

### Features

- Functions as a diverter or selector valve
- All materials comply with FDA and USDA requirements
- Dyneon® TF-1641 (PTFE) FDA approved ball seats and cavity fillers
- Triple PTFE/Viton® high cycle live loaded stem seal packing
- Highly polished internals and end caps with 8-12 Ra finish
- Tri-Clamp ends for hygienic connections
- Visual valve position indicator
- Rugged aluminum Type 4X weatherproof enclosure
- Heavy duty motors with overload protection
- Thermostatically controlled anti-condensation heater
- Manual override with end of travel mechanical stops
- Two auxiliary position confirmation limit switches
- Actuators CSA Listed per UL429 and CSA C22.2

### Applications

Sanitary 3-way ball valves are typically used for food, beverage, pharmaceutical, personal care, and pet care applications where sanitary construction is required, as well as for utility, process, and corrosive environment applications where quick clamp connections are beneficial. Often used as a diverter or selector valve with a variety of flow path options through the valve. 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. Power connections are via included cable connector or optional 1/2" NPT conduit adapters. Manual override is available for setup and power failure situation.

### Construction

<b>Valve Body</b>	ASTM 316 stainless steel
<b>Ball/Stem/ End Caps</b>	ASTM 316 stainless steel
<b>Ball Seats/ Cavity Filler</b>	Dyneon® PTFE
<b>Stem Seals</b>	PTFE / Viton®
<b>Gear Drive</b>	Heavy duty steel and aluminium bronze, self locking
<b>Actuator Enclosure</b>	Aluminium, polyester powder painted, Type 4X, IP67
<b>Visual Valve Position Indicator</b>	Clear polycarbonate cover, red/yellow open-closed
<b>Fasteners</b>	ASTM 304 Stainless Steel
<b>Auxiliary Limit Switches</b>	2 x SPDT 3A@125/250VAC, 30VDC resistive load



**L-port Diverter Valve  
Flow Pattern**  
Position 1      Position 2



### Description

Electrically operated sanitary 3-way L-type flow pattern ball valve has four Dyneon® PTFE ball seats, allowing for full pressure at any port. Adjustable live loaded stem seal packing helps compensate for wear, pressure and temperature fluctuations, extending the cycle life of the valve. Rugged corrosion resistant electric actuator includes a manual override, position confirm switches (on-off units), thermostatically controlled anti-condensation heater, and over-torque protection.

### Approvals- Actuators

- CSA Listed:
  - UL429 and CSA C22.2 No. 139
  - Type 4X, IP67 weatherproof enclosure
- CE conformance
  - ISO5211 mounting



### Standards- Valves

- Construction:
  - ANSI B16/B2/B18
  - FDA 21 CFR 177.1550
  - ANSI B16.34
- Pressure Testing:
  - API 598
- Marking
  - MSS-SP-25

### Construction Features

Auxiliary Limit Switches(2) for confirming valve position

Heavy duty integral motor design significantly reduces physical size of actuator

Rugged polyester powder coated aluminum Type 4X weatherproof enclosure.

Live -loaded triple PTFE stem seal

Encapsulated Dyneon® PTFE cavity filler

Internals polished to 8-12 Ra

ASTM 304 stainless steel fasteners

Standard Tri-Clamp end caps for sanitary connections\*

\* Refer to specifications table for Tri-Clamp size

\* Note: Tri-Clamp size is **NOT** determined by the OD of the end cap

Anti-Condensation Heater

Terminal Box, wire directly to terminal strip via included cable connector, or optional 1/2" NPT Conduit adapters.

Manual Override with protective cover

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

ASTM 316 (CF8M) investment grade casting (body & end caps)

Dyneon® PTFE ball seats

Standard Tri-Clamp end caps for sanitary connections\*



Visual Valve Position Indicator

### Pressure-Temperature

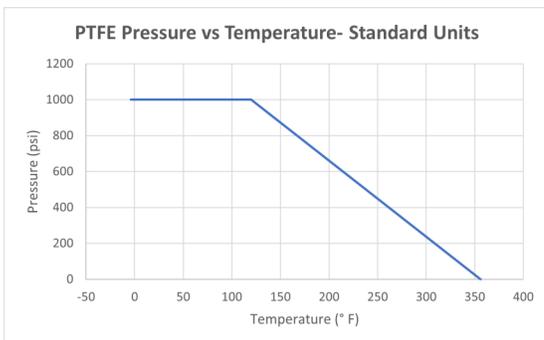
Shell Pressure Rating (Max)\*: 1000 PSI @ 120°F (1/2" to 2"),  
600 PSI (2 1/2" to 3")

