GD-400·400SS

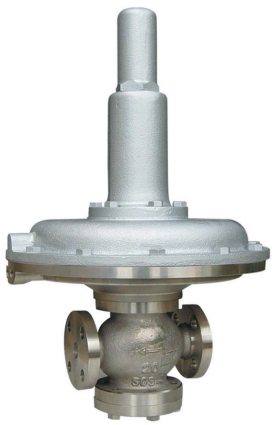
Features

1. Pressure balance structure can keep the reduced pressure at a constant level without being affected by inlet pressure.
2. Due to simple structure, disassembly and maintenance can be conducted easily.
3. Wide range of use due to high maximum pressure ratio.
4. Diaphragm with a large pressure sensing area has accuracy to high set pressure.

Specifications

Model		GD-400	GD-400SS
Nominal size		15-25A	
Application		Air, Nitrogen gas *1	
Inlet pressure		2.5-400 kPa	
Reduced pressure		(A) 0.5-1.4 kPa (B) 1.2-3.3 kPa (C) 3.0-8.0 kPa (D) 7.0-20 kPa	
Working temperature		5-60˚C	
Minimum differential pressure		2.0 kPa	
Maximum pressure reduction ratio		400:1	
Reduced pressure detection method		External sensing *2	
Minimum adjustable flow rate		1.2 m³/h (standard condition)	
Material	Body	Cast iron	Cast stainless steel (SCS14)
	Valve	Stainless steel	
	Valves seat	Stainless steel	
	Disc	NBR *3	
	Spindle	Stainless steel	
	Diaphragm	NBR *3	
Connection		JIS 10K FF flanged	

*1 Please contact us when using for other fluids.
*2 A conduit (ϕ 8-2 m) and a joint for external sensing are optional extras.
*3 Available with FKM type.

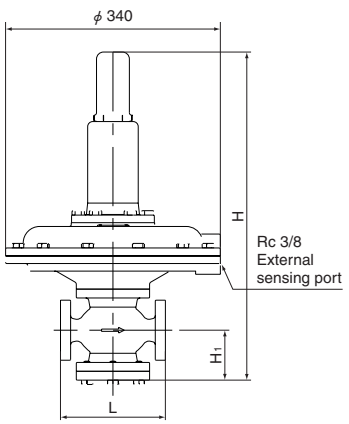


GD-400SS

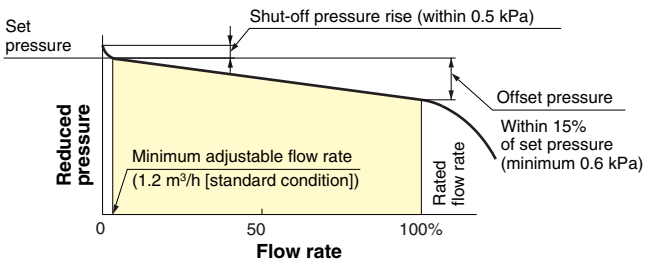
Dimensions (mm) and Weights (kg)

Nominal size	L	H1	H	Weight
15A	166	86	526	29.0 (32.0)
20A	170	86	526	29.0 (32.0)
25A	170	86	526	30.0 (33.0)

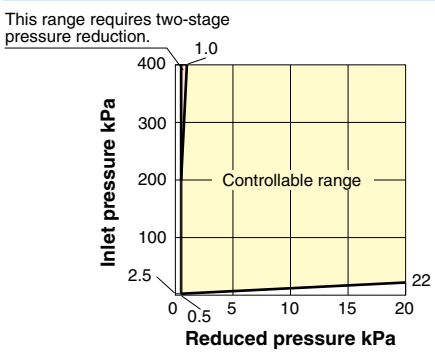
・ The values in parentheses are the weights of the GD-400SS.



