Air Actuated Sanitary Butterfly Valve

1" to 4"

SERIES
5748
5749

Features

- All materials comply with FDA, USDA, and 3-A requirements
- Highly polished internals and end caps with 32 Ra finish
- Forged ASTM 316L stainless steel valve body and end caps
- Tri-Clamp ends for hygienic connections
- Valve body machining and chamfering done by a single CNC process for precise fit
- 316L mirror finish disc/stem for minimal flow resistance
- Bi-directional flow
- Single piece forged & machined stem/disc
- 100% tested with full traceability of all components
- Spring Return or Double Acting Actuators
- Type IP66 & IP68 weatherproof actuator
- Rugged scotch yoke construction tested for 1 million+ cycles
- Anodized aluminum body with epoxy-polyester end covers
- Namur and ISO mounting standards
- Highly visible valve position indicator
- Actuator factory lubricated for normal lifetime

Applications

Sanitary butterfly valves are typically used for food, beverage, pharmaceutical, personal care, and pet care applications where sanitary construction is required, as well as for utility, process, and corrosive environment applications where quick clamp connections are beneficial.

Operation

Double acting scotch yoke actuators use air pressure to open and air pressure to close the ball valve (4-way pilot). Spring return scotch yoke actuators use air pressure to open and springs to close the ball valve (3-way pilot). Actuator will work with filtered dry or lubricated compressed air. Recommended air supply pilot pressure should be between 58 and 87 PSI. Easy to read visual valve position indicator located on top of actuator.

Construction

Valve Body	ASTM 316 Stainless Steel
Disc	ASTM 316 Stainless steel
Disc Seat/ Liner	EPDM
Stem	316L Stainless steel
Actuator Seals	NBR
Actuator Body/ End Covers	Hard anodized aluminium/ Polyester coasted aluminium
Position Indicator	Glass filled Polyamide
Fasteners	ASTM 304 Stainless Steel

Description

Pneumatically operated direct mount sanitary butterfly valves are designed for commercial and industrial applications. Heavy duty quarter turn scotch yoke actuators designed for long life and tested for a minimum 1 million+ operations. 316L stainless steel valve body for excellent corrosion resistance. Single piece 316L disc/stem with disc polished to mirror finish to minimize flow turbulence. Sanitary tri-clamp ends for quick, sanitary connections and easy cleaning. Standard Namur mounting pads for optional accessory confirmation switches and pilot valves.

Approvals– Actuators

- CE Declaration of conformity
- EN ISO 12100:2010
- EN ISO 4414:2010
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting

Standards– Valves

- Construction:

- FDA 21 CFR 177.2600

- Pressure Testing:

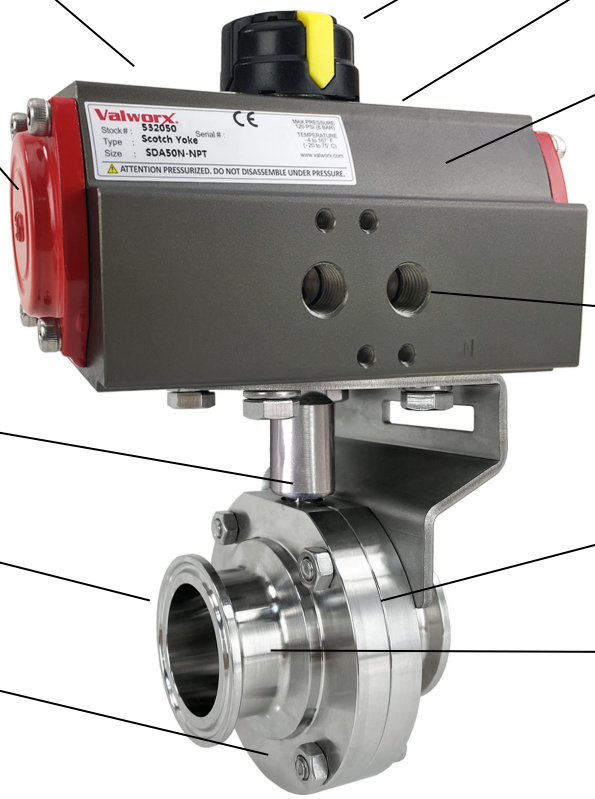
- API598

Optional Accessories

DMS: Direct Mount Solenoid
- pilot to electrically operate the ball valve

VPS: Valve Position Switches
- limit switches to confirm valve position

Features



Heavy duty rugged scotch yoke design

Anodized aluminum alloy covers with 40 micron polyester powder coating

Spring return models use multiple pre-compressed spring cartridges with polyester coating

