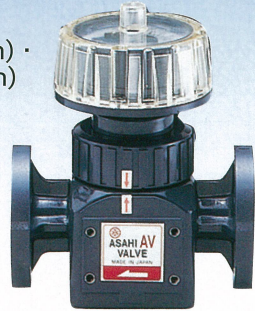


CONSTANT FLOW VALVE 15mm - 100mm(1/2inch - 4inch)

AV CONSTANT FLOW VALVE keeps the flow rate constant.

- 15mm(1/2inch) - 20mm(3/4inch)



- 25mm(1inch) - 100mm(4inch)

FEATURES

High Accuracy

The CONSTANT FLOW VALVE accurately controls the flow rate to within $\pm 6\%$ of the full scale value and offers high rangeability (set value for maximum flow rate/set value for minimum flow rate).

Flexible Flow Rate

Using the handle, the flow rate setting on the valve can be changed at will. The CONSTANT FLOW VALVE can also be used as shut off valve because it completely shuts off the flow.

Opening Degree Indicator

The CONSTANT FLOW VALVE has indicator showing opening degree which reads the flow rate ($m^3/hour$).

High Durability and Resistance to Chemicals

The CONSTANT FLOW VALVE uses a spring made of Stainless Steel coated with PCTFE (Polychloro-frifluoro-ethylene). The spring is highly durable and chemical-resistant, it has high cycle life.

APPLICATION

- Ultra-pure water lines at semiconductor factories
- Chemical injection lines at chemical plants
- Lines supplying water to swimming pools
- Seawater supply lines for fish cultivation
- Cooling tower and scrubber blow water supply lines
- Anti-foaming equipment

SPECIFICATIONS

Body material	Unplasticized Polyvinyl Chloride (PVC) ※We also produce C-PVC CONSTANT FLOW VALVE 25(1inch) and 50(2inch)mm in nominal size on request.
Nominal Size	15mm(1/2inch), 20mm(3/4inch), 25mm(1inch), 50mm(2inch), 80mm(3inch), 100mm(4inch)
End Connectors	Flanged End
Working Temperature	0°C - 50°C (30°F - 120°F)
Upstream Working Pressure range	0.25MPa or less {2.6kgf/cm ² } · 0.25 to 0.5 MPa {2.6 - 5.1kgf/cm ² } 0.5 to 0.75MPa {5.1 - 7.7kgf/cm ² } · 0.75 to 1.0 MPa {7.7 - 10.2kgf/cm ² }
Accuracy	Full scale value $\pm 6\%$ (reference: water at ambient temperature)

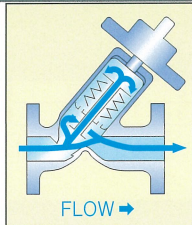
WORKING PRESSURE VS. TEMPERATURE

Unit:MPa{kgf/cm²}

Nominal Size		Temp. °C (°F)	0~50(30~120)			
Type			A	B	C	D
mm	inch					
15	1/2		—	0.25{2.7} - 0.5{5.1}	0.5{5.1} - 0.75{7.7}	—
20	3/4		—	0.25{2.7} - 0.5{5.1}	0.5{5.1} - 0.75{7.7}	—
25	1		0.25{2.7}Under	0.25{2.7} - 0.5{5.1}	0.5{5.1} - 0.75{7.7}	—
50	2		0.25{2.7}Under	0.25{2.7} - 0.5{5.1}	0.5{5.1} - 0.75{7.7}	—
80	3		0.25{2.7}Under	0.25{2.7} - 0.5{5.1}	0.5{5.1} - 0.75{7.7}	0.75{7.7} - 1.0{10.2}
100	4		—	—	0.5{5.1} - 0.75{7.7}	0.75{7.7} - 1.0{10.2}

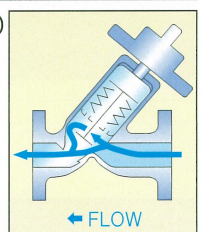
Type-A 25mm(1inch) - 80mm(3inch)

- The fluid flow path is suitable for semi-conductor industry. (Ultra pure water line)



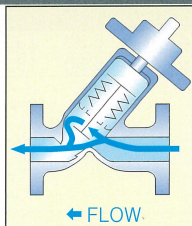
Type-C 15mm(1/2inch) - 100mm(4inch)

- The range of working differential pressure is large (For lines with large pressure differential between upstream & downstream)



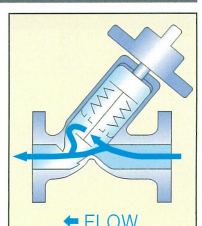
Type-B 15mm(1/2inch) - 80mm(3inch)

- The flow rate setting range is large (Covers small and large flow rates)



Type-D 80mm(3inch) - 100mm(4inch)

