

Features

- Lug body butterfly valve with ISO5211 direct mount actuator
- Unique wave line seat reduces torque and extends seal life
- Ductile iron body with 3-layer epoxy coating and 316SS disc
- External LED power on and diagnostic light
- Long life brushless motor
- IP67 polyamide weatherproof enclosure with UV protection
- Multi-voltage capable with auto-voltage sensing
- Electronic torque limiter protects against valve jams
- Anti-condensation heater
- Manual override with visual valve position indicator
- Electrical connections via external DIN plugs
- Auxiliary limit switches to confirm open/closed valve position

Applications

Electric actuated Lug body butterfly valves are used to control the flow of water, oils, air, vacuum and other media compatible with the materials of construction. Actuator designed for 75% duty cycle.

Three seal options are available:

EPDM: Water service, other compatible media.

NBR (Buna-N): Oils, air, vacuum, other compatible media.

FPM (Viton): Hydrocarbons, oils, other compatible chemicals/media.

Operation

Electric actuated valve uses power-to-open and power-to-close, stays in the last known position with power failure. On receipt of a continuous voltage signal, the motor runs and via a flat gear system rotates the disc 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.

Construction

Valve Body	3-layer Epoxy/Epoxy/PUR coated ductile iron
Disc	316 stainless steel CF8M
Disc Seat/Liner	Options: EPDM, NBR (Buna-N), FPM (Viton)
Stem/Stem Seals	420 stainless steel / V-ring (same material as seat)
Actuator Enclosure	Anti-corrosive Polyamide, UV protection
Manual Override/Position Indicator	Glass filled Polyamide / Clear Polyamide Dome
Auxiliary Limit Switches	2 x SPST 3A@125/250VAC, 30VDC resistive load
Fasteners	Stainless Steel



Description

Electric operated direct mount butterfly valves with epoxy-coated ductile iron lug body are designed for commercial and industrial applications. Lug type valves have threaded holes in valve body for mounting. Valve mounts between two standard ANSI/ASME Class 125/ 150 flanges. Seat to flange seal eliminates the need for flange gaskets. Disc is precision machined 316SS. Two piece stem and disc design enhances the flow capacity and reduces turbulence.