Temperature Rating: -4° to 356° F (-20 to 180°C)

\*See P/T Chart

Actuator Temperature Rating: -13 to 131° F (-25 to 55° C)

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



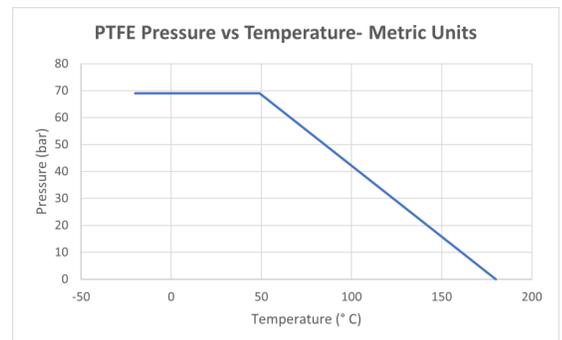
Standard Units

Temp °F	-4	120	356
Pressure	1000	1000	0

Metric Units

Temp °C	-20	49	180
Pressure	69	69	0

### Pressure/Temperature Chart (Bar/°C)



### Specifications (English units)

Stock Number	Pipe Size (inch)	Tri-Clamp Size (inch)	Cv Flow Factor	Shell Pressure Max.(PSI)*	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
<b>120 VAC ELECTRIC ACTUATED 3-WAY L-PORT SANITARY STAINLESS BALL VALVE</b>									
573500C	1/2	3/4	4.3	1000	25/21	110 VAC, 50/60Hz	0.3	70%	B
573501C	3/4	3/4	10.4	1000	25/21	110 VAC, 50/60Hz	0.3	70%	B
573502C	1	1-1/2	17.3	1000	25/21	110 VAC, 50/60Hz	0.3	70%	B
573503C	1-1/2	1-1/2	43.3	1000	25/21	110 VAC, 50/60Hz	0.3	70%	B
573504C	2	2	77.9	1000	25/21	110 VAC, 50/60Hz	0.3	70%	B
573505C	2-1/2	2-1/2	115.9	600	30/25	110 VAC, 50/60Hz	0.7	70%	B
573506C	3	3	210.2	600	30/25	110 VAC, 50/60Hz	0.7	70%	B
<b>24 VDC ELECTRIC ACTUATED 3-WAY L-PORT SANITARY STAINLESS BALL VALVE</b>									
573700C	1/2	3/4	4.3	1000	20	DC24	1.3	70%	G
573701C	3/4	3/4	10.4	1000	20	DC24	1.3	70%	G
573702C	1	1-1/2	17.3	1000	20	DC24	1.3	70%	G
573703C	1-1/2	1-1/2	43.3	1000	20	DC24	1.3	70%	G
573704C	2	2	77.9	1000	20	DC24	1.3	70%	G
573705C	2-1/2	2-1/2	115.9	600	30	DC24	3.6	70%	G
573706C	3	3	210.2	600	30	DC24	3.6	70%	G

\* Pressure @ -4° to 356° F (reduced pressure at higher temperatures—see P/T chart)

• Torque at 1000 PSI and 72°F

### 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 anti-condensation 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. Heavy duty motors are integral to the actuator housing. The actuator has the smallest physical size to power ratio of most actuators on the market.

