

V2SAP and V2SBP Series Flanged Globe Valves, 2-Port

Description

High quality globe valve, used for water side control of air handling units and heating HVAC systems.

Suitable in for closed and open hot-and cold-water HVAC systems from -25...130°C.

Valve sizes DN15 to DN150 with Kvs value 4...350m³/h.

Flange Type ISO 7005-2.

Body material Ductile Iron QT450-10 .

Operational Pressure V2SAP... PN16 and V2SBP... PN25.

Low Leakage Rate



Order Code	Size	Kvs Value	Order Code	Size	Kvs Value
• V2SAP.15_4	DN15	4m ³ /h	• V2SBP.15_4	DN15	4m ³ /h
• V2SAP.20_6.3	DN20	6.3 m ³ /h	• V2SBP.20_6.3	DN20	6.3 m ³ /h
• V2SAP.25_10	DN25	10 m ³ /h	• V2SBP.25_10	DN25	10 m ³ /h
• V2SAP.32_16	DN32	16 m ³ /h	• V2SBP.32_16	DN32	16 m ³ /h
• V2SAP.40_25	DN40	25 m ³ /h	• V2SBP.40_25	DN40	25 m ³ /h
• V2SAP.50_40	DN50	40 m ³ /h	• V2SBP.50_40	DN50	40 m ³ /h
• V2SAP.65_63	DN65	63 m ³ /h	• V2SBP.65_63	DN65	63 m ³ /h
• V2SAP.80_100	DN80	100 m ³ /h	• V2SBP.80_100	DN80	100 m ³ /h
• V2SAP.100_160	DN100	160 m ³ /h	• V2SBP.100_160	DN100	160 m ³ /h
• V2SAP.125_250	DN125	250 m ³ /h	• V2SBP.125_250	DN125	250 m ³ /h
• V2SAP.150_350	DN150	350 m ³ /h	• V2SBP.150_350	DN150	350 m ³ /h

General data

Technical data

Fluid	Cold and hot water with up to 50% vol.glycol
Fluid temperature	-25...130°C
Operational Pressure rating	V2SAP...PN16 V2SBP...PN25
Flow characteristic	A-AB: equal-percentage
Stroke	See page 5
Rangeability	>100:1
Flange connection	Flanged (ISO 7005-2)
Leakage Rate 2-Port	<0.01% of KVS
Life Cycles	Min. 100,000
Service	Maintenance free

Material

Body	Ductile Iron QT450-10
Stem	Stainless Steel
Valve Core	Stainless Steel
Seat	PTFE

Functional data

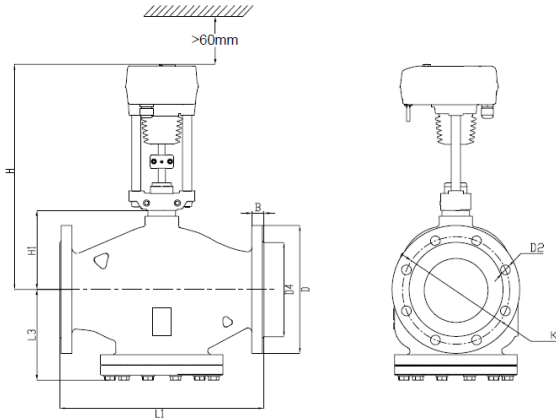
Application	Water
Installation places	Plant Rooms of Spaces

Security Notes / Disposal Notes

The valve has been designed for use in heating, ventilation and air conditioning systems. The device is not allowed to be used outside the specified field of application, especially in airplanes.

It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly. When determining the flow characteristic, the accepted directives must be observed. The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Dimensions 2-Port



Dimension Figure for PN16 Series

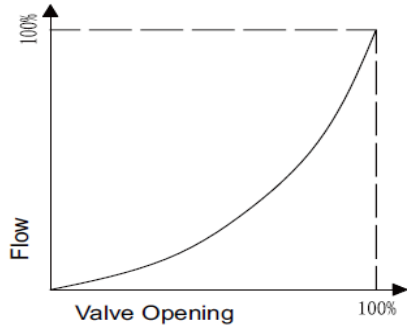
DN	B (mm)	D (mm)	D2 (mm)	D4 (mm)	K (mm)	L1 (mm)	L3 (mm)	H1 (mm)	Weight/kg
DN15	14	95	4-14	46	65	130	70	41	3.5
DN20	16	105	4-14	56	75	150	70	46	4.5
DN25	16	115	4-14	65	85	160	75	48	4.5
DN32	18	140	4-19	76	100	180	80	59	7
DN40	18	150	4-19	84	110	200	82	50	8
DN50	20	165	4-19	99	125	230	98	60	11.5
DN65	20	185	4-19	118	145	290	112	90	18
DN80	22	200	8-19	132	160	310	130	120	25
DN100	23	220	8-19	156	180	350	150	136	38
DN125	24	250	8-19	184	210	400	175	157	52
DN150	25	285	8-23	211	240	480	200	171	70.5

