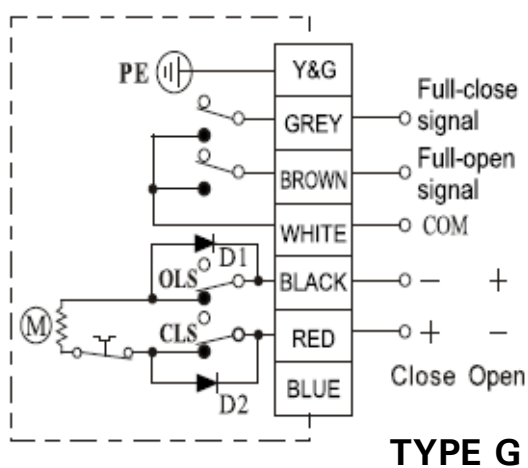
Voltage Tolerance: AC +/- 10%, DC +/- 5%, Duty Cycle 60%

## Electrical Wiring Diagrams

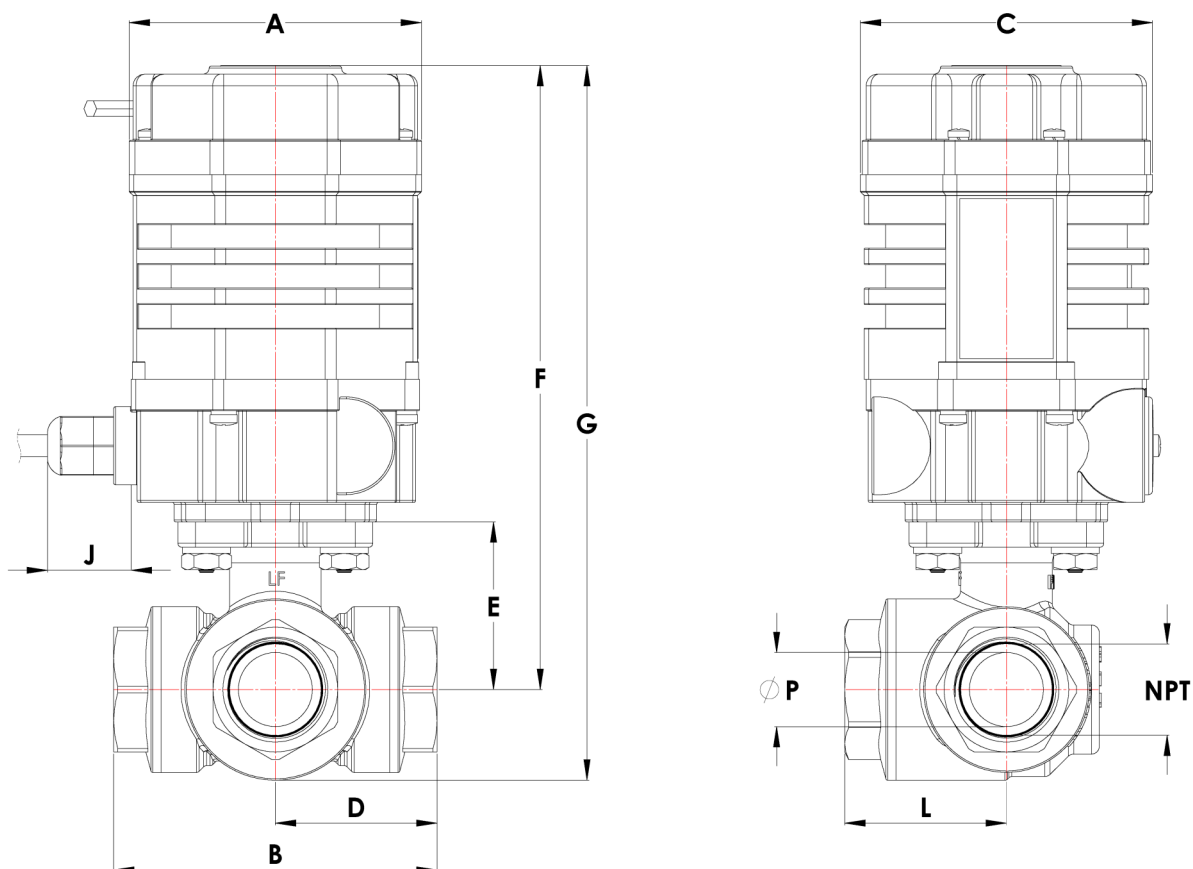
### AC Voltages



### DC Voltages



## Dimensions



Pipe Size (NPT)		A	B	C	D	E	F	G	J	L	P	Weight
1/4	inch	2.95	2.19	2.95	1.09	1.04	5.65	6.21	0.85	1.08	0.39	3.35 lb
	mm	75	55.6	75	27.8	26.5	143.5	157.75	21.5	27.5	10	1.52 kg
3/8	inch	2.95	2.19	2.95	1.09	1.04	5.65	6.21	0.85	1.08	0.39	3.30 lb
	mm	75	55.6	75	27.8	26.5	143.5	157.75	21.5	27.5	10	1.50 kg
1/2	inch	2.95	2.87	2.95	1.44	1.32	5.93	6.70	0.85	1.44	0.59	3.95 lb
	mm	75	73	75	36.5	33.5	150.5	170.25	21.5	36.5	15	1.79 kg
3/4	inch	2.95	3.27	2.95	1.63	1.69	6.3	7.2	0.85	1.63	0.75	4.6 lb
	mm	75	83	75	41.5	43	160	183.25	21.5	41.5	19	2.09 kg