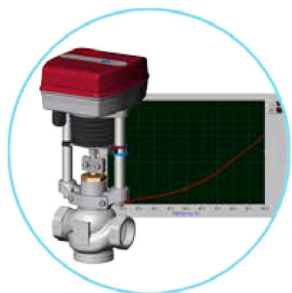




SPECIFICATIONS

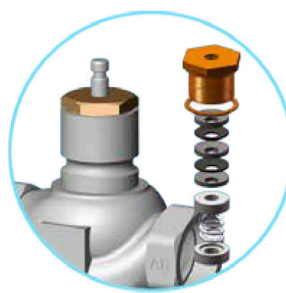
DN mm	DN15 - DN50
DN inch	1/2" - 2"
Temperature	-25°C to 130°C
Type of body	F/F, F/F/F
Application	Cold/hot water, Glycol solution concentration < 50%
Connection	Threaded ISO 7-1 BSP
Test	EN 12266-2 (Test body safety and tightness, Test seat tightness)
Options	Other specifications on request

ADVANTAGES



• Perfect Control Curve

The rangeability of valve is 100:1, equipped with TW...series actuator which can get a perfect equal-percentage control curve.



• V-ring Sealing Gland+ Spring Auto-compensation

Due to V-ring shape of the sealing gland, the effects of the inner hole shrinkage and cylindrical expansion of the sealing gland in the case of pressing by the spring, which ensures the sealing of the stem part is effective for a long time.



• Low Leakage Rate

The leakage rate of valve is no more than 0.01% Kvs, the valve core and valve seat sealing surface are all stainless steel which could avoid the damage caused by debris in medium.











• High-quality Material

The valve body is made of high-quality stainless steel, precision casting process makes the appearance of exquisite valve, excellent material strength is much higher than the copper valve.

Threaded valve









PN16

Series	TW600...	TW1000...
Actuator Rated Stroke	30mm	30mm
Nominal Output Force	600N	1000N
Icon		
Proportional type 0(2)-10VDC,0(4)-20mA	TW600-XD24-S.12	TW1000-XD24-S.12
3-position type(on/off)	TW600-XD24-S.12	TW1000-XD24-S.12
RS485 bus and NFC(optional)	TW600-XD24-S485.12	TW1000-XD24-S485.12
2 SPDT Feedback Function(optional)	TW600-XD24-SF2.12	TW1000-XD24-SF2.12