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

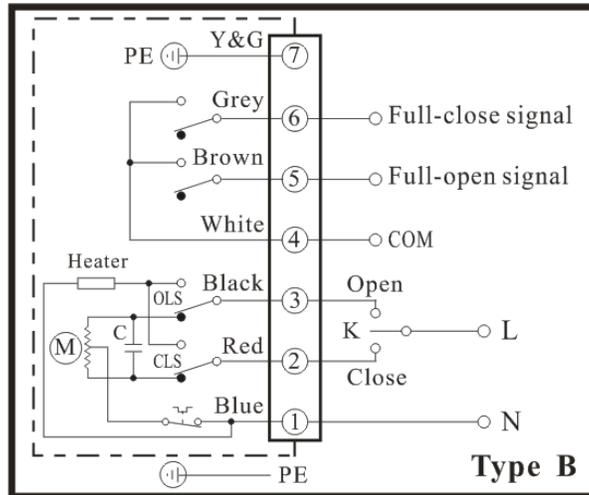
**Specifications (Metric units)**

Stock Number	Pipe Size (mm)	Tri-Clamp Size (inch)	Kv Flow Factor	Shell Pressure Max.(Bar)*	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
<b>120 VAC ELECTRIC ACTUATED 3-WAY L-PORT SANITARY STAINLESS BALL VALVE</b>									
573500C	12.7	3/4	5.0	69	25/21	110 VAC, 50/60Hz	0.3	70%	B
573501C	19.1	3/4	12.0	69	25/21	110 VAC, 50/60Hz	0.3	70%	B
573502C	25.4	1-1/2	20.0	69	25/21	110 VAC, 50/60Hz	0.3	70%	B
573503C	38.1	1-1/2	50.0	69	25/21	110 VAC, 50/60Hz	0.3	70%	B
573504C	50.8	2	90.0	69	25/21	110 VAC, 50/60Hz	0.3	70%	B
573505C	63.5	2-1/2	134.0	41	30/25	110 VAC, 50/60Hz	3.6	70%	B
573506C	76.2	3	243.0	41	30/25	110 VAC, 50/60Hz	3.6	70%	B
<b>24 VDC ELECTRIC ACTUATED 3-WAY L-PORT SANITARY STAINLESS BALL VALVE</b>									
573700C	12.7	3/4	5.0	69	20	DC24	1.3	70%	G
573701C	19.1	3/4	12.0	69	20	DC24	1.3	70%	G
573702C	25.4	1-1/2	20.0	69	20	DC24	1.3	70%	G
573703C	38.1	1-1/2	50.0	69	20	DC24	1.3	70%	G
573704C	50.8	2	90.0	69	20	DC24	1.3	70%	G
573705C	63.5	2-1/2	134.0	41	30	DC24	3.6	70%	G
573706C	76.2	3	243.0	41	30	DC24	3.6	70%	G

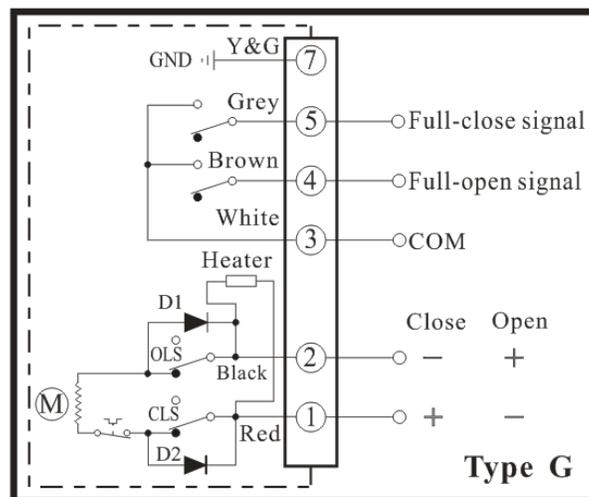
\* Pressure range @ -20° to 180° C (reduced pressure for higher temperatures—see P/T chart)