Approvals

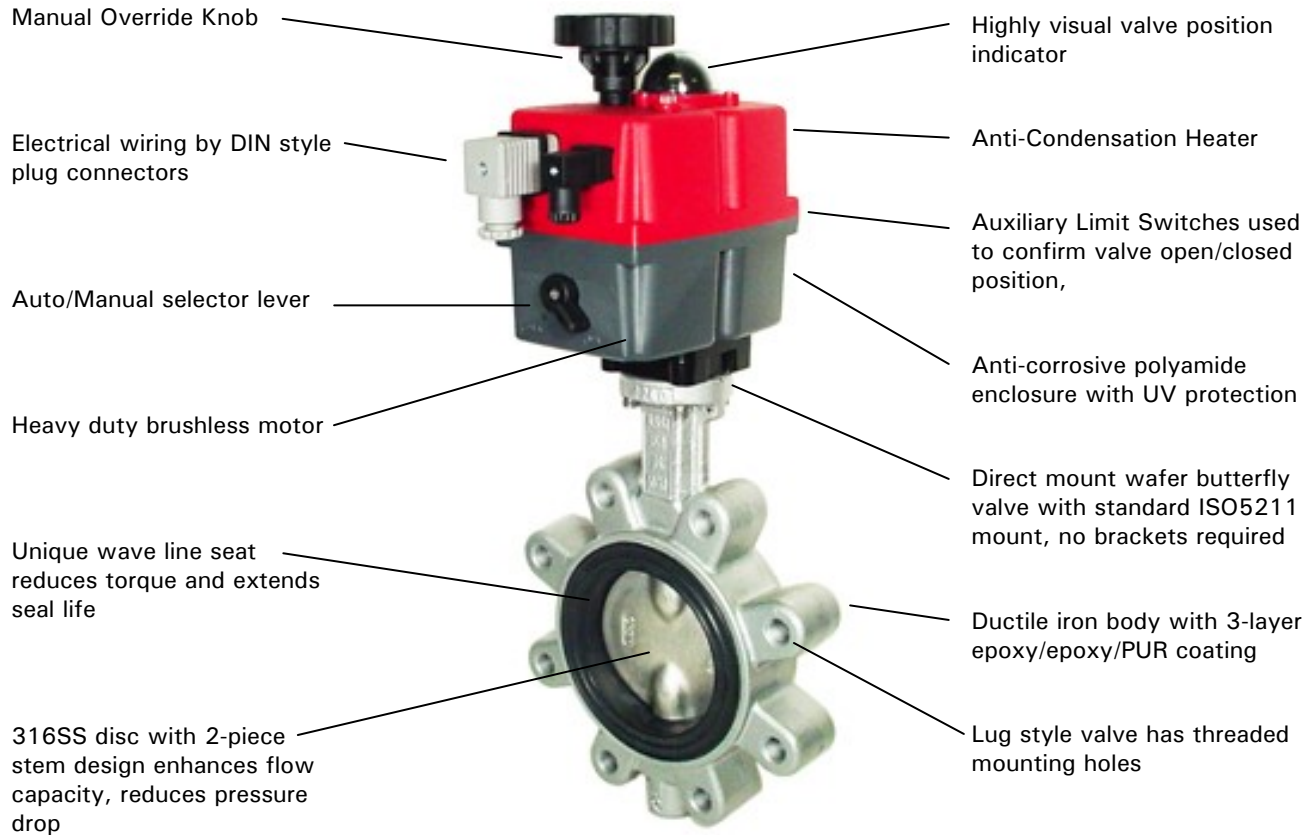
Actuators

- CE mark conforming to:
 - Machinery directive
 - Low voltage directive
 - EMC Compatibility directive
- ISO5211 valve mounting

Valves

- Design complies with API-609, MSS SP-67
- Tests per API-598, AWWA C502-87
- CE according to PED 97/23/EC, ISO5208

Construction Features



Pressure Rating

Pressure Rating: 230 PSI (16 Bar), Vacuum 29in Hg

Temperature Rating

Actuator Temperature Rating: -4 to +158° F (-20 to 70° C)

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

NBR seals 5 to 185° F (-15 to 85°C)

Optional Functions

BSR: Battery Spring Return Kit

- actuator fails to a safe position with loss of power

DPS: Digital Positioning System

- valve disc position controlled by 4-20mA or 0-10V control signal

Specifications (English units)

Stock Number	Pipe Size (inch)	Orifice Diam. (inch)	Cv Flow Factor	Pressure Max. (PSI)	Fluid Media*	Cycle Time /90° (sec) +/-10%	Max. Current Draw (Amps)			
							110VAC	240VAC	24VAC	24VDC
Lug Body EPDM Seals: 24v-240v AC or DC										
562702C	2	2.00	124	230	Water	13	0.43	0.21	1.98	1.63
562703C	2-1/2	2.50	247	230	Water	13	0.43	0.21	1.98	1.63
562704C	3	3.00	470	230	Water	13	0.43	0.21	1.98	1.63
562705C	4	4.00	929	230	Water	13	0.43	0.21	1.98	1.63
Lug Body EPDM Seals: 24v-240v AC or DC										
562707C	6	6.00	2243	230	Water	58	0.8	0.5	3.3	2.7
Lug Body NBR (BUNA- N) Seals: 24v-240v AC or DC										
562721C	2	2.00	124	230	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
562722C	2-1/2	2.50	247	230	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
562723C	3	3.00	470	230	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
562724C	4	4.00	929	230	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
Lug Body NBR (BUNA- N) Seals: 24v-240v AC or DC										
562726C	6	6.00	2243	230	Air, Oil, Vacuum	58	0.8	0.5	3.3	2.7
Lug Body FPM (Viton) Seals: 24v-240v AC or DC										
562742C	2	2.00	124	230	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
562743C	2-1/2	2.50	247	230	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
562744C	3	3.00	470	230	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
562745C	4	4.00	929	230	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
Lug Body FPM (Viton) Seals: 24v-240v AC or DC										
562747C	6	6.00	2243	230	Hydrocarbon, Oil	58	0.8	0.5	3.3	2.7