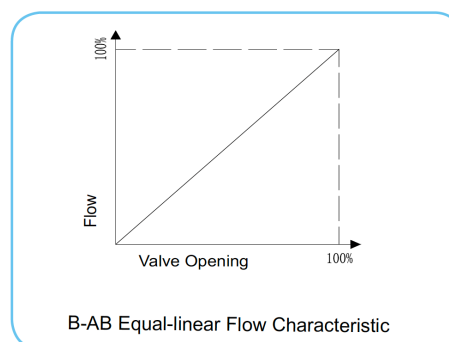
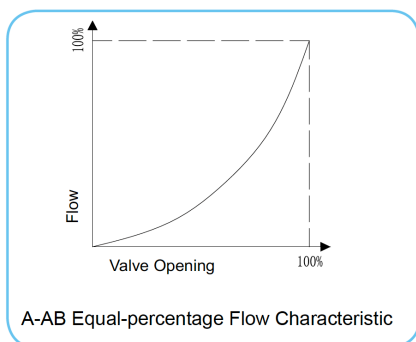
Valve Body	Type	DN	Stroke	Max.Flow Parameter Kvs	ΔPs	ΔPs
		[mm]	[mm]	[m³/h]	[MPa]	[MPa]
PN16, Medium Temp. -25 ~ 130°C  Female threaded water valve		TL15-2VBC-S.12-KVS0.63	DN15	10	0.63	1.60
		TL15-2VBC-S.12-KVS1.00	DN15	10	1.0	1.60
		TL15-2VBC-S.12-KVS1.60	DN15	10	1.6	1.60
		TL15-2VBC-S.12-KVS2.50	DN15	10	2.5	1.60
		TL15-2VBC-S.12	DN15	10	4.0	1.60
		TL20-2VBC-S.12	DN20	10	6.3	1.60
		TL25-2VBC-S.12	DN25	15	10	1.00
		TL32-2VBC-S.12	DN32	20	16	0.60
		TL40-2VBC-S.12	DN40	20	25	0.40
		TL50-2VBC-S.12	DN50	20	40	0.50
PN16, Medium Temp. 2 ~ 180°C  Female threaded steam valve		TL15-2SBC-S.12-KVS0.63	DN15	10	0.63	1.60
		TL15-2SBC-S.12-KVS1.00	DN15	10	1.0	1.60
		TL15-2SBC-S.12-KVS1.60	DN15	10	1.6	1.60
		TL15-2SBC-S.12-KVS2.50	DN15	10	2.5	1.60
		TL15-2SBC-S.12	DN15	10	4.0	1.60
		TL20-2SBC-S.12	DN20	10	6.3	1.60
		TL25-2SBC-S.12	DN25	15	10	1.60
		TL32-2SBC-S.12	DN32	20	16	1.00
		TL40-2SBC-S.12	DN40	20	25	0.70
		TL50-2SBC-S.12	DN50	20	40	0.50
PN16, Medium Temp. -25 ~ 130°C  Female threaded water valve (mixing)		TL15-3VBC-S.12-KVS0.63	DN15	10	0.63	1.60
		TL15-3VBC-S.12-KVS1.00	DN15	10	1.0	1.60
		TL15-3VBC-S.12-KVS1.60	DN15	10	1.6	1.60
		TL15-3VBC-S.12-KVS2.50	DN15	10	2.5	1.60
		TL15-3VBC-S.12	DN15	10	4.0	1.60
		TL20-3VBC-S.12	DN20	10	6.3	1.60
		TL25-3VBC-S.12	DN25	15	10	1.00
		TL32-3VBC-S.12	DN32	20	16	0.60
		TL40-3VBC-S.12	DN40	20	25	0.40
		TL50-3VBC-S.12	DN50	20	40	0.50
PN16, Medium Temp. -25 ~ 130°C  Female threaded water valve (diverting)		TL15-3VBC-S.12-KVS0.63	DN15	10	0.63	0.8
		TL15-3VBC-S.12-KVS1.00	DN15	10	1.0	0.8
		TL15-3VBC-S.12-KVS1.60	DN15	10	1.6	0.8
		TL15-3VBC-S.12-KVS2.50	DN15	10	2.5	0.8
		TL15-3VBC-S.12	DN15	10	4.0	0.8
		TL20-3VBC-S.12	DN20	10	6.3	0.8
		TL25-3VBC-S.12	DN25	15	10	0.50
		TL32-3VBC-S.12	DN32	20	16	0.30
		TL40-3VBC-S.12	DN40	20	25	0.20
		TL50-3VBC-S.12	DN50	20	40	0.25

Threaded Valve PN25

Series	TW600...	TW1000...
Actuator Rated Stroke	30mm	30mm
Nominal Output Force	600N	1000N
Icon		
Proportional type 0(2)~10VDC, 0(4)~20mA	TW600-XD24-S.12	TW1000-XD24-S.12
3-position type(on/off)	TW600-XD24-S.12	TW1000-XD24-S.12
RS485 bus and NFC(optional)	TW600-XD24-S485.12	TW1000-XD24-S485.12
2 SPDT Feedback Function(optional)	TW600-XD24-SF2.12	TW1000-XD24-SF2.12

