

CR4 Series Pneumatic Valves, 3-way, Top Mount FNPT

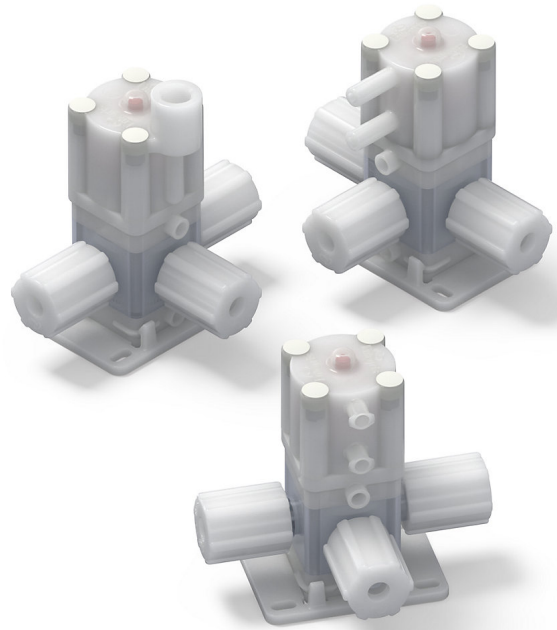
For corrosive environments in wet etch and clean applications

We have expanded our portfolio of 1/4" CR4 Series valves to include a pneumatic actuator top mount design that offers a pilot air FNPT connection as well as a reverse porting option that allows more flexibility in system design and layout. Smaller than most comparable valves, 1/4" CR4 Series valves are ideal for handling wet etch and clean process chemicals. These durable valves can handle temperatures up to 160°C (320°F) at 276 kPa (40 psig).

With no exposed metal hardware, the valve is completely sealed and protected from harsh chemical environments. All-PFA construction is well suited for high-purity chemical handling in line sizes 3/8" or smaller. Available with standard Flaretek® port connections; other connection types are available upon request. The compact, module design enables manifold customization.

APPLICATIONS

- High-purity corrosive chemical handling
- All semiconductor wet etch and clean (WEC) process chemicals
- Chemical line sizes 3/8" or smaller



Available with a top mount, FNPT pilot port

FEATURES & BENEFITS

Top mount, FNPT pilot port	Alternative pilot air connection allows fluid system design flexibility
Compact, three-ported directional valve design	Enables design simplification while minimizing footprint in OEM equipment
Reverse porting option	Allows more flexibility in system design and layout
Sealed actuator with vent port	Eliminates chemical exposure of the valve spring
One piece poppet and diaphragm construction	Increases product reliability
All wetted PTFE or PFA parts	Provide corrosion resistance in harsh chemical environments
Stand alone mounting base	Enables valve installation and removal without tools

SPECIFICATIONS

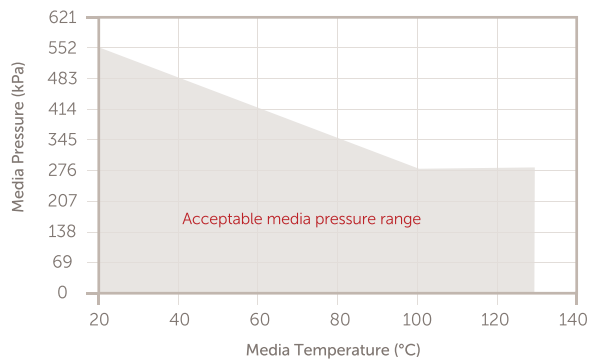
Materials	All wetted parts	PTFE, PFA	
	Exterior actuator parts	PVDF, Viton®	
	Interior actuator parts	PVDF, SST, Viton	
	Mounting base	PVDF	
Operating conditions	Media pressure at	21°C (70°F)	All ports - 552 kPa (80 psig)*
		130°C (266°F)	Common port - 276 kPa (40 psig)*, **
		130°C (266°F)	NO/NC ports - 207 kPa (30 psig)*, **
	Actuation pressure	21°C (70°F)	414 - 552 kPa (60-80 psig)*
130°C (266°F)		414 - 483 kPa (60-70 psig)*	
Temperature range	Ambient	21°C - 50°C (70°F - 122°F)*	
	Fluid	21°C - 130°C (70°F - 266°F)*	
Pneumatic supply port	1/8" FNPT		
Compliant	RoHs, WEE		

*Actual valve performance varies with pressure and temperature; refer to actual ratings in performance data.

