CR4 Series Manual Valves, 1/4" Orifice, 2-way, Multi-turn

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 multi-turn 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.

Compact, multi-turn valve.

APPLICATIONS

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

FEATURES & BENEFITS

Compact, modular design	Enables manifold customization and saves valuable equipment space
High-temperature capable, all-PFA construction	Withstands corrosive and harsh chemical environments
Same footprint as Galtek® SG Series stand-alone valves and Dymension® surface-mount manifold valves	Allows for easy retrofits or replacement
Variety of connection options	Allows fluid design flexibility

Entegris

# SPECIFICATIONS

Materials

	All wetted parts	PFA
	Exterior actuator parts	PVDF, Viton®
	Interior actuator parts	PVDF, SST, Viton
	Mounting base	PVDF

Operating Conditions

	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 552 kPa (80 psig)
		160°C (320°F)	Inlet - 276 kPa (40 psig)
			Outlet - 138 kPa (20 psig)*

Temperature range

	Ambient	23°C - 50°C (73°F - 122°F), ambient
	Fluid	21°C - 160°C (70°F - 320°F), fluid[1]

Compliant   RoHs & WEE

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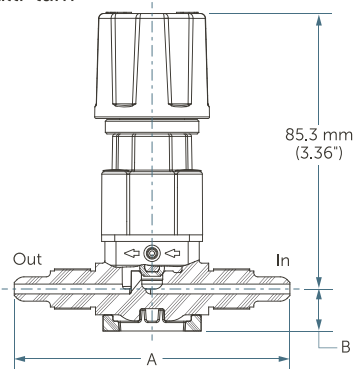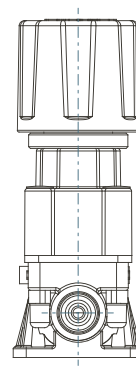
PERFORMANCE DATA

C_v/K_v vs. Number of Handle Turns
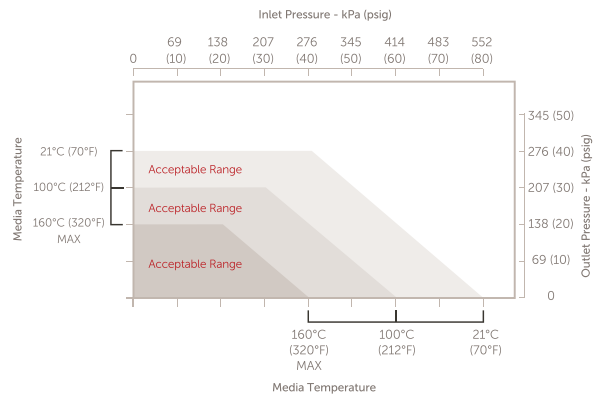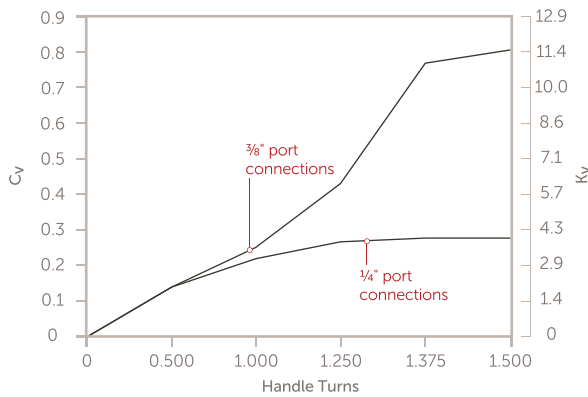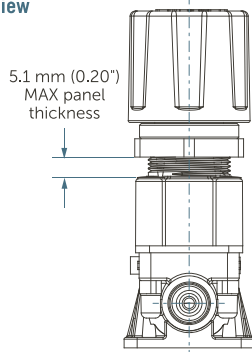
DIMENSIONS

Manual Multi-turn
Front View

85.3 mm
(3.36")

