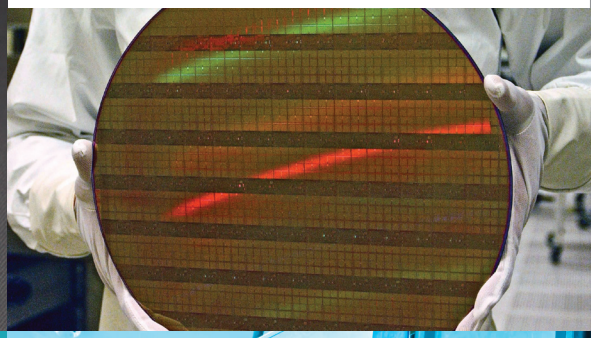
FURON®
Pure Performance



Furon® UPX Valve

Pneumatically Actuated 3-Way Valve (1/4", 1/2" & 3/4" Orifice)

Description

Furon UPX Valves are specifically designed for safe and reliable transfer of highly aggressive chemicals, including concentrated HF and HCl. UPX Valves are specifically designed for safe and reliable transfer of highly aggressive chemicals, including concentrated HF and HCl. Our proprietary technology protects the valve's working components from degradation due to chemical attacks. The wetted flow path constructed from 100% virgin PFA, assuring compliance with the highest purity standards. Additionally, the UPX Valves are capable of handling a wide variety of abrasive slurries and have a long track record of success in slurry applications.

Furon UPX Valves offer a 24 month factory warranty.

Applications

Furon UPX Valves are ideal for use in the semiconductor industry, or other applications requiring ultra-high purity and/or superior chemical resistance.

- Designed for use in ultrapure deionized water and aggressive chemical applications
- Suitable for use in abrasive slurry
- Compatible with concentrated HF and HCl
- Market applications include Semiconductor, Flat Panel, Photovoltaic, and Chemical Processing

Features and Benefits

- Superior life expectancy over competitive valves
- Suitable for use in all chemicals, including concentrated HF and HCl
- Suitable for use in abrasive slurries
- 100% virgin PTFE/PFA flow path
- Double diaphragm containment with standard leak detection port
- No exposed metallics
- Integral swivel base for freedom and ease of mounting
- Visual position indicator standard
- Furon UPX Valve designs have been tested for more than 3 millions cycles

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Furon® UPX Valve

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Furon UPX Valve - Pneumatically Actuated, 3-Way

Part Number	End Connection	Orifice (in.)	Port Size (in.)	A	B	C	ØD	E	F
UPX3-F44	FlareGrip® II	1/4	1/4	4.30 (109.22 mm)	1.38 (35.05mm)	4.13 (106.90 mm)	2.12 (53.85 mm)	2.72 (69.09 mm)	2.20 (55.88mm)
UPX3-S30044	Nippon Pillar Super 300®	1/4	1/4	Please contact us					
UPX3-F46	FlareGrip® II	1/4	3/8	4.70 (119.38 mm)					2.35 (59.69 mm)
UPX3-S30046	Nippon Pillar Super 300®	1/4	3/8	Please contact us					
UPX3-744	Fusebond™	1/4	1/4	4.90 (124.46 mm)					2.50 (63.50 mm)
UPX3-F88	FlareGrip® II	1/2	1/2	5.60 (142.24 mm)	1.70 (43.18 mm)	5.00 (127.0 mm)	2.90 (73.66 mm)	3.62 (91.95 mm)	2.80 (71.12 mm)
UPX3-S30088	Nippon Pillar Super 300®	1/2	1/2	5.50 (139.70 mm)					
UPX3-F812	FlareGrip® II	1/2	3/4	5.90 (149.86 mm)					2.95 (74.93 mm)
UPX3-S300812	Nippon Pillar Super 300®	1/2	3/4	7.20 (182.88 mm)					
UPX3-788	Fusebond™	1/2	1/2	5.60 (142.24 mm)					2.80 (71.12 mm)
UPX3-7812	Fusebond™	1/2	3/4	5.90 (169.86 mm)					2.94 (74.67 mm)
UPX3-F1212	FlareGrip® II	3/4	3/4	6.30 (160.02 mm)	1.90 (48.26 mm)	5.30 (134.62 mm)	3.40 (86.36 mm)	4.20 (106.68 mm)	3.15 (80.01 mm)
UPX3-S300-1212	Nippon Pillar Super 300®	3/4	3/4	8.00 (203.20 mm)					
UPX3-F1216	FlareGrip® II	3/4	1	6.90 (175.26 mm)					3.45 (87.63 mm)
UPX3-S300-1216	Nippon Pillar Super 300®	3/4	1	8.00 (203.20 mm)					
UPX3-71212	Fusebond™	3/4	3/4	5.90 (149.86 mm)					2.95 (74.93 mm)
UPX3-71216	Fusebond™	3/4	1	5.80 (147.32 mm)					2.90 (73.66 mm)