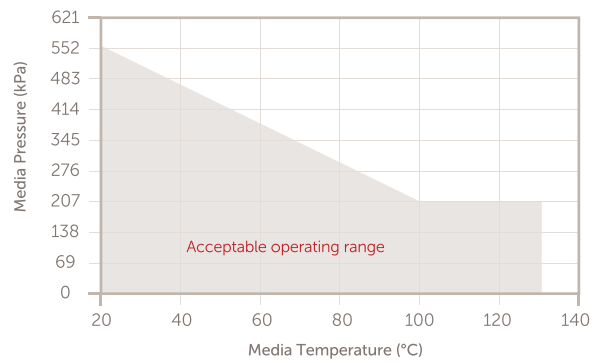
**If media temperatures are 100°C or more, it is recommended to remove or cycle actuation pilot pressure when temperature is reduced to 30°C or less.

PERFORMANCE DATA

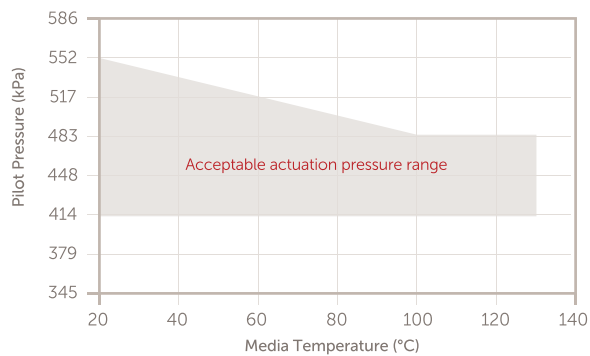
Media Temperature vs. Media Pressure:
Common Port



Media Temperature vs. Media Pressure:
Normally Open/Normally Closed Ports



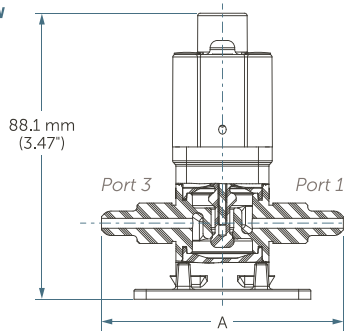
Media Temperature vs. Actuator Pilot Pressure



DIMENSIONS

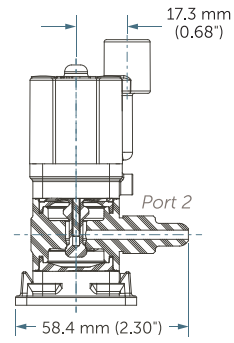
3-way, Top Mount, FNPT

Front View



3-way, Top Mount, FNPT

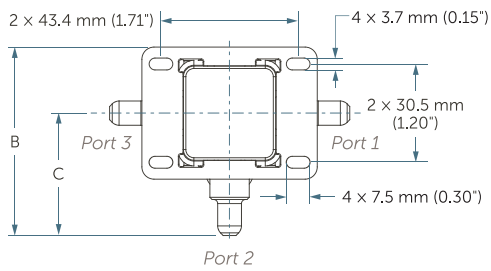
Side View



Port Connection	Flow Factor	Dimension A
1/4" Flaretek	0.3 Cv (4.0 K _v)	75.9 mm (2.99")

3-way, Top Mount, FNPT

Bottom View



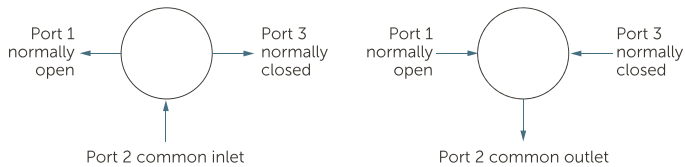
Dimensions			
Port Connection	Flow Factor	B	C
1/4" Flaretek	0.3 C _v (4.0 K _v)	58.4 mm (2.30")	38.1 mm (1.50")

Standard Port Configurations

Port 1 is the normally open port

Port 2 is the common port

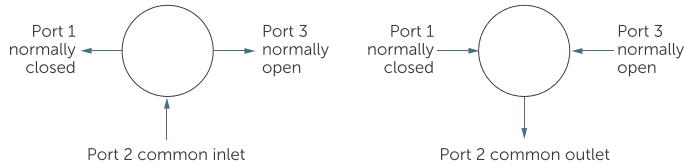
Port 3 is the normally closed port



DIMENSIONS

Reverse Port Configurations

Port 1 is the normally closed port
Port 2 is the common port
Port 3 is the normally open port



ORDERING INFORMATION

PART NUMBER	PORT CONNECTION	OPTIONS	PORT 1 CONFIGURATION
CR4-3CN-4F	1/4" Flaretek®	PVDF Flaretek® nut	Standard (normally open)
CR4-3CN-4F-1C	1/4" Flaretek®	PVDF Flaretek® nut	Reverse (normally closed)
CR4-3CN-4F-1C-3	1/4" Flaretek®	PFA Flaretek® nut	Reverse (normally closed)
CR4-3CN-4F-3	1/4" Flaretek®	PFA Flaretek® nut	Standard (normally open)

FOR MORE INFORMATION

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