

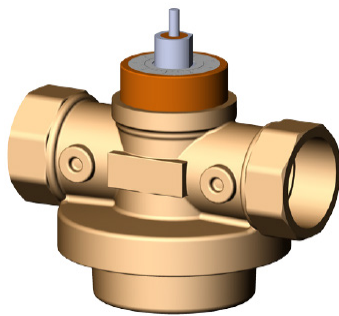
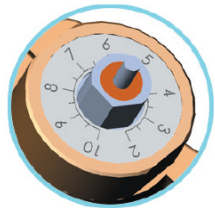
Pressure Independent Control Valve ---PICV(FCU) V2FAP... / V2FBP... Series

Description

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



Flow Value Setting

Users are free to set the max. flow value by regulating the rotary dial in order to make sure each FCU could be allocated on demand and thus the whole control system will be energy efficient.

Low Noise Level

Adopt the design of differential pressure balancing structure (spring + diaphragm) which has lower noise than the flow balancing structure (spring+ stainless steel valve cartridge). There is no water hammer and cartridge running noise.

Low Leakage Rate

The leakage rate is no more than 0.02% of KVs.

Opening Indication

There is a blue display all the way around on the top of actuator, users can observe if the valve is open or close from it.

Normally Closed Actuator

Adopt normally closed actuator, valve will be opened after power on and closed after power off.

Easy Installation

The actuator is equipped with a valve adapter which is convenient for assembly and disassembly during maintenance.

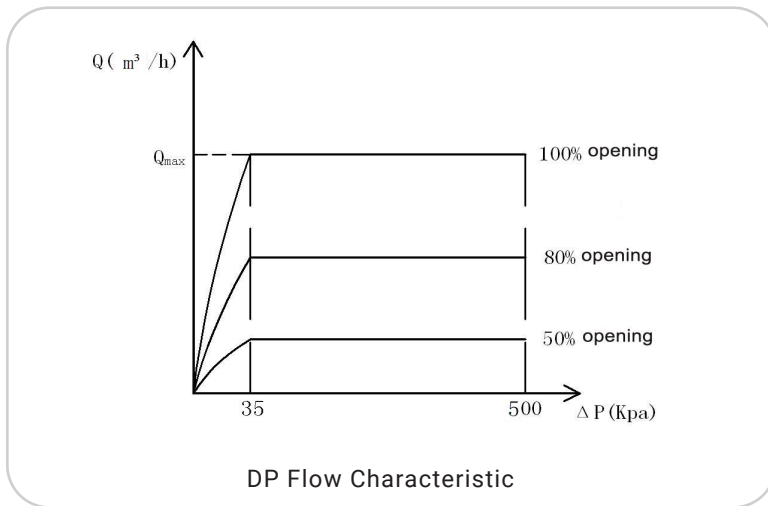
Type Summary

PICV for FCU

Series	110 or 110C	120 or 120C
Actuator Rated Stroke	4 mm	4 mm
Nominal Output Force	100 N	125 N
Icon		
Normally closed type 230 VAC	110-230-010	
Normally closed type 24 VAC		120-024-0125
Proportional type 24 VAC, 0-10 VDC	110C-024-010	120C-024-0125

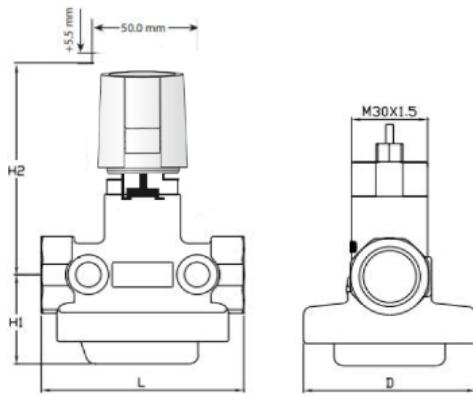
		Valve Body	Type PN16	Type PN25	DN [mm]	Stroke [mm]	Flow Qmax [m³/h]	ΔPs [Bar]
Medium Temp. -10 °C - 120°C		Without test plug	V2FAPIC.15_0.9	V2FBPIC.15_0.9	DN15	4	0.9	0.35-5
			V2FAPIC.20_1.3	V2FBPIC.20_1.3	DN20	4	1.3	0.35-5
			V2FAPIC.25_2	V2FBPIC.25_2	DN25	4	2.0	0.35-5
			V2FAPIC.32_4	V2FBPIC.32_4	DN32	4	4.0	0.40-5
		With test plug	V2FAPPIC.15_0.9	V2FBPPIC.15_0.9	DN15	4	0.9	0.35-5
			V2FAPPIC.20_1.3	V2FBPPIC.20_1.3	DN20	4	1.3	0.35-5
			V2FAPPIC.25_2	V2FBPPIC.25_2	DN25	4	2.0	0.35-5
			V2FAPPIC.32_4	V2FBPPIC.32_4	DN32	4	4.0	0.40-5

Flow Characteristic



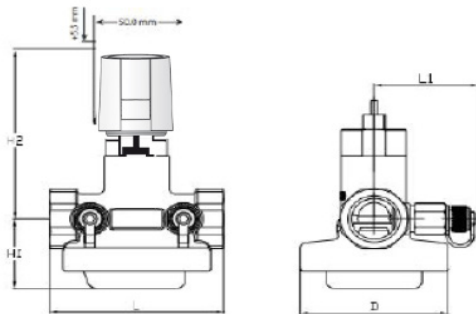
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Dimension Figure without Test plugs



