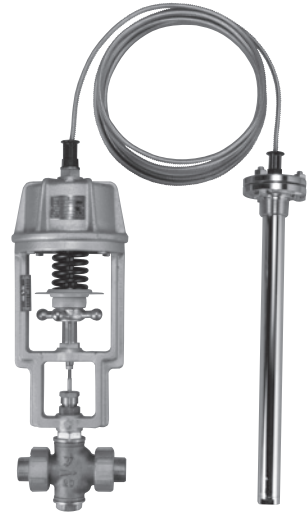


OB-1,1G

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



■Features

1. Easy plumbing due to union type connection screw.
2. No need for adjusting tool due to the attached adjusting handle, making adjustment easy.
3. Double valve structure offers larger flow rate than single valve type.
4. Excellent accuracy since special packing is used for spindle gland packing which affects opening/closing operation of the valve.
5. The OB-1G ensures distinguished temperature resistance due to external pressure type bellows.

■Specifications

Model		OB-1	OB-1G
Application	Heating	Steam, Hot water	
	Heated	Cold and hot water, Oil, Non-dangerous fluids	
Maximum pressure	Body	0.7 MPa	
	Thermal bulb	1.0 MPa	
Max. 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 temperature -10°C or less	Set temperature +30°C or less
Material	Body	Cast bronze	
	Valve	Phosphor bronze	
	Valve spindle	Stainless steel	
	Bellows	Phosphor bronze	
	Thermal bulb	Stainless steel	
Standard capillary length		2 m	
Connection		JIS Rc screwed (union joint)	

* Valve seat leakage: Refer to P.13-43.

- If the ambient temperature is higher than the set temperature or less than 40°C, use the OB-1G (with external pressure type bellows).
- Available with capillary of up to 5 meter. (Please refer to P.13-46 for errors of set temperature).
- Available with thermal well (SUS304 made or with a PTFE cap) for liquid.

Temperature Adjusting Range

· OB-1

Temperature adjusting range (°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

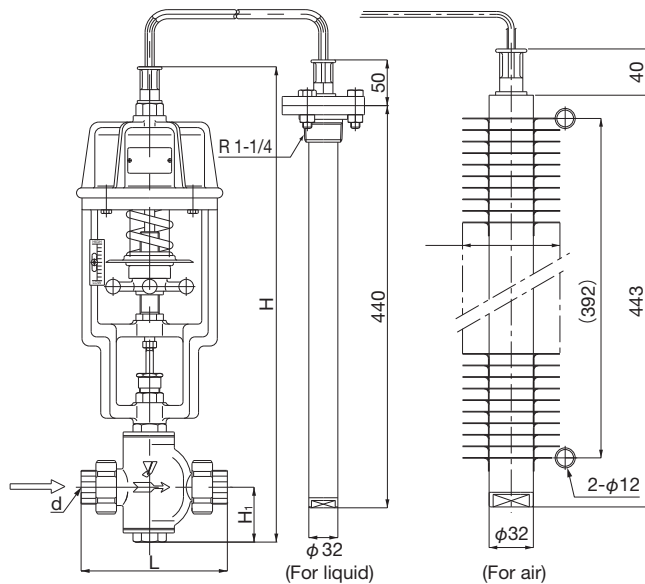
- The term "withstand temperature" means the temperature from pressure resistance of the bellows.
- Available with temperature adjusting range of 30°C (the OB-1 only).

· OB-1G

Temperature adjusting range (°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.

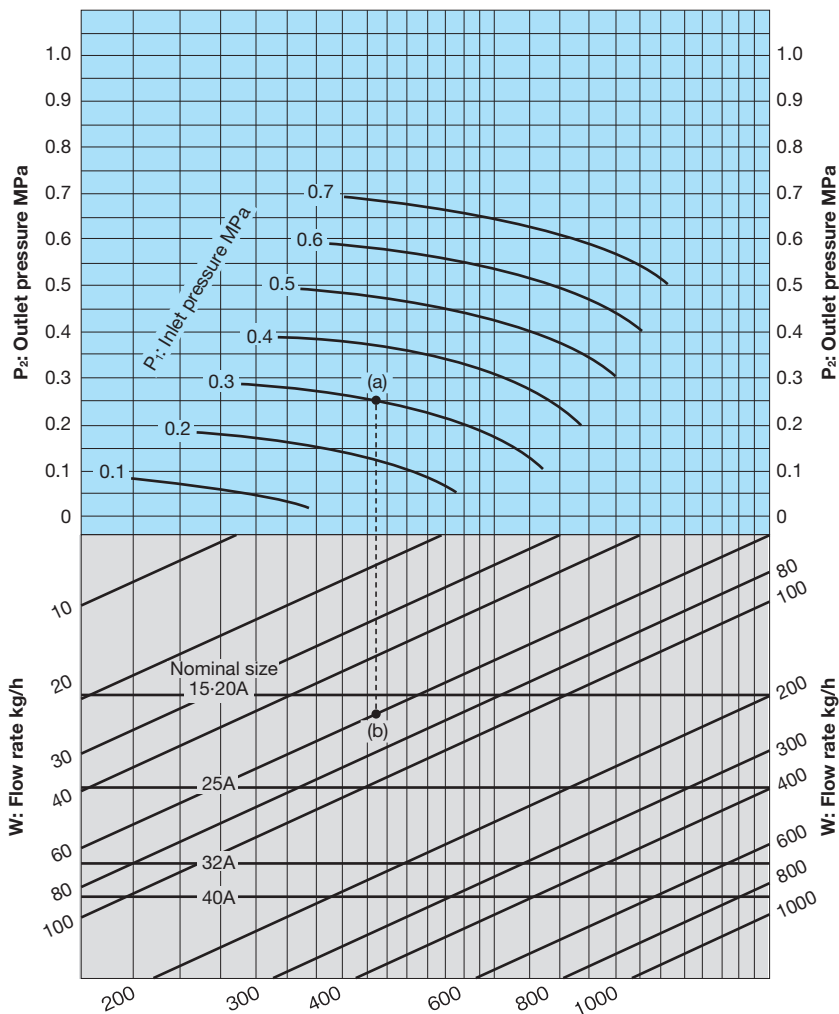
Dimensions (mm) and Weights (kg)



OB-1G has a little difference in bellows structure.

Nominal size	d	L	H ₁	H	Weight
15A	Rc 1/2	148	55	510	11
20A	Rc 3/4	148	55	510	11
25A	Rc 1	160	60	520	12
32A	Rc 1-1/4	195	60	520	12
40A	Rc 1-1/2	210	65	530	13

■Nominal Size Selection Chart (For Steam)



How to use the chart

When selecting the nominal size of a temperature regulator whose inlet pressure (P_1), outlet pressure (P_2), and steam flow rate are 0.3 MPa, 0.25 MPa, and 60 kg/h, respectively, first find intersection point (a) of the inlet pressure of 0.3 MPa and the outlet pressure of 0.25 MPa. Trace down vertically from this intersection point (a) to find intersection point (b) with the flow rate of 60 kg/h. Since this intersection point (b) lies between nominal sizes 15A or 20A and 25A, select the larger one, 25A.

* Chart of the flow rate is a reference value.

■Valve Seat Leakage

Unit: steam (kg/h), water (ℓ/h)

15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A
1.5	1.5	1.8	2.4	3.0	3.6	4.8	6.0	7.2	9.0	10.8

* The values in the table above are max. valve seat leakage observed under the conditions of 0.5 MPa or max. pressure and set temperature + 5°C (-5°C for cooling).