

# Electric Actuated High Performance Butterfly Valves

Stainless Steel Wafer Body ASME 150#
3" to 8" Pipe

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#### **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
- 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
- · Two auxiliary position confirmation limit switches
- EPS Electronic Positioning System models available
- Actuators CSA Listed per UL429 and CSA C22.2

#### **Applications**

High performance wafer 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

On-Off electric actuated valve uses power-to-open and power-to-close, stays in the last known position with loss of power. On receipt of a continuous voltage signal, the motor runs and via a rugged all metal gear system rotates the ball 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. Power connections direct to terminal strip via included cable connector, or optional 1/2" NPT conduit adapters.

#### Construction

Valve Body	316 stainless steel CF8M
Disc	316 stainless steel CF8M
Disc Seat/ Stem Packing	RPTFE
Stem	17-4PH SS
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	Stainless Steel
Auxiliary Limit Switches	2 x SPDT (5A/125VAC), on-off actuators only



# Description

Electric operated direct mount high performance butterfly valves with 316 stainless steel wafer 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 corrosion resistant electric actuator includes a manual override, valve position confirmation switches (on-off units), thermostatically controlled anti-condensation heater, and overtorque protection.

#### **Approvals**

#### Actuators

- CSA Listed to:
- UL429 and CSA C22.2 no 139
- Type 4X, IP67 weatherproof enclosure
- CE conformance- EN60204-1:2006
- ISO5211 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
- EN1092-1 PN 16 PN 25
- AS2129 Table D Table E
- CE Conformance PED 2014/68/EU Annex III Module B



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#### **Construction Features**



#### **Pressure Rating**

**Pressure Rating**: 285 PSI (19 Bar) **Vacuum rating**: Full vacuum

Visual Valve Position Indicator

#### **Temperature Rating**

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

Valve Temperature Rating: RPTFE seals: -40 to 450°F (-40 to 230°C)



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# **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 HIGH PERFORMANCE WAFER BODY BUTTERFLY VALVE, RPTFE SEALS										
569103A	3	2.8	180	285	30/25	110 VAC, 50/60Hz	0.6	70%	В	
569104A	4	3.6	375	285	30/25	110 VAC, 50/60Hz	0.6	70%	В	
569106A	6	5.7	1350	285	30/25	110 VAC, 50/60Hz	0.7	70%	В	
569108A	8	7.6	2800	285	45/37	110 VAC, 50/60Hz	1.3	70%	В	
24 VDC ELECT	RIC ACTUAT	TED HIGH PERI	FORMANCI	WAFER BOD	Y BUTTERFLY V	ALVE, RPTFE SEALS				
569303A	3	2.8	180	285	30	DC24	2.0	70%	G	
569304A	4	3.6	375	285	30	DC24	2.0	70%	G	
569306A	6	5.7	1350	285	30	DC24	3.6	70%	G	
569308A	8	7.6	2800	285	45	DC24	6.0	70%	G	

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

# **Specifications** (Metric units)

Stock Number	Pipe Size (DN)	Orifice Diam. (mm)	Kv Flow Factor	Pressure Max. (Bar)	Cycle Time/90° (seconds)	Voltage	Current (amps)	Duty Cycle	Electrical Dwg.		
120 VAC ELECTRIC ACTUATED HIGH PERFORMANCE WAFER BODY BUTTERFLY VALVE, RPTFE SEALS											
569103A	80	72.0	155.7	19.7	30/25	110 VAC, 50/60Hz	0.6	70%	В		
569104A	100	91.0	324.4	19.7	30/25	110 VAC, 50/60Hz	0.6	70%	В		
569106A	150	145.0	1167.8	19.7	30/25	110 VAC, 50/60Hz	0.7	70%	В		
569108A	200	188.0	2422.0	19.7	45/37	110 VAC, 50/60Hz	1.3	70%	В		
24 VDC ELECT	RIC ACTUA	TED HIGH PER	FORMANC	E WAFER BOD	Y BUTTERFLY V	ALVE, RPTFE SEALS					
569303A	80	72.0	155.7	19.7	30	DC24	2.0	70%	G		
569304A	100	91.0	324.4	19.7	30	DC24	2.0	70%	G		
569306A	150	145.0	1167.8	19.7	30	DC24	3.6	70%	G		
569308A	200	188.0	2422.0	19.7	45	DC24	6.0	70%	G		

