

Features

- EPS- Electronic Positioning System with 4-20mA input
- Lug 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 compatible media. NBR (Buna-N) seals typically used for air, oil, vacuum and other compatible media. FPM (Viton) seals typically used for on-off control of hydrocarbons, oils and other compatible chemicals/media. Suitable for use with ANSI/ASME Class 125/150 pipe flanges. 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 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 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, NBR (Buna-N) or FPM (Viton) |
| Stem/Stem Seals | 420 stainless steel / (2) v-ring, same material as seat |
| Gear Drive | Heavy duty alloy steel and 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 | Stainless Steel |
| EPS Module | Electronics mounted in potted ABS module |



Description

Electric operated direct mount butterfly valves with epoxy-coated ductile iron lug 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
 - ISO5211 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

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 via included cable connector, or optional 1/2" NPT conduit adapters

Manual Override with protective cover

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

Direct mount lug style 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

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

Valve Temp. Rating: EPDM 0 to 248° F (-18 to 120°C), NBR 5 to 185° F (-15 to 85°C), FPM 5 to 338° F (-15 to 170°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 Lug Body ASME 150#
EPS-Positioner Models

SERIES
5674

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 LUG BODY BUTTERFLY VALVE, EPDM SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567402C | 2 | 2.0 | 124 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567403C | 2-1/2 | 2.5 | 247 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567404C | 3 | 3.0 | 470 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567405C | 4 | 4.0 | 929 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567407A | 6 | 6.0 | 2243 | 230 | 30/25 | 110 VAC, 50/60Hz | 0.73 | 70% | E |
| 24 VDC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, EPDM SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567427C | 2 | 2.0 | 124 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567428C | 2-1/2 | 2.5 | 247 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567429C | 3 | 3.0 | 470 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567430C | 4 | 4.0 | 929 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567432A | 6 | 6.0 | 2243 | 230 | 30 | DC24 | 1.70 | 70% | GE |
| 120 VAC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, NBR (Buna_N) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567436C | 2 | 2.0 | 124 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567437C | 2-1/2 | 2.5 | 247 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567438C | 3 | 3.0 | 470 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567439C | 4 | 4.0 | 929 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567441A | 6 | 6.0 | 2243 | 230 | 30/25 | 110 VAC, 50/60Hz | 0.73 | 70% | E |
| 24 VDC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, NBR (Buna-N) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567446C | 2 | 2.0 | 124 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567447C | 2-1/2 | 2.5 | 247 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567448C | 3 | 3.0 | 470 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567449C | 4 | 4.0 | 929 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567450A | 6 | 6.0 | 2243 | 230 | 30 | DC24 | 1.70 | 70% | GE |
| 120 VAC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, FPM (Viton) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567464C | 2 | 2.0 | 124 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567465C | 2-1/2 | 2.5 | 247 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567466C | 3 | 3.0 | 470 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567467C | 4 | 4.0 | 929 | 230 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567469A | 6 | 6.0 | 2243 | 230 | 30/25 | 110 VAC, 50/60Hz | 0.73 | 70% | E |
| 24 VDC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, FPM (Viton) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567473C | 2 | 2.0 | 124 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567474C | 2-1/2 | 2.5 | 247 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567475C | 3 | 3.0 | 470 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567476C | 4 | 4.0 | 929 | 230 | 30 | DC24 | 1.00 | 70% | GEY |
| 567478A | 6 | 6.0 | 2243 | 230 | 30 | DC24 | 1.70 | 70% | GE |



Electric Actuated Butterfly Valves

Ductile Iron Lug Body ASME 150#
EPS-Positioner Models

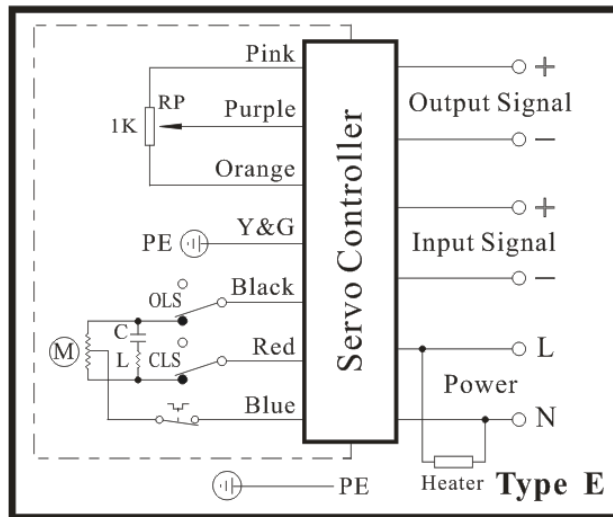
SERIES
5674

Specifications (Metric units)

