

Integra® Manual Valves, 1" Orifice, 2-way, Multi-turn

Ideal for high-flow bulk chemical distribution applications

Designed for applications where greater flow is required, the molded 1" orifice Integra® valve is ideal for valve boxes and bulk chemical distribution applications. The vacuum rated Integra valve can be installed in the upstream side of pressure vacuum vessels and pumps.

The valve maintains a high flow rate while reducing the footprint in manufacturer's equipment. This Integra valve illustrates our ability to address customer space constraints while still providing superior performance.



Maintains a high flow rate while reducing footprint

APPLICATIONS

Our 1" orifice valves are ideal in applications where greater flow is required, including:

- CMP slurry, ultrapure water and high-purity, corrosive chemical handling
- Valve boxes and high flow bulk chemical distribution applications
- Upstream or downstream side of pressure vacuum vessels and pumps
- Chemical line sizes in 3/4" to 1"

FEATURES & BENEFITS

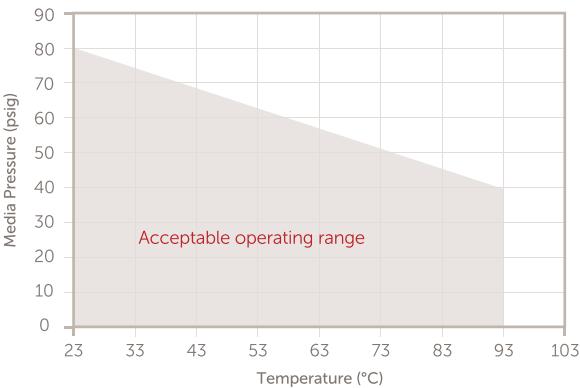
High-purity PFA construction	Provides broad chemical resistance
Vacuum rated	Enables use in the upstream side of pressure vacuum vessels and pumps
Small footprint	Saves valuable equipment space

SPECIFICATIONS

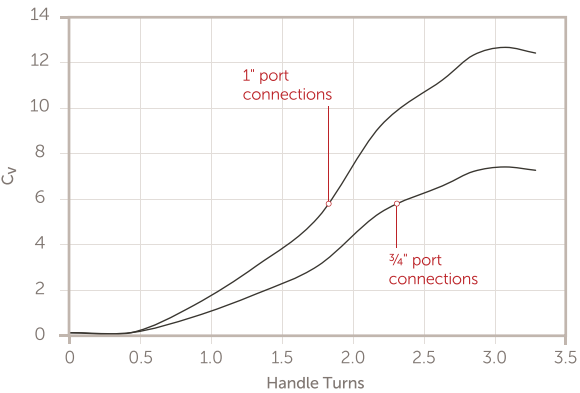
Materials	All wetted parts	PFA, PTFE
	Exterior actuator parts	PVDF
	Interior actuator parts	PVDF, Viton®, PFA
Pressure Range	29" Hg to 80 psig (980 mbar to 552 kPa) @ 70°F (21°C) fluid temperature	
	29" Hg to 40 psig (980 mbar to 276 kPa) @ 200°F (93°C) fluid temperature	
Ambient Temperature	100°F (38°C)	

PERFORMANCE DATA

Temperature vs. Media Pressure

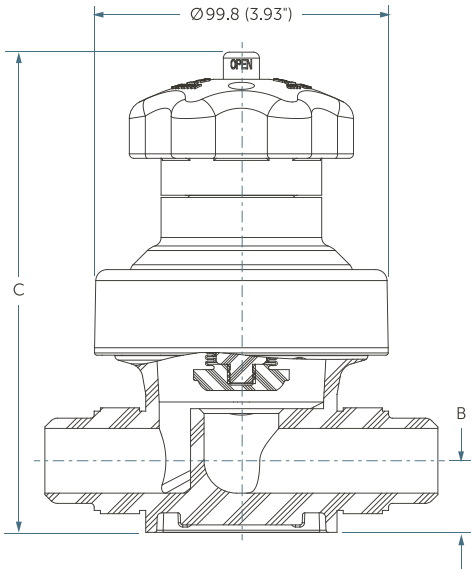


1" Integra Manual Multi-turn Valve
C_v vs. Number of Handle Turns

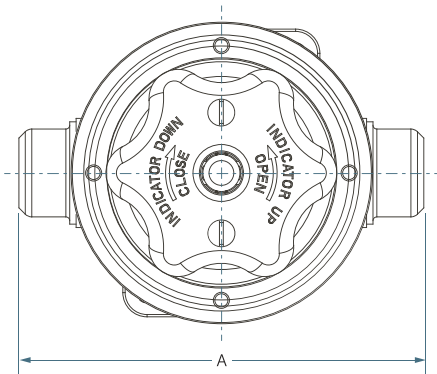


DIMENSIONS

Front View



Top View



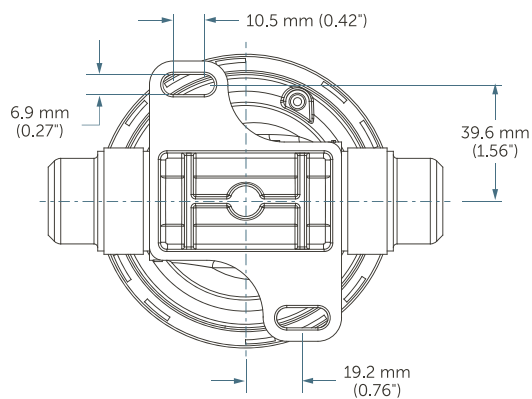
Port connection	Flow factor	A	B	C
3/4" Flaretek ¹	7.2 C _v (103 K _v)	5.08" (129.0 mm)	0.96" (24.4 mm)	6.47" (164.3 mm)

