

Temperature Regulating Valve

Model: TD-2

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 model applicable in place where ambient temperature is higher than set temperature or applicable for the lower temperature of 40°C or below.



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 medium				
Seat type	Double seated						
Leakage allowance	Refer to Table of Leakage allowance						
End connection	Flanged JIS 10KFF						
Applicable temperature	Max. 184°C						
Materials	Body (Cast iron), Disc & Seat (Cast bronze*), Bellows (Phosphor bronze)						
Valve body pressure test	Hydraulic 1.5MPa						
Pressure Limit	Size (mm)	15~40	50~65	80	100	125	150
At inlet	Limit (MPa)	1.0	0.7	0.5	0.4	0.35	0.2

*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
Adjustment temperature range	1:40~60°C 2:60~80°C 3:80~100°C	Adjustment temperature range is 20°C, between 40 and 100°C		
Applicable ambient temperature	Setting temperature -10°C 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	Copper tube, Chrome plated	Copper tube, Copper with fin	Copper tube, Chrome plated	Copper tube, Copper with 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	Adjustment temperature range is 20°C, between 15 and 55°C*3			
Applicable ambient temperature	Setting temperature +20°C 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	Copper tube, Chrome plated	Copper tube, Copper with fin	Copper tube, Chrome plated	Copper tube, Copper with fin
Applicable pressure for thermo bulb	Max. 1.0MPa			

*1. In case of size 100mm or bigger, code name is TD2W-B.

*2. Other than the above adjustment temperature range are available upon your request.

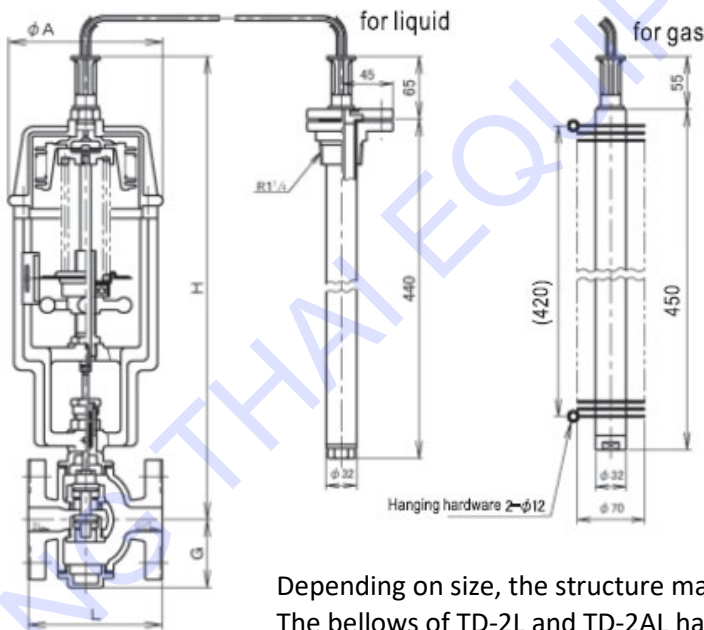
*3. In case of liquid use, adjustable temperature range 100~120°C.(With standing temperature 130°C) is available upon your request.

*5. Length of capillary tube up to 5m is available upon your request.

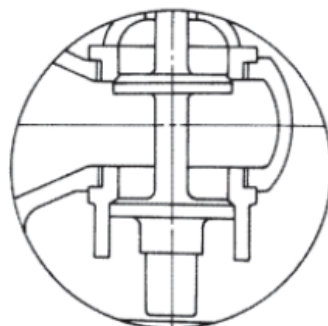
*6. In case of liquid use, Thermo bulb with Stainless steel Max.3.0MPa is available upon your request.

*7. In case of liquid use, for sizes 15-65mm (1/2"~2 1/2"), the protection cap for Thermo bulb, with non-standard (R1 1/2" x L440,etc.) and the Teflon protection are available upon your request.

Construction (TD-2 Type)



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



TD-2A,2AL Type

Dimensions

(mm)

Size	L	G	H	A	Cv value	Mass (kg)
15(1/2")	126	60	475	160	3	12.1
20(3/4")	130	60	475	160	3	12.4
25(1")	140	70	485	160	4	13.5
32(1 1/4")	150	75	490	160	6.5	15
40(1 1/2")	160	75	490	160	8	15.5
50(2")	180	100	525	160	12.5	22.5
65(2 1/2")	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

Leakage Allowance

(g/min or ml/min)

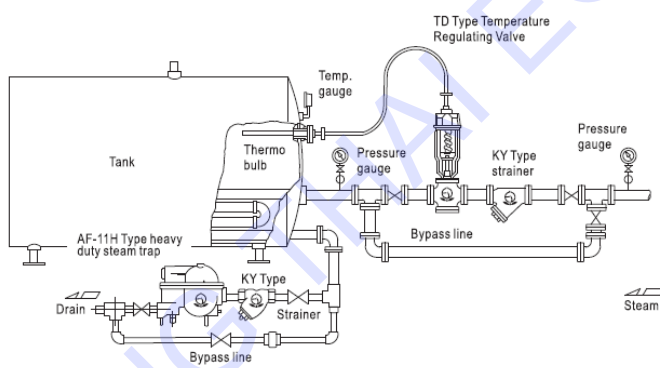
Size(mm)	15	20	25	32	40	50	65	80	100	125	150
TD-2 Type TD-2A Type	20	20	20	26	32	40	52	64	80	100	120
TD-2L Type TD-2AL Type	40	40	40	52	64	80	104	128	160	-	-

*Reading in g/min for testing fluid STEAM.

*Reading in ml/min for testing fluid WATER.

PIPING EXAMPLE

Fig.1 Piping for liquids



Note: It's required that the safety relief valve should be installed on the tank side.

Fig.2 Piping for gases