Valve Body			Type	DN	Stroke	Max.Flow Parameter Kvs	ΔPs	ΔPs
				[mm]	[mm]	[m³/h]	[MPa]	[MPa]
PN25 , Medium Temp. -25 ~ 130°C			TL15-2VBD-	DN15	10	0.63	1.60	
			TL15-2VBD-S.12-KVS1.00	DN15	10	1.0	1.60	
			TL15-2VBD-S.12-KVS1.60	DN15	10	1.6	1.60	
			TL15-2VBD-S.12-KVS2.50	DN15	10	2.5	1.60	
			TL15-2VBD-S.12	DN15	10	4.0	1.60	
			TL20-2VBD-S.12	DN20	10	6.3	1.60	
			TL25-2VBD-S.12	DN25	15	10	1.00	1.60
			TL32-2VBD-S.12	DN32	20	16	0.60	1.00
			TL40-2VBD-S.12	DN40	20	25	0.40	0.70
			TL50-2VBD-S.12	DN50	20	40		0.50
PN25 , Medium Temp. 2 ~ 180°C			TL15-2SBD-S.12-KVS0.63	DN15	10	0.63		1.60
			TL15-2SBD-S.12-KVS1.00	DN15	10	1.0		1.60
			TL15-2SBD-S.12-KVS1.60	DN15	10	1.6		1.60
			TL15-2SBD-S.12-KVS2.50	DN15	10	2.5		1.60
			TL15-2SBD-S.12	DN15	10	4.0		1.60
			TL20-2SBD-S.12	DN20	10	6.3		1.60
			TL25-2SBD-S.12	DN25	15	10		1.60
			TL32-2SBD-S.12	DN32	20	16		1.00
			TL40-2SBD-S.12	DN40	20	25		0.70
			TL50-2SBD-S.12	DN50	20	40		0.50
PN25 , Medium Temp. -25 ~ 130°C			TL15-3VBD-S.12-KVS0.63	DN15	10	0.63	1.60	
			TL15-3VBD-S.12-KVS1.00	DN15	10	1.0	1.60	
			TL15-3VBD-S.12-KVS1.60	DN15	10	1.6	1.60	
			TL15-3VBD-S.12-KVS2.50	DN15	10	2.5	1.60	
			TL15-3VBD-S.12	DN15	10	4.0	1.60	
			TL20-3VBD-S.12	DN20	10	6.3	1.60	
			TL25-3VBD-S.12	DN25	15	10	1.00	1.60
			TL32-3VBD-S.12	DN32	20	16	0.60	1.00
			TL40-3VBD-S.12	DN40	20	25	0.40	0.70
			TL50-3VBD-S.12	DN50	20	40		0.50
PN25 , Medium Temp. -25 ~ 130°C			TL15-3VBD-S.12-KVS0.63	DN15	10	0.63	0.8	
			TL15-3VBD-S.12-KVS1.00	DN15	10	1.0	0.8	
			TL15-3VBD-S.12-KVS1.60	DN15	10	1.6	0.8	
			TL15-3VBD-S.12-KVS2.50	DN15	10	2.5	0.8	
			TL15-3VBD-S.12	DN15	10	4.0	0.8	
			TL20-3VBD-S.12	DN20	10	6.3	0.8	
			TL25-3VBD-S.12	DN25	15	10	0.50	0.80
			TL32-3VBD-S.12	DN32	20	16	0.30	0.50
			TL40-3VBD-S.12	DN40	20	25	0.20	0.35
			TL50-3VBD-S.12	DN50	20	40		0.25

