PENTAIR HYGIENIC PROCESS VALVES (FORMERLY KEYSTONE)

F269J+
HYGIENIC DOUBLE SEAL VALVES
REVERSIBLE ACTUATOR TYPE
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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working temperature</td>
<td>-5 to +100°C (-5 to 120°C for static condition)</td>
</tr>
<tr>
<td>Sterilizing temperature</td>
<td>Up to 140°C for 30 min’s (Steam for static condition)</td>
</tr>
<tr>
<td>Max. pressure, valve body</td>
<td>10bar fluid pressure</td>
</tr>
<tr>
<td>Max. pressure, valve seat</td>
<td>See separate plug lifting chart</td>
</tr>
<tr>
<td>Minimum pressure</td>
<td>Full vacuum</td>
</tr>
<tr>
<td>Operating air pressure</td>
<td>4 to 8 bar max.</td>
</tr>
<tr>
<td>Air connections</td>
<td>R1¼” (BSP)</td>
</tr>
<tr>
<td>CIP/detect line connections</td>
<td>8mm OD tube</td>
</tr>
<tr>
<td>Surface finish</td>
<td>Internal &lt; 0.8 Ra, external hairline / buffed</td>
</tr>
<tr>
<td>Length tolerance between ends</td>
<td>±0.5mm ~ ±1.0mm</td>
</tr>
<tr>
<td>Parallelism or squareness of ends</td>
<td>±0.5° or less</td>
</tr>
</tbody>
</table>

### 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

NOTE:
Metric bodies are created from standard Inch OD bodies by fitting eccentric reducers.
Santoprene® is the registered trademark of Exxon Mobil.

PARTS LIST

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

DIMENSIONS

<table>
<thead>
<tr>
<th>Size Inch OD</th>
<th>Size Metric</th>
<th>ØA x t Inch OD Metric</th>
<th>ØD</th>
<th>H1</th>
<th>H2</th>
<th>h3 Inch OD Metric</th>
<th>H4</th>
<th>L1</th>
<th>L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0”</td>
<td>025</td>
<td>25.4 x 1.6</td>
<td>29.5 x 1.6</td>
<td>102</td>
<td>311</td>
<td>10.2</td>
<td>231</td>
<td>55.0</td>
<td>54.0</td>
</tr>
<tr>
<td>1.5”</td>
<td>040</td>
<td>38.1 x 1.6</td>
<td>41.5 x 1.6</td>
<td>102</td>
<td>323</td>
<td>14</td>
<td>255</td>
<td>74.5</td>
<td>73.5</td>
</tr>
<tr>
<td>2.0”</td>
<td>050</td>
<td>50.8 x 1.6</td>
<td>53.5 x 1.6</td>
<td>102</td>
<td>332</td>
<td>25.3</td>
<td>261</td>
<td>77.0</td>
<td>76.0</td>
</tr>
<tr>
<td>2.5”</td>
<td>065</td>
<td>63.5 x 1.6</td>
<td>69.5 x 1.6</td>
<td>141</td>
<td>435</td>
<td>38</td>
<td>349</td>
<td>102.5</td>
<td>101.5</td>
</tr>
<tr>
<td>3.0”</td>
<td>080</td>
<td>76.2 x 1.6</td>
<td>84.5 x 1.6</td>
<td>141</td>
<td>450</td>
<td>38</td>
<td>356</td>
<td>109.0</td>
<td>108.0</td>
</tr>
<tr>
<td>4.0”</td>
<td>100</td>
<td>101.6 x 1.6</td>
<td>103.5 x 1.6</td>
<td>168</td>
<td>537</td>
<td>39</td>
<td>428</td>
<td>142.0</td>
<td>141.0</td>
</tr>
<tr>
<td>5.0”</td>
<td>125</td>
<td>129.0 x 2.0</td>
<td>130.0 x 2.0</td>
<td>219</td>
<td>547</td>
<td>50</td>
<td>497</td>
<td>156.0</td>
<td>155.0</td>
</tr>
<tr>
<td>6.0”</td>
<td>150</td>
<td>152.4 x 2.0</td>
<td>155.0 x 2.0</td>
<td>219</td>
<td>547</td>
<td>50</td>
<td>510</td>
<td>156.0</td>
<td>155.0</td>
</tr>
</tbody>
</table>
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). 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)

<table>
<thead>
<tr>
<th>Supply pressure bar/(psi)</th>
<th>Valve size Actuator size</th>
<th>025 (1005)</th>
<th>040-050 (100)</th>
<th>065-080 (140)</th>
<th>100 (170)</th>
<th>125-150 (200)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 (60)</td>
<td></td>
<td>0.89</td>
<td>1.23</td>
<td>3.28</td>
<td>4.71</td>
<td>8.94</td>
</tr>
<tr>
<td>6.2 (90)</td>
<td></td>
<td>1.25</td>
<td>1.72</td>
<td>4.60</td>
<td>6.60</td>
<td>12.54</td>
</tr>
<tr>
<td>8.3 (120)</td>
<td></td>
<td>1.61</td>
<td>2.21</td>
<td>5.92</td>
<td>8.50</td>
<td>16.14</td>
</tr>
</tbody>
</table>

**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.

**VALVE TYPE**

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>F269J+ STD</td>
<td>L T</td>
</tr>
</tbody>
</table>
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

### Upper/lower body size

<table>
<thead>
<tr>
<th>Inch OD</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 1.0”</td>
<td>M 025</td>
</tr>
<tr>
<td>B 1.5”</td>
<td>O 040</td>
</tr>
<tr>
<td>C 2.0”</td>
<td>P 050</td>
</tr>
<tr>
<td>D 2.5”</td>
<td>Q 065</td>
</tr>
<tr>
<td>E 3.0”</td>
<td>R 080</td>
</tr>
<tr>
<td>F 4.0”</td>
<td>S 100</td>
</tr>
<tr>
<td>G 5.0”</td>
<td>T 125</td>
</tr>
<tr>
<td>H 6.0”</td>
<td>U 150</td>
</tr>
</tbody>
</table>

### Valve style

- A STD (std)
- D Other

### Actuator type

- SSE Spring extend (std)
- SSR Spring retract
- SDA Double air/acting
- MO Manual operator

### End connection

- B Butt weld (std)
- C Clamp ISO
- J Male thread RJT
- I Male thread IDF
- M Male thread SMS
- D Male thread DIN 11851
- E Other

### Port configuration

- L 3-port design
- T 1-port design

### Actuator accessory

- M Metric 6mm air fittings (std)
- I Inch ¼” air fittings
- X None

### Material type/finish, welded parts

- 6S 316L Stainless Steel (semi bright) (std)
- 4S 304L Stainless Steel (semi bright)
- 6P 316L Stainless Steel (polished)
- 4P 304L Stainless Steel (polished)

### Body seal materials

- E EPDM (std)
- N NBR
- V FKM

### Plug seal materials

- E EPDM (std)
- N NBR
- V FKM

### Stem seal materials

- 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

### Optional extras

- T 3-position actuator
- D Damper actuator
- 3 A compliant
- U Booster actuator
- X None

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