DIMENSIONS

3/4" PrimeLock	7.2 C _v (103 K _v)	5.58" (141.7 mm)	0.96" (24.4 mm)	6.47" (164.3 mm)
3/4" PureBond	10.4 C _v (149 K _v)	6.59" (167.4 mm)	0.96" (24.4 mm)	6.47" (164.3 mm)
1" Flaretek ¹	12.4 C _v (177.1 K _v)	5.26" (133.6 mm)	0.96" (24.4 mm)	6.47" (164.3 mm)
1" Super 300 Type Pillar fitting	12.4 C _v (177.1 K _v)	5.79" (147.1 mm)	1.06" (26.9 mm)	6.57" (166.9 mm)
1" PrimeLock	12.4 C _v (177.1 K _v)	5.94" (150.9 mm)	1.12" (28.4 mm)	6.63" (168.4 mm)
1" PureBond	13.6 C _v (194.2 K _v)	6.59" (167.4 mm)	0.96" (24.4 mm)	6.47" (164.3 mm)
1 1/4" Extended Flaretek	13.6 C _v (194.2 K _v)	6.72" (170.7 mm)	1.54" (39.1 mm)	7.05" (179.1 mm)*

¹ (PVDF), -3 (PFA), -6 (CPFA) or -II (PFA FlareLock® II) nuts, *with spacer

Bottom View



ORDERING INFORMATION

Integra 2-Way, Manual Multi-Turn Valve: part number

DS16

Port configuration

12F = Port 1 (inlet), Port 2 (outlet) 3/4" Flaretek
12S2 = Port 1 (inlet) 3/4" Flaretek, Port 2 (outlet) 3/4" Flaretek "SpaceSaver"
12F12P = Port 1 (inlet) 3/4" Flaretek, Port 2 (outlet) 3/4" PureBond
12S12F = Port 1 (inlet) 3/4" Flaretek "SpaceSaver", Port 2 (outlet) 3/4" Flaretek
12S1S2 = Port 1 (inlet), Port 2 (outlet) 3/4" Flaretek "SpaceSaver"
12K = Port 1 (inlet), Port 2 (outlet) 3/4" PrimeLock
12KV = Port 1 (inlet) 3/4" PrimeLock, Port 2 (outlet) 3/4" PrimeLock "SpaceSaver"
12KP = Port 1 (inlet) 3/4" PrimeLock, Port 2 (outlet) 3/4" PureBond
12VK = Port 1 (inlet) 3/4" PrimeLock "SpaceSaver", Port 2 (outlet) 3/4" PrimeLock
12VV = Port 1 (inlet), Port 2 (outlet) 3/4" PrimeLock "SpaceSaver"
12P12F = Port 1 (inlet) 3/4" PureBond, Port 2 (outlet) 3/4" Flaretek
12PK = Port 1 (inlet) 3/4" PureBond, Port 2 (outlet) 3/4" PrimeLock
12P = Port 1 (inlet), Port 2 (outlet) 3/4" PureBond
12F-TS = Port 1 (inlet), Port 2 (outlet) 3/4" Tube stub no nuts
16F = Port 1 (inlet), Port 2 (outlet) 1" Flaretek
16S2 = Port 1 (inlet) 1" Flaretek, Port 2 (outlet) 1" Flaretek "SpaceSaver"
16F16P = Port 1 (inlet) 1" Flaretek, Port 2 (outlet) 1" PureBond
16S16F = Port 1 (inlet) 1" Flaretek "SpaceSaver", Port 2 (outlet) 1" Flaretek
16S1S2 = Port 1 (inlet), Port 2 (outlet) 1" Flaretek "SpaceSaver"
16PS3 = Port 1 (inlet), Port 2 (outlet) 1" Super 300 Type Pillar
16PS316P = Port 1 (inlet) 1" Super 300 Type Pillar, Port 2 (outlet) 1" PureBond
16K = Port 1 (inlet), Port 2 (outlet) 1" PrimeLock
16KV = Port 1 (inlet) 1" PrimeLock, Port 2 (outlet) 1" PrimeLock "SpaceSaver"
16KP = Port 1 (inlet) 1" PrimeLock, Port 2 (outlet) 1" PureBond
16VK = Port 1 (inlet) 1" PrimeLock "SpaceSaver", Port 2 (outlet) 1" PrimeLock
16VV = Port 1 (inlet), Port 2 (outlet) 1" PrimeLock "SpaceSaver"
16P = Port 1 (inlet), Port 2 (outlet) 1" PureBond
16P16F = Port 1 (inlet) 1" PureBond, Port 2 (outlet) 1" Flaretek
16P16PS3 = Port 1 (inlet) 1" PureBond, Port 2 (outlet) 1" Super 300 Type Pillar
16PK = Port 1 (inlet) 1" PureBond, Port 2 (outlet) 1" PrimeLock
16F-TS = Port 1 (inlet), Port 2 (outlet) 1" Tube stub no nuts
20MLF = Port 1 (inlet), Port 2 (outlet) 1 1/4" Flaretek (Extended Flare)

Actuator

2M = Manual multi-turn

Special order

3 = PFA*
6 = CPFA*
3A = 1 1/4" Flaretek only
(extended flare)***
II = FlareLock II*
N = Pillar nuts, inserts,
and gauge rings
included**
= N/A

* Available for Flaretek port connections only.

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

*** Available for 1 1/4" 2-way manual and pneumatic only.

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

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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