

Features

- All valve materials comply with FDA, USDA, and 3-A requirements
- Tri-Clamp ends for hygienic connections
- Virgin PTFE ball seats with cavity fillers
- Triple PTFE/Viton® high cycle live loaded stem seal packing
- Highly polished internals and end caps with 8-12 Ra finish
- EPS– Electronic Positioning System with 4-20mA input
- Rugged aluminum Type 4X weatherproof enclosure
- Heavy duty motor with overload protection
- Thermostatically controlled anti-condensation heater
- Manual override with end of travel mechanical stops
- Two auxiliary position confirmation switches

Applications

Sanitary ball valves are typically used for food, beverage, pharmaceutical, personal care, and pet care applications where 3-A sanitary construction is required, as well as for utility, process, and corrosive environment applications where quick clamp connections are beneficial.

Operation

Electric actuated valves with EPS- Electronic Positioning System provide an accurate valve positioning function whereby the movement of the actuator is controlled by 4-20mA input control signal. Any change in the control input signal results in a corresponding and proportional change in the position of the actuator (valve disc). Flow is adjustable anywhere between 0-100%. Unique electronic positioning module is fully potted to help protect the electronics from vibration/moisture resistance.

Note: 3A standard 68-00 requires a minimum 1" clearance between valve and actuator. Valworx High Temp kits can be used to satisfy this requirement.

Construction

Valve Body	ASTM 316 Stainless Steel
Ball/Stem/End Caps	ASTM 316 Stainless Steel
Ball Seats/ Cavity Filler	Virgin PTFE
Stem Seals	PTFE/ Viton®
Gear Drive	Heavy duty alloy steel/aluminium bronze, self locking
Actuator Enclosure	Aluminium, polyester powder painted, Type 4X, IP67
Visual Valve Position Indicator	Clear cover, red/yellow open-closed
Fasteners	ASTM 304 Stainless Steel
Position Feedback	4-20mA analog output signal



Description

Electric operated EPS sanitary ball valves utilize a servo-controlled positioner for valve positioning and modulation. Investment cast 3-piece full port stainless steel body and end caps allow for unrestricted flow and minimum pressure loss. Valve seals are cavity filled with virgin PTFE. Rugged corrosion-resistant actuator includes a manual override, auto calibration positioner module, thermostatically controlled anti-condensation heater and integral over-torque protection.

Approvals– Actuators

- CSA Listed to:
 - UL429 and CSA C22.2 no 139
 - Type 4X, IP67 weatherproof enclosure

