

# GD-41,43,41G,43G



- Direct type  Pilot type  Piston  Diaphragm
- Bellows  Internal sensing  External sensing  Stainless steel
- With handle  Built-in strainer  Low pressure  Remote
- Valve leakage 0  Nylon

## ■Features

1. Space saving and resource saving are achieved (used materials are shown on the body and lower cap, thus separate collection of parts for resource recycling is easy).
2. Stainless steel (SCS14A and SUS316) is used for wetted parts, improving corrosion resistance.
3. PTFE covers diaphragm contact surface to fluid, making the diaphragm less liable to deteriorate and highly durable.
4. Special fluorine-contained rubber parts are resistant to corrosion.
5. Pressure balance structure can keep the reduced pressure at a constant level without being affected by inlet pressure.
6. Closed structure keeps fluid from flowing to outside even if the diaphragm is damaged or broken.
7. Safe fluorine grease is applied to O-ring.
8. Can be applied to piping washing, system washing, sterilization washing and steam for sterilization.



GD-41, 41G



GD-43

## ■Specifications

Model	GD-41	GD-43-10	GD-43-20	GD-41G	GD-43G-10	GD-43G-20
Application	Cold and hot water			Air, Carbon dioxide gas *1, Nitrogen gas		
Inlet pressure	0.07-2.0 MPa (0.2 MPa or less for steam for washing or sterilization) *2					
Reduced pressure	(A) Yellow spring: 0.02-0.1 MPa [Standard setting: 0.05 MPa] (B) Red spring: 0.1-0.25 MPa [Standard setting: 0.1 MPa] (C) Black spring: 0.25-0.5 MPa [Standard setting: 0.3 MPa]					
Minimum differential pressure	0.05 MPa					
Maximum pressure reduction ratio	Cold and hot water: 10:1 Air, Carbon dioxide gas, Nitrogen gas: 20:1					
Fluid temperature	5-90°C (The maximum temperature of steam for washing or sterilization is 130°C. Allow an interval of at least four hours between steam flows.)					
Material	Body	Cast Stainless steel (SCS14A)				
	Valve disc	Special synthetic rubber (special FKM)				
	Diaphragm	Heat-resistant synthetic rubber and PTFE (PTFE applied to wetted face)				
Connection	JIS Rc screwed	JIS 10K FF flanged	JIS 20K RF flanged	JIS Rc screwed	JIS 10K FF flanged	JIS 20K RF flanged

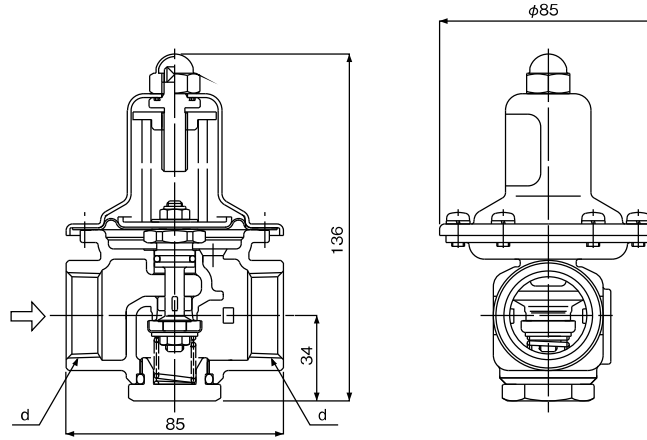
- \*1 Please contact us when using for carbon dioxide gas.
- \*2 The inlet pressure of the GD-43-10 and GD-43G-10 is 0.07 to 1.0 MPa.
- If using for washing steam or sterilization steam, be sure that maximum temperature is 130°C and avoid continuous use for more than 30 minutes.
- Available with pressure gauge (JIS Rc 1/8 screwed).