FLOW CHARACTERISTIC

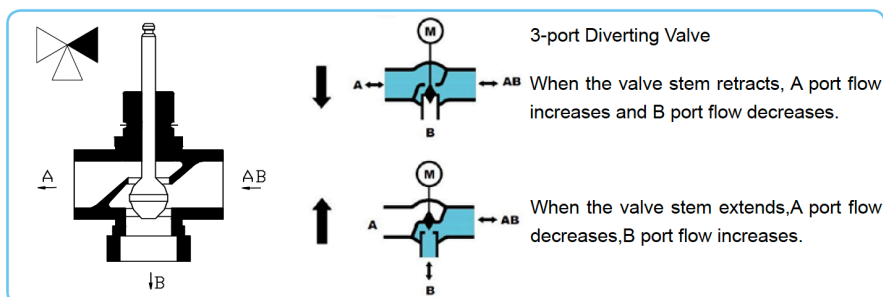
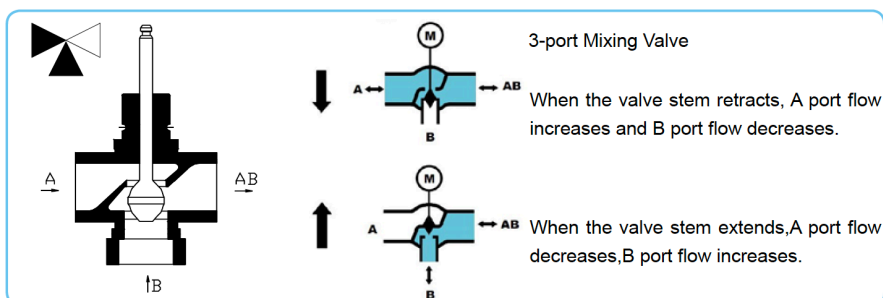
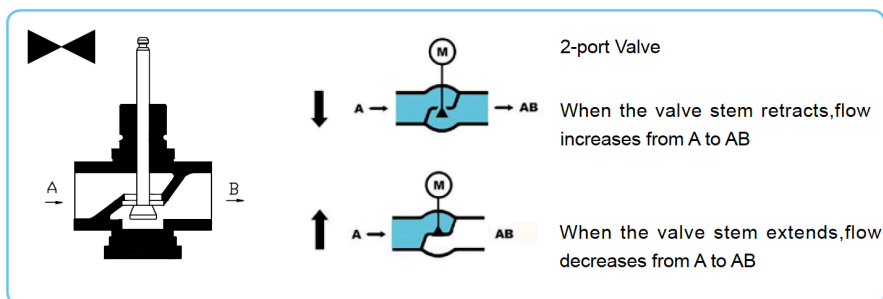


RELATIONSHIP BETWEEN DIFFERENTIAL PRESSURE AND FLOW

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

ΔP : Differential pressure when valve is full open (Unit: KPa)
 V : Rating flow at the ΔP (Unit: m³/h)
 Kvs : Nominal flow coefficient, which refer to the flow when medium (Density= 1g/cm³) go through the full open control valve, whose ΔP is 100KvPa.

STRUCTURE CHARACTERISTIC

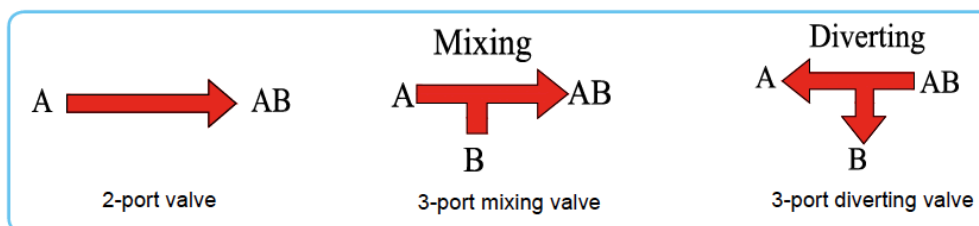


*Remark: DN15~DN50 3-port valve only has mixing valve, if diverting is needed, just exchange port A and AB and follow the plate instruction.

