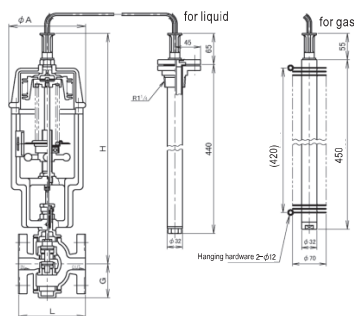# TD-2 Type Series Temperature Regulating Valve

General purpose, flanged temperature regulating valves for heating of water tank, heat exchanger, heavy oil heater etc. The series also include valves using water or coolant for cooling purpose. And we have a suitable models applicable in place where ambient temperature is higher than set temperature or applicable for the lower temperature of 40℃ or below.
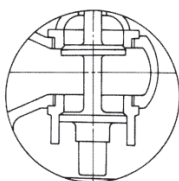

■ CONSTRUCTION
TD-2 Type

Depending on size, the structure may vary.
The bellows of TD-2L and TD-2AL Types have different structures.

TD-2A,2AL Type

■ LEAKAGE ALLOWANCE
(g/min or mL/min)

Size(mm)	15	20	25	32	40	50
TD-2 Type / TD-2A Type	20	20	20	26	32	40
TD-2L Type / TD-2AL Type	40	40	40	52	64	80

Size(mm)	65	80	100	125	150
TD-2 Type / TD-2A Type	52	64	80	100	120
TD-2L Type / TD-2AL Type	104	128	160	—	—

∗ Reading in g/min for testing fluid STEAM.
∗ Reading in mL/min for testing fluid WATER.

■ SPECIFICATIONS (Common use)

Utility	Heating	Low temp heating	Cooling	Low temp cooling
Model name	TD-2	TD-2L	TD-2A	TD-2AL
Size	15~150(½″~6″)	15~100(½″~4″)	15~150(½″~6″)	15~100(½″~4″)
Applicable fluid	Steam & hot water		Water & cold media	
Fluid temperature	Max. 184℃		Max. 60℃	
Seat type	Double seated			
Leakage allowance	Refer to table of leakage allowance			
End connection	Flanged JIS 10KFF			
Materials	Body(Cast iron), Disc & Seat(Cast bronze∗), Bellows(Phosphor bronze)			

Pressure limit at inlet	Size(mm)	15~40	50~65	80	100	125	150
	Limit(MPa)	1.0	0.7	0.5	0.4	0.35	0.2

Valve body pressure test	Hydraulic 1.5MPa

∗ Disc and seat with stainless steel are available upon your request.

■ SPECIFICATIONS TD-2 Type (Heating)、TD-2A Type (Cooling)

Model name	TD-2(Heating)		TD-2A(Cooling)	
Utility	Liquids	Gases	Liquids	Gases
Code name	TD2W-B □∗1.	TD2G-B	TD2AW-B	TD2AG-B
	※ 1, 2 or 3 for adjustment temperature range is required in □.			
Adjustment temperature range	1:40~60℃ 2:60~80℃∗2.∗3. 3:80~100℃		40~60℃, 50~70℃, 60~80℃, 70~90℃, 80~100℃∗2.∗3.	
Applicable ambient temperature	Setting temperature −10℃ or below			
Fluid to be heated or cooled	Water, oil & liquids	Gases	Water, oil & liquids	Gases
Length of capillary tube	Size 15~100mm:2m∗5. Size 125~150mm:4m∗5.			
Thermo bulb materials	Stainless steel	Stainless steel with stainless steel fin	Stainless steel	Stainless steel with stainless steel fin
Applicable pressure for thermo bulb	Max. 1.0MPa			

■ SPECIFICATIONS TD-2L Type (Low temp Heating),TD-2AL Type (Low temp Cooling)

Model name	TD-2L(Low temp heating)		TD-2AL(Low temp cooling)	
Utility	Liquids	Gases	Liquids	Gases
Code name	TD2LW-B	TD2LG-B	TD2ALW-B	TD2ALG-B
Adjustment temperature range	15~35, 20~40, 35~55℃			
Applicable ambient temperature	Setting temperature +20℃ or below			
Fluid to be heated or cooled	Water, oil & liquids	Gases	Water, oil & liquids	Gases
Length of capillary tube	Size 15~100mm:2m∗5. Size 125~150mm:4m∗5.			
Thermo bulb materials	Stainless steel	Stainless steel with stainless steel fin	Stainless steel	Stainless steel with stainless steel fin
Applicable pressure for thermo bulb	Max. 1.0MPa			

∗ 1. In case of size 100mm or bigger, the code name is TD2W-B.
∗ 2. Items other than the above adjustment temperature range are available upon your request.
∗ 3. In case of liquid use, adjustable temperature range 100~120℃.(With standing temperature 130℃) is available upon your request.
∗ 4. Refer to Page 132 for adjustable temperature range.
∗ 5. Length of capillary tube up to 5m is available upon your request.
∗ 6. In case of liquid use, for sizes 15~65mm (½″~2½″), the protection cap for thermo bulb, with non-standard dimension is available upon your request.

■ DIMENSIONS
(mm)

Size	L	G	H	A	Cv value	Mass(kg)
15(½″)	126	60	475	160	3	12.1
20(¾″)	130	60	475	160	3	12.4
25(1″)	140	70	485	160	4	13.5
32(1¼″)	150	75	490	160	6.5	15
40(1½″)	160	75	490	160	8	15.5
50(2″)	180	100	525	160	12.5	22.5
65(2½″)	215	115	535	160	18	29.2
80(3″)	260	125	580	180	25	38
100(4″)	300	150	605	180	40	57.5
125(5″)	360	180	745	220	70	75.6
150(6″)	382	205	770	220	110	125

Flange code JIS 10KFF

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TEMPERATURE REGULATING VALVE