

### Features

- Double offset design reduces torque and seal wear
- High quality, passivated 316SS (CF8M) construction for superior corrosion protection
- Multiple RPTFE V-type rings for superior shaft sealing
- Bolted seat retainer keeps seat stable and allows easy changeout
- Belleville washers for consistent, self-adjusting stem seal pressure
- One piece, reinforced Teflon (RPTFE) seal
- Bi-directional seal design ensures increased sealing force in either flow direction
- Multi-voltage capable with auto-voltage sensing
- Long life brushless motor
- External LED power on and diagnostic light
- IP67 polyamide weatherproof enclosure with UV protection
- Electronic torque limiter - protects against valve jams
- Anti-condensation heater
- Manual override with dome style visual valve position indicator
- Electrical connections via external DIN plugs
- Auxiliary limit switches to confirm open/closed valve position

### Applications

High performance lug 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 75% duty cycle.

Also suitable for end of line applications.

### 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	316 stainless steel CF8M
Disc	316 stainless steel CF8M
Disc Seat/ Stem Packing	RPTFE
Stem	17-4PH SS
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 high performance butterfly valves with 316 stainless steel lug body are designed for commercial and industrial applications. Valve mounts between two standard ANSI/ASME Class 125/150 flanges. Disc is spherically machined 316SS. Flange gaskets required. Double offset design to reduce seal wear. Rugged long life brushless electric actuator includes a manual override, thermostatically controlled anti-condensation heater, and over-torque protection.

### Approvals

#### Actuators

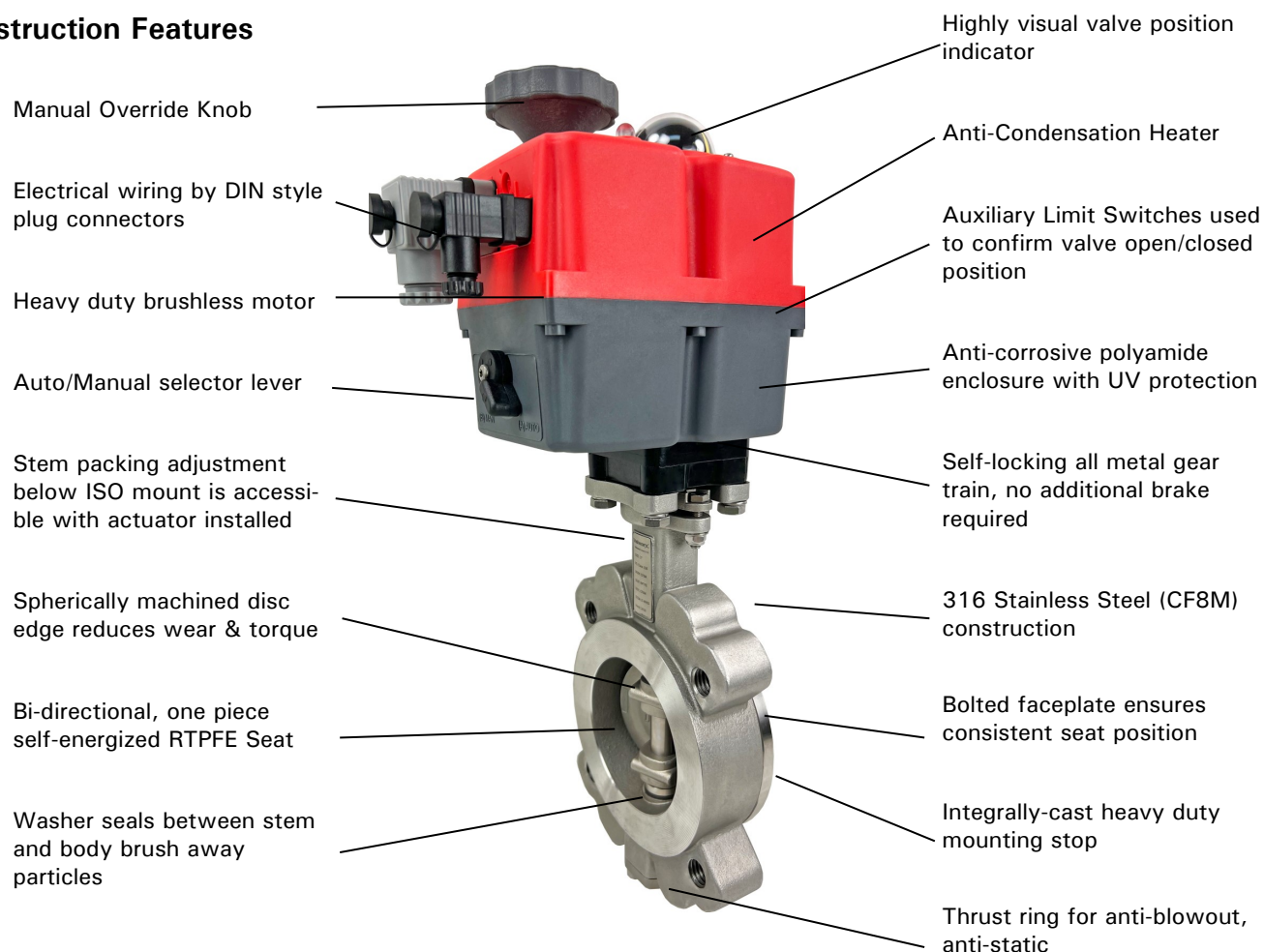
- CE mark conformance: EN 60204-4/68/UE
  - Machinery directive
  - Low voltage directive
  - EMC Compatibility directive

