

# CR4 Series Manual Valves, 1/4" Orifice, 2- way, Toggle

*For corrosive environments in wet etch and clean (WEC) applications*

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 toggle valve is completely sealed and protected from harsh chemical environments. This all-PFA valve is available for high-purity chemical handling in line sizes 3/8" or smaller. A variety of connections including PrimeLock®, Flaretek®, FNPT, PureBond®, "SpaceSaver", and Super 300 Type Pillar® allow flexibility in your fluid design. And the compact, modular design enables manifold customization.

## APPLICATIONS

- High-purity corrosive chemical handling
- All semiconductor WEC process chemicals
- Chemical line sizes 3/8" or smaller



*Compact, toggle valve.*

## FEATURES & BENEFITS

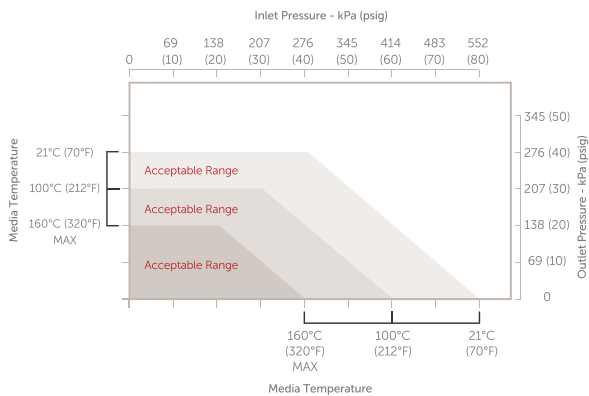
<b>Small footprint</b>	Preserves valuable space on OEM equipment
<b>Valve diaphragms successfully tested to over 2.1 million cycles</b>	Provides increased reliability
<b>Standard mounting base</b>	Enables valve installation and removal without tools
<b>Integral safety lock out device</b>	Safeguards against accidental altering or tampering
<b>No exposed metal hardware</b>	Keeps valve sealed and protected from harsh chemical environments
<b>Modular design</b>	Enables manifold customization into your fluid delivery system
<b>Same footprint as Galetek® SG Series valves and Dymension® valve manifolds</b>	Allows for easy retrofits or replacement

## SPECIFICATIONS

<b>Materials</b>	All wetted parts	PFA	
	Exterior actuator parts	PVDF, Viton®	
	Interior actuator parts	PVDF, SST, Viton	
	Mounting base	PVDF	
<b>Operating Conditions*</b>	Media pressure at	21°C (70°F)	Inlet - 913 mbar (27" Hg) vacuum to 552 kPa (80 psig)
			Outlet - 913 mbar (27" Hg) vacuum to 276 kPa (40 psig)
	Temperature range	160°C (320°F)	Inlet - 276 kPa (40 psig)
			Outlet - 138 kPa (20 psig)
	Ambient	23°C - 50°C (73°F - 122°F), ambient	
	Fluid	21°C - 160°C (70°F - 320°F), fluid	
<b>Compliant</b>	RoHs & WEE		

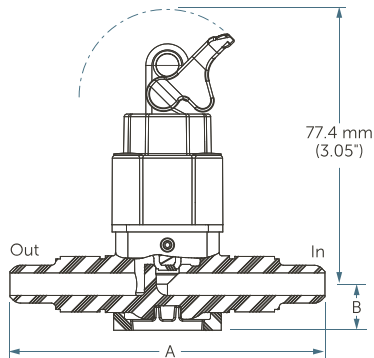
\*Actual valve performance varies with pressure and temperature; refer to actual ratings in performance data.

