

Features

- EPS - Electronic Positioning System with 4-20mA input
- Wafer body valve with ISO5211 direct mount actuator
- Epoxy coated ductile iron body with 316 SS disc
- Unique wave line seat reduces torque and extends seal life
- 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
- Actuators CSA Listed per UL429 and CSA C22.2

Applications

EPDM seals typically used for on-off control of water and other media compatible with the materials of construction. NBR (Buna-N) seals typically used for air, oil, vacuum and other media compatible with the materials of construction. Multi-standard alignment holes, suitable for flanges: ANSI/ASME B16.5 Class 150/125, EN1092 PN10,PN16, BS10 Table D, E and JIS B2239 10K,16K. 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 either a field selectable 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	Epoxy coated ductile iron
Disc	316 stainless steel CF8M
Disc Seat/Liner	EPDM or NBR (Buna-N)
Stem/Stem Seals	420 SS / (2) v-rings same material as seat
Gear Drive	Heavy duty alloy steel/aluminum bronze, self locking
Actuator Enclosure	Aluminum, polyester powder painted, Type 4X, IP67
Visual Valve Position Indicator	Clear ABS cover with red/yellow open-closed indicator
Fasteners	Stainless Steel
EPS Module	Electronics mounted in potted ABS module



Description

Electric operated direct mount butterfly valves with epoxy-coated ductile iron wafer body are designed for commercial and industrial applications. Valve mounts between two standard ANSI/ASME Class 150 flanges and includes integral molded flange gaskets. Disc is precision machined 316SS. Two piece stem and disc design enhances the flow capacity and reduces turbulence. Rugged corrosion resistant electric actuator includes a manual override, auto calibration positioner module, thermostatically controlled anti-condensation heater, and over-torque protection.

Approvals

Actuators

- CSA Listed to:
 - UL429 and CSA C22.2 no 139
 - Type 4X, IP67 weatherproof enclosure
- CE conformance-EN 60204-1:2006

Valves

- Design complies with API-609, MSS SP-67
- Tests per API-598, AWWA C502-87
- CE conformance- PED 2014/68/UE



Construction Features

Heavy duty integral motor design significantly reduces physical size of actuator

Rugged polyester powder coated aluminum corrosion resistant Type 4X weather-proof enclosure

Unique wave line seat reduces torque and extends seal life

316SS disc with 2-piece stem design enhances flow capacity, reduces pressure drop

Ductile iron body with epoxy coating

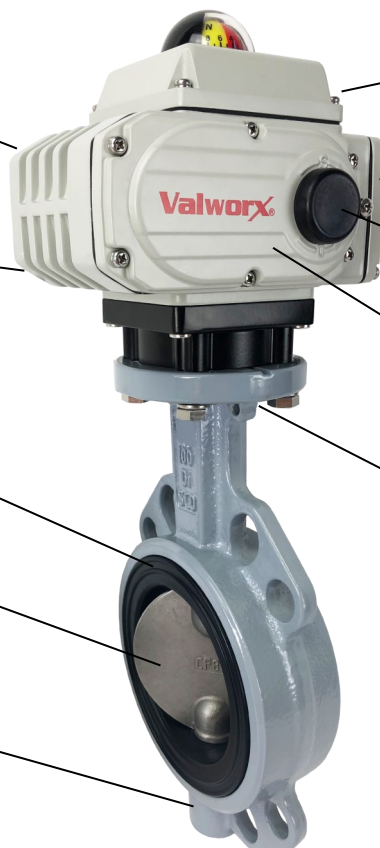
Anti-Condensation Heater

Terminal Box, wire directly to terminal strip, or via optional 1/2" NPT conduit adapters

Manual Override with protective cover

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

Direct mount wafer butterfly valve with standard ISO5211 mount, no brackets required



Visual Valve
Position Indicator

Pressure-Temperature Rating

Pressure Rating: 230 PSI (16 Bar), Vacuum 29in Hg, 2-8" sizes

145 PSI (10 Bar) 10-12" sizes

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

Valve Temperature Rating: EPDM seals 0 to 248° F (-18 to 120°C)