- ISO5211 valve mounting

#### Valves- Standards

- Pressure- ANSI/ASME B16.5 CLASS150
- JIS B 2239 10K, 16K
- Top Flange- ISO 5211
- Face- API 609 Class B
- Leakage- ISO 5208 Category 3, API 598 Table 5
- CE Conformance- PED 2014/68/EU Annex III Module B

## Construction Features



## Pressure Rating

**Pressure Rating:** 285 PSI (19.7 Bar)

**Vacuum rating:** Full vacuum

## Temperature Rating

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

**Valve Temperature Rating:** RPTFE seals: -40 to 450°F (-40 to 230°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
HIGH PERFORMANCE LUG BODY BUTTERFLY VALVE, RPTFE SEALS: 24-240V AC or DC										
547903A	3	2.8	180	285	Water	29	0.3	0.2	1.5	1.2
547904A	4	3.6	375	285	Water	29	0.3	0.2	1.5	1.2
547906A	6	5.7	1350	285	Water	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 volt are single phase										

## Specifications (Metric units)

Stock Number	Pipe Size (DN)	Orifice Diam. (mm)	Kv Flow Factor	Pressure Max. (Bar)	Fluid Media*	Cycle Time /90° (sec) + /-10%	Max. Current Draw (Amps)			
							110VAC	240VAC	24VAC	24VDC
HIGH PERFORMANCE LUG BODY BUTTERFLY VALVE, RPTFE SEALS: 24-240V AC or DC										
547903A	80	72.0	155.7	19.7	Water	29	0.3	0.2	1.5	1.2
547904A	100	91.0	324.4	19.7	Water	29	0.3	0.2	1.5	1.2
547906A	150	145.0	1167.8	19.7	Water	58	0.8	0.5	3.3	2.7

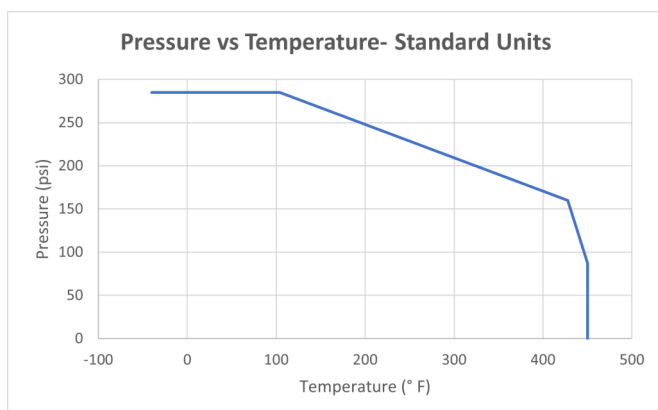
Kv = The number of m³ per hour of 20° C water at 1 bar pressure drop

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

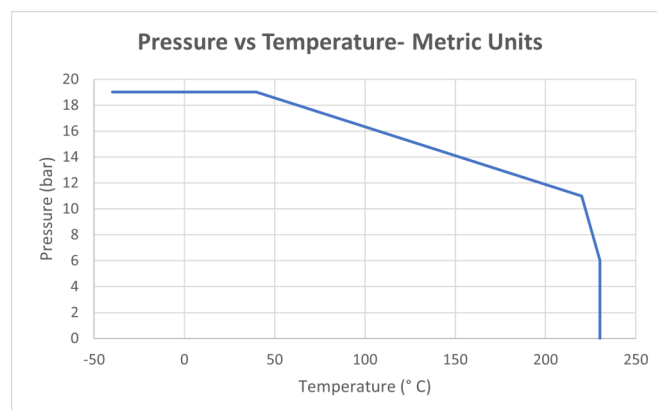
Models with 240 volt are single phase

## PT Chart

Pressure vs Temperature					
Temp °F	-40	104	428	450	450
Pressure— PSI	285	285	160	87	0



