



SPECIFICATIONS

DN mm	DN15 - DN32
DN inch	1/2" - 1"1/4
Temperature	-10°C to 120°C
Type of body	F / F
Application	Cold/hot water, Glycol solution concentration < 50%
Connection	Threaded ISO 7-1 BSP
Test	EN 12266-2 (Test body safety and tightness, Test seat tightness)
Options	Other specifications on request

ADVANTAGES

• 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

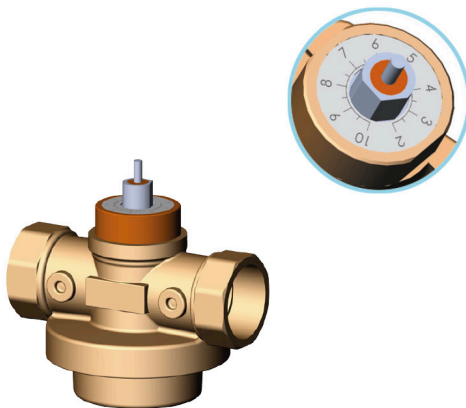
There is a blue display all the way around on the top of actuator, users can observe if the valve is open or close from it.

• 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.



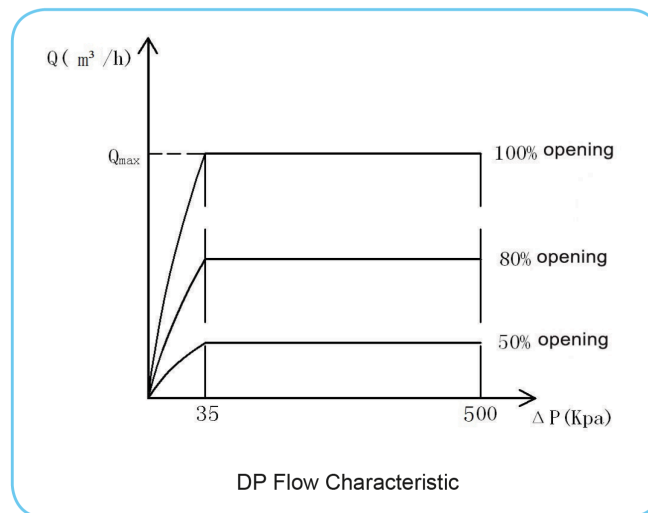
TYPE SUMMARY

PICV for FCU

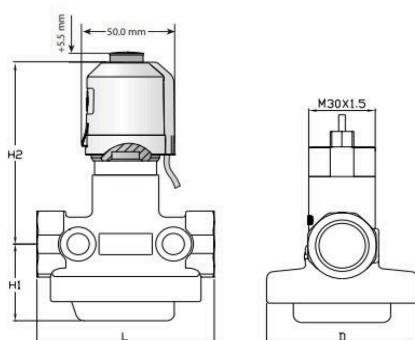
Series	TD100...
Actuator Rated Stroke	4mm
Nominal Output Force	100N
Icon	
Normally closed type 230VAC	TD100-B220
Proportional type 24VAC, 0~10VDC	TD100-X24

	Valve Body		Type	Type	DN	Stroke	Flow Qmax	ΔP_s
			PN16	PN25	[mm]	[mm]	[m ³ /h]	[Bar]
Medium Temp. -10 °C ~ 120 °C		Without test plug	TD2V-15	TD2VP-15	DN15	4	0.9	0.35-5
			TD2V-20	TD2VP-20	DN20	4	1.3	0.35-5
			TD2V-25	TD2VP-25	DN25	4	2.0	0.35-5
		With test plug	TD2V-15.CY	TD2VP-15.CY	DN15	4	0.9	0.35-5
			TD2V-20.CY	TD2VP-20.CY	DN20	4	1.3	0.35-5
			TD2V-25.CY	TD2VP-25.CY	DN25	4	2.0	0.35-5

