



**PENTAIR  
HYGIENIC PROCESS VALVES  
(FORMERLY KEYSTONE)**

# F269J+

# HYGIENIC DOUBLE SEAL VALVES

## REVERSIBLE ACTUATOR TYPE

## PENTAIR HYGIENIC PROCESS VALVES (Formerly Keystone)

# HYGIENIC DOUBLE SEAL VALVES

The F269J+ is a double seal mix-proof valve, used for product isolation, where safe separation of process and C.I.P. fluids is required.

### GENERAL APPLICATIONS

- Dairy factories
- Breweries and beverage plants
- Wineries
- Canneries and food processing plants
- Pharmaceutical
- Chemical processing



### TECHNICAL DATA

Working temperature:	-5 to +100°C (-5 to 120°C for static condition)
Sterilizing temperature:	Up to 140°C for 30 min's (Steam for static condition)
Max. pressure, valve body:	10bar fluid pressure
Max. pressure, valve seat:	See separate plug lifting chart
Minimum pressure:	Full vacuum
Operating air pressure:	4 to 8 bar max.
Air connections:	R $\frac{1}{8}$ " (BSP)
CIP/detect line connections:	8mm OD tube
Surface finish:	Internal < 0.8 Ra, external hairline / buffed
Length tolerance between ends:	$\pm 0.5\text{mm} \sim \pm 1.0\text{mm}$
Parallelism or squareness of ends:	$\pm 0.5^\circ$ or less

### FEATURES

- Product contact parts manufactured from high quality 316L S/S bar.
- Heavy walled body construction.
- Semi bright external surface finish.
- Compact, lightweight design.
- Heavy duty cast body clamps (bolted type).
- Various sealing options available.
- Seat material FKM.
- Metal plug stop, protects seat seals from wear or damage.
- Resilient seat for positive isolation.
- Free draining design, eliminates product puddling and air pockets.
- Smooth ball shaped bodies, reduces turbulence and improves flow.
- Smooth internal surfaces for ease of cleaning.
- Maintenance friendly design.
- Reversible actuator.
- Leakage chamber between seals.
- Clamped body style offers full 360° orientation of actuator.
- Butt weld end connections.
- Swage/crimp type fluid connectors to CIP poppet valves provided with valve.