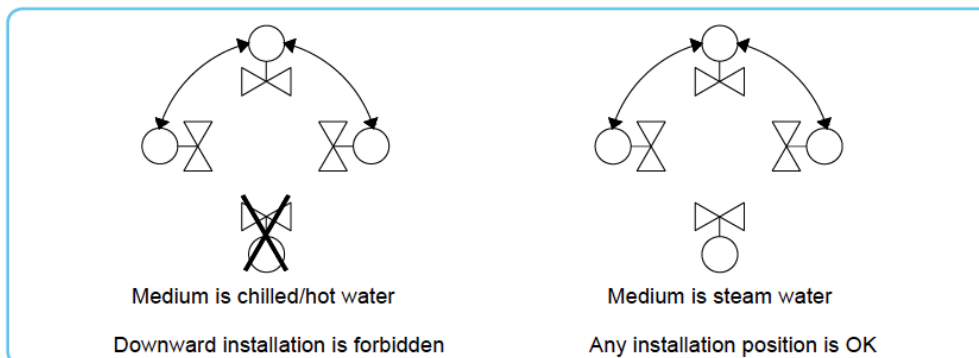


INSTALLATION INSTRUCTION

1. Please note that the medium flow direction in valve should be consistent with pipeline medium!



2. Please pay attention to the valve mounting orientation!



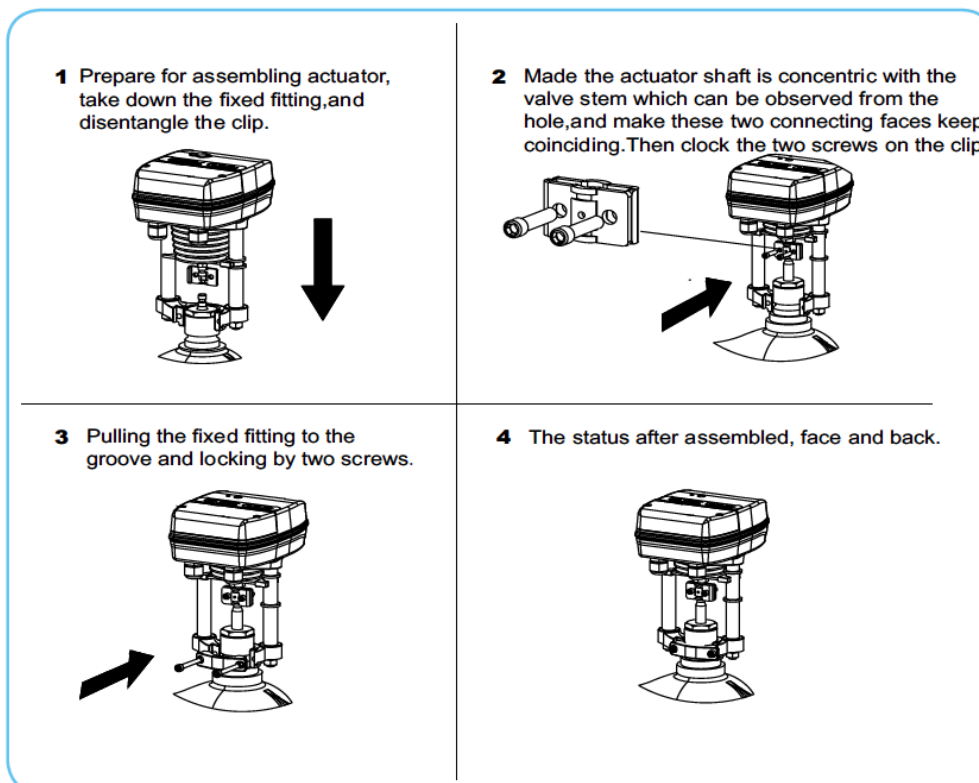
3. Valve can be installed on the water supply pipe or return water pipe (installed on the return water pipe can control the water flow more smoothly, meanwhile the return water temperature is lower which can extend the lifetime of valve). Besides, filter and check valve are recommended to be installed. When the medium is steam, install draw off valve in the pipe can remove the condensed water, or it will affect the lifetime of valve.