GD-41, 43

■Dimensions (mm) and Weights (kg)

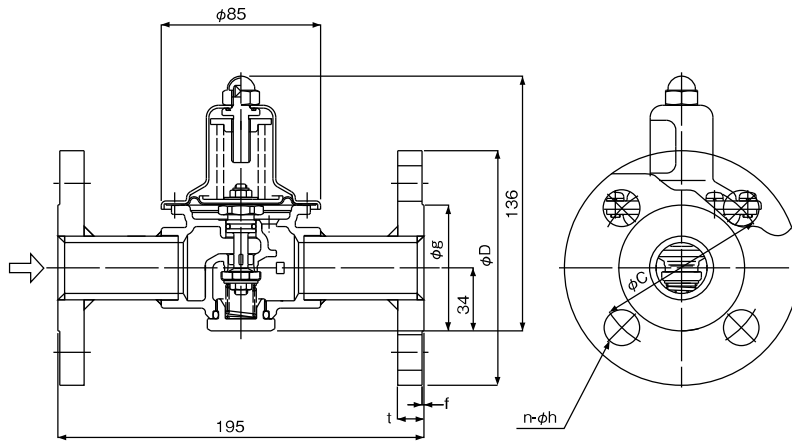
· GD-41 · 41G



\* All dimensions are same except connection size.

Nominal size	d	Weight
15A	Rc 1/2	1.2
20A	Rc 3/4	1.1
25A	Rc 1	1.0

· GD-43 · 43G



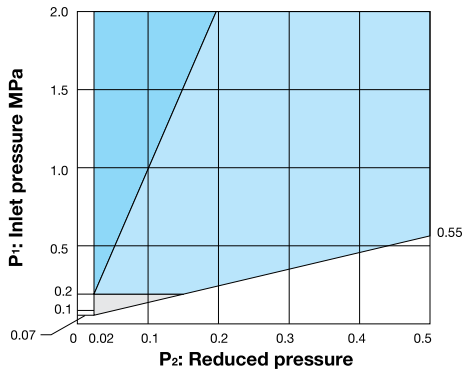
\* All dimensions are same except flange size.

Nominal size	Weight
15A	2.8 (2.6)
20A	3.0 (2.9)
25A	4.0 (3.7)

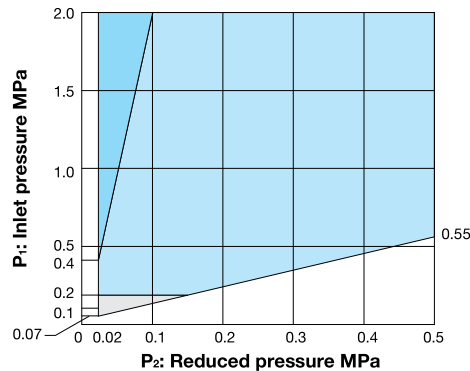
\* The values in parentheses are the weights of the GD-43G-10.

Specifications Selection Chart

(Cold and hot water)

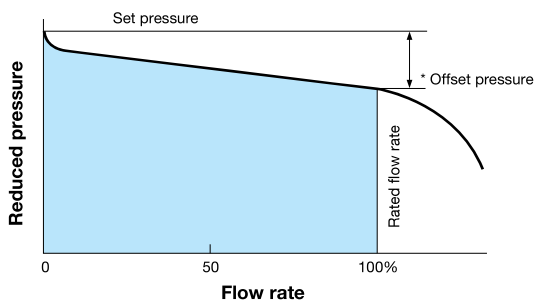


(Air, carbon dioxide gas, and nitrogen gas)



- Controllable range
- Range requiring two-stage pressure reduction
- Range controllable and also compatible with steam for washing or sterilization

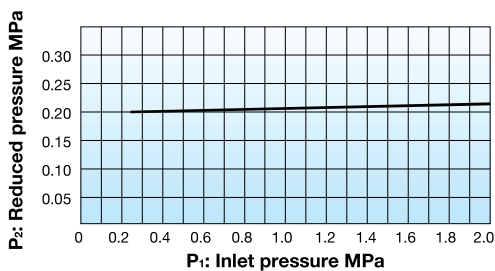
Flow Characteristic Chart



\* Offset pressure

Set pressure	Offset pressure
0.2 MPa or less	Within 0.05 MPa
More than 0.2 MPa	Within 0.08 MPa

