

Features

- All materials comply with FDA, USDA, and 3-A requirements
- Highly polished internals and end caps with 32 Ra finish
- Forged ASTM 316L stainless steel valve body and end caps
- Tri-Clamp ends for hygienic connections
- Valve body machining and chamfering done by a single CNC process— for precise fit
- 316L mirror finish disc/stem for minimal flow resistance
- Bi-directional flow
- Single piece forged & machined stem/disc
- 100% tested with full traceability of all components
- EPS— Electronic Positioning System with 4-20mA input
- 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 butterfly valves are used to control the flow of waters, oils, air, certain caustics, and other media compatible with the materials of construction for general service and where an expanded temperature range or higher pressure is required. Actuators designed for 70% duty cycle.

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 .

Construction

Valve Body	ASTM 316L stainless steel
Disc/ Stem	316L stainless steel
Disc Seat/ Liner	EPDM
Gear Drive	Heavy duty alloy steel/ aluminum bronze, self locking
Actuator Enclosure	Aluminum, polyester powder painted, Type 4X, IP67
Visual Valve Position Indicator	Clear Polycarbonate cover, red/yellow open-closed
Fasteners	304 stainless steel
Auxiliary Limit Switches	2 x SPDT (5A/125VAC), on-off actuators only



Description

Electric operated EPS sanitary butterfly valves with 316L stainless steel body are designed for commercial and industrial applications. 316L stainless steel valve body for excellent corrosion resistance. Machined and chamfered in a single set up for precise fit. Single piece 316L disc/stem with disc polished to mirror finish to minimize flow turbulence. Easy disassembly for cleaning and seal replacement. Polypropylene bushings ensure proper stem alignment and minimize wear. Sanitary tri-clamp ends for quick, sanitary connections and easy cleaning.

Approvals

Actuators

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



Valves— Standards

- Construction
 - FDA 21 CFR 177.2600
- Testing
 - API598

Construction Features



Pressure Rating

Pressure Rating: 1-2", 160 PSI @ 67 °F,
4", 140 PSI @ 67°F

Temperature Rating

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

Valve Temperature Rating: EPDM seals: -67 to 302°F (-55 to 150°C)

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



Visual Valve
Position Indicator

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)

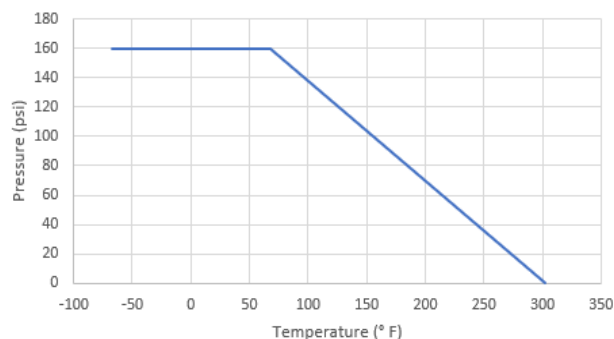
Stock Number	Pipe Size (inch)	Orifice Diam. (inch)	Cv Flow Factor	Pressure Max. (PSI)	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
120 VAC ELECTRIC ACTUATED SANITARY BUTTERFLY VALVE, EPDM SEALS, EPS POSITIONER 4-20mA INPUT									
574202	1	0.9	23.0	160	25/21	110 VAC, 50/60Hz	0.3	70%	E
574203	1-1/2	1.4	80.0	160	25/21	110 VAC, 50/60Hz	0.3	70%	E
574204	2	1.9	230.0	160	25/21	110 VAC, 50/60Hz	0.3	70%	E
574206	3	2.9	372.0	140	25/21	110 VAC, 50/60Hz	0.6	70%	E
574207	4	3.8	800.0	140	30/25	110 VAC, 50/60Hz	0.6	70%	E
24 VDC ELECTRIC ACTUATED SANITARY BUTTERFLY VALVE, EPDM SEALS, EPS POSITIONER 4-20mA INPUT									
574402	1	0.9	23.0	160	20	DC24	1.3	70%	GEY
574403	1-1/2	1.4	80.0	160	20	DC24	1.3	70%	GEY
574404	2	1.9	230.0	160	20	DC24	1.3	70%	GEY
574406	3	2.9	372.0	140	20	DC24	3.6	70%	GEY
574407	4	3.8	800.0	140	30	DC24	3.6	70%	GEY