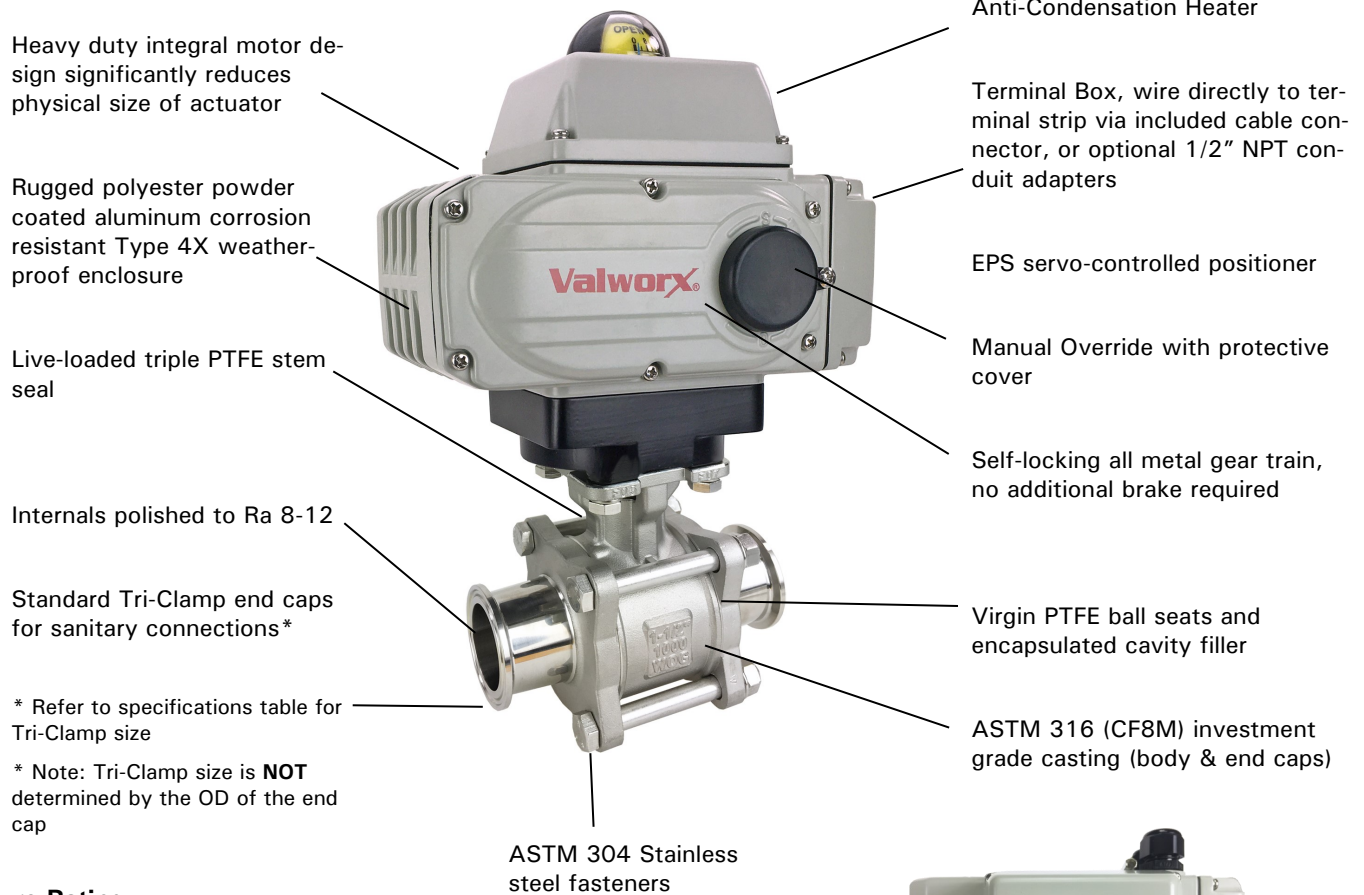


- CE conformance
 - ISO5211 Mounting

Standards– Valves

- Construction:
 - 3A 68-00
 - ANSI B16/B2/B18
 - NSF 61
 - FDA 21 CFR 177.1550
- Pressure Testing:
 - MSS-SP82

Construction Features



Visual Valve Position Indicator

Pressure Rating

Pressure Rating*: 1000 PSI @ 120°F

Max Pressure Room Temp– 1000 PSI (72°F desired room temp)

* See P/T chart (pages 3 & 4)

Temperature Rating

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

Valve Temperature Rating: 50° to 400° F (-45 to 200°C)

* See P/T chart (pages 3 & 4)

EPS - Electronic Positioning System

Valve positioning and how it works?

Valworx electric actuators with EPS - Electronic Positioning System provide an accurate valve positioning function whereby the movement of the actuator is controlled by a 4-20mA input control signal. Any change in the control input signal results in a corresponding and proportional change in the position of the actuator (valve).

Unique electronic positioning module is fully potted to help protect the electronics from vibration/moisture resistance.

An internal microprocessor on the EPS circuit board continuously monitors the analog input and output signals and compares them to the physical position via a precision potentiometer feedback system, moving the actuator as required to balance the signals.

The EPS system is self-calibrating which virtually eliminates "hunting". The following functions are standard:

- Position monitoring output signal in same format as input. Ex: 4-20mA input, 4-20mA output
- Adjustable forward or reversing action.
- Sensitivity, Zero and Span adjustments
- Selectable fail mode: fail closed, fail open or stop in place (for loss of input command signal).
- Electric manual control with onboard selector switches
- Fault LED lights indicate valve jam or signal loss
- Electronic brake function

Specifications (English units)

