

Flow-control Needle Valve

■ Features

- ⊙ Because of the ultra-precision processing of the needle part and a structure with no backrush, *1 desired flow rate can be set precisely.
 - ⊙ A metal gasket is standard and provides excellent heat resistance.
- *1 Backrush: Flowback or the space formed at the rear of the engagement of gears or screws.

■ Specifications

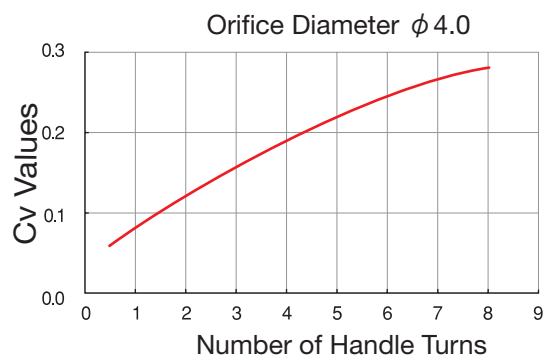
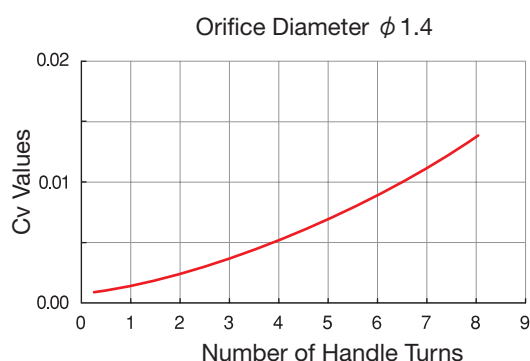
Size	IB4BN (1/4")	
Orifice diameter	φ 0.055in (1.4mm)	φ 0.157in (4.0mm)
Cv	Adjustment range: 0.001~0.0136	Adjustment range: 0.06~0.28
Wetted Area Volume	0.185in ³ (3.03cm ³) CVC male, OPEN state	
Maximum Operating Pressure	0.98MPa (G)	
Fluid Temperature Range	-10~150°C	
Atmospheric Temperature	-10°C~60°C	
Leak Rates	Across the He leak rates Inboard He Leak Rates - ≤ 3×10 ⁻⁹ sccs (≤ 1×10 ⁻¹⁰ Pa·m ³ /sec)	

■ Product Grade

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

■ Precautions

- ① Because the needle valves employ a precision handle, please do not apply excessive torque beyond the zero point.
- ② The valves are designed to be used under atmospheric pressure. Usage such as under vacuum vessels are not guaranteed.



■ Product Code Table

Model	Size	Type	Valve shape	Orifice diameter	Valve shape	Connection method	Seat material	Grade + Body material
IB	4	B	N	1.4	S	V	M	EP-316L
IB-type bellows seal valve 1/4" Backrushless Needle 1.4:1.4mm Straight V: CVC male M: SUS316L (PFA coating) STD-316L: Mechanical Polished + SUS316L VF: CVC female EP-316L: Electro Polished + SUS316L								

■ Dimensions

Unit: inch (mm)

Model	Type	Connection	L	H	H ₁	H ₂	A	B	C	M	M ₁	M ₂
	IB4BN1.4S-VM	1/4" CVC Male	2.25 (57.1)	4.72 (120.0)	0.43 (11.0)	1.06 (27.0)	1.10 (28.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.31 (8.0)	M19×1.0
	IB4BN4.0S-VM	1/4" CVC Male	2.25 (57.1)	4.72 (120.0)	0.43 (11.0)	1.06 (27.0)	1.10 (28.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.31 (8.0)	M19×1.0
	IB4BN1.4S-VFM	1/4" CVC Female	2.80 (71.0)	4.72 (120.0)	0.43 (11.0)	1.06 (27.0)	1.10 (28.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.31 (8.0)	M19×1.0
	IB4BN4.0S-VFM	1/4" CVC Female	2.80 (71.0)	4.72 (120.0)	0.43 (11.0)	1.06 (27.0)	1.10 (28.0)	1.02 (26.0)	0.98 (25.0)	1.00 (25.4)	2-M5 Depth 0.31 (8.0)	M19×1.0