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

* Consult compatibility chart for other media. Suitable for vacuum up to 29 inHg

Models with 240 volts are single phase

Specifications (Metric units)

Stock Number	Pipe Size (inch)	Orifice Diam. (mm)	Kv Flow Factor	Pressure Max. (Bar)	Fluid Media*	Cycle Time /90° (sec) +/-10%	Max. Current Draw (Amps)			
							115VAC	240VAC	24VAC	24VDC
Lug Body EPDM Seals: 24v-240v AC or DC										
562702C	2	50	107	16	Water	13	0.43	0.21	1.98	1.63
562703C	2-1/2	65	212	16	Water	13	0.43	0.21	1.98	1.63
562704C	3	80	404	16	Water	13	0.43	0.21	1.98	1.63
562705C	4	100	799	16	Water	13	0.43	0.21	1.98	1.63
Lug Body EPDM Seals: 24v-240v AC or DC										
562707C	6	150	1929	16	Water	58	0.8	0.5	3.3	2.7
Lug Body NBR (BUNA- N) Seals: 24v-240v AC or DC										
562721C	2	50	107	16	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
562722C	2-1/2	65	212	16	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
562723C	3	80	404	16	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
562724C	4	100	799	16	Air, Oil, Vacuum	13	0.43	0.21	1.98	1.63
Lug Body NBR (BUNA- N) Seals: 24v-240v AC or DC										
562726C	6	150	1929	16	Air, Oil, Vacuum	58	0.8	0.5	3.3	2.7
Lug Body FPM (Viton) Seals: 24v-240v AC or DC										
562742C	2	50	107	16	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
562743C	2-1/2	65	212	16	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
562744C	3	80	404	16	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
562745C	4	100	799	16	Hydrocarbon, Oil	13	0.43	0.21	1.98	1.63
Lug Body FPM (Viton) Seals: 24v-240v AC or DC										
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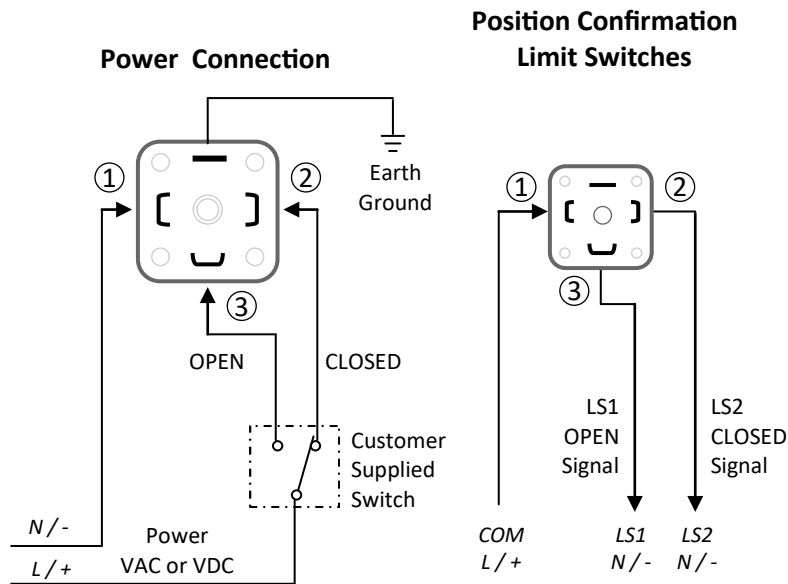
* Consult compatibility chart for other media. Suitable for vacuum up to 29 inHg

Models with 240 volts are single phase

Electrical Wiring: On/Off and BSR Battery Spring Return Versions

Voltage: 24-240 Volts AC or DC, 1ph, -0/+ 5%

Auto-voltage sensing



Function: ON-OFF version

Power Connections

Power to PIN 1 and 2
- actuator CLOSED (pos 1)

Power to PIN 1 and 3
- actuator OPEN (pos 2)

Stays in last known position with loss of power.

Function: ON-OFF version with BSR option

Wiring is the same as standard ON-OFF version.

Power to open, power to close - maintain power to trickle charge the battery system in either open or closed position.

Actuator sent by battery power to failsafe position with power failure.

Actuator returns to pre-failure position on power resumption.