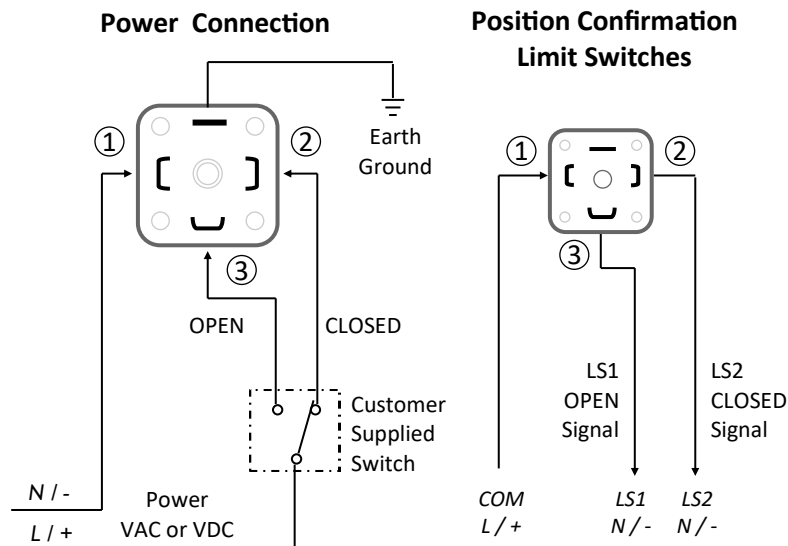
Pressure vs Temperature					
Temp °C	-40	40	220	230	230
Pressure— Bar	19	19	11	6	0



## 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

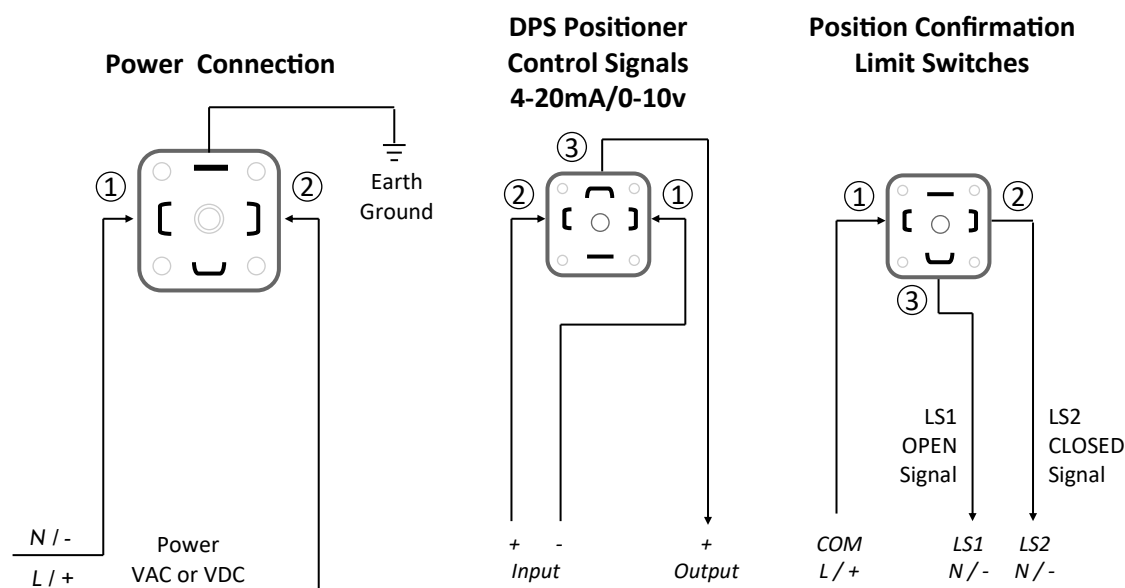
PIN 1 (COM) and 2 to confirm actuator is closed

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

## Electrical Wiring: Actuators with DPS Digital Positioner Option

Voltage: 24-240 Volt AC or DC Models (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.