NBR (Buna-N) seals 5 to 185° F (-15 to 85°C)

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



Electric Actuated Butterfly Valves

Ductile Iron Wafer Body ASME 150#

EPS Positioner Models

SERIES
5671

Specifications (English units)

Stock Number	Pipe Size (inch)	Orifice Size (inch)	Cv Flow Factor	Pressure Max.(PSI)	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
120 VAC ELECTRIC ACTUATED WAFER BUTTERFLY VALVE, EPDM SEALS EPS POSITIONER 4-20mA input									
567102C	2	2.0	124	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567103C	2-1/2	2.6	247	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567104C	3	3.2	470	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567105C	4	3.9	929	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567107A	6	5.9	2243	230	30/25	110 VAC, 50/60Hz	0.73	70%	E
567108A	8	7.69	3584	230	45/37	110 VAC, 50/60Hz	1.27	70%	E
567110A	10	9.8	4498	145	45/37	110 VAC, 50/60Hz	1.27	70%	E
567009A	12	11.8	8498	145	45/37	110 VAC, 50/60Hz	1.27	70%	E
24 VDC ELECTRIC WAFER ACTUATED BUTTERLY VALVE, EPDM SEALS EPS POSITIONER 4-20mA input									
567127C	2	2.0	124	230	30	DC24	1.0	70%	GEY
567128C	2-1/2	2.6	247	230	30	DC24	1.0	70%	GEY
567129C	3	3.2	470	230	30	DC24	1.0	70%	GEY
567130C	4	3.9	929	230	30	DC24	1.0	70%	GEY
567132C	6	5.9	2243	230	30	DC24	3.57	70%	GEY
567133A	8	7.69	3584	230	45	DC24	6.04	70%	GEY
567134A	10	9.8	4498	145	45	DC24	6.04	70%	GEY
567135A	12	11.8	8498	145	45	DC24	6.04	70%	GEY
120 VAC ELECTRIC ACTUATED WAFER BUTTERFLY VALVE, NBR (BUNA-N) SEALS EPS POSITIONER 4-20mA input									
567136C	2	2.0	124	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567137C	2-1/2	2.6	247	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567138C	3	3.2	470	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567139C	4	3.9	929	230	25/21	110 VAC, 50/60Hz	0.27	70%	E
567141A	6	5.9	2243	230	30/25	110 VAC, 50/60Hz	0.73	70%	E
24 VDC ELECTRIC ACTUATED WAFER BUTTERLY VALVE, NBR (BUNA-N) SEALS EPS POSITIONER 4-20mA input									
567146C	2	2.0	124	230	30	DC24	1.0	70%	GEY
567147C	2-1/2	2.6	247	230	30	DC24	1.0	70%	GEY
567148C	3	3.2	470	230	30	DC24	1.0	70%	GEY
567149C	4	3.9	929	230	30	DC24	1.0	70%	GEY
567150C	6	5.9	2243	230	30	DC24	3.57	70%	GEY

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



Electric Actuated Butterfly Valves

Ductile Iron Wafer Body ASME 150#

EPS-Positioner Versions

SERIES
5671

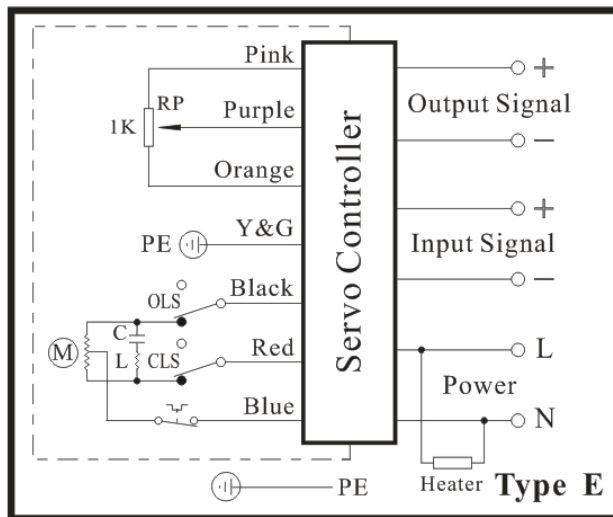
Specifications (Metric units)