Single piece 316L disc/stem

Tri-Clamp hygienic connections

316L forged, machined valve body

Visual valve position indicator

Standard Namur top mounting for optional limit switches

Extruded aluminum body with 35 micron hard anodizing

NPT pilot air ports and additional Namur VDI/ VDE-3845 solenoid mounting pad

EPDM valve seat meets FDA 21 CFR 177.2600

100% pressure tested

Pressure Rating

Pressure Rating*: 1000 PSI @ 120°F (69 Bar*)

Recommended Air Pilot Pressure: 58-87 PSI (4-6 Bar)

Max Air Pilot Pressure: 120 PSI

Valve Pressure Rating:1-2", 160 PSI @ 68 °F, 3-4" 140 PSI @ 68 °F

Valve Temperature Rating: EPDM seals: -68 to 302°F (-55 to 150°C)

Actuator Temperature Rating: -4 to 167 °F (-20 to 75 °C)

*See P/T chart

Specifications (English units)

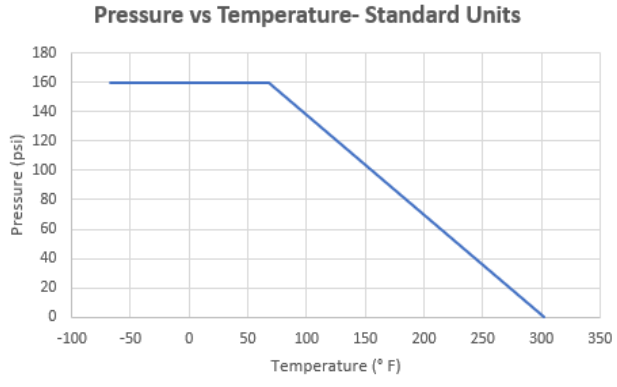
Stock Number	Pipe Size (inch)	Orifice Diam. (inch)	Cv Flow Factor	Pressure Max. (PSI)*	Cycle Time /90° (seconds)	Pilot Air Port (NPT)
Sanitary Butterfly Valve with Spring Return Actuator						
574902	1	0.9	23.0	160	0.3-0.5	1/4
574903	1-1/2	1.4	80.0	160	0.4-0.6	1/4
574904	2	1.9	230.0	160	0.4-0.6	1/4
574906	3	2.9	372.0	140	0.6-0.9	1/4
574907	4	3.8	800.0	140	0.7-1.2	1/4
Sanitary Butterfly Valve with Double Acting Actuator						
574802	1	0.9	23.0	160	0.3	1/4
574803	1-1/2	1.4	80.0	160	0.3	1/4
574804	2	1.9	230.0	160	0.3	1/4
574806	3	2.9	372.0	140	0.4	1/4
574807	4	3.8	800.0	140	0.6	1/4

* Pressure @ -67°to 302° F (reduced pressure at higher temperatures—see P/T chart)

Pressure/Temperature Chart (PSI/°F)

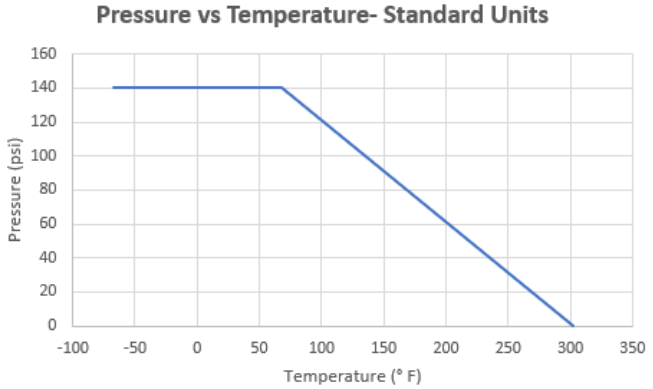
Standard Units 1-2″

Temp °F	-67	68	302
Pressure	160	160	0



Standard Units 3-4″

Temp °F	-67	68	302
Pressure	140	140	0



Specifications (Metric units)