Stock Number	Pipe Size (inch)	Tri-Clamp Size	Cv Flow Factor*	Pressure Max. (PSI)**	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
110 VAC ELECTRIC ACTUATED SANITARY VALVE, TRI-CLAMP EPS POSITIONER 4-20mA INPUT									
570600A	1/2	3/4	8	1000	25/21	110 VAC, 50/60Hz	0.3	70%	E
570601A	3/4	3/4	29	1000	25/21	110 VAC, 50/60Hz	0.3	70%	E
570602A	1	1-1/2	66	1000	25/21	110 VAC, 50/60Hz	0.3	70%	E
570603	1-1/2	1-1/2	192	1000	30/25	110 VAC, 50/60Hz	0.7	70%	E
570604	2	2	434	1000	30/25	110 VAC, 50/60Hz	0.7	70%	E
570605	2-1/2	2-1/2	723	1000	30/25	110 VAC, 50/60Hz	0.7	70%	E
570606	3	3	1124	1000	30/25	110 VAC, 50/60Hz	0.7	70%	E
570607	4	4	2100	1000	30/25	110 VAC, 50/60Hz	0.7	70%	E
24 VDC ELECTRIC ACTUATED SANITARY VALVE, TRI-CLAMP EPS POSITIONER 4-20mA INPUT									
570800	1/2	3/4	8	1000	30	DC24	1.0	70%	GE
570801	3/4	3/4	29	1000	30	DC24	1.0	70%	GE
570802	1	1-1/2	66	1000	30	DC24	1.0	70%	GE
570803	1-1/2	1-1/2	192	1000	30	DC24	1.7	70%	GE
570804	2	2	434	1000	30	DC24	1.7	70%	GE
570805	2-1/2	2-1/2	723	1000	30	DC24	1.7	70%	GE
570806	3	3	1124	1000	30	DC24	1.7	70%	GE
570807	4	4	2100	1000	30	DC24	1.7	70%	GE

Cv = The GPM of water at 60° F that will pass through the valve with 1 PSI pressure drop

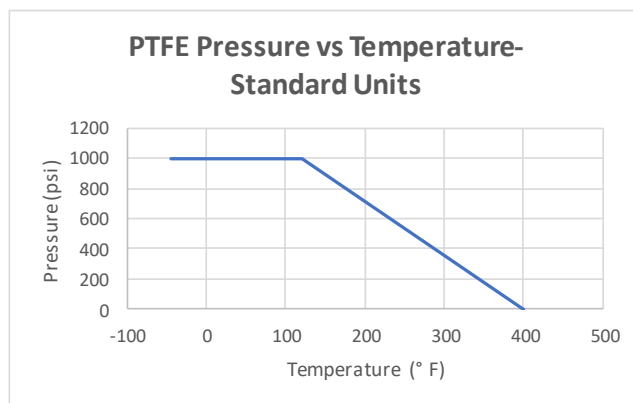
* Pressure @ -50° to 400° F (reduced pressure at higher temperatures—see P/T chart)

• Torque at 1000 PSI and 72°F

Pressure Temperature Chart

Standard Units

Temp	-45	120	400
Pressure	1000	1000	0



Specifications (Metric units)