FLOW CHARACTERISTIC



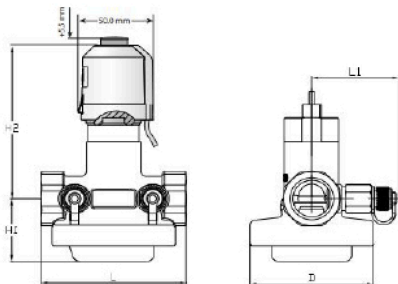
DIMENSION FIGURE WITHOUT TEST PLUGS



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



DIMENSION FIGURE WITH TEST PLUGS



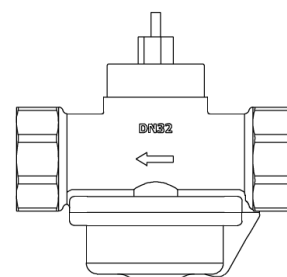
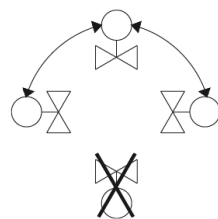
DN	L mm	L 1 mm	D mm	H1 mm	H2 mm
DN15	74	45.5	62	34	83.1
DN20	80	48	68	36	83.1
DN25	85	51	69	42.5	83.1

INSTALLATION INSTRUCTION

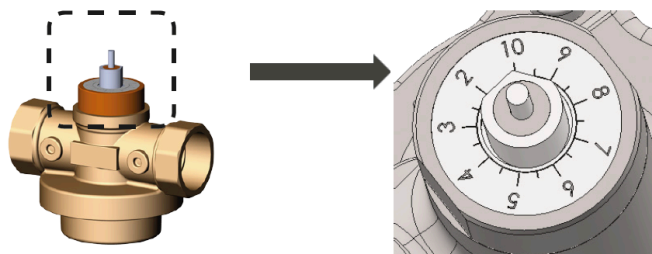
1. When the valve is connected with pipeline, if the medium is chilled/hot water, downward installation is forbidden.



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



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



Scale-Flow (m ³ /h) table									
DN	2	3	4	5	6	7	8	9	10
DN15	0.16	0.19	0.22	0.29	0.36	0.46	0.55	0.63	0.90
DN20	0.28	0.33	0.40	0.51	0.62	0.80	1.02	1.15	1.30
DN25	0.21	0.33	0.43	0.57	0.75	0.91	1.09	1.30	2.00

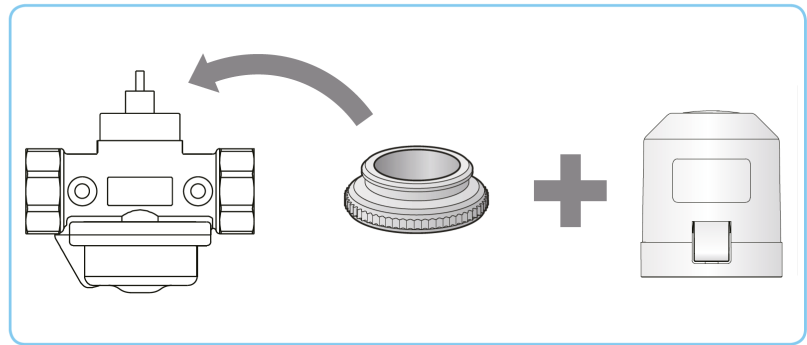


3. Install the actuator after the pipeline pressure testing.



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!



DESIGN

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 die 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 thermonatrite 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 can't 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.

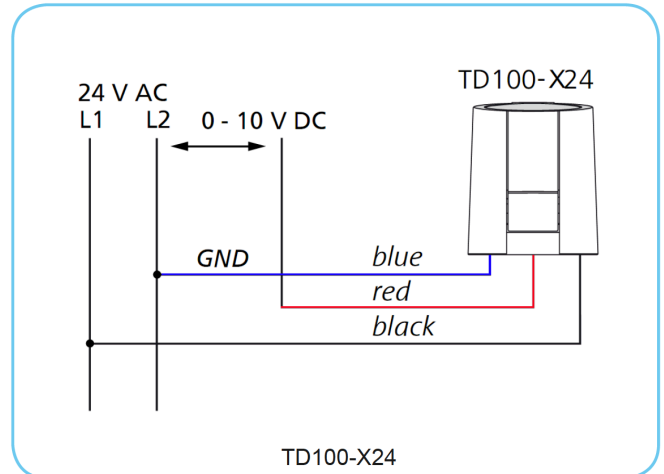
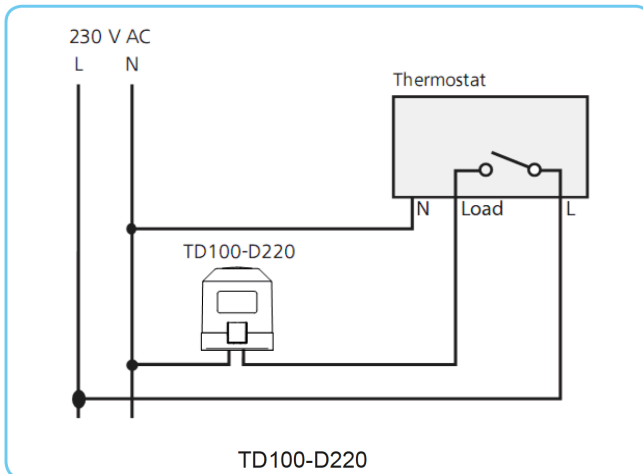