## PERFORMANCE DATA

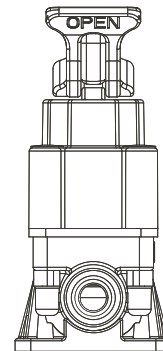


## DIMENSIONS

Manual Toggle and Panel Mount  
Front View



Manual Toggle  
Side View



### Dimensions

Port Connection

Flow Factor  $C_v$

Flow Factor  $K_v$

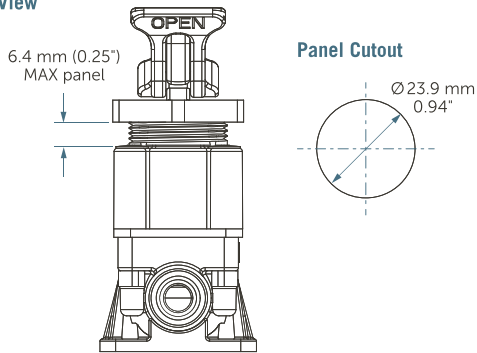
A

B

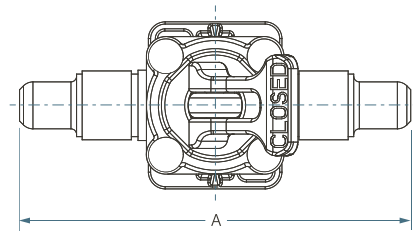
## DIMENSIONS

1/4" Flaretek	0.29	4.2	3.36" (85.3 mm)	0.51" (13.0 mm)
1/4" FNPT	0.84	12.0	2.75" (69.8 mm)	0.51" (13.0 mm)
1/4" Super 300 Type Pillar fitting	0.29	4.2	2.57" (65.3 mm)	0.51" (13.0 mm)
1/4" PrimeLock	0.34	4.9	3.18" (80.8 mm)	0.51" (13.0 mm)
1/4" PureBond	0.84	12.0	2.68" (68.1 mm)	0.51" (13.0 mm)
3/8" Flaretek	0.84	12.0	3.50" (88.9 mm)	0.51" (13.0 mm)
3/8" Super 300 Type Pillar fitting	0.84	12.0	2.88" (73.2 mm)	0.51" (13.0 mm)
3/8" PrimeLock	0.84	12.0	3.18" (80.8 mm)	0.61" (15.5 mm)

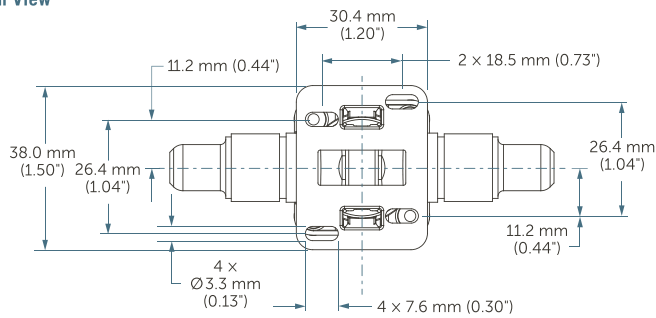
Manual Toggle Panel Mount  
Side View



Manual Toggle  
Top View



Manual Toggle and Panel Mount  
Bottom View



## ORDERING INFORMATION

CR4 Series Valves: part number

CR4 - - -

### Special order

- 3 = PFA Flaretek nut\*
- 6 = CPFA Flaretek nut\*
- II = FlareLock® II nut\*
- N = Pillar nuts, inserts and gauge rings included\*\*
- = NA

### Port configuration

- 4F = Port 1 (inlet), Port 2 (outlet) 1/4" Flaretek
- 4P = Port 1 (inlet), Port 2 (outlet) 1/4" PureBond
- 4SO = Port 1 (inlet) 1/4" Flaretek, Port 2 (outlet) 1/4" Flaretek "SpaceSaver"
- 4SI = Port 1 (inlet) 1/4" Flaretek "SpaceSaver", Port 2 (outlet) 1/4" Flaretek
- 4PS3 = Port 1 (inlet), Port 2 (outlet) 1/4" Super 300 Type Pillar
- 4K = Port 1 (inlet), Port 2 (outlet) 1/4" PrimeLock
- 4KV = Port 1 (inlet) 1/4" PrimeLock, Port 2 (outlet) 1/4" PrimeLock "SpaceSaver"
- 4VK = Port 1 (inlet) 1/4" PrimeLock "SpaceSaver", Port 2 (outlet) 1/4" PrimeLock
- 4VV = Port 1 (inlet), Port 2 (outlet) 1/4" PrimeLock "SpaceSaver"
- 4N = Port 1 (inlet), Port 2 (outlet) 1/4" FNPT
- 6F = Port 1 (inlet), Port 2 (outlet) 3/8" Flaretek
- 6SO = Port 1 (inlet) 3/8" Flaretek, Port 2 (outlet) 3/8" Flaretek "SpaceSaver"
- 6SI = Port 1 (inlet) 3/8" Flaretek "SpaceSaver", Port 2 (outlet) 3/8" Flaretek
- 6PS3 = Port 1 (inlet), Port 2 (outlet) 3/8" Super 300 Type Pillar
- 6K = Port 1 (inlet), Port 2 (outlet) 3/8" PrimeLock
- 6KV = Port 1 (inlet) 3/8" PrimeLock, Port 2 (outlet) 3/8" PrimeLock "SpaceSaver"
- 6VK = Port 1 (inlet) 3/8" PrimeLock "SpaceSaver", Port 2 (outlet) 3/8" PrimeLock
- 6VV = Port 1 (inlet), Port 2 (outlet) 3/8" PrimeLock "SpaceSaver"

### Actuator

- 2MTL = 2-way manual toggle
- 2PMTL = 2-way manual toggle panel mount

Notes: Not all configurations are permitted. Consult Entegris if multiple special order features are required. Contact factory if "SpaceSaver" port connections are to be used in media containing a fluorinated surfactant.

\*Available for Flaretek port connections only.

\*\*Available for Super 300 Type Pillar port connections only.

## FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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