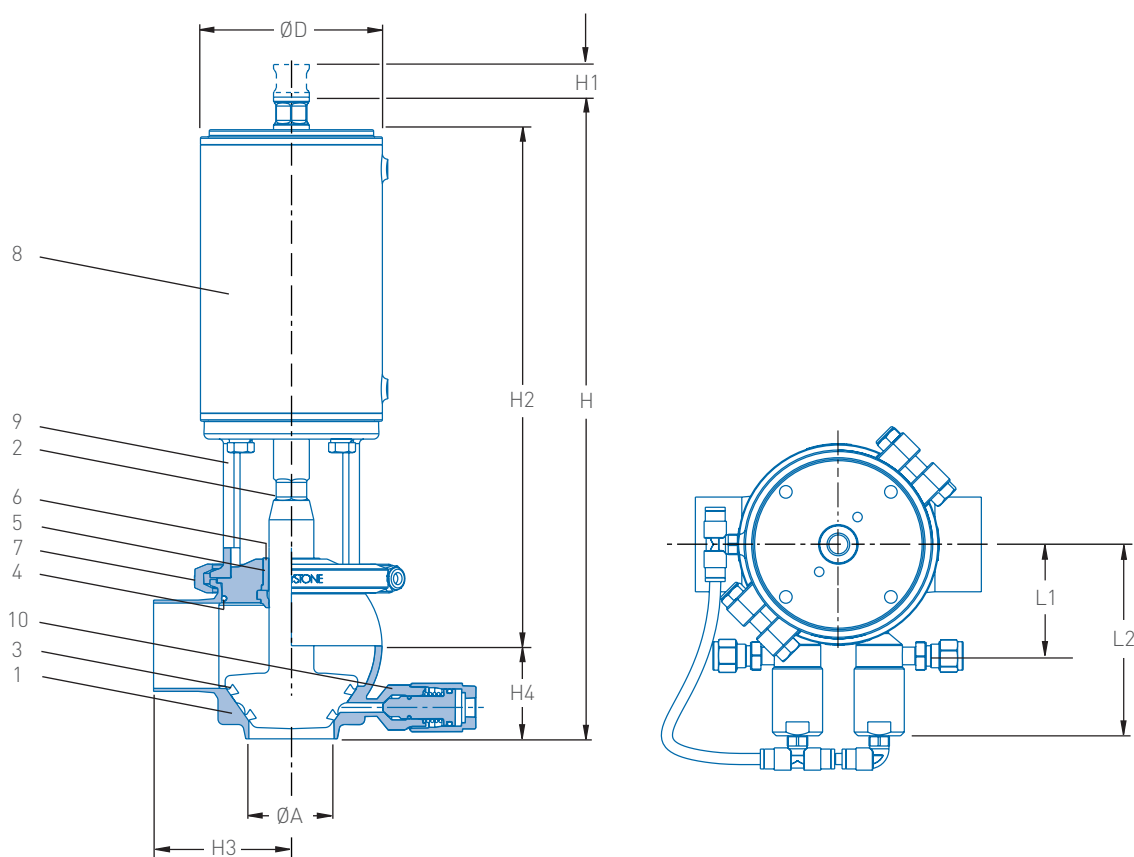
### OPTIONS

- Mirror polished internals
- Clamp and thread end connections
- Manual operating device
- 3-Position actuator
- Booster actuator
- Control head or feed back unit
- Quick release body clamps

# PENTAIR DOUBLE SEAL VALVES

## F269J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

### TECHNICAL SPECIFICATIONS



### PARTS LIST

No.	Description	Material	Standards
1	Body	316L S/S, 304L S/S	ASTM A276
2	Plug/shaft	316L S/S	ASTM A276
3	Seat seal	EPDM, NBR, PTFE, FKM	FDA
4	Body seal	EPDM, NBR, FKM	FDA
5	Stem seal	Santoprene®, EPDM, NBR, FKM	FDA
6	Shaft bush	PTFE, UHMWPE	Commercial
7	Body clamp	304 CF8 S/S	ASTM A743 CF8
8	Actuator assembly	304 S/S	-
9	Sight housing	304 CF8 S/S	ASTM A743 CF8
10	CIP/Leak detect valves	316L S/S	ASTM A276

### DIMENSIONS

Size	Size	ØA x t		ØD	H	H1	H2	H3		H4	L1	L2
		Inch OD	Metric					Inch OD	Metric			
1.0"	025	25.4 x 1.6	29.5 x 1.6	102	311	10.2	231	55.0	54.0	55.0	44.4	94.2
1.5"	040	38.1 x 1.6	41.5 x 1.6	102	323	14	255	74.5	73.5	49.5	60.0	103.0
2.0"	050	50.8 x 1.6	53.5 x 1.6	102	332	25.3	261	77.0	76.0	52.0	60.0	103.0
2.5"	065	63.5 x 1.6	69.5 x 1.6	141	435	38	349	102.5	101.5	68.0	75.5	118.5
3.0"	080	76.2 x 1.6	84.5 x 1.6	141	450	38	356	109.0	108.0	74.0	75.5	118.5
4.0"	100	101.6 x 1.6	103.5 x 1.6	168	539	39	428	142.0	141.0	92.5	88.5	131.5
5.0"	125	129.0 x 2.0	130.0 x 2.0	219	547	50	497	156.0	155.0	115.0	101.5	144.5
6.0"	150	152.4 x 2.0	155.0 x 2.0	219	547	50	510	156.0	155.0	115.0	101.5	144.5

### NOTE:

Metric bodies are created from standard Inch OD bodies by fitting eccentric reducers.

Santoprene® is the registered trademark of Exxon Mobil

# PENTAIR DOUBLE SEAL VALVES

## F269J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

### WORKING PRINCIPLE

The F269J+ valves are operated by compressed air, via a linear pneumatic actuator, that can be supplied with or without spring return.