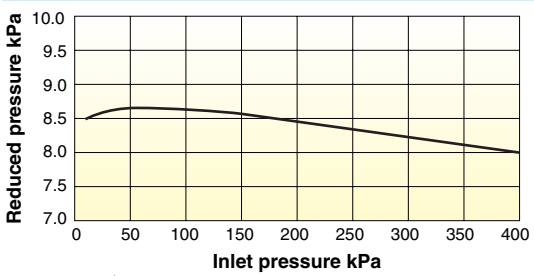
Flow Characteristic Chart



Specifications Chart

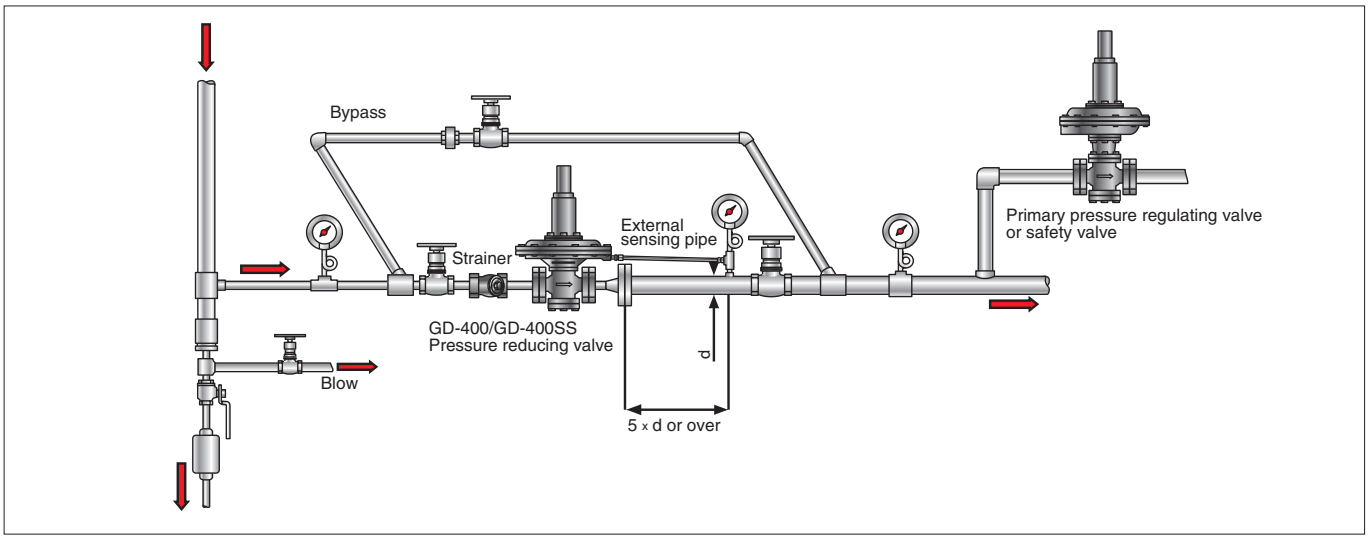


Pressure Characteristic Chart



This chart shows variation in reduced pressure when the inlet pressure of 400 kPa is changed to 10 kPa while the reduced pressure is set at 8.0 kPa.

Piping Diagram Example



[Precautions]

1. Connect the external sensing part to the outlet side.
2. Do not adjust needle valve of the pressure reducing valve.
3. For the outlet side pipe, use a pipe with a diameter that can keep the inside flow velocity between 5 m/s and 15 m/s.
4. When performing pressure test or airtight test after connected to the piping, apply the airtest pressure specified in the right table.
   - If pressure beyond the specified airtest pressure is applied, internal parts may be damaged.

Airtight test	Airtight test pressure			
	Inlet pressure			400 kPa or less
	Reduced pressure	Pressure range	A	1.8 kPa or less
			B	4.2 kPa or less
			C	10 kPa or less
			D	25 kPa or less

Chart for Selecting Nominal Sizes

●When the inlet pressure is between 2.5 kPa and 200 kPa (Fluid: 20˚C Air)

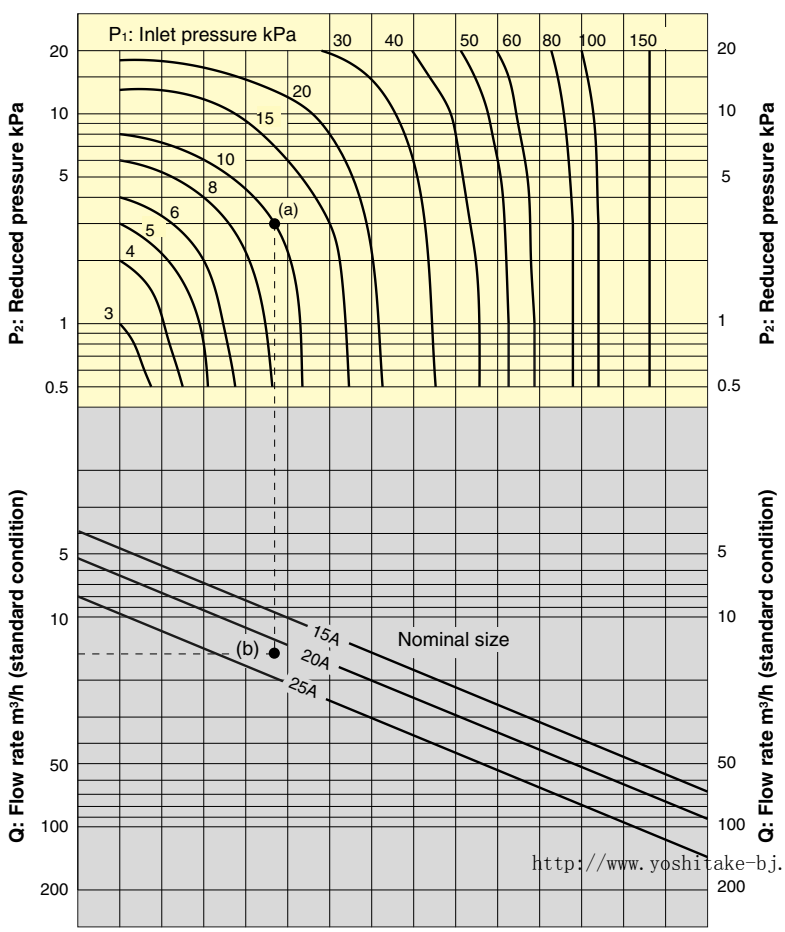


Table 1: When the inlet pressure is between 200 kPa and 400 kPa

Nominal size	Inlet pressure (kPa)	Rated flow rate (m³/h [standard condition])	
		Reduced pressure (kPa)	
		0.5-4	4-20
15A	200-400	60	60
20A	200-300	90	90
	300-400	90	120
25A	200-300	120	120
	300-400	120	150
	400	120	190

[Example]

When selecting the nominal size of a pressure reducing valve whose inlet pressure (P_1), reduced pressure (P_2), and flow rate are 10 kPa, 3 kPa, and 15 m³/h (standard condition), respectively, first find intersection point (a) of the inlet pressure of 10 kPa and the reduced pressure of 3 kPa. Trace down vertically from this intersection point to find intersection point (b) with the flow rate of 15 m³/h (standard condition). Since intersection point (b) lies between nominal sizes 20A and 25A, select the larger one, 25A.

- Set the safety factor at 80 to 90%.