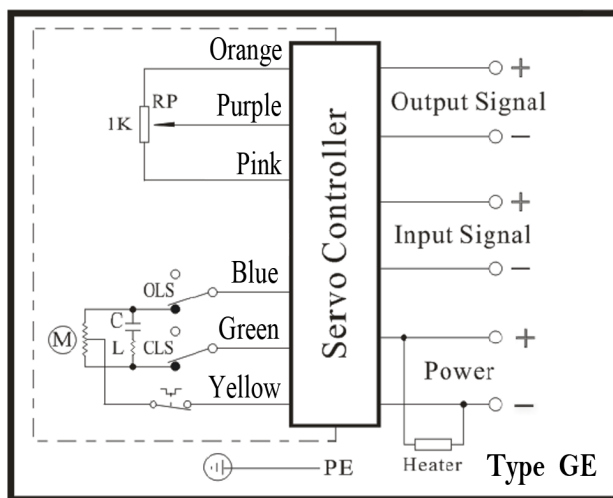
| Stock Number | Pipe Size (inch) | Orifice Size (mm) | Kv Flow Factor | Pressure Max. (Bar) | Cycle Time/90° (seconds) | Voltage | Current (amps) | Duty Cycle | Electrical Dwg. |
|--|------------------|-------------------|----------------|---------------------|--------------------------|------------------|----------------|------------|-----------------|
| 120 VAC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, EPDM SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567402C | 2 | 50 | 107 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567403C | 2-1/2 | 65 | 212 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567404C | 3 | 80 | 404 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567405C | 4 | 100 | 799 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567407A | 6 | 150 | 1929 | 16 | 30/25 | 110 VAC, 50/60Hz | 0.73 | 70% | E |
| 24 VDC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, EPDM SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567427C | 2 | 50 | 107 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567428C | 2-1/2 | 65 | 212 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567429C | 3 | 80 | 404 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567430C | 4 | 100 | 799 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567432A | 6 | 150 | 1929 | 16 | 30 | DC24 | 1.70 | 70% | GE |
| 120 VAC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, NBR (Buna-N) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567436C | 2 | 50 | 107 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567437C | 2-1/2 | 65 | 212 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567438C | 3 | 80 | 404 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567439C | 4 | 100 | 799 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567441A | 6 | 150 | 1929 | 16 | 30/25 | 110 VAC, 50/60Hz | 0.73 | 70% | E |
| 24 VDC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, NBR (Buna-N) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567446C | 2 | 50 | 107 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567447C | 2-1/2 | 65 | 212 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567448C | 3 | 80 | 404 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567449C | 4 | 100 | 799 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567450A | 6 | 150 | 1929 | 16 | 30 | DC24 | 1.70 | 70% | GE |
| 120 VAC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, FPM (Viton) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567464C | 2 | 50 | 107 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567465C | 2-1/2 | 65 | 212 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567466C | 3 | 80 | 404 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567467C | 4 | 100 | 799 | 16 | 25/21 | 110 VAC, 50/60Hz | 0.27 | 70% | E |
| 567469A | 6 | 150 | 1929 | 16 | 30/25 | 110 VAC, 50/60Hz | 0.73 | 70% | E |
| 24 VDC ELECTRIC ACTUATED LUG BODY BUTTERFLY VALVE, FPM (Viton) SEALS: EPS-POSITIONER 4-20mA | | | | | | | | | |
| 567473C | 2 | 50 | 107 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567474C | 2-1/2 | 65 | 212 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567475C | 3 | 80 | 404 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567476C | 4 | 100 | 799 | 16 | 30 | DC24 | 1.00 | 70% | GEY |
| 567478A | 6 | 150 | 1929 | 16 | 30 | DC24 | 1.70 | 70% | GE |