The at rest position of the valve, although normally closed (down position), can also be provided in the normally open (up position), this is determined by the actuator mode being either Spring Extend (SE) or Spring Retract (SR) respectively as selected at time of order. The mode can also be easily changed on site by simply inverting actuator assembly. (See separate Repair and

Maintenance Instructions for details).

When air pressure is applied to the cylinder, two small pneumatic normally open (NO) poppet valves, a leak detecting and a CIP valve instantly close and the main valve plug moves through its entire stroke changing the valve from the closed to open position.

When the air is removed or vented from the cylinders the main valve closes, following which the two smaller valves open, thereby venting and draining the leakage chamber to atmosphere.

With the main valve in the closed position the leakage chamber can be flushed with water or CIP to clean away product residues.

Whilst the valve is in the closed position, one side of the valve can be CIP cleaned while product remains on the opposite side fully protected from possible contamination by the double seals and leakage chamber.

### AIR CONSUMPTION FOR SINGLE ACTING ACTUATORS (litres of free air)

Supply pressure bar/(psi)	Valve size (Actuator size)				
	025 (100S)	040-050 (100)	065-080 (140)	100 (170)	125-150 (200)
4.1 (60)	0.89	1.23	3.28	4.71	8.94
6.2 (90)	1.25	1.72	4.60	6.60	12.54
8.3 (120)	1.61	2.21	5.92	8.50	16.14

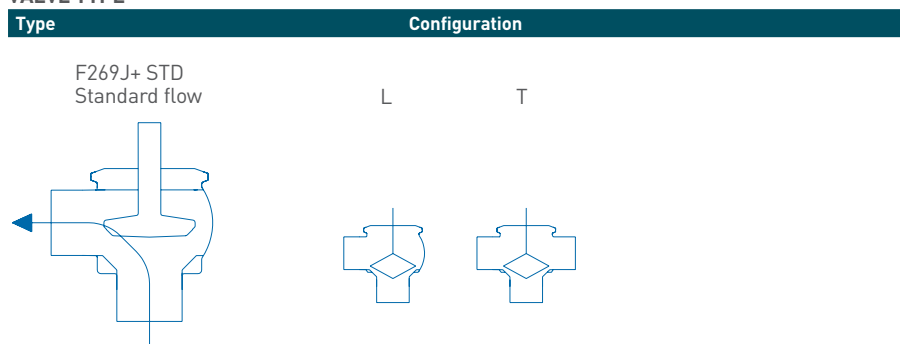
### RECOMMENDED SEAT FLUSHING CIP FLOW/VELOCITY INFORMATION

With the main valve in the closed position, it is recommended the leakage chamber be flushed with water or CIP solutions to clean away any product residues after each valve operation. Also for the most effective clean, the main valve should be pulsed during entire systems cleaning cycle.

**CIP flow rate:** 3.5 - 4.0L/min at 1.5bar inlet pressure.

**CIP velocity:** 1.5m/sec (minimum)

### VALVE TYPE



# PENTAIR DOUBLE SEAL VALVES

## F269J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

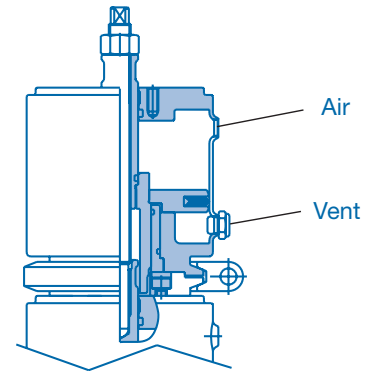
---

### 3-POSITION ACTUATOR

---

The 3-position actuator can be used for an adjusted flow control at any position throughout the valve's entire stroke.