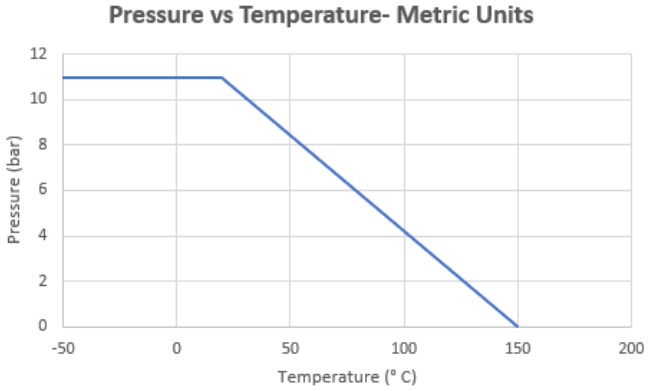
Stock Number	Pipe Size (DN)	Orifice Diam. (mm)	Kv Flow Factor	Pressure Max. (Bar)*	Cycle Time/90° (seconds)	Pilot Air Port (NPT)
Sanitary Butterfly Valve with Spring Return Actuator						
574902	1	22.1	19.9	11.0	0.3-0.5	1/4
574903	1-1/2	34.8	69.2	11.0	0.4-0.6	1/4
574904	2	47.5	199.0	11.0	0.4-0.6	1/4
574906	3	72.9	321.8	9.7	0.6-0.9	1/4
574907	4	97.6	692.0	9.7	0.7-1.2	1/4
Sanitary Butterfly Valve with Double Acting Actuator						
574802	1	22.1	19.9	11.0	0.3	1/4
574803	1-1/2	34.8	69.2	11.0	0.3	1/4
574804	2	47.5	199.0	11.0	0.3	1/4
574806	3	72.9	321.8	9.7	0.4	1/4
574807	4	97.6	692.0	9.7	0.6	1/4

* Pressure range @ -55° to 150° C (reduced pressure for higher temperatures—see P/T chart)

Pressure/Temperature Chart (Bar/°C)