Kv = The number of  $m^3$  per hour of  $20^{\circ}$  C water at 1 bar pressure drop

<sup>\*</sup> Consult compatibility chart for other fluid media. Suitable for vacuum up to 29 inHg

<sup>\*</sup> See P/T Chart (Page 4)

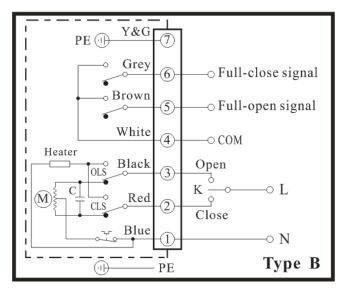
<sup>\*</sup> Consult compatibility chart for other fluid media. Suitable for vacuum up to 29 inHg

<sup>\*</sup> See P/T Chart (Page 4)

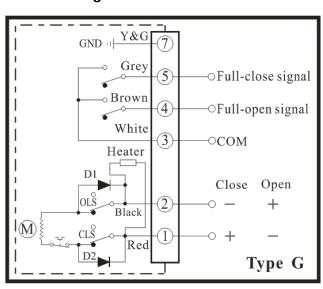


# **Electrical Wiring**

# **AC** Voltages

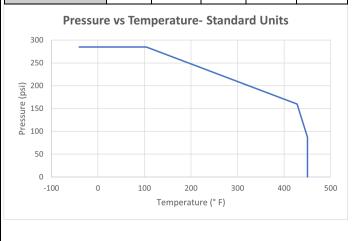


# **DC Voltages**

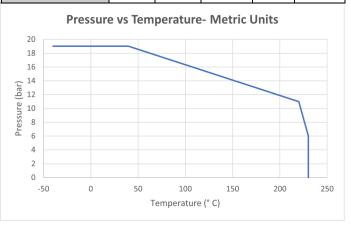


# **PT Chart**

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



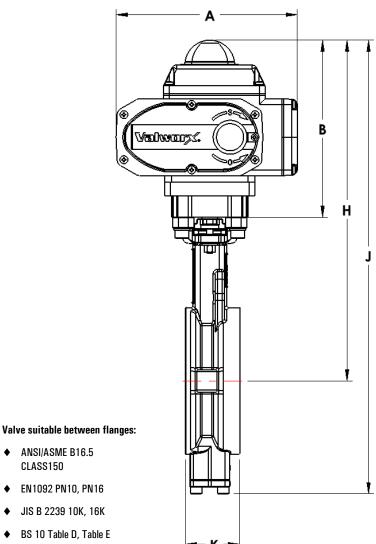
Pressure vs Temperature										
Temp °C	Temp °C         -40         40         220         230         230									
Pressure - Bar	19	19	11	6	0					

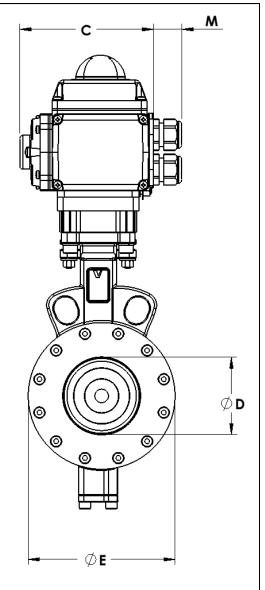




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# **Dimensions:**





# JIS B 2239 10K, 16K ♦ BS 10 Table D, Table E

ANSI/ASME B16.5 CLASS150

Pipe Size		Α	В	С	D	E	Н	J	K	M	Weight (AC)
3	inch	7.7	7.1	5.0	2.8	5.2	11.9	15.4	1.9	1.0	18.7 lb
DN80	mm	195.6	180.3	127.0	72	131	302.3	391.2	49	25.4	8.4 kg
4	inch	7.7	7.1	5.0	3.7	6.1	12.4	16.5	2.1	1.0	21.9 lb
DN100	mm	195.6	180.3	127.0	94	155	315.0	419.1	54	25.4	9.9 kg
6	inch	10.1	8.5	6.4	5.5	8.5	15.1	20.5	2.2	1.0	45.4 lb
DN150	mm	256.5	215.9	162.6	140	216	383.5	520.7	57	25.4	20.5 kg
8	inch	10.1	8.5	6.4	7.3	10.6	16.3	23.1	2.5	1.0	57.8 lb
DN200	mm	256.5	215.9	162.6	185	270	414.0	586.7	64	25.4	26.1 kg