

Cleanness by Purpose

Bel lows Valve

***Compact and Light-weight
Bellows Seal Valve (1 MPa)***

GCV series



IHARA SCIENCE CORPORATION

GCV Bellows Seal Globe Valve (1 MPa)

[Features]

GCV Series Bellows Seal Globe Valve is a light and compact bellows valve with excellent cost effectiveness, developed to contribute to the energy conservation and resource conservation, which is becoming a major assignment in recent days. With the basic performance equal to the conventional CVL series, it was made compact by reviewing each part. The switching indicator was also modified, making it easier to check if the valve is opened or closed.

- High sealing performance and durability are realized by equipping with a metallic bellows seal
- Equipped with a switching indicator making it possible to check if the valve is opened or closed with a glance
- No impurities by precision cleaning of the parts contacting the fluid
- Assembly and packaging in the clean room

Specification

Nominal size	1/4"	3/8"	1/2"
Operating pressure	Vac. to 1 MPa (150 psi)		
Operating temperature	-10 to +80 °C (14 to 176°F)		
Cv value (*1)	0.35	0.85	
End connections (*2)	VTF (Metal gasket sealing type)		
	BI-Lok (Double ferrule type)		
	Tube stub		

(*1) In case of VTF (male) connection.

(*2) Other connections are available as options.

(*3) PVDF, Polyimide, PEEK, PFA seats available as options

Parts Number Structure

GCV - 4 D - - BA

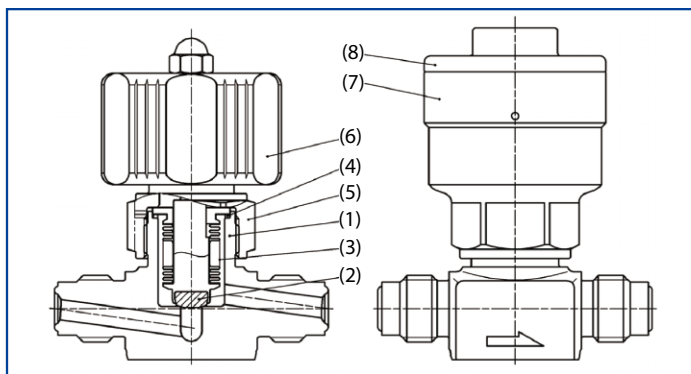
Symbol	Size
4	1/4"
6	3/8"
8	1/2"

Symbol	Operation
Blank	Manual
NC	Normally closed
NO	Normally opened

Symbol	End connection
VM	VTF (male)
VF	VTF (female)
D	BI-Lok
TW	Tube stub

Symbol	Internal surface process
EP	Electropolishing (7Ra μin max)
BA	Mechanical polish (32Ra μin max)

	Parts name	Material
(1)	Body	316L SS
(2)	Disc Seat	PCTFE
(3)	Bellows	316L SS
(4)	Gasket Seal	316L SS (PFA coating)
(5)	Bonnet	304 SS
(6)	Handle	ADC12
(7)	Bonnet	304 SS
(8)	Cover	A5056