* Pressure @ -67° to 302° F (reduced pressure at higher temperatures—see P/T chart)

Standard Units 1-2"

Temp °F	-67	68	302
Pressure	160	160	0

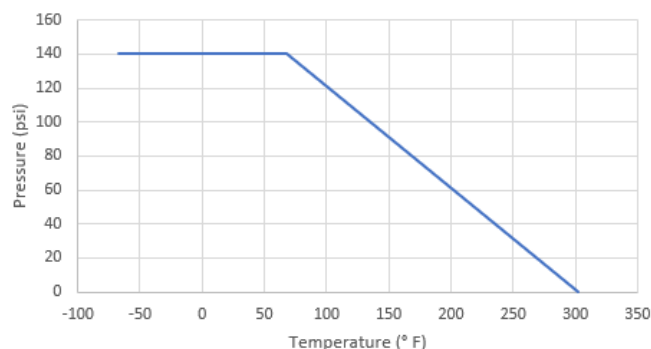
Pressure vs Temperature- Standard Units



Standard Units 3-4"

Temp °F	-67	68	302
Pressure	140	140	0

Pressure vs Temperature- Standard Units



Specifications (Metric units)

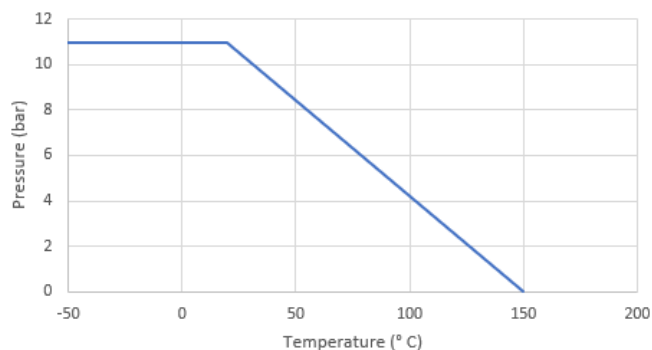
Stock Number	Pipe Size	Orifice	Kv Flow	Pressure	Cycle Time/90°	Voltage	Current	Duty	Electrical
120 VAC ELECTRIC ACTUATED SANITARY BUTTERFLY VALVE, EPDM SEALS, EPS POSITIONER 4-20mA INPUT									
574202	1	22.1	19.9	11.0	25/21	110 VAC, 50/60Hz	0.3	70%	E
574203	1-1/2	34.8	69.2	11.0	25/21	110 VAC, 50/60Hz	0.3	70%	E
574204	2	47.5	199.0	11.0	25/21	110 VAC, 50/60Hz	0.3	70%	E
574206	3	72.9	321.8	9.7	30/25	110 VAC, 50/60Hz	0.6	70%	E
574207	4	97.6	692.0	9.7	30/25	110 VAC, 50/60Hz	0.6	70%	E
24 VDC ELECTRIC ACTUATED SANITARY BUTTERFLY VALVE, EPDM SEALS, EPS POSITIONER 4-20mA INPUT									
574402	1	22.1	19.9	11.0	20	DC24	1.3	70%	GEY
574403	1-1/2	34.8	69.2	11.0	20	DC24	1.3	70%	GEY
574404	2	47.5	199.0	11.0	20	DC24	1.3	70%	GEY
574406	3	72.9	321.8	9.7	30	DC24	3.6	70%	GEY
574407	4	97.6	692.0	9.7	30	DC24	3.6	70%	GEY

* Pressure range @ -55° to 150° C (reduced pressure for higher temperatures—see P/T chart)

Metric Units 1-2"