Function: Position confirmation limit switches

Dry contact 3A @ 125/250 VAC, 30VDC resistive load

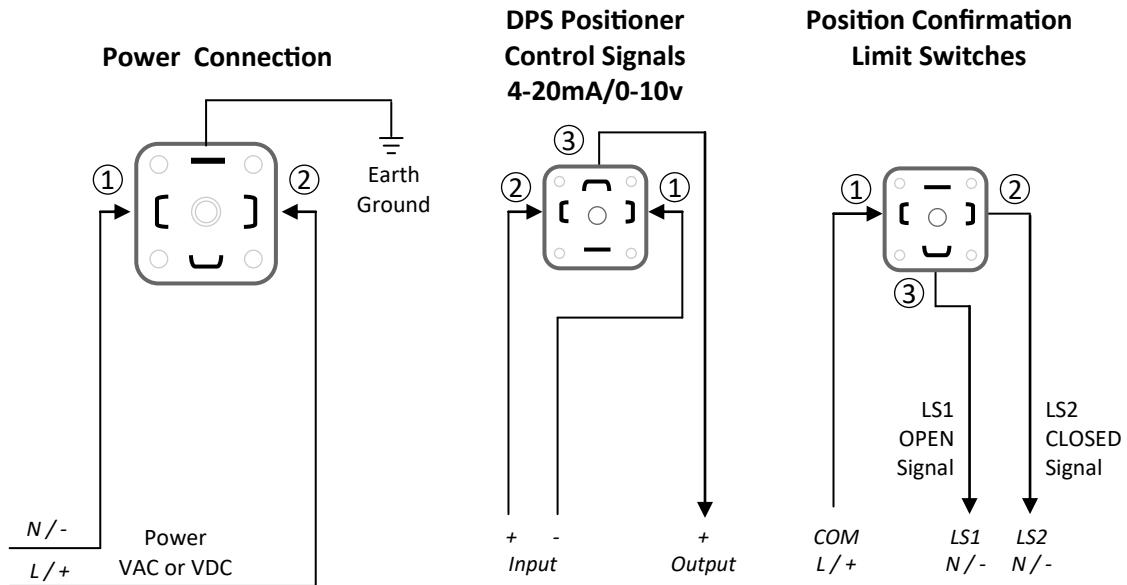
PIN 1 (COM) and 2 to confirm actuator is closed

PIN 1 (COM) and 3 to confirm actuator is open

Electrical Wiring: Actuators with DPS Digital Positioner Option

Voltage: 85-240 Volts AC or DC (auto-voltage sensing)

Control Signal: 4-20mA or 0-10 VDC



Function: Actuators with DPS—Digital Positioner Option

Power open, power close - actuator movement controlled by 4-20mA or 0-10VDC input signal.

Standard operation: 4mA or 0V = actuator closed, 20mA or 10V = actuator open (can be set-up reverse acting).

Actuator closes with loss of control signal, stays in last known position with loss of main power.

Output monitoring signal (in same format as supply signal) provided as standard.

