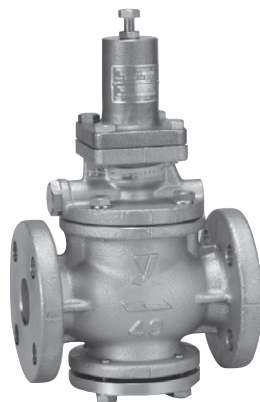


# GP-1000TSS, 1000TAS

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		



GP-1000TAS

## ■ Features

1. Stainless steel is used for wetted parts (GP-1000TSS) and all parts (GP-1000TAS), improving corrosion resistance.
2. Free of valve seat leakage. Improved workability as a result of refinement of sliding parts.
3. Simple and robust internal structure.

## ■ Specifications

Stainless steel wetted parts

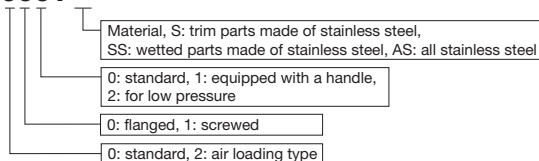
All stainless steel

Model	GP-1000TSS	GP-1000TAS
Application	Air, Other non-dangerous fluids	
Inlet pressure	0.1-1.0 MPa	
Reduced pressure	0.05-0.9 MPa	
Adjusted reduced pressure	90% or less of inlet pressure (gauge pressure)	
Minimum differential pressure	0.05 MPa	
Maximum pressure reduction ratio	20:1	
Application temperature	5-80°C	
Valve seat leakage	None	
Material	Body	Cast stainless steel
	Valve	Stainless steel (NBR contained)
	Valve seat	Stainless steel
	Piston, cylinder	Stainless steel
	Diaphragm	Stainless steel
Connection	JIS 10K FF flanged	

Use on a compressed air system with dry air from oil-free compressors may cause deterioration of rubber parts in a very short time (ozone crack). Please consult with us before such installation.

## Description of GP-1000T Series model code

GP-1000T□

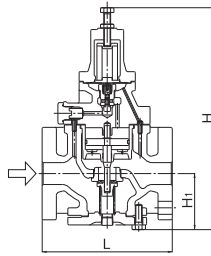


## ■ Dimensions (mm) and Weights (kg)

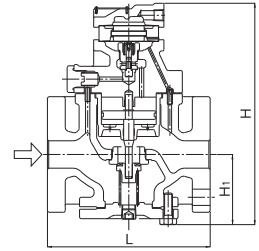
### · GP-1000T · 1200T

Nominal size	L	H <sub>1</sub>	H	Weight
15A	150	64	285 (220)	8.0
20A	155	64	285 (220)	8.5
25A	160	67	300 (235)	10.0
32A	190	82	323 (258)	14.0
40A	190	82	323 (258)	14.5
50A	220	93	347 (282)	20.0
65A	245	100	357 (292)	30.0
80A	290	122	404 (339)	35.0
100A	330	144	450 (385)	52.5

\* The above values in parentheses are the dimensions of the GP-1200T.



GP-1000T

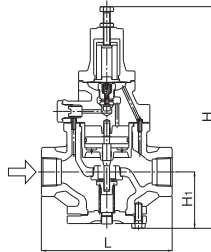


GP-1200T

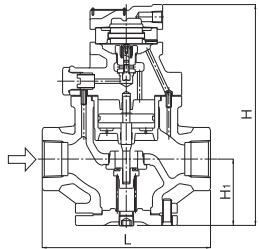
### · GP-1010T · 1210T

Nominal size	d	L	H <sub>1</sub>	H	Weight
15A	Rc 1/2	150	64	285 (220)	7.0
20A	Rc 3/4	155	64	285 (220)	7.0
25A	Rc 1	160	67	300 (235)	8.5
32A	Rc 1-1/4	190	82	323 (258)	12.0
40A	Rc 1-1/2	190	82	323 (258)	12.5
50A	Rc 2	220	93	347 (282)	18.0

\* The above values in parentheses are the dimensions of the GP-1210T.