Temp °C	-55	20	150
Pressure	11	11	0

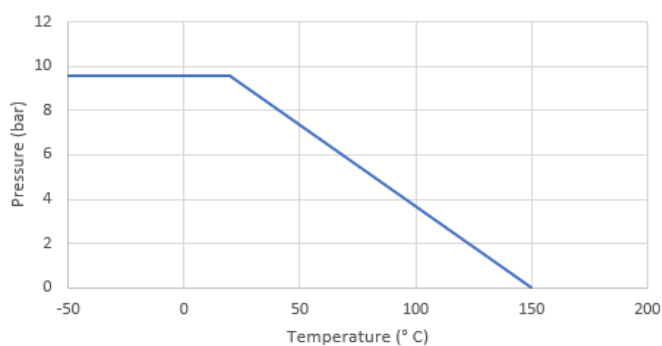
Pressure vs Temperature- Metric Units



Metric Units 3-4"

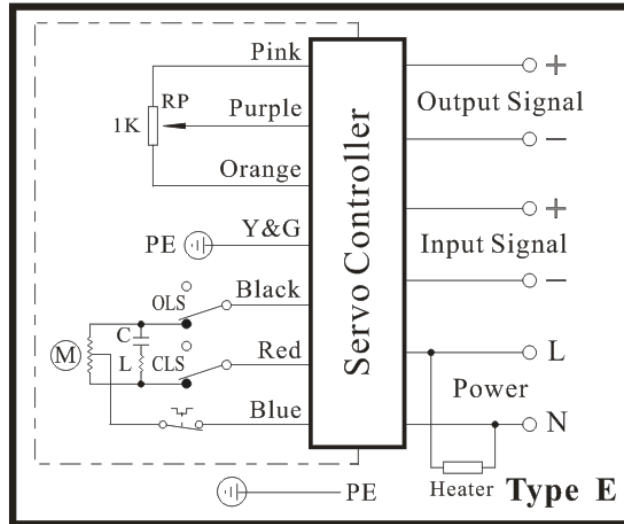
Temp °C	-55	20	150
Pressure	9.6	9.6	0

Pressure vs Temperature- Metric Units

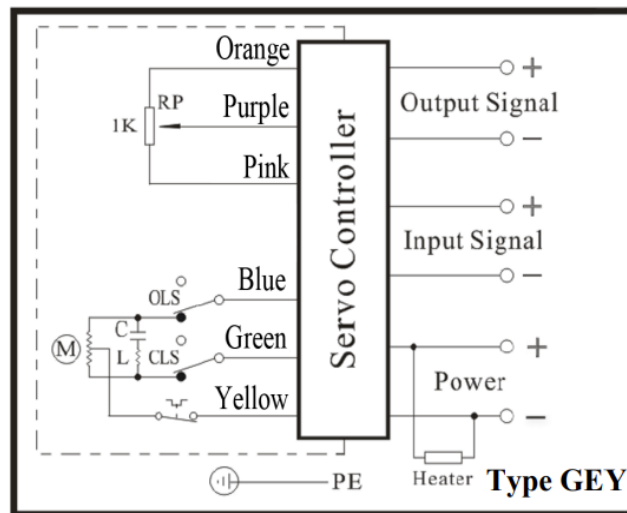


Electrical Wiring

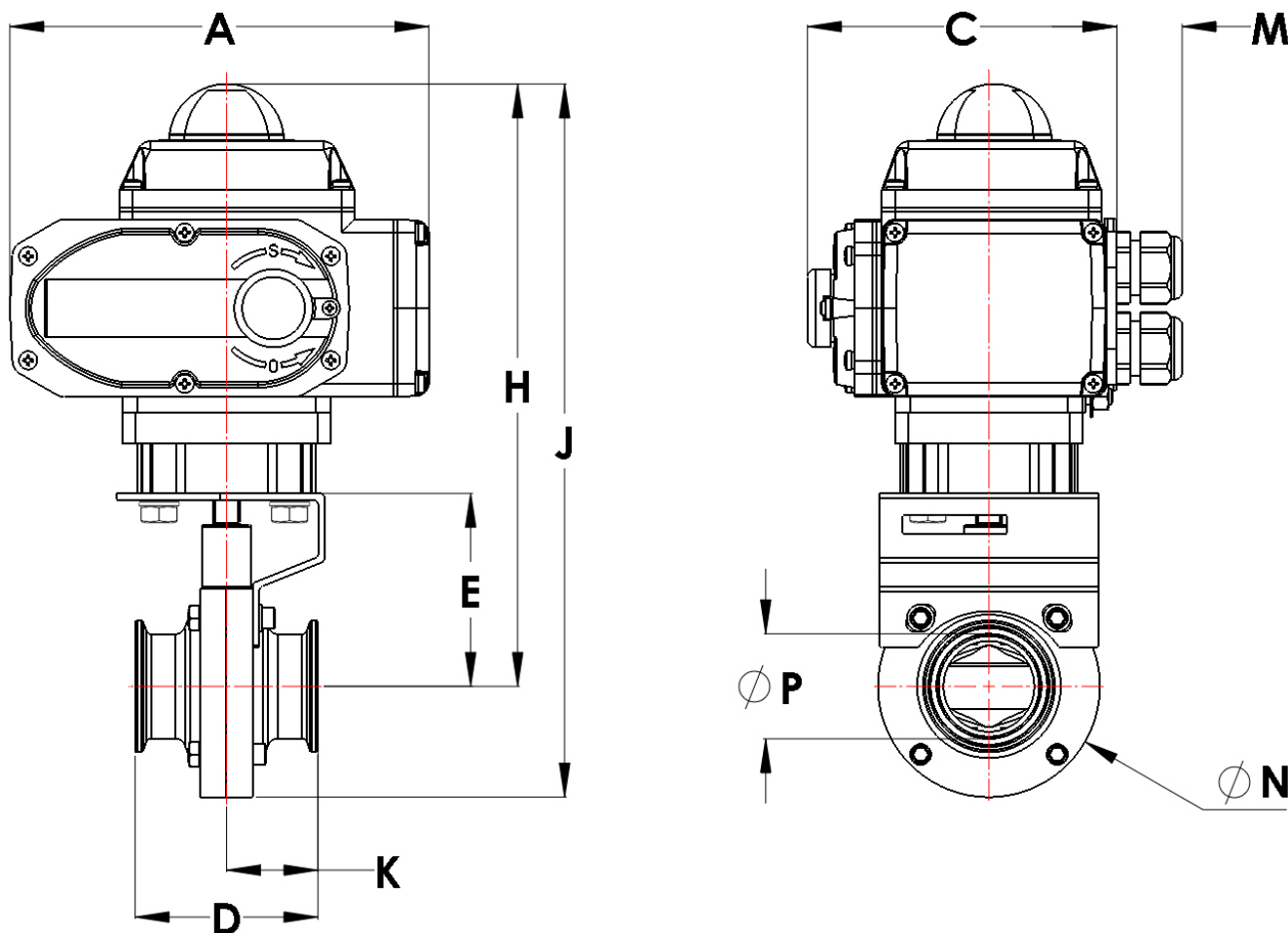
AC Voltages with EPS Positioners



DC Voltages with EPS Positioners



Dimensions: (110AC)



Pipe Size		A	C	D	E	H	J	K	M	N	P	Weight (AC)
1	inch	6.4	4.7	2.8	2.9	9.8	11.4	1.4	1.0	3.1	0.9	8.7 lb
	mm	162.0	118.5	70.0	69.9	249.9	289.4	35.0	25.0	79.0	22.1	3.9 kg
1-1/2	inch	6.4	4.7	2.8	2.9	10.0	11.7	1.4	1.0	3.3	1.4	8.4 lb
	mm	162.0	118.5	70.0	74.0	254.0	296.5	35.0	25.0	85.0	34.8	3.8 kg
2	inch	6.4	4.7	2.9	3.1	10.1	12.1	1.5	1.0	3.9	1.9	8.6 lb
	mm	162.0	118.5	74.0	77.7	257.7	3.7.7	37.0	25.0	100.0	47.5	3.9 kg
3	inch	6.4	4.7	3.1	3.7	10.8	13.3	1.5	1.0	5.0	2.9	14.6 lb
	mm	162.0	118.5	78.0	94.5	274.5	338.0	39.0	25.0	127.0	72.9	6.6 kg
4	inch	10.1	6.4	3.5	4.3	12.8	15.9	1.8	1.0	6.1	3.8	17.1 lb
	mm	255.5	161.5	90.0	108.7	324.7	402.7	45.0	25.0	156.0	97.6	7.8 kg

Dimensions: (24DC)