## Electrical Wiring

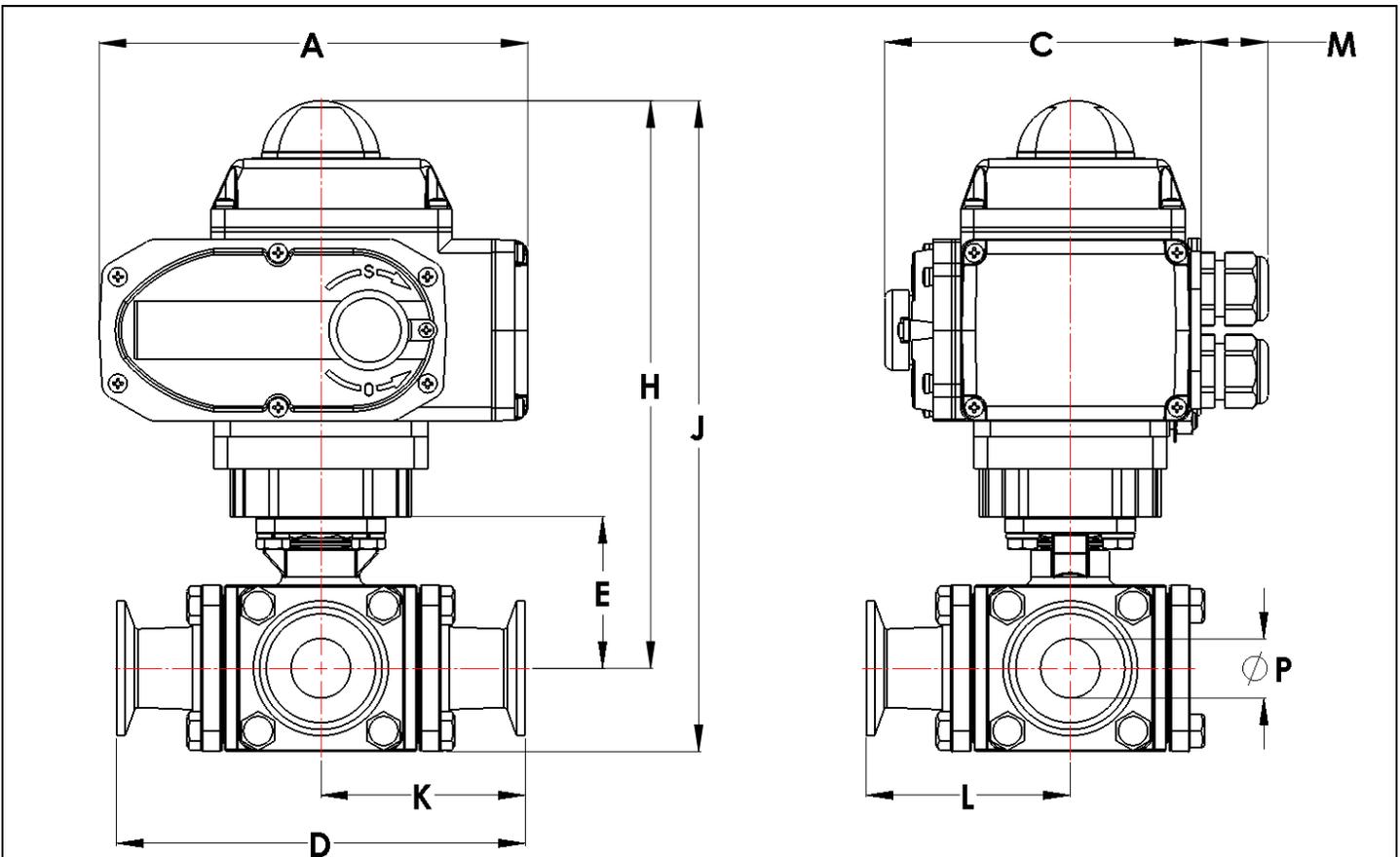
### AC Voltages



### DC Voltages



**Dimensions: (24 VDC & 110 VAC)**



Pipe Size		A	C	D	E	H	J	K	L	M	P	Weight (AC/DC)
1/2	inch	6.4	4.7	4.6	1.8	8.0	9.0	2.3	2.3	1.0	0.4	9.4 lb
	mm	162.0	118.5	118.0	44.5	203.1	228.6	59.0	59.0	25.0	9.4	4.3 kg
3/4	inch	6.4	4.7	5.0	1.9	8.1	9.1	2.5	2.6	1.0	0.6	10.0 lb
	mm	162.0	118.5	127.0	48.0	205.7	231.1	63.5	64.9	25.0	15.8	4.5 kg
1	inch	6.4	4.7	6.0	2.3	8.5	9.7	3.1	3.0	1.0	0.9	12.3 lb
	mm	162.0	118.5	152.4	59.0	215.9	246.4	77.5	76.2	25.0	22.2	5.6 kg
1-1/2	inch	6.4	4.7	6.9	2.8	9.0	10.6	3.4	3.5	1.0	1.4	18.1 lb
	mm	162.0	118.5	175.0	72.0	228.6	269.1	87.5	88.8	25.0	35.0	8.2 kg
2	inch	6.4	4.7	7.5	3.2	9.4	11.4	3.7	3.8	1.0	1.9	25.3 lb
	mm	162.0	118.5	190.0	82.0	238.8	289.6	95.0	96.3	25.0	47.6	11.5 kg
2-1/2	inch	10.1	6.4	9.0	4.0	12.5	14.9	4.5	4.2	1.0	2.4	43.1 lb
	mm	255.5	161.5	228.0	102.5	317.5	378.5	114.0	107.0	25.0	60.2	19.5 kg
3	inch	10.1	6.4	10.2	4.9	13.4	16.4	5.1	4.2	1.0	2.9	59.0 lb
	mm	255.5	161.5	260.0	125.5	340.4	416.6	130.0	107.0	25.0	72.9	26.8 kg