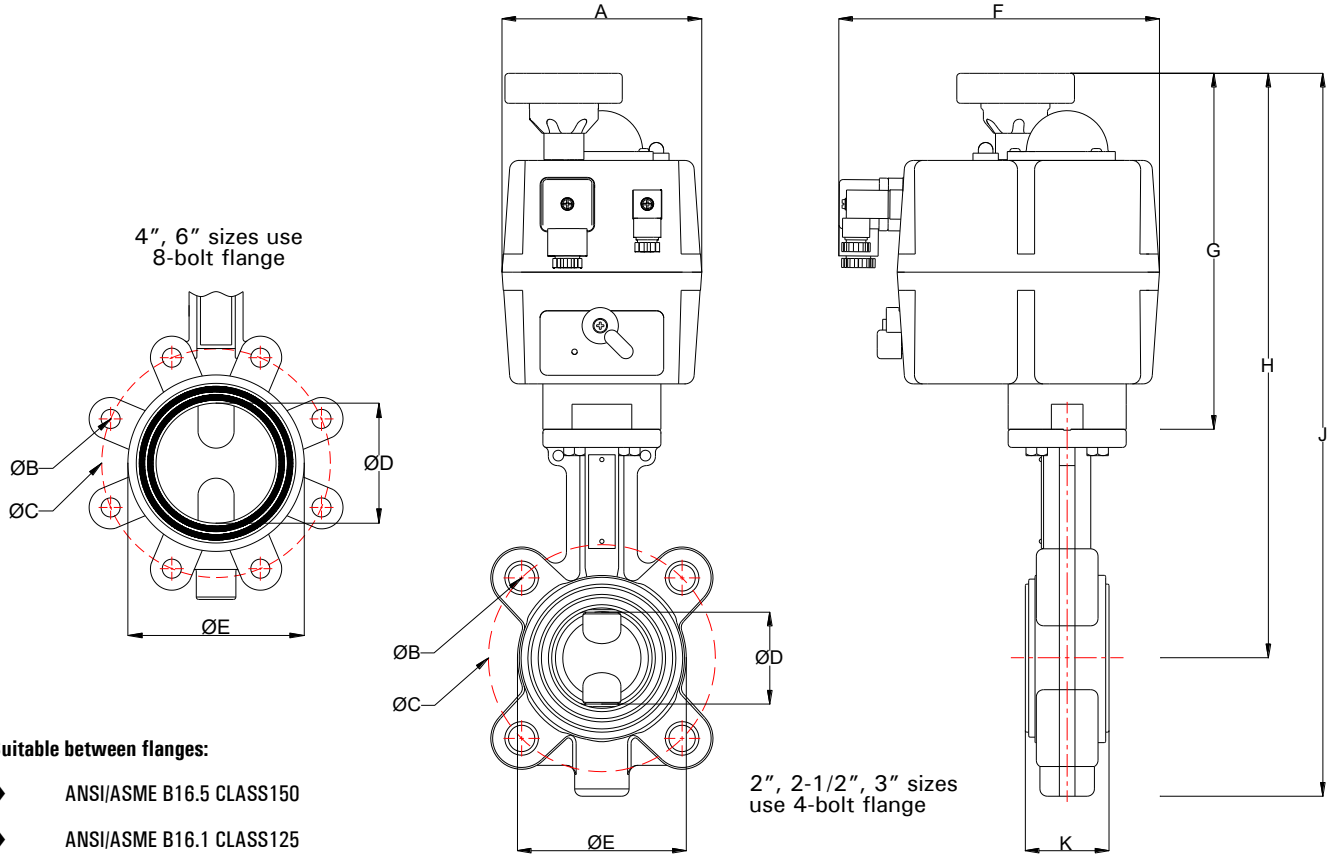
Function: Position confirmation limit switches

Dry contact 3A @ 125/250 VAC, 30VDC resistive load

PIN 1 (COM) and 2 to confirm actuator is closed

PIN 1 (COM) and 3 to confirm actuator is open

Dimensions:



Suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS150
- ◆ ANSI/ASME B16.1 CLASS125

Pipe Size		A	B	C	D	E	F	G	H	J	K	ISO	Weight
2	inch	4.33	5/8-11	4.74	1.97	3.74	6.97	7.72	12.68	15.67	1.81	F05	11.9 lb
	mm	110	—	120.5	50	95	177	196	322	398	46		5.4 kg
2-1/2	inch	4.33	5/8-11	5.50	2.56	4.13	6.97	7.72	12.99	16.22	1.93	F05	13.7 lb
	mm	110	—	139.7	65	105	177	196	330	412	49		6.2 kg
3	inch	4.33	5/8-11	6.00	3.15	4.72	6.97	7.72	13.90	17.68	1.93	F05	16.5 lb
	mm	110	—	152.4	80	120	177	196	353	449	49		7.5 kg
4	inch	4.33	5/8-11	7.50	3.94	5.79	6.97	7.72	14.29	18.78	2.19	F05/ F07	21.2 lb
	mm	110	—	190.5	100	147	177	196	363	477	56		9.6 kg
6	inch	8.42	3/4-10	9.50	5.91	8.07	9.25	9.92	17.99	23.58	2.31	F07	31.3 lb
	mm	214	—	241.3	150	205	235	254	457	599	59		14.2 kg

Dimensions remain unchanged for all versions (On-Off, BSR Failsafe & DPS Positioning)