Dimension Figure for PN25 Series

DN	B (mm)	D (mm)	D2 (mm)	D4 (mm)	K (mm)	L1 (mm)	L3 (mm)	H1 (mm)	Weight/kg
DN15	14	95	4-14	46	65	130	70	41	3.5
DN20	16	105	4-14	56	75	150	70	46	4.5
DN25	16	115	4-14	65	85	160	75	48	4.5
DN32	18	140	4-19	76	100	180	80	59	7
DN40	18	150	4-19	84	110	200	82	50	8
DN50	20	165	4-19	99	125	230	98	60	11.5
DN65	20	185	8-19	118	145	290	112	90	18
DN80	22	200	8-19	132	160	310	130	120	25
DN100	23	235	8-23	156	190	350	150	136	38
DN125	24	270	8-28	184	220	400	175	157	52
DN150	25	300	8-28	211	250	480	200	171	70.5

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Flow Characteristics



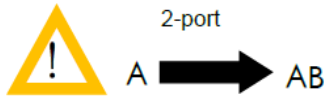
A-AB Equal-percentage Flow Characteristic

$$Kvs = \frac{v}{\sqrt{\frac{\Delta P}{100}}}$$

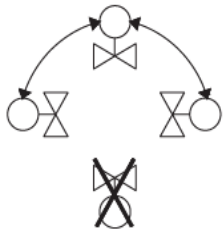
ΔP:	Differential pressure @ fully open (kPa)
v:	Flow Rating @ ΔP (m³/h)
Kvs	The Kvs value expresses the amount of flow in a regulating valve at a fully- open valve position and a pressure differential of 1 bar.

Mounting Instruction

1. Valve can be installed on the water supply pipe or return water pipe (installed on the return water pipe can control the water flow more smoothly, meanwhile the return water temperature is lower which can extend the service time of valve).
2. Filter and check valve are recommended to be installed.
3. When the medium is steam, install draw off valve in the pipe can remove the condensed water, or it will affect the service time of valve.
4. Please note that the medium flow direction in valve should be consistent with the medium of pipeline.

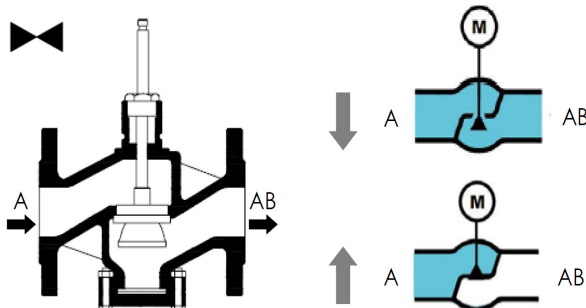


5. Please pay attention to the valve mounting orientation.



Medium is chilled/hot water
Downward installation is forbidden

Structure Characteristic



When the valve stem is lifted up (valve opens), the flow increases from port A to AB

When the valve stem is pressed down (valve closes), the flow increases from port A to AB

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Control Valve / Actuator Combinations

Control Valve (CV) for HVAC Equipment							Actuators				
Characteristic	Valve Size	Thread	Picture	Order Code	KVs Value (m ³ /h)	Stroke (mm)	Open/Close & Modulating Actuators				
							Fail Safe function	Non FS			
							Running Time(s)	2 - 4 s/mm	1 - 2s/mm		
							Feedback signal	0...10V / 4...20mA			
							IP Rating	IP54			
							Stroke (mm)	30	50	50	
							Force (N)	1000	1000	3000	
							Power Supply	24 VAC/DC			
								160C-024-100	180C-024-100	180C-024-300	
							Picture				
							Close-Off pressure, max (MPa)				
2 - Way Valve	DN15	Screw Flanged ISO7005-2		V2SAP.15_4 V2SBP.15_4	4	20	1.60				
	DN20			V2SAP.20_6.3 V2SBP.20_6.3	6.3		1.60				
	DN25			V2SAP.25_10 V2SBP.25_10	10		1.60				
	DN32			V2SAP.32_16 V2SBP.32_16	16		1.00				
	DN40			V2SAP.40_25 V2SBP.40_25	25		0.70				
	DN50			V2SAP.50_40 V2SBP.50_40	40		0.50				
	DN65			V2SAP.65_63 V2SBP.65_63	63		20	1.00			
	DN80			V2SAP.80_100 V2SBP.80_100	100		30	1.00			
	DN100			V2SAP.100_160 V2SBP.100_160	160			1.00			
	DN125			V2SAP.125_250 V2SBP.125_250	250		40	1.60			
DN150	V2SAP.150_350 V2SBP.150_350	350		1.60							

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