

## Pressure Independent Control Valve ...PICV V2SAPPIC... Series



### Description

V2SAPPIC...series are ideal pressure independent control valves for AHU applications in HVAC systems. The automatic balancing function of these valves maintains constant desired flow when system pressure is changing.

It is used to solve the problem of hydraulic imbalance in heating and air conditioning system. It has a strong anti jamming ability and a high control accuracy, which makes it work well in the frequent fluctuating flow system.

## Features Introduction



### High Control Precision

Both control valve core and balancing valve core adopt straight travel design. Compared with rotary design, straight travel has higher control precision.

### High Close-off DP, Low Leakage Rate

The valve has a higher close-off differential pressure, while the leakage rate is no more than 0.02% of Qmax.

### Build-in Diaphragm Capsule and Connecting Pipe

The valve adopts the build-in diaphragm capsule and connecting pipe. It can avoid damaging during installation compared with external connecting pipe.

### Anti-blocking Design

The balance structure of spring diaphragm significantly reduces the probability of blocking inside. Because of the lower requirement for water quality, it can easily deal with the water in heating pipeline.

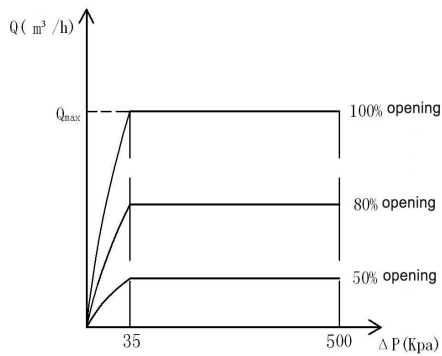
### High-quality Material

The valve body is made of high-quality ductile iron material(QT450-10), and the surface adopts electrostatic spraying craft, the valve stem and valve core are made of high-quality stainless steel.

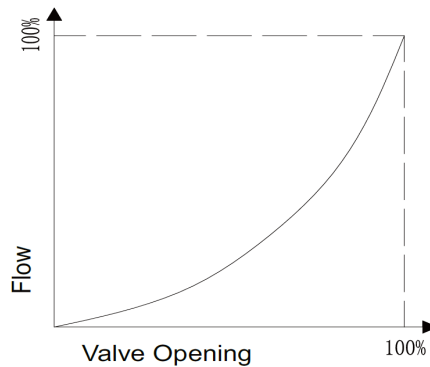
Type Summary

Pressure Independent Control Valve (PICV)						Actuators				
Characteristic	Valve Size	Operational Pressure	Picture	Order Code	Flow range (m <sup>3</sup> /h) / selectable	Stroke (mm)	Open/Close & Modulating			
							Picture	Country of origin	Power Supply	IP Rating
2-Way Valve - 2 Pressure Ports	DN50	PN16		V2SAPPIC.50_13	13	20	400			
	DN65			V2SAPPIC.65_21	21		400			
	DN80			V2SAPPIC.80_28	28	400				
	DN100			V2SAPPIC.100_50	50	400				
	DN125			V2SAPPIC.125_90	90	400				
	DN150			V2SAPPIC.150_145	145	400				

Flow Characteristic



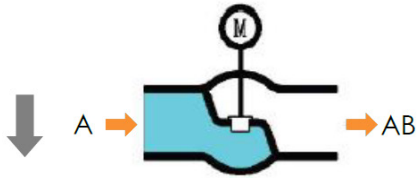
DP Flow Characteristic



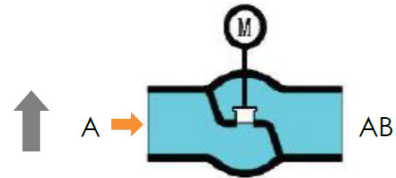
Opening Flow Characteristic Equal-percentage

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**Structure Characteristic**



While the valve stem reach lower limit position, the valve is closed.



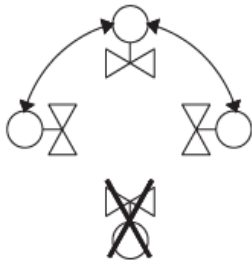
While the valve stem reach upper limit position, the valve is open.

**Installation 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, mean-while the return water temperature is lower which can extends the service time of valve).
2. Filter and check valve are recommended to be installed before the valve.
3. Please note that the medium flow direction in valve should be consistent with the medium of pipeline!