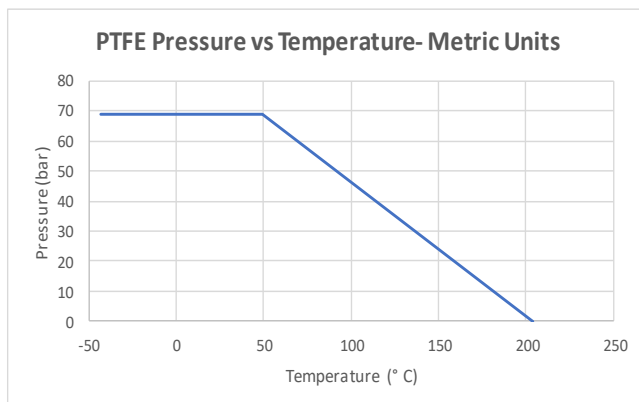
Stock Number	Pipe Size (mm)	Tri-Clamp Size	Kv Flow Factor*	Pressure Max. (Bar)**	Cycle Time/90°	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
110 VAC ELECTRIC ACTUATED SANITARY VALVE, TRI-CLAMP EPS POSITIONER 4-20mA INPUT									
570600A	12.7	3/4	7	69	25/21	110 VAC, 50/60Hz	0.3	70%	E
570601A	19.1	3/4	25	69	25/21	110 VAC, 50/60Hz	0.3	70%	E
570602A	25.4	1-1/2	57	69	25/21	110 VAC, 50/60Hz	0.3	70%	E
570603	38.1	1-1/2	107	69	30/25	110 VAC, 50/60Hz	0.7	70%	E
570604	50.8	2	165	69	30/25	110 VAC, 50/60Hz	0.7	70%	E
570605	63.5	2-1/2	374	69	30/25	110 VAC, 50/60Hz	0.7	70%	E
570606	76.2	3	623	69	30/25	110 VAC, 50/60Hz	0.7	70%	E
570607	101.6	4	1810	69	30/25	110 VAC, 50/60Hz	0.7	70%	E
24 VDC ELECTRIC ACTUATED SANITARY VALVE, TRI-CLAMP EPS POSITIONER 4-20mA INPUT									
570800	12.7	3/4	7	69	30	DC24	1.0	70%	GE
570801	19.1	3/4	25	69	30	DC24	1.0	70%	GE
570802	25.4	1-1/2	57	69	30	DC24	1.0	70%	GE
570803	38.1	1-1/2	107	69	30	DC24	1.7	70%	GE
570804	50.8	2	165	69	30	DC24	1.7	70%	GE
570805	63.5	2-1/2	374	69	30	DC24	1.7	70%	GE
570806	76.2	3	623	69	30	DC24	1.7	70%	GE
570807	101.6	4	1810	69	30	DC24	1.7	70%	GE

* Pressure range @ -45° to 200° C (reduced pressure for higher temperatures—see P/T chart)