- A large flow rate can be set



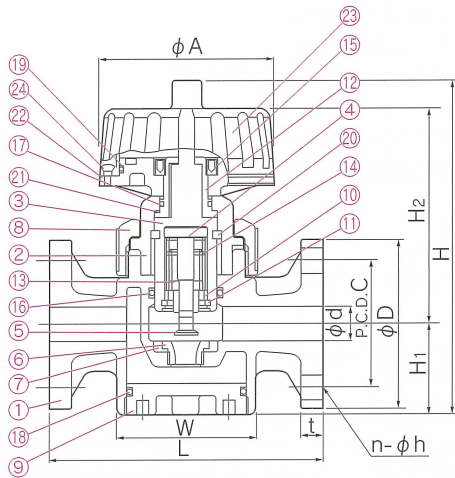
Range for preset flow rate and working differential pressure

Nominal Size	TYPE	Flow rate		Rangeability	Working differential pressure	
		GAL/min	m ³ /hr		PSI	MPa{kgf/cm ² }
15mm (1/2inch)	TYPE B	0.176 - 3.52	0.04 - 0.8	20 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE C	0.35 - 3.52	0.08 - 0.8	10 : 1	4.27 - 28.45	0.03-0.2 {0.3-2.0}
20mm (3/4inch)	TYPE B	0.26 - 5.28	0.06 - 1.2	20 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE C	0.53 - 5.28	0.12 - 1.2	10 : 1	4.27 - 28.45	0.03-0.2 {0.3-2.0}
25mm (1inch)	TYPE A	2.20 - 8.81	0.5 - 2.0	4 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE B	0.441 - 8.81	0.1 - 2.0	20 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE C	0.881 - 8.81	0.2 - 2.0	10 : 1	4.27 - 28.45	0.03-0.2 {0.3-2.0}
50mm (2inch)	TYPE A	8.81 - 35.22	2.0 - 8.0	4 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE B	1.76 - 35.22	0.4 - 8.0	20 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE C	3.52 - 35.22	0.8 - 8.0	10 : 1	4.27 - 28.45	0.03-0.2 {0.3-2.0}
80mm (3inch)	TYPE A	22.02 - 88.07	5.0 - 20.0	4 : 1	4.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE B	4.403 - 88.07	1.0 - 20.0	20 : 1	2.85 - 14.22	0.02-0.1 {0.2-1.0}
	TYPE C	8.81 - 88.07	2.0 - 20.0	10 : 1	4.27 - 28.45	0.03-0.2 {0.3-2.0}
	TYPE D	66.04 - 132.1	15.0 - 30.0	2 : 1	4.27 - 21.33	0.03-0.15 {0.3-1.5}
100mm (4inch)	TYPE C	44.03 - 264.2	10.0 - 60.0	6 : 1	4.27 - 28.45	0.03-0.2 {0.3-2.0}
	TYPE D	132.1 - 264.2	30.0 - 60.0	2 : 1	2.85 - 21.33	0.02-0.15 {0.2-1.5}

[Notes to users as to selection of the type.]

The Possible preset range of the flow rate and the range of the working differential pressure differs from type to type among A, B, C and D. The right type, therefore, should be selected from the above table in accordance with the working conditions.

● 15mm(1/2inch) · 20mm(3/4inch)



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC	⑬	SPRING(A)	1	STAINLESS STEEL304 (With PCTFE Coated)
②	BONNET	1	PVC	⑭	SPRING(B)	1	STAINLESS STEEL304 (With PCTFE Coated)
③	CYLINDER	1	PVC	⑮	NUT	1	PVC
④	PISTON	1	PVC	⑯	O-RING(A)	1	EPDM, Others
⑤	PLUG	1	PVC	⑰	O-RING(B)	1	EPDM, Others
⑥	ORIFICE	1	PVC	⑱	O-RING(C)	1	EPDM
⑦	SEAT	1	EPDM	⑲	O-RING(D)	1	EPDM
⑧	CAP NUT	1	PVC	⑳	KEY	2	PP
⑨	CAP	1	PVC	㉑	THRUST RING	1	PP
⑩	SPRING BASE	1	PVC	㉒	HANDLE BASE	1	PVC
⑪	STOP RING	1	PVDF	㉓	HANDLE COVER	1	PC
⑫	SLEEVE	1	COPPER ALLOY(C3604)	㉔	SCREW	4	STAINLESS STEEL304

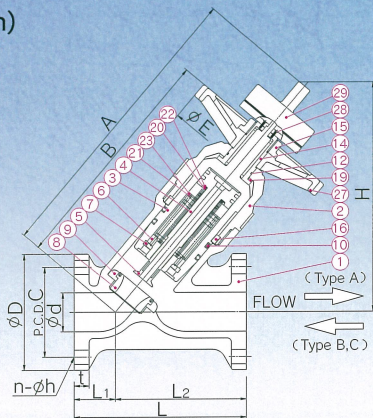
DIMENSIONS TABLE

Nominal Size		d	JIS 10K				t	L	W	A	H ₁	H ₂	H
mm	inch		D	C	n	h							
15	1/2	16	95	70	4	15	12	160	82×82	103	51	129	197
20	3/4	20	100	75	4	15	13	160	82×82	103	53	127	197