Notices :

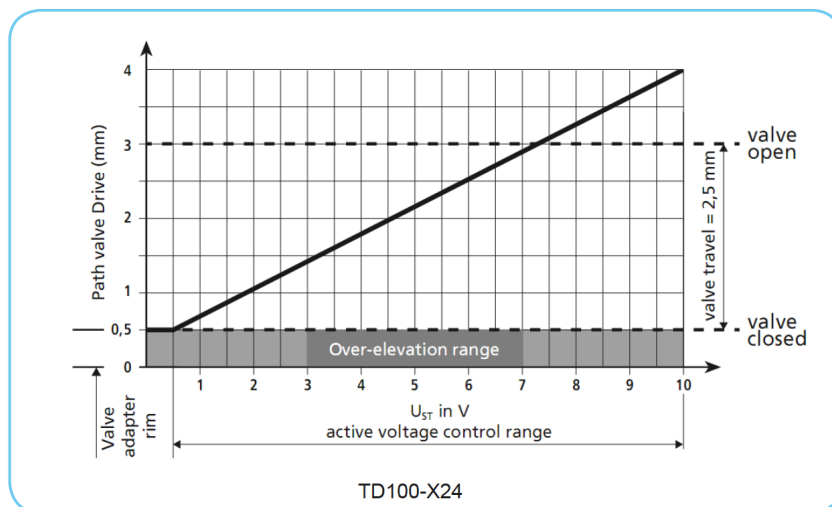
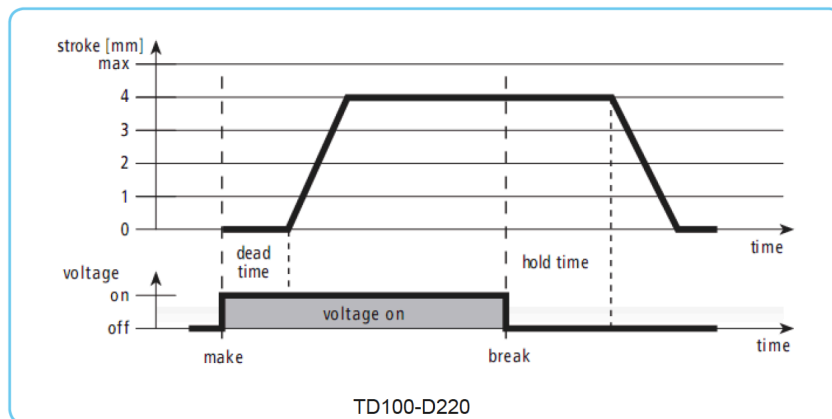
The valve must be fully open when pressed to test water. If the valve is in the closed state when pressed to test water, the DP between the front and back of the valve increases, it will damage the inner diaphragm of valve body, the valve will lose balance function, and the valve can't be closed, leading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



WIRING DIAGRAM



OPERATING CHARACTERISTIC



• Operating Parameters

Caliber Range	DN15~DN25
Permissible Pressure	PN16, PN25 are optional
Connection Standard	Female threaded connection ISO7-1
Close-off DP	400Kpa
Medium Temperature	-10~120°C
Permissible Medium	Chilled/hot water, glycol under 50%
Operating Voltage	220VAC 50/60Hz
Power Consumption	≥2W
Effective Torque	100N
Effective Stroke	≥4mm
Operating Environment	Temperature -10~60°C
Connection Thread	M30*1.5
Protection Level	IP54
Cable	2*0.75mm ²

• Spare Parts Material

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