Pressure Temperature Chart

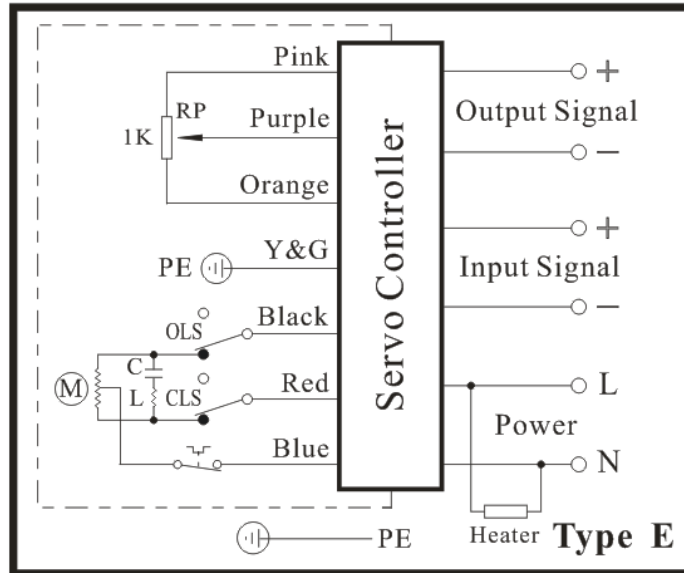
Metric Units

Temp	-43	49	204
Pressure	69	69	0

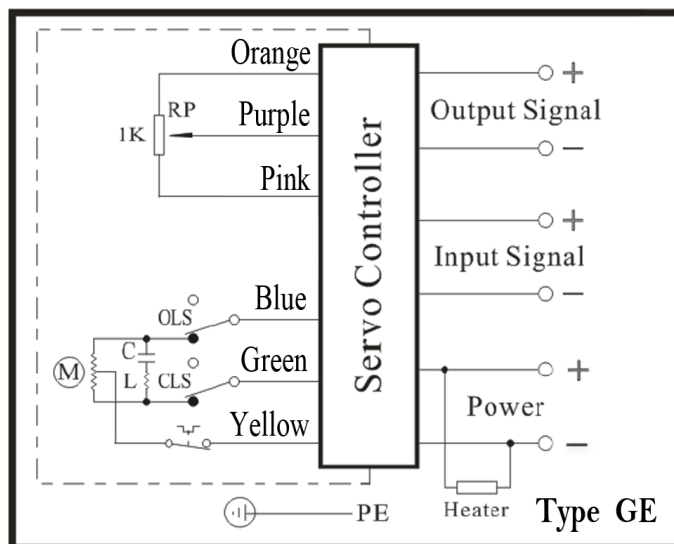


Electrical Wiring

