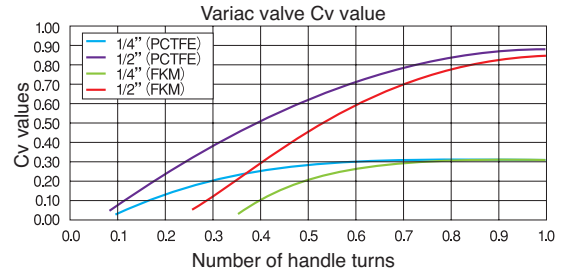
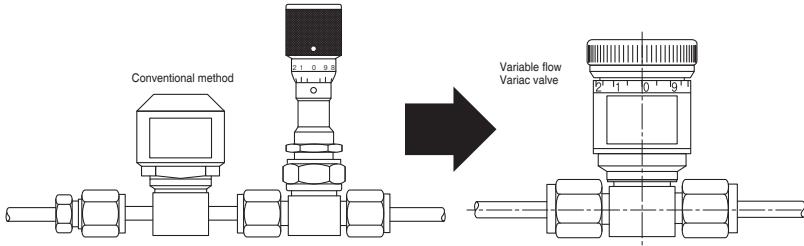


"Variac" Variable Flow Valve

Comparison with conventional methods



Features

- ⊙ The flow can be controlled by rotating the black handle on top of the actuator. One valve can act as two valves -- a pneumatic valve and a needle valve. This enables a simpler piping layout, space conservation, and cost reduction.
- ⊙ High temperature Variac valves (maximum operating temperature 180°C) are also available upon request. A dedicated hot shell heater is also available as a separate part.

Specifications

Size	IB4V (1/4")	IB6V (3/8")-IB8V (1/2")
Disk Material	PCTFE, O-ring (fluorine rubber)	
Cv	Adjustment range: 0.03~0.28	Adjustment range: 0.05~0.74
Wetted Area Volume	0.185in ³ (3.03cm ³)	0.359in ³ (5.88cm ³)
Maximum Operating Pressure	CVC male, OPEN state 142psig (0.98MPa(G))	
Fluid Temperature Range	Standard -10~100°C	
Atmospheric Temperature	High-temperature specifications -10~180°C	
Actuation Pressure	-10°C~60°C	
Leak Rates	0.4~0.7MPa (G)	
Cycle Life (N2 Charged, Own Test)	1 million cycles	

Product Grade

Grade	STD	EP
Material	SUS316L	
Surface Roughness	≤ Rz3.2 μm	≤ Rz0.7 μm
Cleaning	No bead cut in welded area Degreasing + Precision cleaning	
Post-cleaning Environment	Class 10 (some products, Class 100)	
Packaging	Single bagged package	Double bagged package

Precautions

- ① The set amount of flow may vary depending on the usage conditions.
- ② The valves are designed to be used under atmospheric pressure. Usage such as under vacuum vessels are not guaranteed.
- ③ For high temperature applications, please select appropriate material for air-fittings and tubes to assure proper performance.



Product Code Table

Model	Size	Type	Operation	Valve shape	Connection	Bonnet Gasket material	Disk material	Grade + Body material
IB	4	V	C	S	V	C	C	EP-316L

IB-type bellows Seal valve
 4: 1/4" 6: 3/8" 8: 1/2"
 V: Variac
 C: Normally closed O: Normally open
 S: Straight
 V: CVC male VF: CVC female S: Compression
 C: PCTFE M: SUS316L (PFA coating)
 C: PCTFE F: Fluorine rubber
 STD-316L: Mechanical Polished + SUS316L
 EP-316L: Electro Polished + SUS316L

* In the products that have a maximum usage temperature of 180°C, the disk material is fluorine rubber, and the bonnet gasket material is SUS316L (PFA coated).
 The actuator dimension φA in that case will be φ44 from 1/4" to 1/2". We also offer a hot seal for a special-purpose heater.
 * All of the parts that come in contact with gas are made of SUS316L.

Dimensions

Unit: inch (mm)

Model	Type	Connection	L	L ₁	H	H ₁	A	B	C	P	M	M ₁
	IB4V□S-V□□	1/4" CVC Male	2.25 (57.1)	-	3.07 (78.0)	0.43 (11.0)	1.73 (44.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)
	IB8V□S-V□□	1/2" CVC Male	2.56 (65.1)	-	3.58 (91.0)	0.63 (16.0)	2.13 (54.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)
	IB4V□S-VF□□	1/4" CVC Female	2.78 (70.6)	-	3.07 (78.0)	0.43 (11.0)	1.73 (44.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)
	IB8V□S-VF□□	1/2" CVC Female	3.27 (83.0)	-	3.58 (91.0)	0.63 (16.0)	2.13 (54.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)
	IB4V□S-S□□	1/4" Compression Fittings	1.89 (48.0)	0.31 (7.9)	3.20 (81.3)	0.56 (14.3)	1.73 (44.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)
	IB6V□S-S□□	3/8" Compression Fittings	2.52 (64.0)	0.37 (9.5)	3.45 (87.7)	0.50 (12.7)	2.13 (54.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)
	IB8V□S-S□□	1/2" Compression Fittings	2.52 (64.0)	0.50 (12.7)	3.45 (87.7)	0.50 (12.7)	2.13 (54.0)	1.02 (26.0)	0.98 (25.0)	Rc1/8	1.00 (25.4)	2-M5 Depth 0.31 (8.0)