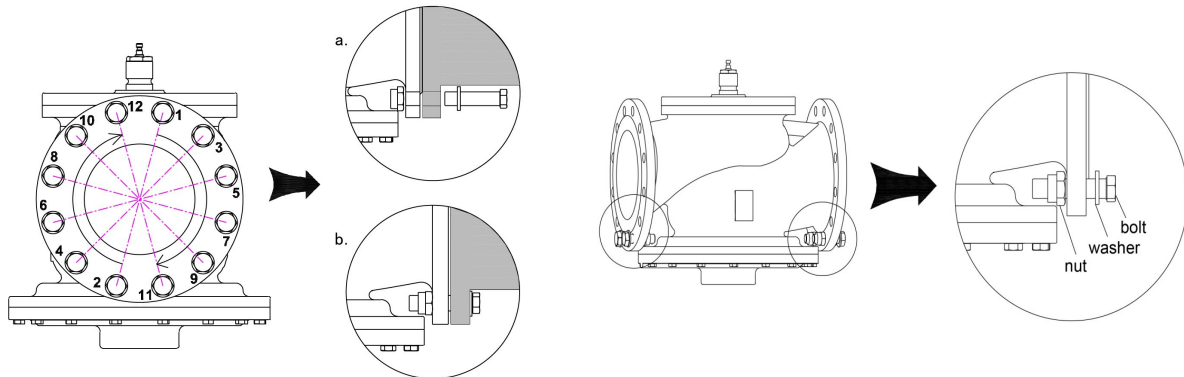


4. Please pay attention to the valve mounting orientation!



Medium is chilled/hot water  
Downward installation is forbidden

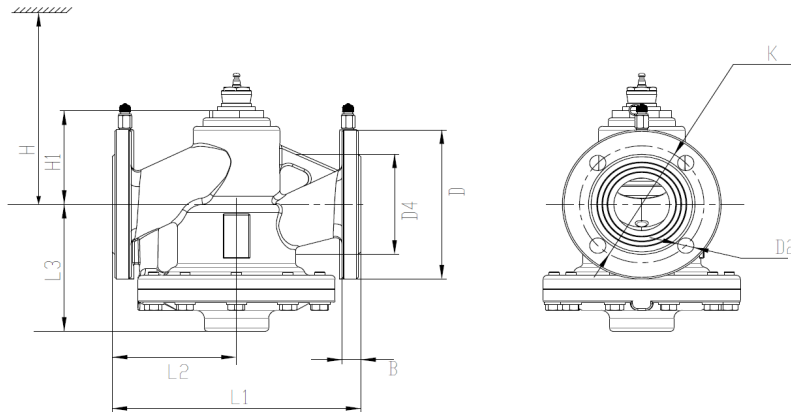
5. As Shown in the below figure,when valve is installed, tighten the bolts and nuts diagonally. Please kindly noted, the flange holes for DN200 must use the equipped 4 sets of bolt, washer and nut.



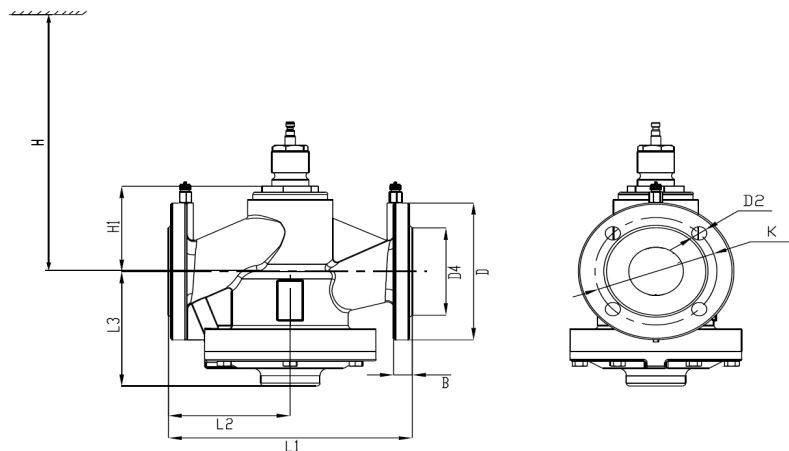
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Dimension PN16

DN50-65



DN80-150



DN	B (mm)	D (mm)	D2 (mm)	D4 (mm)	K (mm)	L1 (mm)	L2 (mm)	L3 (mm)	H1 (mm)	H (mm)	Weight (kg)
DN50	20	165	4-19	99	125	230	115	136	95	347	19
DN65	22	185	4-19	118	145	290	145	155	115	367	28
DN80	24	200	8-19	132	160	310	155	167	148	483	36
DN100	22	220	8-19	156	180	350	175	181	150	485	54
DN125	26	250	8-19	184	210	400	200	197	163	498	68
DN150	24	285	8-23	211	240	480	240	222	198	533	89

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## Technical Parameters

### Operating Parameters - Valve

<b>Caliber Range</b>	DN50-DN150
<b>Permissible Pressure</b>	PN16
<b>Flow Characteristic</b>	Equal-percentage
<b>Close-off DP</b>	400Kpa
<b>Leakage Rate</b>	≤0.02% of Qmax
<b>Medium Temperature</b>	-10~120°C
<b>Permissible medium</b>	Chilled/hot water, glycol under 50%
<b>Connection Standard</b>	Flanged connection ISO7005-2

### Spare Parts Material - Valve

<b>Valve body</b>	Ductile iron QT450-10
<b>Valve core</b>	Stainless Steel
<b>Valve stem</b>	Stainless Steel
<b>Sealing ring</b>	PTFE
<b>Diaphragm</b>	EPDM

### Environment Parameters

#### Running

Ambient temperature:	-25~+65°C
Ambient humidity:	≤95% RH

#### Storage

Ambient temperature:	-40~+65°C
Ambient humidity:	≤95% RH