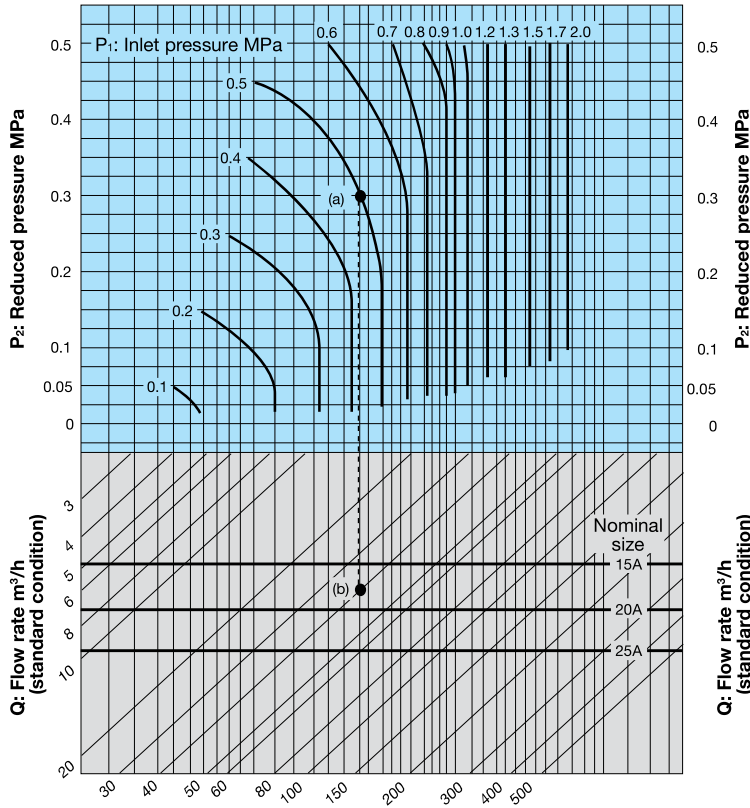
Pressure Characteristic Chart



This chart shows variation in reduced pressure when the inlet pressure of 0.25 MPa is changed to 2.0 MPa while the reduced pressure is set at 0.20 MPa.

Pressure Reducing Valve

■ Nominal Sizes Selection Chart (For Air)

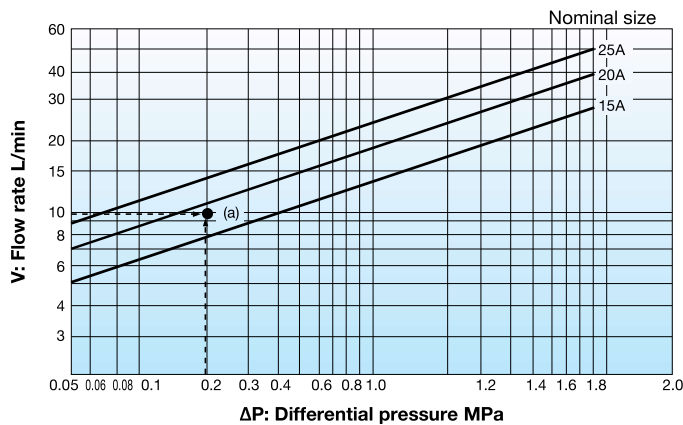


[Example]

When selecting the nominal size of a pressure reducing valve whose inlet pressure (P<sub>1</sub>), reduced pressure (P<sub>2</sub>), and flow rate are 0.5 MPa, 0.3 MPa, and 40 m<sup>3</sup>/h (standard condition), respectively, first find intersection point (a) of the inlet pressure of 0.5 MPa and the reduced pressure of 0.3 MPa. Trace down vertically from this intersection point to find intersection point (b) with the flow rate of 40 m<sup>3</sup>/h (standard condition). Since intersection point (b) lies between nominal sizes 15A and 20A, select the larger one, 20A.

\* Set the safety factor at 80 to 90%.

■ Nominal Sizes Selection Chart (For Cold and Hot Water)



[Example]

When selecting the nominal size of a pressure reducing valve whose inlet pressure (P<sub>1</sub>), reduced pressure (P<sub>2</sub>), and flow rate are 0.5 MPa, 0.3 MPa, and 10 L/min, respectively, trace up vertically from the 0.2 MPa point of differential pressure before and after the valve to find intersection point (a) with the flow rate of 10 L/min. Since intersection point (a) is between nominal sizes 15A and 20A, select the larger one, 20A.