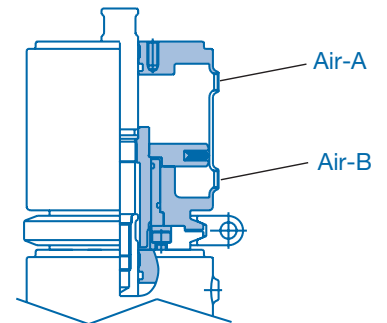
For example on dosing or filling to give optional full flow or partial flows, for topping up, or varying flow between product or CIP duties.



### BOOSTER ACTUATOR

---

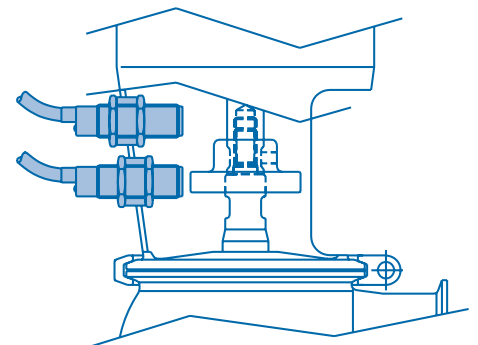
The booster actuator can be used where extra force is required to hold seal tightness under extra high line pressures, or for opening valves against high line pressures.



### POSITION SENSORS

---

Standard Ø18mm barrel type proximity sensors can be provided as a kit, complete with mounting bracket and sensor target.



# PENTAIR DOUBLE SEAL VALVES

## F269J+ (REVERSIBLE) HYGIENIC PROCESS VALVES

### SELECTION GUIDE

Example:	A--	F269J+	A	SSE	B	T	M	6S	V	V	V	X
<b>Upper/lower body size</b>												
<b>Inch OD</b>	<b>Metric</b>											
<b>A</b> 1.0"	<b>M</b> 025											
<b>B</b> 1.5"	<b>O</b> 040											
<b>C</b> 2.0"	<b>P</b> 050											
<b>D</b> 2.5"	<b>Q</b> 065											
<b>E</b> 3.0"	<b>R</b> 080											
<b>F</b> 4.0"	<b>S</b> 100											
<b>G</b> 5.0"	<b>T</b> 125											
<b>H</b> 6.0"	<b>U</b> 150											
<b>Figure</b>												
F269J+ Double seal piston valve												
<b>Valve style</b>												
A STD (std)												
D Other												
<b>Actuator type</b>												
SSE Spring extend (std)												
SSR Spring retract												
SDA Double air/acting												
MO Manual operator												
<b>End connection</b>												
B Butt weld (std)												
C Clamp ISO												
J Male thread RJT												
I Male thread IDF												
S Male thread SMS												
M Male thread RJT modified												
D Male thread DIN 11851												
E Other												
<b>Port configuration</b>												
L L-port design												
T T-port design												
<b>Actuator accessory</b>												
M Metric 6mm air fittings (std)												
I Inch 1/4" air fittings												
X None												
<b>Material type/finish, welded parts</b>												
6S 316L Stainless Steel (semi bright) (std)												
6P 316L Stainless Steel (polished)												
4S 304L Stainless Steel (semi bright)												
4P 304L Stainless Steel (polished)												
<b>Body seal materials</b>												
E EPDM (std)												
N NBR												
V FKM												
<b>Plug seal materials</b>												
E EPDM (std)												
N NBR												
V FKM												
<b>Stem seal materials</b>												
S Santoprene® wiper type (std)												
D Diaphragm (only available on some sizes)												
E EPDM												
V FKM wiper type												
F FKM O-ring type												
N NBR												
<b>Optional extras</b>												
T 3-position actuator												
D Damper actuator												
3 3A compliant												
U Booster actuator												
X None												



#### PENTAIR FLOW CONTROL PACIFIC PTY LTD

12-14 KAIMIRO STREET, PUKETE INDUSTRIAL ESTATE, HAMILTON, 3200, NEW ZEALAND PACIFICNZHYGIENICSALES@PENTAIR.COM WWW.PENTAIR.COM

All Pentair trademarks and logos are owned by Pentair. All other brand or product names are trademarks or registered marks of their respective owners.

Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer. PHOBE-0043 E-04/16 © 2016 Pentair - All Rights Reserved.