Stock Number	Pipe Size (inch)	Orifice Size (mm)	Kv Flow Factor	Pressure Max.(Bar)	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.
120 VAC ELECTRIC ACTUATED WAFER BUTTERFLY VALVE, EPDM SEALS EPS POSITIONER 4-20mA input									
567102C	2	50	107	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567103C	2-1/2	65	212	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567104C	3	80	404	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567105C	4	100	799	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567107A	6	150	1929	16	30/25	110 VAC, 50/60Hz	0.73	70%	E
567108A	8	200	3100	16	45/37	110 VAC, 50/60Hz	1.27	70%	E
567110A	10	250	5200	10	45/37	110 VAC, 50/60Hz	1.27	70%	E
567109A	12	300	7350	10	45/37	110 VAC, 50/60Hz	1.27	70%	E
24 VDC ELECTRIC ACTUATED WAFER BUTTERFLY VALVE, EPDM SEALS EPS POSITIONER 4-20mA input									
567127C	2	50	107	16	30	DC24	1.0	70%	GEY
567128C	2-1/2	65	212	16	30	DC24	1.0	70%	GEY
567129C	3	80	404	16	30	DC24	1.0	70%	GEY
567130C	4	100	799	16	30	DC24	1.0	70%	GEY
567132C	6	150	1929	16	30	DC24	3.57	70%	GEY
567133A	8	200	3100	16	45	DC24	6.04	70%	GEY
567134A	10	250	5200	10	45	DC24	6.04	70%	GEY
567135A	12	300	7350	10	45	DC24	6.04	70%	GEY
120 VAC ELECTRIC ACTUATED WAFER BUTTERFLY VALVE, NBR SEALS EPS POSITIONER 4-20mA input									
567136C	2	50	107	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567137C	2-1/2	65	212	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567138C	3	80	404	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
567139C	4	100	799	16	25/21	110 VAC, 50/60Hz	0.27	70%	E
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567148C	3	80	404	16	30	DC24	1.0	70%	GEY
567149C	4	100	799	16	30	DC24	1.0	70%	GEY
567150C	6	150	1929	16	30	DC24	3.57	70%	GEY

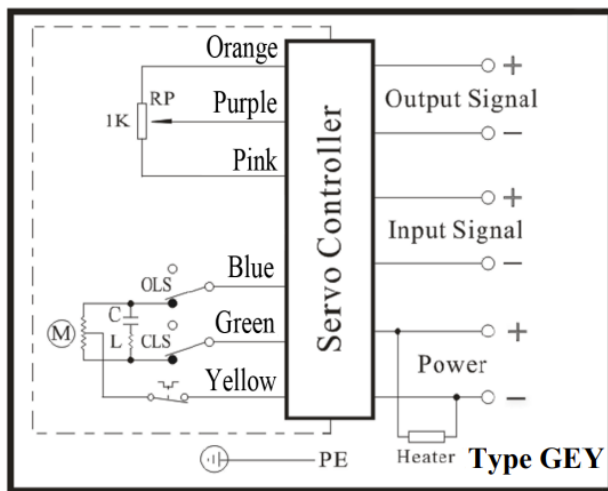
• Kv = The number of m³ per hour of 20° C water at 1 bar pressure drop