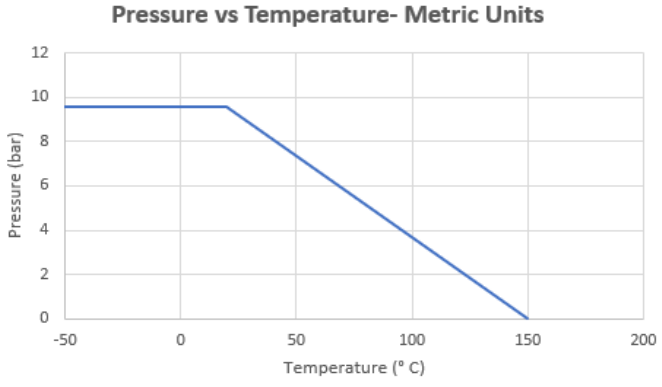
Metric Units 1-2″

Temp °C	-55	20	150
Pressure	11	11	0

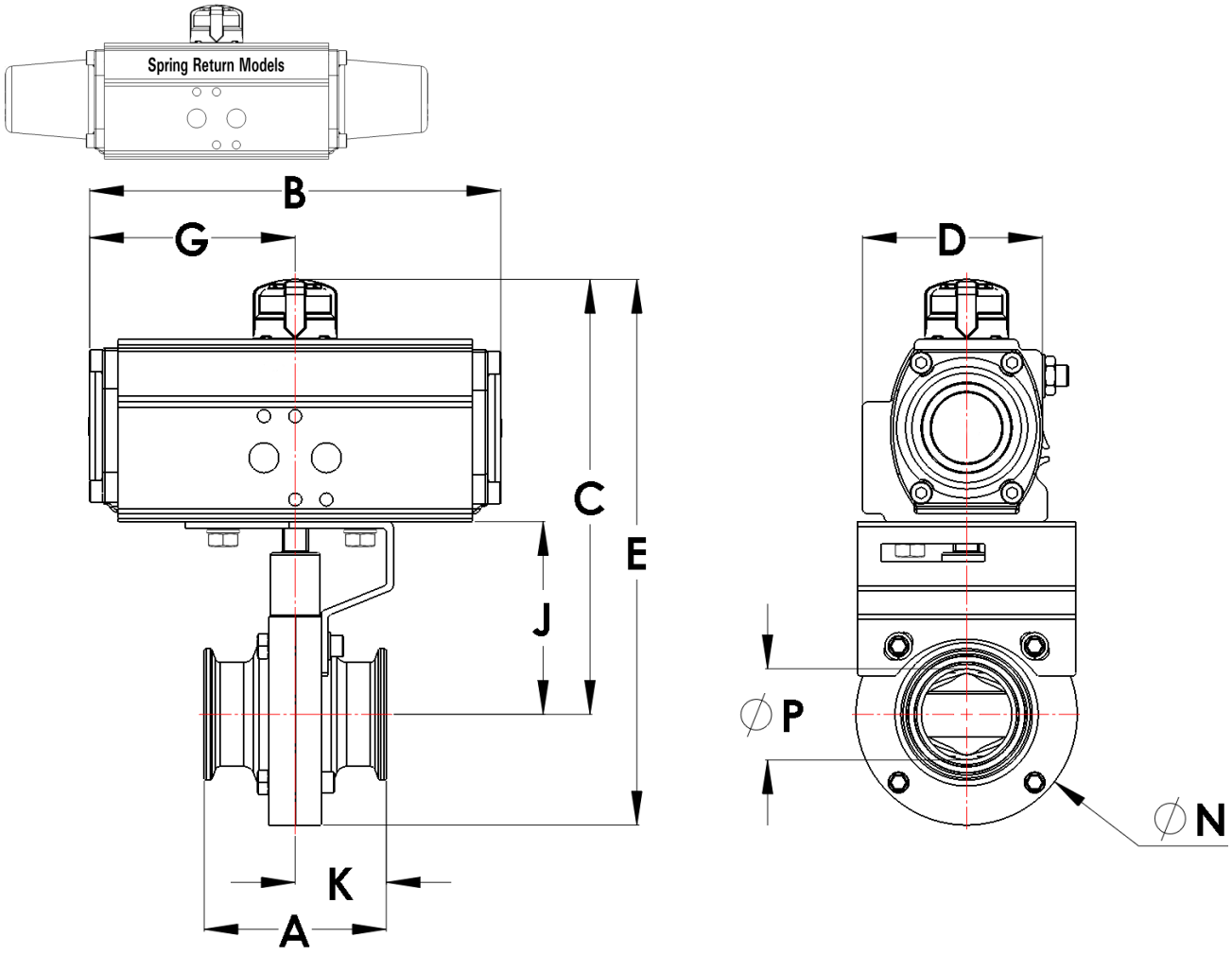


Metric Units 3-4″

Temp °C	-55	20	150
Pressure	9.6	9.6	0

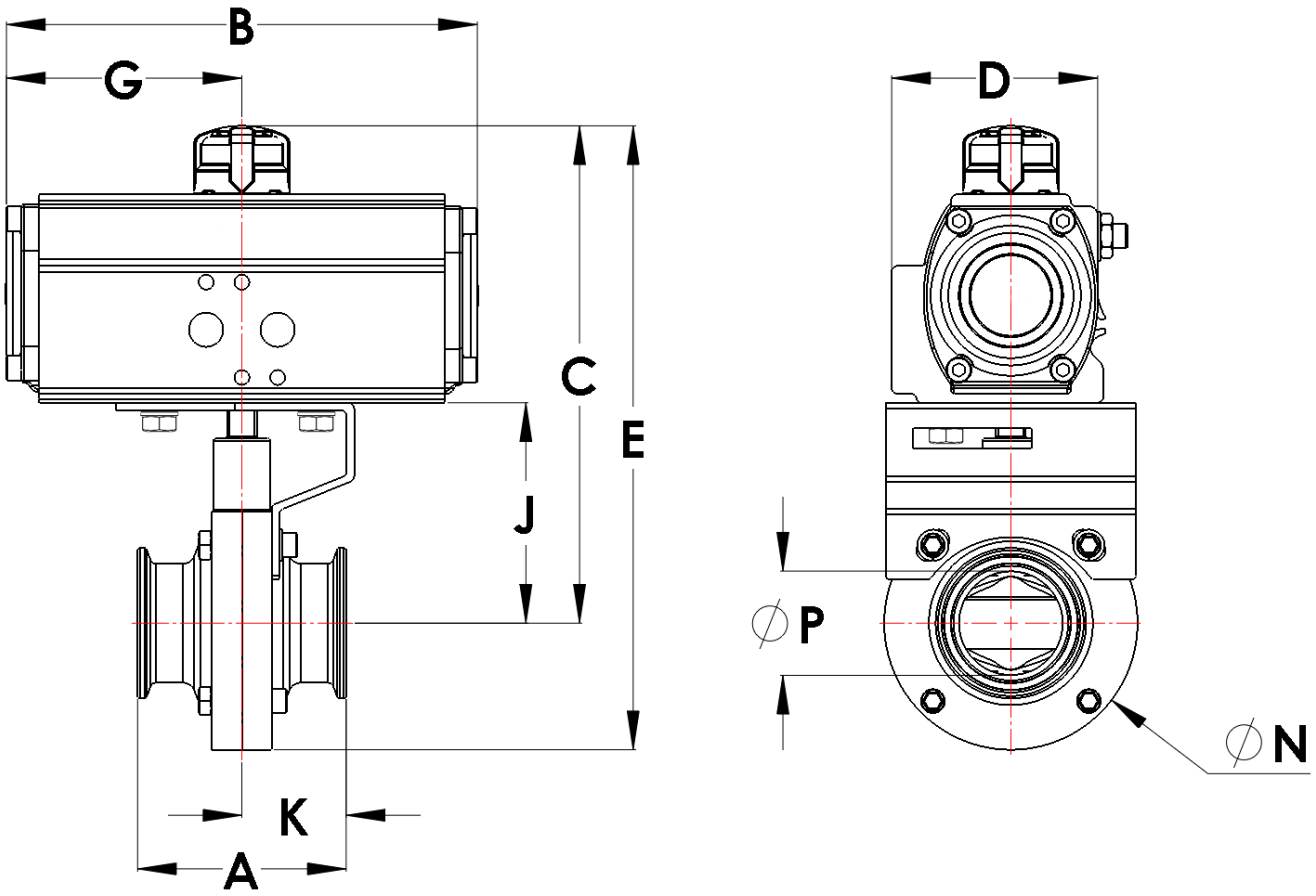


Dimensions: Spring Return



Pipe Size		A	B	C	D	E	G	J	K	N	P	A & B Ports (NPT)	Weight
1	inch	2.8	10.1	6.4	2.9	8.0	5.1	2.8	1.4	3.1	0.9	1/4	6.7 lb
	mm	70.0	257.0	162.9	75.0	202.4	128.5	69.9	35.0	79.0	22.1	-	3.0 kg
1-1/2	inch	2.8	12.3	7.2	3.5	8.9	6.2	2.9	1.4	3.3	1.4	1/4	9.5 lb
	mm	70.0	314.0	183.5	87.0	226.0	157.0	74.0	35.0	85.0	34.8	-	4.3 kg
2	inch	2.9	12.3	7.4	3.5	9.3	6.2	3.1	1.5	3.9	1.9	1/4	9.7 lb
	mm	74.0	314.0	187.2	87.0	237.2	157.0	77.7	37.0	100.0	47.5	-	4.4 kg
3	inch	3.1	16.5	8.8	3.9	11.3	8.3	3.7	1.5	5.0	2.9	1/4	17.3 lb
	mm	78.0	421.0	223.5	101.0	287.0	210.5	94.5	39.0	127.0	72.9	-	7.8 kg