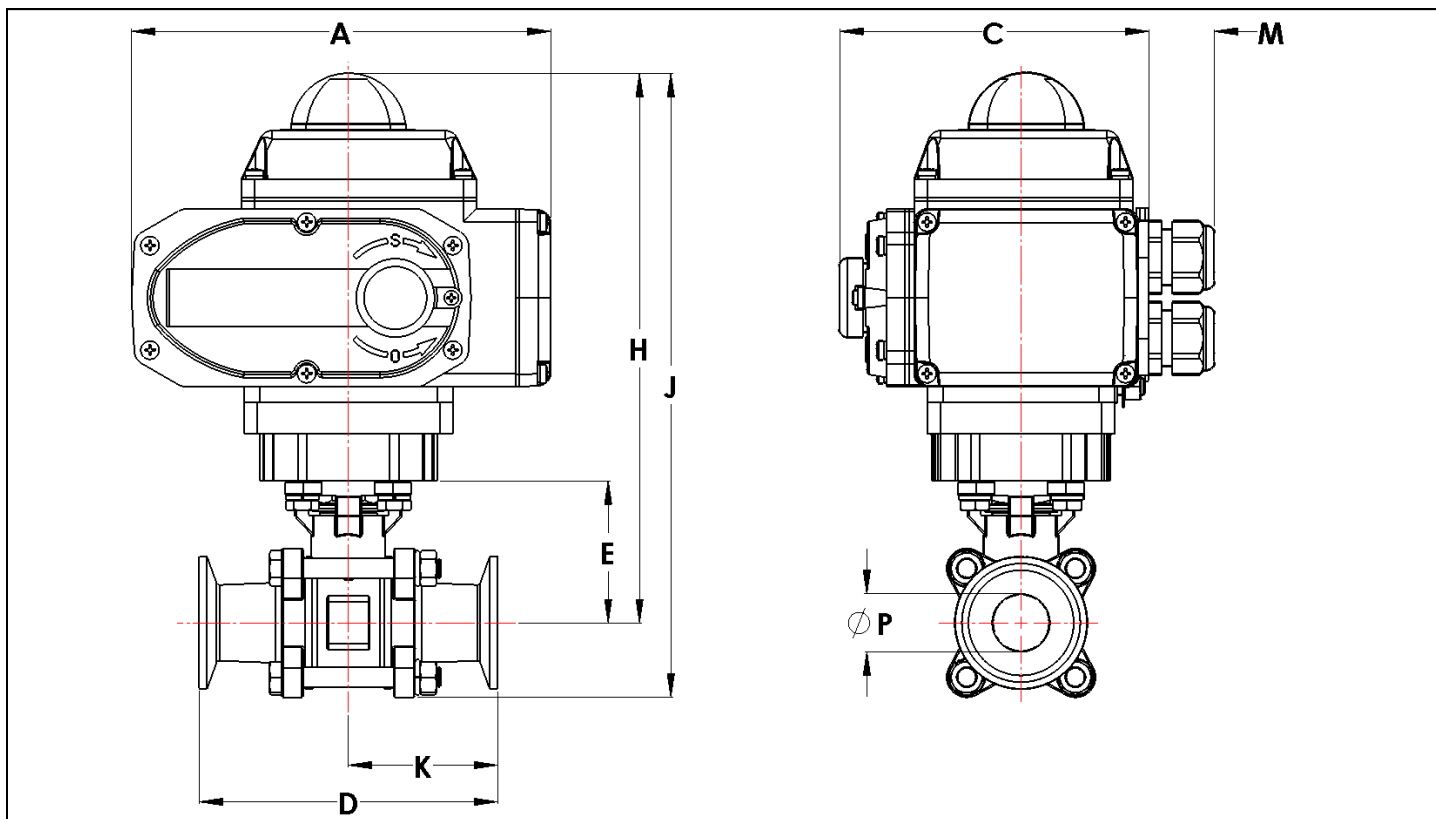
Valves with EPS Positioners AC Voltages



Valves with EPS Positioners DC Voltages

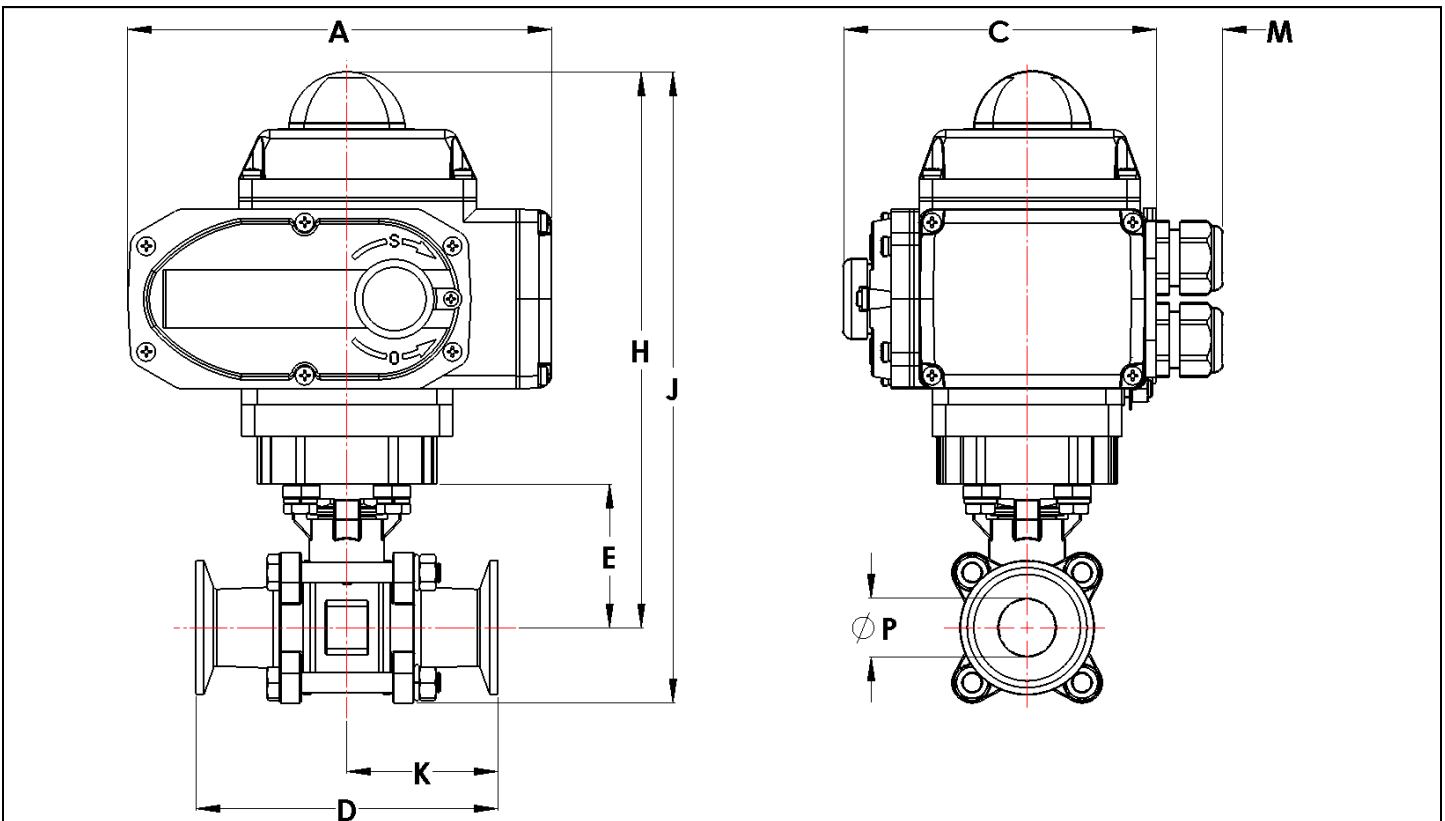


Dimensions:(110 VAC)