GP-1010T

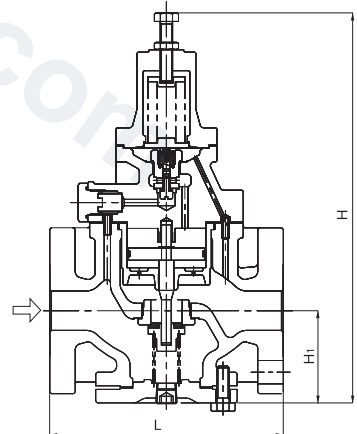


GP-1210T

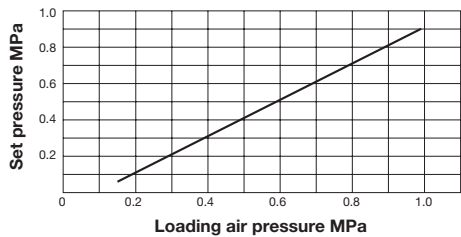
### · GP-1000TSS · 1000TAS

Nominal size	L	H <sub>1</sub>	H	Weight
15A	150	67	288 (298)	8.3 ( 8.5)
20A	155	67	288 (298)	8.8 ( 9.0)
25A	160	70	303 (313)	10.5 (10.7)
32A	190	85	326 (336)	14.8 (15.0)
40A	190	85	326 (336)	15.3 (15.5)
50A	220	96	350 (360)	20.8 (21.0)

\* The above values in parentheses are the dimensions and weights of the GP-1000TAS.

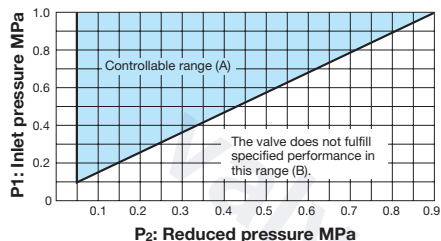
GP-1000TSS  
GP-1000TAS

**■ Loading Air Pressure-set Pressure Chart**



Basically, the set pressure to the loading air pressure is as shown in the chart on the left. The set pressure is slightly different depending on the conditions. In this case, adjust the loading air pressure.

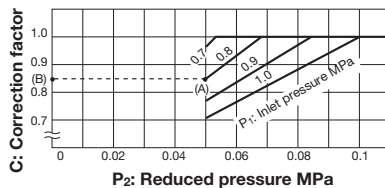
**Specifications Selection Chart**



Find the intersection point of the inlet and reduced pressures. If the intersection point is within range (A), the pressures are controllable. The valve does not fulfill specified performance if the intersection point lies in range (B).

**Table of Corrected Cv Values**

Please refer to **■**-14 for Cv value.



If the inlet pressure exceeds 0.7 MPa, and the pressure reducing ratio exceeds 10:1, and the appropriate correction coefficient C using chart above, and multiply the rated Cv value, and obtain the corrected Cv value.

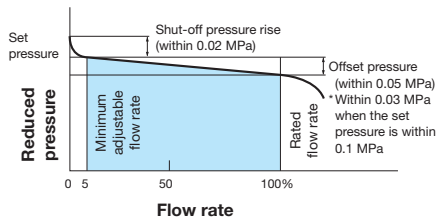
**Example**

Take a pressure reducing valve whose inlet pressure is 0.8 MPa, the reduced pressure is 0.05 MPa. Find the inlet and reduced pressure intersection point (A) at the above chart, then draw a horizontal line in the leftward direction to point (B) which indicates a correction coefficient of 0.85. For a nominal size of 25A, the corrected Cv value would be calculated as follows:

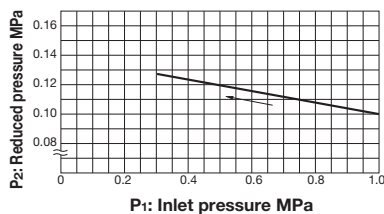
$$4 \text{ (rated Cv value)} \times 0.85 \text{ (correction coefficient)} = 3.4$$

**■ GP-1000T Series Selection Chart**

**Flow Characteristic Chart**

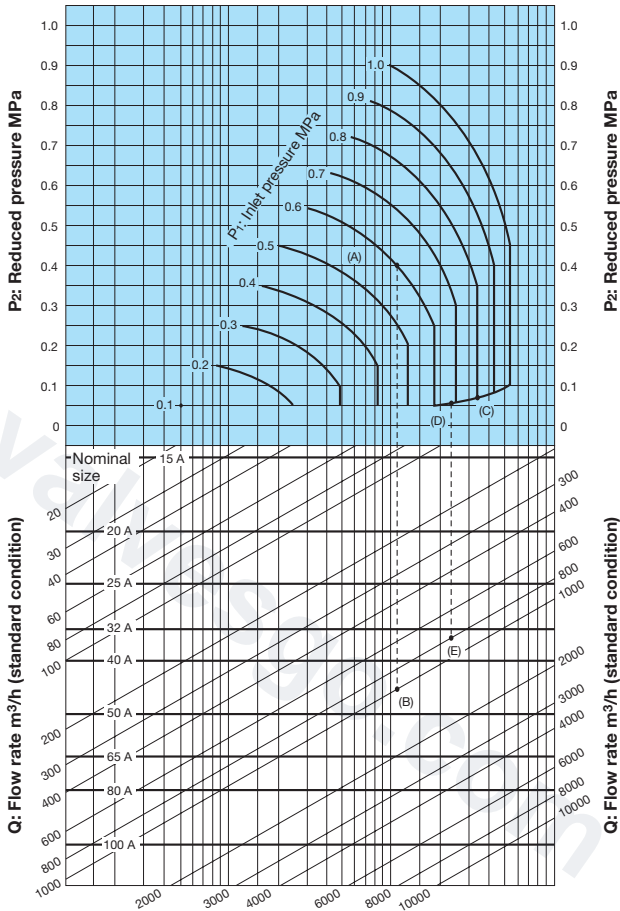


**Pressure Characteristic Chart**



This chart shows variation in reduced pressure when the inlet pressure of 1.0 MPa is changed between 0.3 MPa and 1.0 MPa while the reduced pressure is set at 0.1 MPa.

## Nominal Sizes Selection Chart (Fluid: 20°C Air)



### [Example 1]

When selecting the nominal size of a pressure reducing valve whose inlet pressure ( $P_1$ ), reduced pressure ( $P_2$ ), and air flow rate are 0.6 MPa, 0.4 MPa, and 1,000 m<sup>3</sup>/h (standard condition), respectively, first find intersection point (A) of the inlet pressure of 0.6 MPa and the reduced pressure of 0.4 MPa. Trace down vertically from this intersection point to find intersection point (B) with the flow rate of 1,000 m<sup>3</sup>/h (standard condition). Since intersection point (B) lies between nominal sizes 40A and 50A, select the larger one, 50A.

### [Example 2]

When selecting the nominal size of a pressure reducing valve whose inlet pressure ( $P_1$ ), reduced pressure ( $P_2$ ), and air flow rate are 0.8 MPa, 0.05 MPa, and 800 m<sup>3</sup>/h (standard condition), respectively, first find intersection point (C) of the inlet pressure of 0.8 MPa and the diagonal line. Trace down to the left from the diagonal line to find intersection point (D) with the reduced pressure of 0.05 MPa. Trace down vertically from intersection point (D) to find intersection point (E) with the flow rate of 800 m<sup>3</sup>/h (standard condition). Since intersection point (E) lies between nominal sizes 32A and 40A, select the larger one, 40A.

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