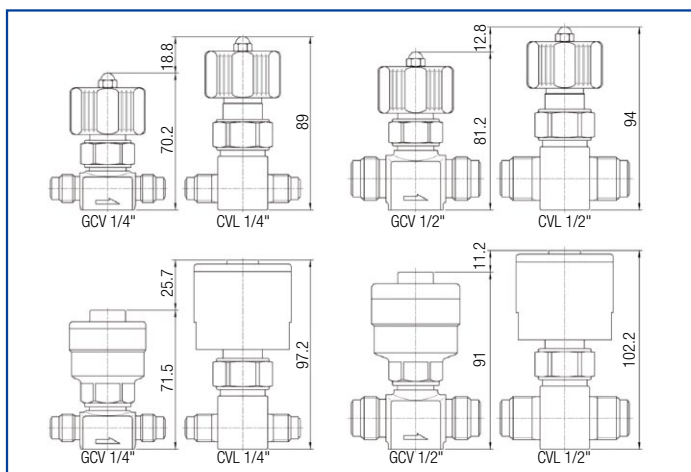


Comparison with the Conventional Model

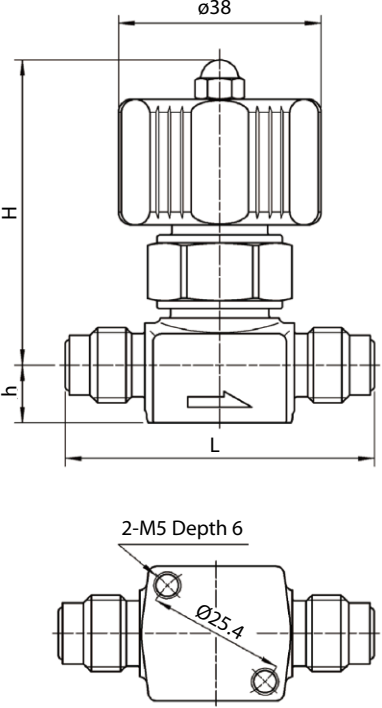
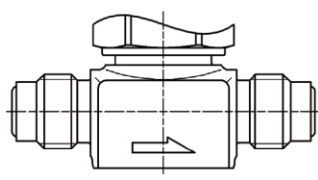
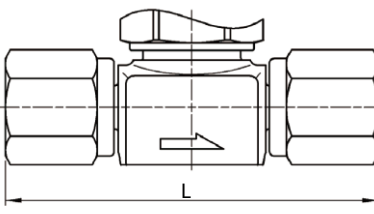
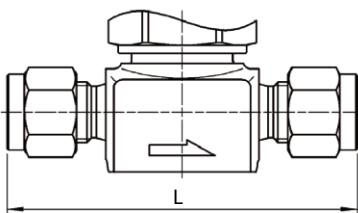
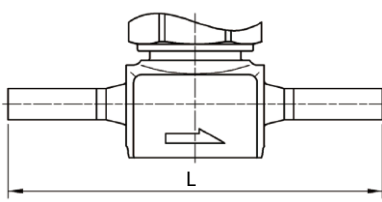
Manual		New model GCV	CVL	Difference
Overall height	1/4"	70.2 mm	89 mm	-18.8 mm
	1/2"	81.2 mm	94 mm	-12.8 mm
Weight	1/4"	220 g	290 g	-70 g
	1/2"	320 g	380 g	-60 g

Automatic		New model GCV	CVL	Difference
Overall height	1/4"	71.5 mm	97.2 mm	-25.7 mm
	1/2"	91 mm	102.2 mm	-11.2 mm
Weight	1/4"	270 g	420 g	-150 g
	1/2"	430 g	510 g	-80 g

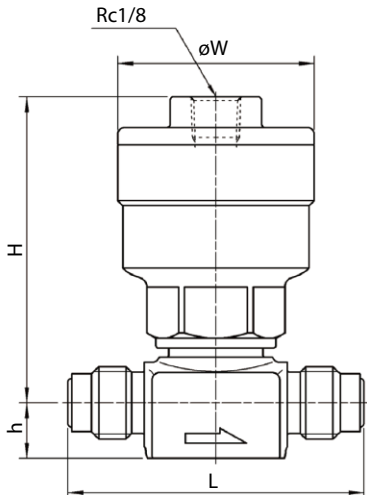
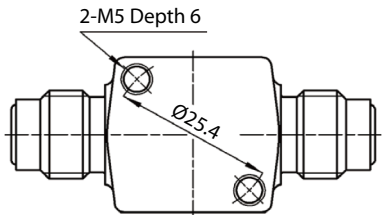
(Weight is for the VTF male connection)



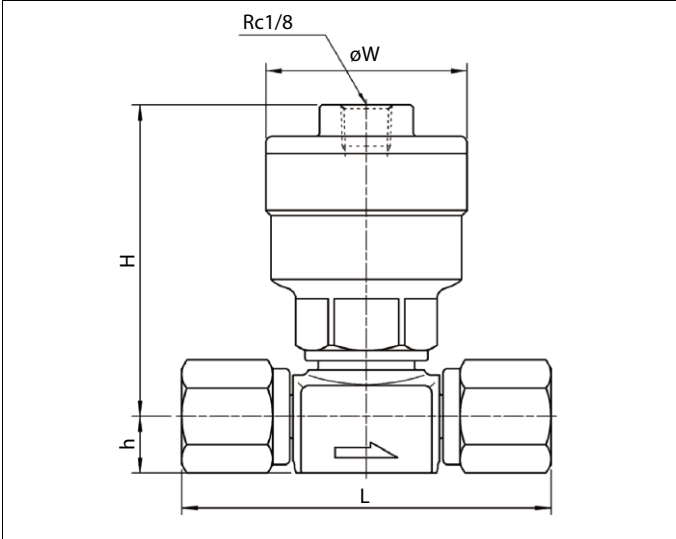
Measurement Table (Manual)

 Bottom mount is common for all types		VTF (Male) (mm)				
		Model	Size	L	H	h
		GCV-4VM	1/4"	58	59.2	11
		GCV-8VM	1/2"	65	65.2	16
		VTF (Female) (mm)				
		Model	Size	L	H	h
		GCV-4VF	1/4"	70.6	59.2	11
		GCV-8VF	1/2"	82	65.2	16
		BI-Lok (mm)				
		Model	Size	L	H	h
		GCV-4D	1/4"	64	59.2	11
		GCV-6D	3/8"	77	65.2	16
		GCV-8D	1/2"	82.6	65.2	16
		Tube stub (mm)				
		Model	Size	L	H	h
		GCV-4TW	1/4"	100	59.2	11
		GCV-6TW	3/8"	110	65.2	16
		GCV-8TW	1/2"	110	65.2	16