Out

In

B

A

Manual Multi-turn
Side View

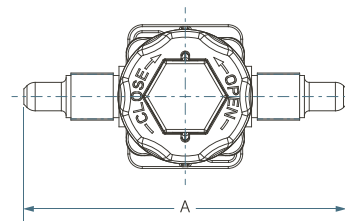| Port Connection	Flow Factor C_V	Flow Factor K_V	Dimensions	
			A	B
1/4" Flaretek	0.29	4.2	3.36" (85.3 mm)	0.51" (13.0 mm)
1/4" FNPT	0.84	12.0	2.75" (69.8 mm)	0.51" (13.0 mm)
1/4" Super 300 Type Pillar fitting	0.29	4.2	2.57" (65.3 mm)	0.51" (13.0 mm)
1/4" PrimeLock	0.34	4.9	3.18" (80.8 mm)	0.51" (13.0 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 Multi-turn Panel Mount
Side View

5.1 mm (0.20")
MAX panel
thickness

Panel Cutout

∅ 23.9 mm
0.94"
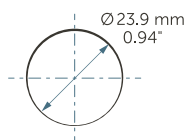
Manual Multi-turn
Top View

CLOSE

OPEN

A

Manual Multi-turn and Panel Mount
Bottom View

30.4 mm
(1.20")

11.2 mm (0.44")

2 × ∅ 18.5 mm (0.73")

38.0 mm
(1.50")

26.4 mm
(1.04")

26.4 mm
(1.04")

11.2 mm
(0.44")

4 ×
∅ 3.3 mm
(0.13")

4 × ∅ 7.6 mm (0.30")
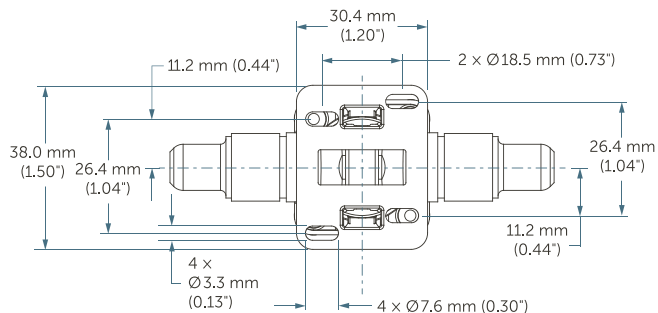
ORDERING INFORMATION

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) ¼" Flaretek
- 4P = Port 1 (inlet), Port 2 (outlet) ¼" PureBond
- 4SO = Port 1 (inlet) ¼" Flaretek, Port 2 (outlet) ¼" Flaretek "SpaceSaver"
- 4SI = Port 1 (inlet) ¼" Flaretek "SpaceSaver", Port 2 (outlet) ¼" Flaretek
- 4PS3 = Port 1 (inlet), Port 2 (outlet) ¼" Super 300 Type Pillar
- 4K = Port 1 (inlet), Port 2 (outlet) ¼" PrimeLock
- 4KV = Port 1 (inlet) ¼" PrimeLock, Port 2 (outlet) ¼" PrimeLock "SpaceSaver"
- 4VK = Port 1 (inlet) ¼" PrimeLock "SpaceSaver", Port 2 (outlet) ¼" PrimeLock
- 4VV = Port 1 (inlet), Port 2 (outlet) ¼" PrimeLock "SpaceSaver"
- 4N = Port 1 (inlet), Port 2 (outlet) ¼" FNPT
- 6F = Port 1 (inlet), Port 2 (outlet) ⅜" Flaretek
- 6SO = Port 1 (inlet) ⅜" Flaretek, Port 2 (outlet) ⅜" Flaretek "SpaceSaver"
- 6SI = Port 1 (inlet) ⅜" Flaretek "SpaceSaver", Port 2 (outlet) ⅜" Flaretek
- 6PS3 = Port 1 (inlet), Port 2 (outlet) ⅜" Super 300 Type Pillar
- 6K = Port 1 (inlet), Port 2 (outlet) ⅜" PrimeLock
- 6KV = Port 1 (inlet) ⅜" PrimeLock, Port 2 (outlet) ⅜" PrimeLock "SpaceSaver"
- 6VK = Port 1 (inlet) ⅜" PrimeLock "SpaceSaver", Port 2 (outlet) ⅜" PrimeLock
- 6VV = Port 1 (inlet), Port 2 (outlet) ⅜" PrimeLock "SpaceSaver"

Actuator
- 2M = 2-way manual multi-turn
- 2PM = 2-way manual multi-turn 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 and select the Contact Us link to find the customer service center nearest you.

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