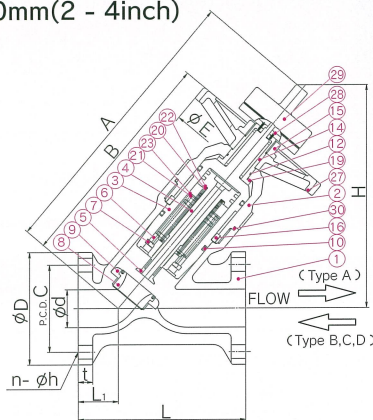
Nominal Size		d	DIN PN10				t	L	W	A	H ₁	H ₂	H
mm	inch		D	C	n	h							
15	1/2	16	95	65	4	14	12	160	82×82	103	51	129	197
20	3/4	20	100	75	4	14	13	160	82×82	103	53	127	197

Nominal Size		d	ANSI CLASS 150				t	L	W	A	H ₁	H ₂	H
inch	mm		D	C	n	h							
1/2	15	0.63	3.50	2.38	4	0.63	0.47	6.30	3.23×3.23	4.06	2.01	5.08	7.76
3/4	20	0.79	3.86	2.76	4	0.63	0.51	6.30	3.23×3.23	4.06	2.09	5.08	7.76

● 25mm(1inch)



● 50mm - 100mm(2 - 4inch)



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC	⑭	SLEEVE	1	COPPER ALLOY(C3604)
②	BONNET	1	PVC	⑮	CAP	1	PVC
③	CYLINDER	1	PVC	⑯	KEY	2	PVC
④	PISTON	1	PVC	⑰	THRUST RING	1	PP
⑤	PLUG	1	PVC	⑱	SPRING(A)	1	STAINLESS STEEL304 (With PCTFE Coated)
⑥	SPRING BASE	1	PVC	⑲	SPRING(B)	1	STAINLESS STEEL304 (With PCTFE Coated)
⑦	STOP RING	1	PVDF	⑳	WASHER(A)	1	PVC
⑧	ORIFICE	1	EPDM	㉑	WASHER(B)	1	PVC
⑨	SEAT	1	EPDM	㉒	HAND WHEEL	1	PP
⑩	O-RING(A)	2	EPDM, Others	㉓	MACHINE SCREW	4	COPPER ALLOY(C3604)
⑪	O-RING(B)	1	EPDM	㉔	LIFT INDICATOR	1set	PVC
⑫	O-RING(C)	1	EPDM				

Note :
The shape and appearance of assembly differ a little with nominal size compared to this drawing.

DIMENSIONS TABLE

Nominal Size		d	JIS 10K				L	L ₁	E	t	A	B	H
mm	inch		D	C	n	h							
25	1	25	125	90	4	19	160	40	150	14	272	201	218
50	2	52	155	120	4	19	230	55	210	20	390	309	307
80	3	78	185	150	8	19	280	70	210	22	484	387	377
100	4	100	210	175	8	19	410	85	250	22	623	483	446

Nominal Size		d	DIN PN10				L	L ₁	E	t	A	B	H
mm	inch		D	C	n	h							
25	1	25	115	85	4	14	160	40	150	14	272	201	218
50	2	52	165	125	4	18	230	55	210	20	390	309	307
80	3	78	200	160	8	18	280	70	210	22	484	387	377
100	4	100	220	180	8	18	400	85	250	22	623	483	446

Nominal Size		d	ANSI CLASS 150				L	L ₁	E	t	A	B	H
inch	mm		D	C	n	h							
1	25	0.98	4.25	3.13	4	0.63	6.30	1.58	5.91	0.55	10.71	7.91	8.58
2	50	2.05	5.98	4.74	4	0.75	9.06	2.17	8.27	0.79	15.35	12.17	12.09
3	80	3.07	7.25	6.00	4	0.75	11.02	2.75	8.27	0.89	19.06	15.24	14.84
4	100	3.94	8.66	7.50	8	0.75	15.74	3.35	9.84	0.87	24.50	19.00	17.56

Note :

- 1) Regardless of horizontal installation or vertical installation, the strainer with the 60-mesh screen should be installed in the up stream side of the valve in order to avoid the malfunction possibly caused by clogging of foreign particles.
Install the valve as shown in the drawing, because malfunctioned.
- 2) Every type of valve has its own flow direction across the valve.
Make sure that the flow direction is consistent with the arrow-mark indicated on the valve body when installing.