Electrical Wiring

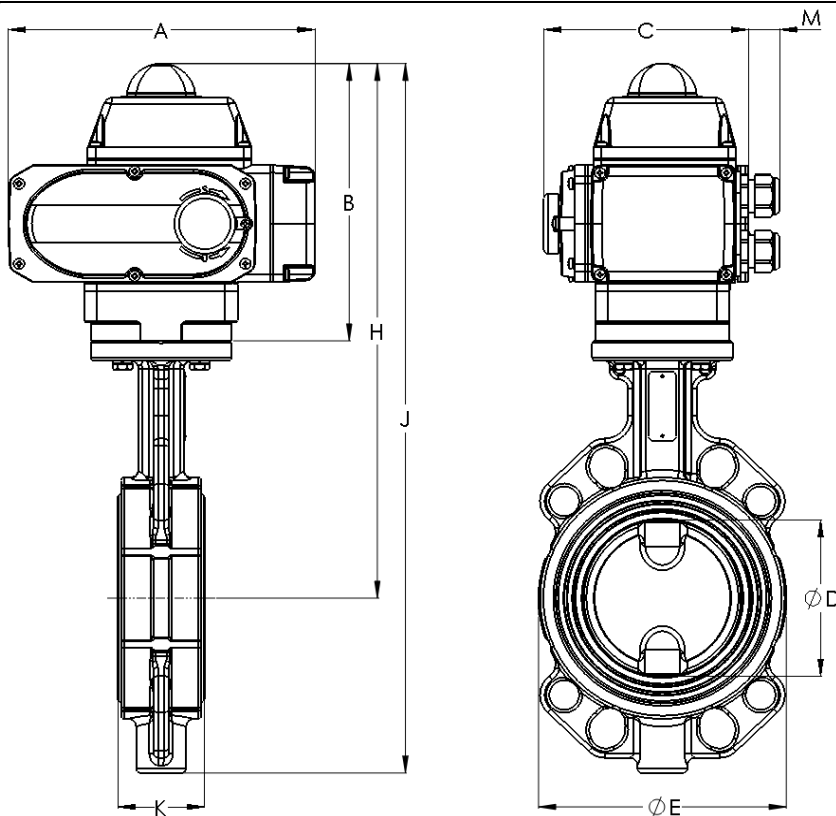
Valves with EPS Positioners AC Voltages



Valves with EPS Positioners DC Voltages



Dimensions:



Suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS150
- ◆ ANSI/ASME B16.1 CLASS125
- ◆ EN1092 PN10, PN16
- ◆ JIS B 2239 10K, 16K
- ◆ BS 10 Table D, Table E

Pipe Size		A	B	C	D	E	H	J	K	M	Weight (AC/DC)
2	inch	6.4	6.2	4.7	2.0	3.9	11.1	14.1	1.8	1.0	10.4 lbs
DN50	mm	162.0	157.0	118.5	50.0	99.0	283.0	359.0	46.0	25.0	4.7 kg
2-1/2	inch	6.4	6.2	4.7	2.6	4.5	11.5	14.7	1.9	1.0	11.5 lbs
DN65	mm	162.0	157.0	118.5	65.0	113.0	291.0	373.0	49.0	25.0	5.2 kg
3	inch	6.4	6.2	4.7	3.2	5.1	12.4	16.1	1.9	1.0	13.3 lbs
DN80	mm	162.0	157.0	118.5	80.0	129.0	314.0	410.0	49.0	25.0	6.0 kg
4	inch	6.4	6.2	4.7	3.9	6.2	12.8	17.2	2.2	1.0	16.8 lbs
DN100	mm	162.0	157.0	118.5	100.0	157.0	324.0	438.0	56.0	25.0	7.6 kg
6	inch	10.1	8.5	6.3	5.9	8.4	14.2	19.8	2.3	1.0	37.0 lbs
DN150	mm	256.0	216.0	160.0	150.0	213.0	360.0	502.0	59.0	25.0	16.8 kg
8	inch	10.1	8.5	6.3	7.9	10.7	15.2	21.9	2.4	1.0	48.9 lbs
DN200	mm	256.0	216.0	160.0	200.0	271.0	385.0	557.0	60.0	25.0	22.2 kg
10	inch	10.1	8.5	6.3	9.8	13.0	19.0	27.4	2.7	1.0	63.9 lbs
DN250	mm	256.0	216.0	160.0	248.9	330.2	481.8	694.9	68.6	25.0	29.1 kg
12	inch	10.1	8.5	6.3	11.8	15.0	17.6	27.2	3.1	1.0	79.3 lbs
DN300	mm	256.0	216.0	160.0	300.0	381.0	448.0	690.0	78.0	25.0	36.0 kg