HCl more than 2.1 million cycles
HF more than 1.1 million cycles

Operating Specifications

Operating Pressure*	100 psig (6.9 bar)
Back Pressure*	Up to 100 psig (6.9 bar) based on the model**
Flow	C_V 0.8 (1/4"), C_V 3.2 (1/2"), C_V 7.0 (3/4")
Max Operating Temperature++	230°F (110°C)++
Actuator Pressure	70 – 90 PSIG (4.8 – 6.2 bar)
Body	PFA
Diaphragm	Modified PTFE
Top Cap	ETFE

* At room temperature
** Please consult factory for more information.
\+ Please consult factory for higher temperature
++ Its recommended to use a FuseBond™ or Nippon Pillar Super 300® connection over flare fitting for high temperature application

Options

- PFA Flare nuts (add -3)
- Other end connection types available. Please consult factory for:
  - FNPT
  - Sanitary Flange
  - Tube End
  - Others not listed
- Fiber optic position indication sensor (please consult factory >>)
- Alternative flow patterns (please consult factory >>)

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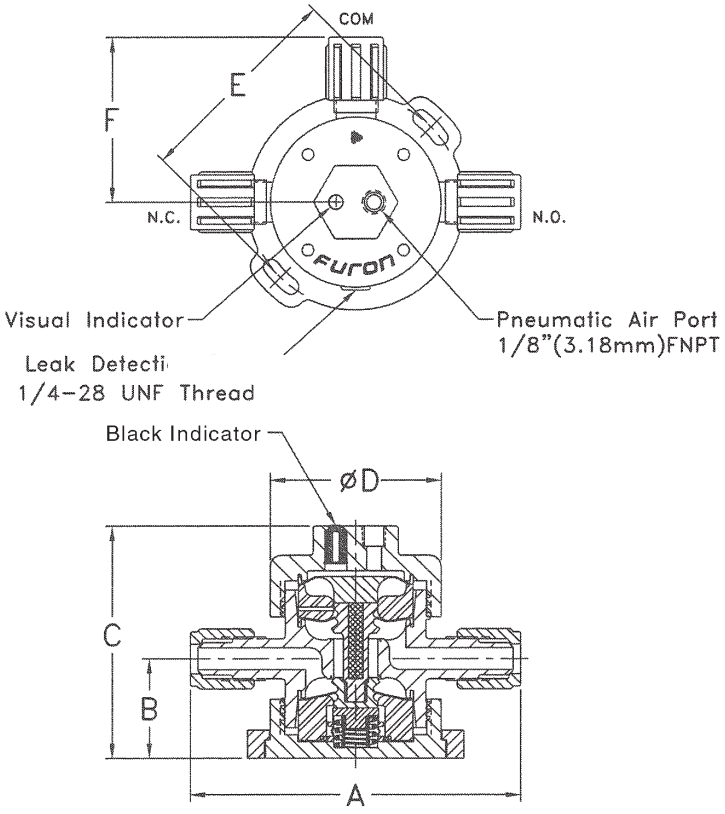
Furon UPX Valve - Pneumatically Actuated, 3-Way

Drawings



U.S. Patents 5,967,173 & 5,261,442

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