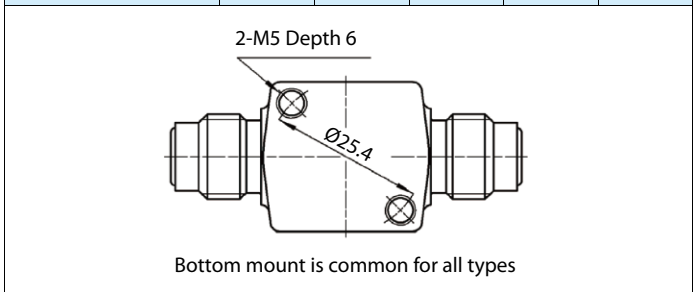
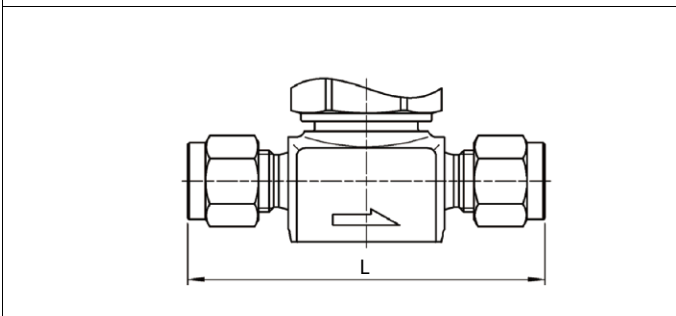
Measurement Table (Pneumatic actuation)

	VTF (Male) (mm)					
	Model	Size	L	H	h	W
	GCV-4VM-NC/NO	1/4"	58	60.5	11	38.5
	GCV-8VM-NC/NO	1/2"	65	75	16	44.5
	 Bottom mount is common for all types					

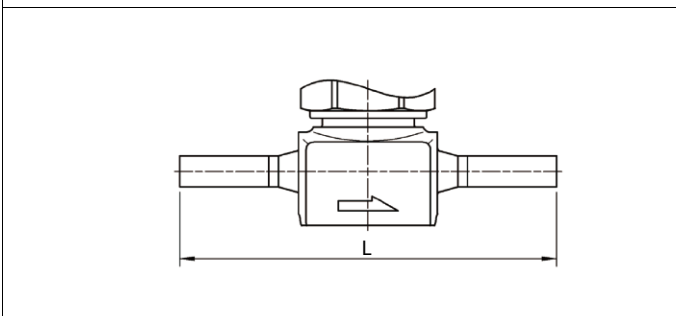
Measurement Table (Pneumatic actuation)



VTF (Female) (mm)					
Model	Size	L	H	h	W
GCV-4VF-NC/NO	1/4"	70.6	60.5	11	38.5
GCV-8VF-NC/NO	1/2"	82	75	16	44.5

[illegible]

BI-Lok (mm)					
Model	Size	L	H	h	W
GCV-4D-NC/NO	1/4"	64	60.5	11	38.5
GCV-6D-NC/NO	3/8"	77	75	16	44.5
GCV-8D-NC/NO	1/2"	82.6	75	16	44.5



Tube stub (mm)					
Model	Size	L	H	h	W
GCV-4TW-NC/NO	1/4"	100	60.5	11	38.5
GCV-TWD-NC/NO	3/8"	110	75	16	44.5
GCV-8TW-NC/NO	1/2"	110	75	16	44.5

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CAUTION: Improper selection or handling of fittings, valves or related accessories may cause damage to operators or systems. Select appropriate fittings, valves or related accessories after careful consideration of the compatibility with the system being used and the operating conditions based on judgments made regarding the responsibility and limitations of both the system architects and the users. Furthermore, make sure to perform proper installation, operation, and maintenance. Read the instruction manual carefully before use, and fully understand the contents. If you do not have the instruction manual or if you have any questions, please contact your nearest sales office.

Sales Division

- Head Office: 13-17 Oi 4-chome, Shinagawa-ku, Tokyo, 140-0014, Japan
Phone: 03-5742-2221 Fax: 03-5742-2231
- Chubu: Chiyoda Tsukasa bld., 3-14-19, Chiyoda, Naka-ku, Nagoya, 460-0012, Japan
Phone: 052-323-2627 Fax: 052-323-2630
- Kyushu: 1-1-8, Onoue, Kumamoto-shi, Kumamoto, 862-0913, Japan
Phone: 096-386-5353 Fax: 096-386-5354

- Kansai: 4-1-18, Tenman, Kita-ku, Osaka, 530-0043, Japan
Phone: 06-6358-9255 Fax: 06-6358-9260
- Yamagata: 5600-3, Oaza Higashineko, Higashine-shi, Yamagata, 999-3701, Japan
Phone: 0237-43-7802 Fax: 0237-43-7803