4. Valve and actuator can be assembled easily. Neither need any special tools nor need to do any adjustment.



Note:

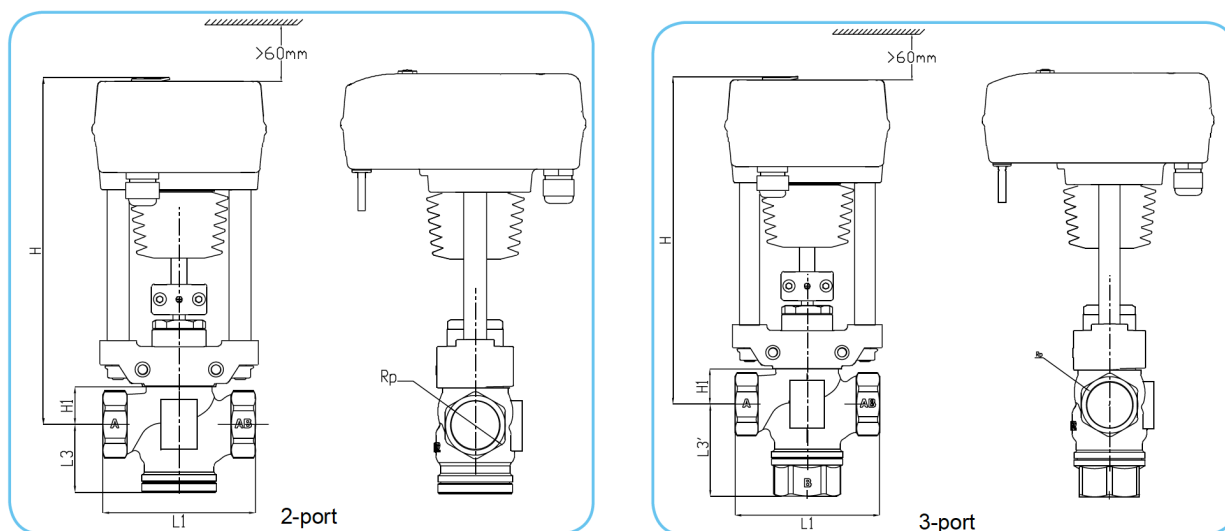
1. Prohibit installing outdoor to avoid PCB damage due to condensation and water
2. Rain cover and heating belt are necessary in case of outdoor installation



Item	Model	Description
Rain Cover	TRAIN-1	To prevent the actuator from rain
Heating Belt	THOT-3	To prevent condensation inside, the heating belt is built-in before delivery



DIMENSION FIGURE



DN	Rp	L1 mm	2-port L3 mm	3-port L3' mm	H1 mm	H2 mm	H mm (600N、1000N)	2-port Net Weight (kg)	3-port Net Weight (kg)
15	1/2"	75	38	53	20	97	275	1	1.1
20	3/4"	80	38	55	20	97	275	1.2	1.2
25	1"	105	43	60	26	103	281	1.6	1.6
32	1-1/4"	120	52.5	76	29.5	106	285	2	2.1
40	1-1/2"	130	53	79	36	113	291	2.5	2.6
50	2"	150	68	92	51	128	306	3.8	3.8

TECHNICAL PARAMETERS

• Operating Parameters

Caliber range	DN15~DN50
Permissible pressure	PN16, PN25 are optional
Connection standard	Female threaded connection ISO7-1
Leakage rate	
2-port	0...0.01% Kvs
3-port	0...0.02% Kvs
Permissible medium	
Water valve (-25~130°C)	Chilled/hot water, glycol under 50%
Steam valve (2~180°C)	Saturated steam (<0.69MPa), Overheated steam (<180°C)
Rangeability	>100:1
Flow Characteristic	A-AB equal-percentage flow characteristic B-AB equal-linear flow characteristic
Life cycles	100 thousand cycles

• Spare Parts Material

Valve body	Stainless steel
Valve stem	Stainless steel
Valve core	Stainless steel
Sealing ring	PTFE