DN	L mm	D mm	H1 mm	H2 mm
DN15	74	62	34	83.1
DN20	80	68	36	83.1
DN25	85	69	42.5	83.1
DN32	100	81	46.5	118.5

Dimension Figure with Test plugs



DN	L mm	L 1 mm	D mm	H1 mm	H2 mm
DN15	74	45.5	62	34	83.1
DN20	80	48	68	36	83.1
DN25	85	51	69	42.5	83.1
DN32	100	53	81	46.5	118.5

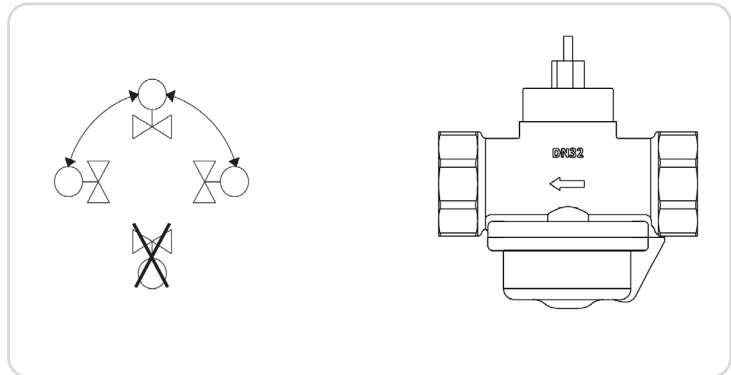
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Installation Instruction

1. When the valve is connected with pipeline, if the medium is chilled/hot water, downward installation is for bidden.



Note:
The medium flow direction in valve should be consistent with the medium of pipeline!



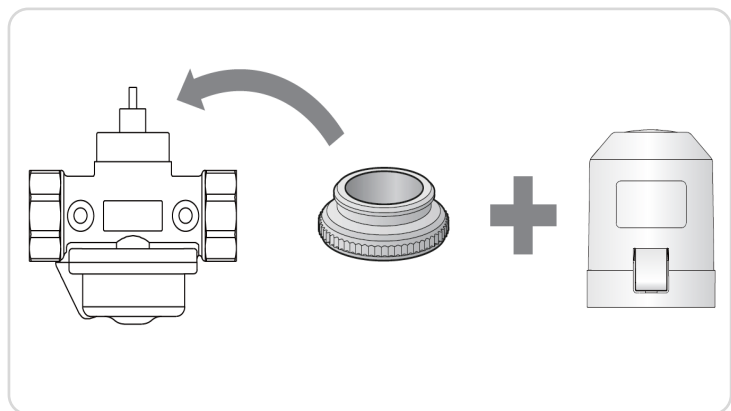
2. Using 10 mm spanner to regulate the max. opening, as shown in the picture, the scale pointed by the arrow is the max. opening.

Scale-flow (m³/h) Table									
No.	2	3	4	5	6	7	8	9	10
DN15	0.08	0.14	0.19	0.27	0.36	0.45	0.55	0.75	0.9
DN20	0.17	0.23	0.34	0.47	0.6	0.9	1.06	1.2	1.3
DN25	0.25	0.41	0.56	0.77	0.92	1.35	1.61	1.87	2
DN32	1.2	1.6	1.9	2.3	2.7	2.9	3.2	3.3	3.5

3. Install the actuator after the pipeline pressure testing.



Note:
If the actuator was installed on the valve when do the pipeline pressure testing, please make the actuator in a state of power on and valve open!



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Installation Notes

Installation Notes

1. The valve must be installed in a direction that is consistent with the medium flow direction of the pipeline. If the flow direction is inconsistent, the valve will lose balance function, if serious, it may cause the valve to fail to open after closing.
2. When the valve is connected with the pipeline, the external thread of the pipeline must meet the national standard, the dimension must meet the standard tolerance requirements. If the dimension is too large (due to the wear of thread used on site after long time usage, the external thread of pipeline will exceed the standard dimension), once the installation worker violently screwed, it will lead to irreparable cracking and leakage.
3. Concentricity of pipeline front and after of the valve should meet the requirement. If not, it will generate torque and damage the valve.
4. Valve installed on pipe with too much thermoxidation or rust and other dirty magazines as medium, resulting in the valve core operation is not flexible, cavity is blocked and other problems, not covered by the warranty.
5. Confirm the max. flow before installation. If the max. flow cannot be determined, please set the valve max. opening is 100% that is, the rotary dial is set to 10. If the large opening setting does not match the actual flow, it will result in the system may not reach to the designed flow.

Notices:

1. The valve body is in full open without installed actuator, so only the valve body need to be installed when do the water test and flushing of the pipeline.
2. The valve is fully closed when the actuator is installed and in the state of power failure. So only when the site has valve and automatic control equipment are energized, actuator can be installed, otherwise valve in a state of fully closed will affect the system trial operation.



Notices:

The valve must be fully open when pressed to test water. If the valve is in the closed state when pressed to test water, the DP between the front and back of the valve increases, it will damage the inner diaphragm of valve body, the valve will lose balance function, and the valve can't be closed, leading to large leakage rate, which caused serious impact for the valve using.

Valve

Valve Body	Brass Hpb59-1
Valve Core	Brass
Valve Stem	Stainless steel
Sealing Ring	PTFE
Diaphragm	EPDM

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