Stock Number	Pipe Size		A	C	D	E	H	J	K	M	P	Valve ISO	Weight (AC)
570600A	1/2	inch	6.4	4.7	3.5	1.8	7.9	8.9	1.8	1.0	0.4	F03/F04	7.3 lb
		mm	162.0	118.5	88.9	43.2	200.2	225.6	44.4	25.0	10.2		3.3 kg
570601A	3/4	inch	6.4	4.7	4.0	2.4	8.0	9.0	2.4	1.0	0.6	F03/F04	8.1 lb
		mm	162.0	118.5	101.6	45.7	202.7	228.1	60.8	25.0	15.2		3.6 kg
570602A	1	inch	6.4	4.7	4.5	2.3	8.3	10.2	2.3	1.0	0.9	F04/F05	10.3 lb
		mm	162.0	118.5	114.3	53.3	210.3	258.6	57.2	25.0	22.9		4.6 kg
570603	1-1/2	inch	10.1	6.4	5.5	2.8	11.4	12.9	2.8	1.0	1.4	F05/F07	26.0 lb
		mm	255.5	161.5	139.7	73.7	290.0	328.6	69.9	25.0	35.6		11.7 kg
570604	2	inch	10.1	6.4	6.2	3.1	11.8	13.6	3.1	1.0	1.9	F05/F07	29.0 lb
		mm	255.5	161.5	157.5	83.8	300.0	346.0	79.3	25.0	48.3		13.1 kg
570605	2-1/2	inch	10.1	6.4	7.0	3.5	12.7	15.6	3.5	1.0	2.4	F07/F10	42.0 lb
		mm	255.5	161.5	177.8	106.7	323.1	396.0	88.9	25.0	61.0		19.0 kg
570606	3	inch	10.1	6.4	9.0	4.5	13.1	16.6	4.5	1.0	2.9	F07/F10	52.0 lb
		mm	255.5	161.5	228.6	116.8	333.5	421.0	114.5	25.0	73.7		23.5 kg
570607	4	inch	10.1	6.4	9.5	4.7	13.7	17.7	4.7	1.0	3.8	F07/F10	70.0 lb
		mm	255.5	161.5	241.3	132.1	347.9	449.6	120.2	25.0	96.5		31.7 kg

Dimensions:(24 VDC)



Stock Number	Pipe Size		A	C	D	E	H	J	K	M	P	Valve ISO	Weight (DC)
570800	1/2	inch	7.7	5.0	3.5	1.8	8.7	9.5	1.8	1.0	0.6	F03/F04	10.0 lb
		mm	196.5	126.0	88.9	43.2	221.2	241.9	44.4	25.0	10.2		4.5 kg
570801	3/4	inch	7.7	5.0	4.0	2.4	8.9	9.9	2.4	1.0	0.8	F03/F04	10.8 lb
		mm	196.5	126.0	101.6	45.7	225.0	250.2	60.8	25.0	15.2		4.8 kg
570802	1	inch	7.7	5.0	4.5	2.3	8.9	10.0	2.3	1.0	1.0	F04/F05	13.0 lb
		mm	196.5	126.0	114.3	53.3	225.0	253.5	57.2	25.0	22.9		5.8 kg
570803	1-1/2	inch	10.1	6.4	5.5	2.8	11.4	12.9	2.8	1.0	1.5	F05/F07	26.0 lb
		mm	255.5	161.5	139.7	73.7	290.0	328.6	69.9	25.0	35.6		11.7 kg
570804	2	inch	10.1	6.4	6.2	3.1	11.8	13.6	3.1	1.0	2.0	F05/F07	29.0 lb
		mm	255.5	161.5	157.5	83.8	300.0	346.0	79.3	25.0	48.3		13.1 kg
570805	2-1/2	inch	10.1	6.4	7.0	3.5	12.7	15.6	3.5	1.0	2.5	F07/F10	42.0 lb
		mm	255.5	161.5	177.8	106.7	323.1	396.0	88.9	25.0	61.0		19.0 kg
570806	3	inch	10.1	6.4	9.0	4.5	13.1	16.6	4.5	1.0	3.1	F07/F10	52.0 lb
		mm	255.5	161.5	228.6	116.8	333.5	421.0	114.5	25.0	73.7		23.5 kg
570807	4	inch	10.1	6.4	9.5	4.7	13.7	17.7	4.7	1.0	4.0	F07/F10	70.0 lb
		mm	255.5	161.5	241.3	132.1	347.9	449.6	120.2	25.0	96.5		31.7 kg