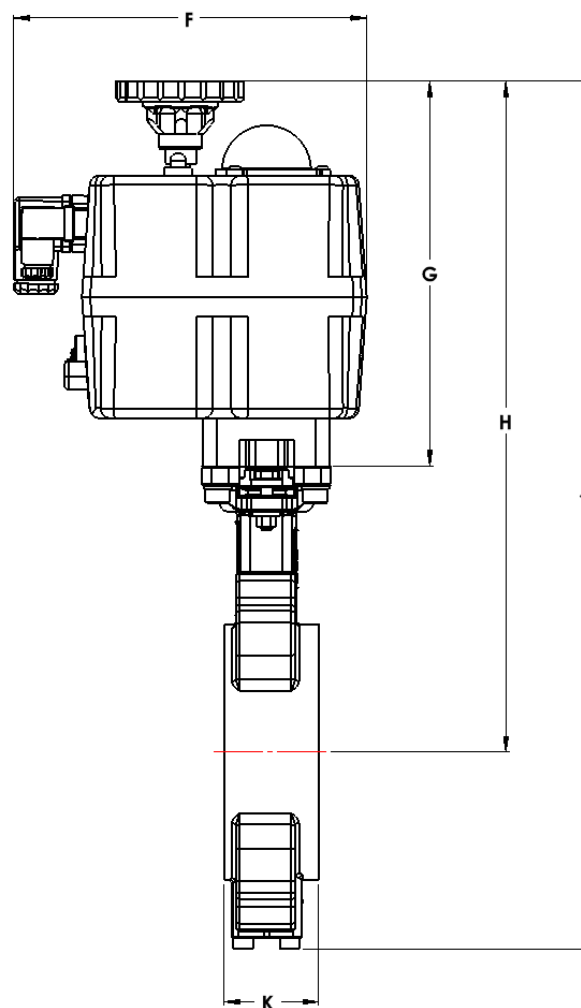
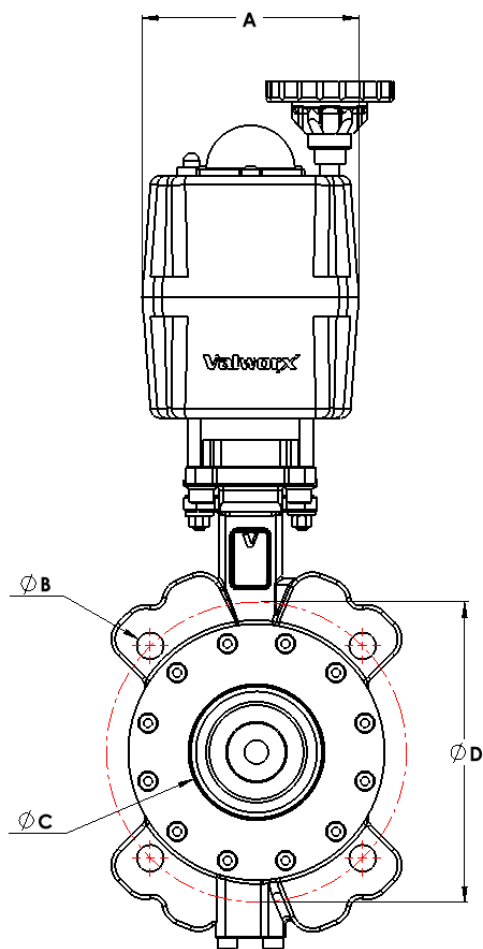
### Function: Position confirmation limit switches

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:



### Valves suitable between flanges:

- ◆ ANSI/ASME B16.5 CLASS 150
- ◆ ANSI/ASME B16.1 CLASS 125

Pipe Size		A	B	C	D	F	G	H	J	K	ISO	Weight
3	inch	4.3	4) 5/8-11	2.8	6.0	7.0	7.7	13.4	17.3	1.2	F05	16.5 lb
DN80	mm	110.0	-	72.0	152.4	177.0	196.0	340.4	439.4	48.0		7.5 kg
4	inch	4.3	8) 5/8-11	3.6	7.5	7.0	7.7	14.4	19.3	2.1	F05/F07	19.1 lb
DN100	mm	110.0	-	91.0	190.5	177.0	196.0	365.8	490.2	54.0		8.7 kg
6	inch	8.5	8) 3/4-10	5.7	9.5	9.1	10.0	17.9	23.9	2.2	F07	35.3 lb
DN150	mm	217.0	-	145.0	241.3	232.0	255.0	454.7	607.1	57.0		16.0 kg

Dimensions remain unchanged for all versions (On-Off, BSR failsafe & DPS positioning)