4	inch	3.5	19.6	10.2	5.0	13.3	9.8	4.3	1.8	6.1	3.8	1/4	29.0 lb
	mm	90.0	500.0	260.2	129.0	338.2	250.0	108.7	45.0	156.0	97.6	-	13.2 kg

Dimensions: Double Acting



Pipe Size		A	B	C	D	E	G	J	K	N	P	A & B Ports (NPT)	Weight
1	inch	2.8	6.3	6.4	2.9	8.0	3.2	2.8	1.4	3.1	0.9	1/4	6.3 lb
	mm	70.0	162.0	162.9	75.0	202.4	81.0	69.9	35.0	79.0	22.1	-	2.9 kg
1-1/2	inch	2.8	6.3	7.2	2.9	8.9	3.2	2.9	1.4	3.3	1.4	1/4	6.0 lb
	mm	70.0	162.0	183.5	75.0	226.0	81.0	74.0	35.0	85.0	34.8	-	2.7 kg
2	inch	2.9	6.3	7.4	2.9	9.3	3.2	3.1	1.5	3.9	1.9	1/4	6.2 lb
	mm	74.0	162.0	187.2	75.0	237.2	81.0	77.7	37.0	100.0	47.5	-	2.8 kg
3	inch	3.1	7.9	8.8	3.5	11.3	4.0	3.7	1.5	5.0	2.9	1/4	10.7 lb
	mm	78.0	202.0	223.5	89.0	287.0	101.0	94.5	39.0	127.0	72.9	-	4.9 kg
4	inch	3.5	9.9	10.2	3.9	13.3	5.0	4.3	1.8	6.1	3.8	1/4	16.7 lb
	mm	90.0	253.0	260.2	101.0	338.2	126.5	108.7	45.0	156.0	97.6	-	7.8 kg