

OB-4,4G

Direct acting type	Pilot operated type	Heating	Cooling
Bellows	Diaphragm	Single valve	Double valve
Soft seat			



■Features

1. These temperature regulators do not require any adjusting tool because equipped with an adjusting handle which leads to easy adjustment.
2. Since these temperature regulators adopt a dual-valve structure, the flow rate is larger than that of single-valve temperature regulators.
3. Excellent accuracy since special packing is used for spindle gland packing which affects opening/closing operation of the valve.
4. OB-4G ensures distinguished temperature resistance due to an external pressure type bellows.

■Specifications

Model		OB-4	OB-4G
Application	Cooling	Cold water, Refrigerant	
	Cooled	Cold and hot water, Oil, Non-dangerous fluid	
Max. pressure	Body	15A-40A: 0.7 MPa [1.0 MPa] 50A: 0.5 MPa [0.7 MPa] 65A: 0.5 MPa [0.7 MPa] 80A: 0.4 MPa [0.5 MPa] 100A: 0.4 MPa 125A: 0.2 MPa (0.35 MPa for OB-4) 150A: 0.2 MPa	
	Thermal valve	1.0 MPa	
Maximum temperature		180°C	
Temperature adjusting range	For liquid	40-120°C	15-100°C
	For air	40-120°C	15-100°C
Ambient temperature		Set temp. -10°C or less	Set temp. 30°C or less
Material	Body	Cast iron	
	Valve, valve seat	Bronze (Stainless steel)	
	Valve spindle	Stainless steel	
	Bellows	Phosphor bronze	
	Thermal valve	Stainless steel	
Standard capillary length		15A-80A: 2 m 100A-150A: 3 m	
Connection		JIS 10K FF flanged	

* Valve seat leakage: Refer to P.18-39.

* If the ambient temperature is higher than the set temperature or less than 40°C, use the OB-4G (with external pressure type bellows).

- Available with capillary of up to 5 meter. (Please refer to P.13-42 for errors of set temperature).
- Available with Max. temperature inside []. (Valve and valve seat material, and bellows is different from standard type).
- Available with temperature adjusting range of 30°C. (For OB-4 only).
- Available with thermal well (SUS304 made or with a PTFE cap) for liquid.

■Temperature Adjusting Range

· OB-4

Temperature adjusting (°C)		Withstand temperature (°C)
For liquid	For air	
40-60	40-60	70
50-70	50-70	80
60-80	60-80	90
80-100	80-100	110
100-120	100-120	130

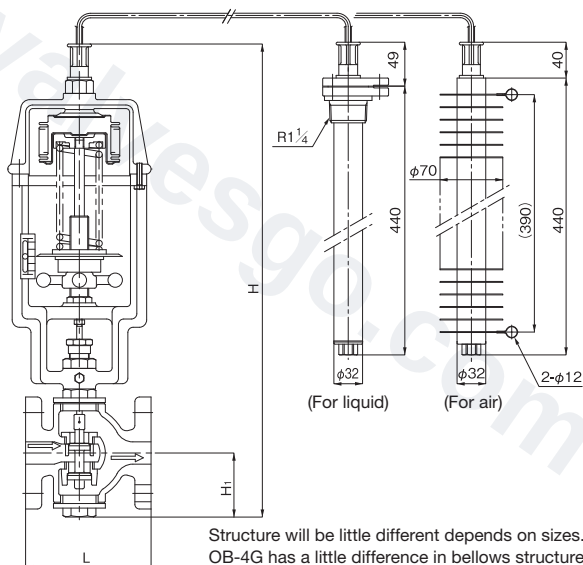
· The term "Withstand temperature" means the temperature from pressure resistance of the bellows.

· OB-4G

Temperature adjusting (°C)		Withstand temperature (°C)
For liquid	For air	
15-35	15-35	50
20-40	20-40	50
35-55	35-55	70
40-60	40-60	90
50-70	50-70	100
60-80	60-80	110
70-90	70-90	120
80-100	80-100	130

· The term "Withstand temperature" means the temperature from pressure resistance of the bellows.

■Dimensions (mm) and Weights (kg)

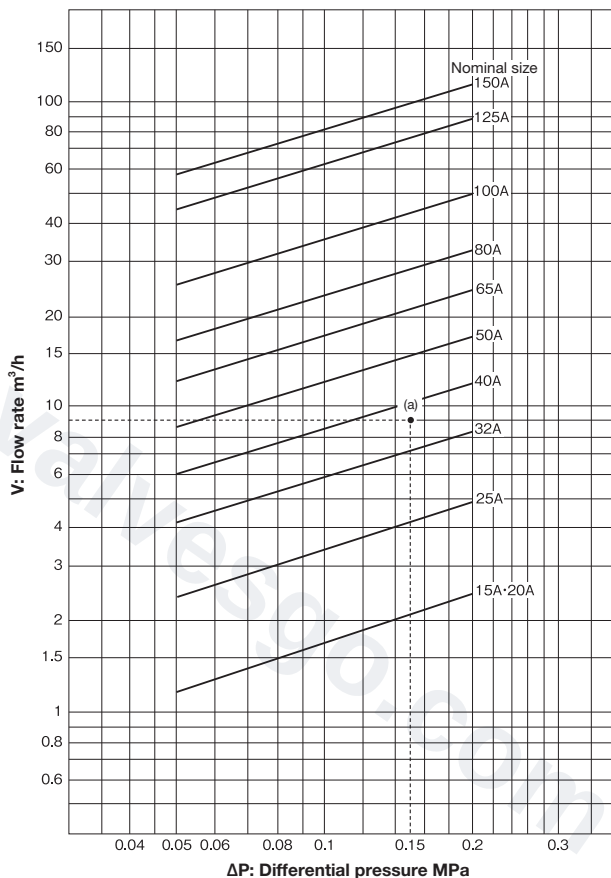


Structure will be little different depends on sizes.
OB-4G has a little difference in bellows structure.

Nominal size	L	H ₁	H	Weight
15A	126	60	520	15
20A	130	60	520	16
25A	140	70	540	18
32A	150	75	550	21
40A	160	75	550	23
50A	180	110	620	29
65A	215	125	650	38
80A	260	135	670	48
100A	300	160	750	58
125A	360	190	810	76
150A	382	220	980	125

· OB-4G comes in nominal size up to 125A.

■OB-4,4G Nominal Size Selection Chart (For Water)



How to use the chart

When inlet pressure is 0.3 MPa, outlet pressure is 0.15 MPa, and flow rate is 9 m^3/h , first find the intersection point (a) with the differential pressure (ΔP) 0.15 MPa (0.3 MPa – 0.15 MPa) before and after valve and the flow rate 9 m^3/h . Since this intersection point (a) locates between nominal sizes 32A and 40A, select the larger one, 40A.

* Chart of the flow rate is a reference value.