Electrical Wiring

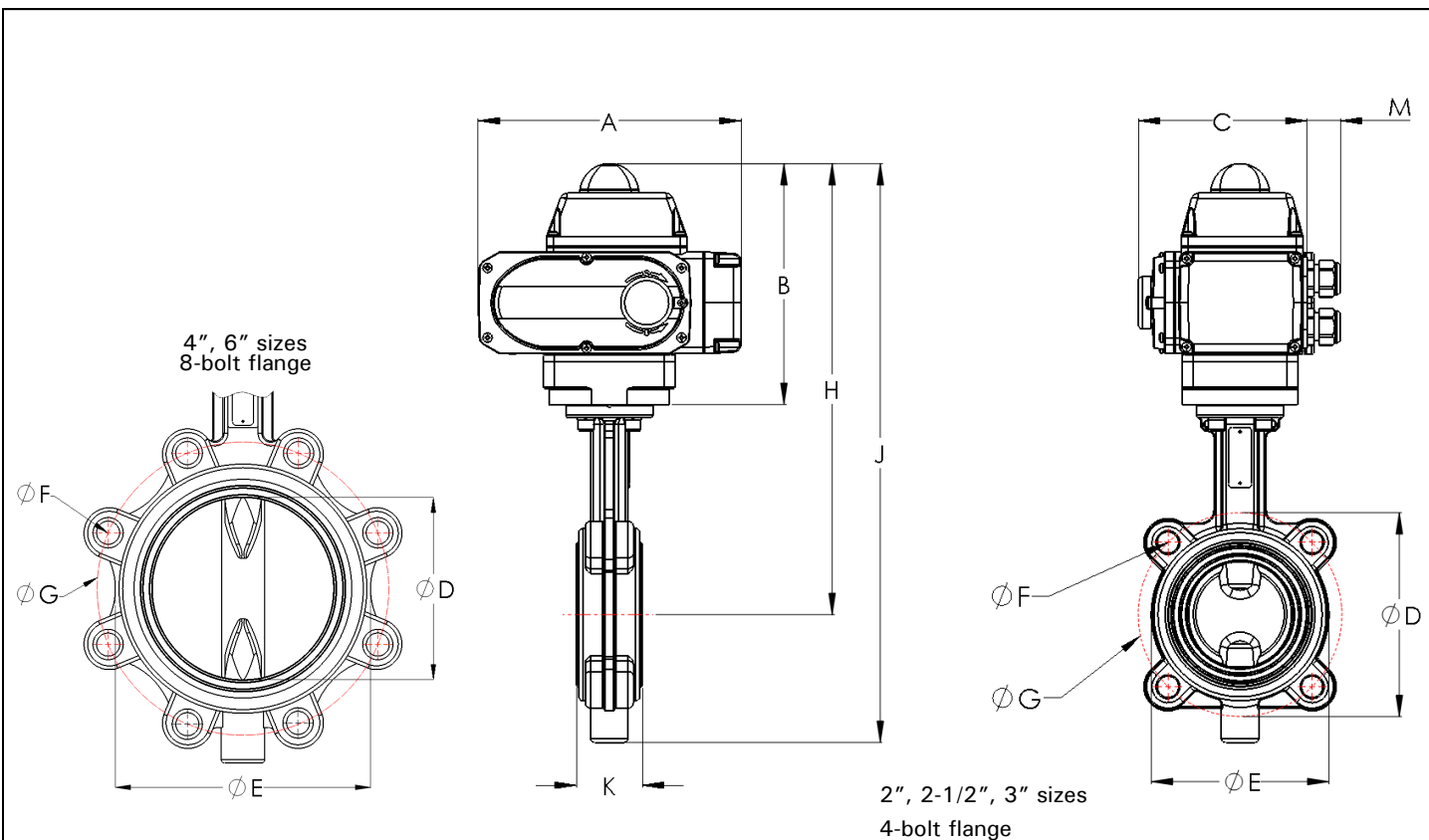
Valves with EPS Positioner AC Voltages



Valves with EPS Positioner DC Voltages



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 | M | ISO | Weight (AC/DC) |
|-----------|------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|------|------|---------|-----------------|
| 2 | inch | 6.4 | 6.2 | 4.7 | 2.0 | 3.7 | 4) 5/8-11 | 4.7 | 11.1 | 14.1 | 1.8 | 1.0 | F05 | 13.1 lb |
| | mm | 162.0 | 157.0 | 118.5 | 50.0 | 95.0 | — | 120.5 | 283.0 | 359.0 | 46.0 | 25.0 | | 5.9 kg |
| 2-1/2 | inch | 6.4 | 6.2 | 4.7 | 2.6 | 4.1 | 4) 5/8-11 | 5.5 | 11.5 | 14.7 | 1.9 | 1.0 | F05 | 14.8 lb |
| | mm | 162.0 | 157.0 | 118.5 | 65.0 | 105.0 | — | 139.7 | 291.0 | 373.0 | 49.0 | 25.0 | | 6.7 kg |
| 3 | inch | 6.4 | 6.2 | 4.7 | 3.2 | 4.7 | 4) 5/8-11 | 6.0 | 12.4 | 16.1 | 1.9 | 1.0 | F05 | 17.6 lb |
| | mm | 162.0 | 157.0 | 118.5 | 80.0 | 120.0 | — | 152.4 | 314.0 | 410.0 | 49.0 | 25.0 | | 8.0 kg |
| 4 | inch | 6.4 | 6.2 | 4.7 | 3.9 | 5.8 | 8) 5/8-11 | 7.5 | 12.8 | 17.2 | 2.2 | 1.0 | F05/F07 | 22.4 lb |
| | mm | 162.0 | 157.0 | 118.5 | 100.0 | 147.0 | — | 190.5 | 324.0 | 438.0 | 56.0 | 25.0 | | 10.2 kg |
| 6 | inch | 10.1 | 8.5 | 6.3 | 5.9 | 8.1 | 8) 3/4-10 | 9.5 | 14.2 | 19.8 | 2.3 | 1.0 | F07 | 50.0 / 50.0 lbs |
| | mm | 256.0 | 216.0 | 160.0 | 150.0 | 205.0 | — | 241.3 | 360.0 | 502.0 | 59.0 | 25.0 | | 22.7 / 22.7 kg |