GD-200H・200HS

The GD-200H・200HS pressure reducing valve are widely used for construction equipment, air conditioning equipment, factory equipment, and industrial equipment, etc. They guarantee both stable reduced pressure and a large flow rate.

GD-200HS

GD-200H

Features

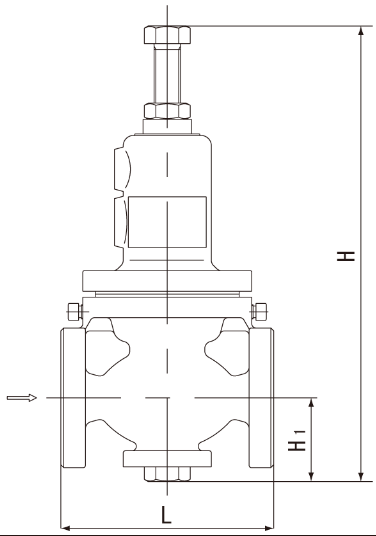
1. Pressure balance structure can keep the reduced pressure at a constant level without being affected by inlet pressure.
2. High wear-resistance and durability of stainless steel made valve seat.
3. Maintenance and inspection can be conducted easily by disassembling simply from the upper side.
4. The main valve features a single seat and disc, which prevents leakage.
5. Maximum inlet pressure is up to 1.6 MPa because of cast iron body.
6. WSD approval for GD-200H.

Specifications

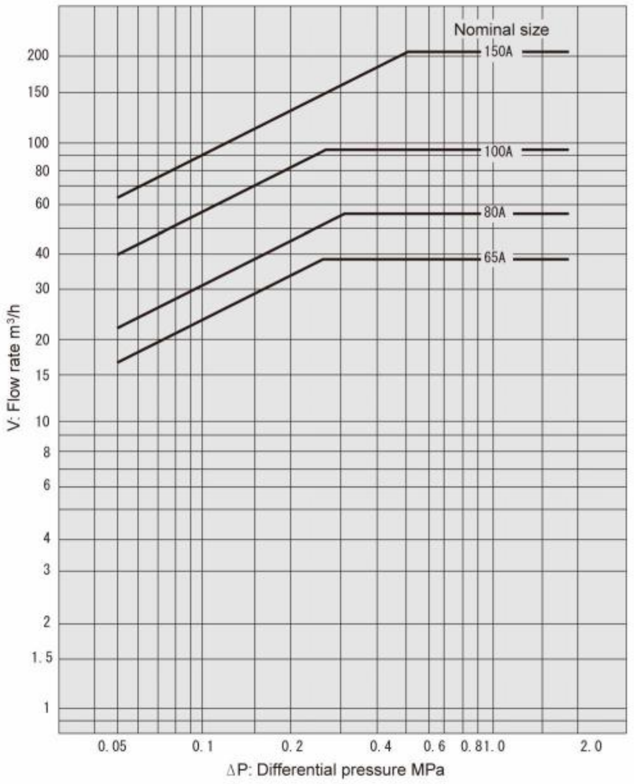
Model		GD-200H	GD-200HS
Application		Water, Air, Other non-dangerous fluids	Water, Air, Flushing water
Connection		BS EN 1092-2 (BS4504 PN16)	
Inlet pressure		1.6 MPa or less	
Reduced pressure	65A, 80A	(A) 0.05-0.25 MPa (B) 0.26-0.7 MPa (C) 0.5-0.9 MPa	
	100A, 150A	(A) 0.05-0.25 MPa (B) 0.26-0.5 MPa (C) 0.5-0.75 MPa	
Minimum differential pressure		0.05 MPa	
Maximum pressure reduction ratio		10 : 1	
Application temperature		5-80°C	
Offset pressure	65A, 80A, 100A	(A), (B) Within 0.05 MPa (C) Within 0.11 MPa	
	150A	(A) Within 0.05 MPa (B) Within 0.07 MPa (C) Within 0.11 MPa	
Valve seat leakage		None	
Material	Body	Ductile iron	Cast iron
	Valve / Diaphragm	EPDM (WRAS approval)	NBR
	Valve seat	Stainless steel	Stainless steel (SUS316)
	Spindle	Stainless steel	Stainless steel (SUS316)

Dimensions (mm) and Weights (kg)

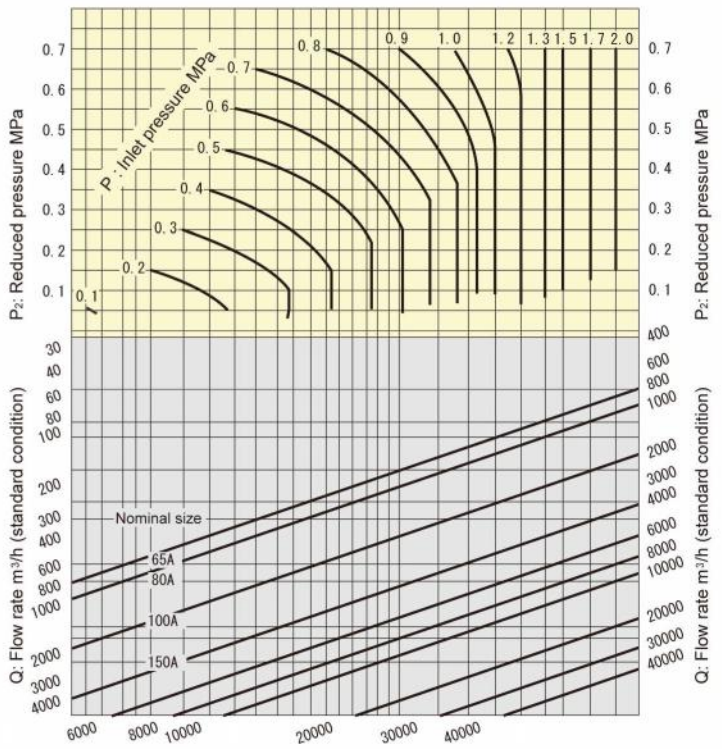
Nominal size	L	H	H_1	Weight
65A	270	555	110	40.0
80A	270	582	125	43.7
100A	308	645	143	70.7
150A	404	918	204	175



Nominal Size Selection Chart (For Water)



Nominal Size Selection Chart (For Air)



Nominal Size Selection Formula

•Calculation Formula for Cv Value

<For Gas>

In case of $P_2 > \frac{P_1}{2}$ $$Cv = \frac{Q}{2940}\sqrt{\frac{(273+t)G}{\triangle P(P_1+P_2)}}$$

In case of $P_2 \leqq \frac{P_1}{2}$ $$Cv = \frac{Q\sqrt{(273+t)G}}{2550P_1}$$

<For Liquid> $$Cv = \frac{0.365V\sqrt{G}}{\sqrt{\triangle P}}$$

P_1: Inlet pressure (MPa·A)
P_2: Reduced pressure (MPa·A)
$\triangle P$: P_1-P_2 (MPa)
Q: Maximum flow rate of Gas (m³/h, normal condition)
G: Specific gravity (Gas: specific gravity to air, Liquid: specific gravity to water)
t: Fluid temperature (℃)
V: Maximum flow rate of liquid (m³/h)
Cv: Cv value of specified nominal size
Iv: Viscosity index
Mcst: Viscosity (cSt)

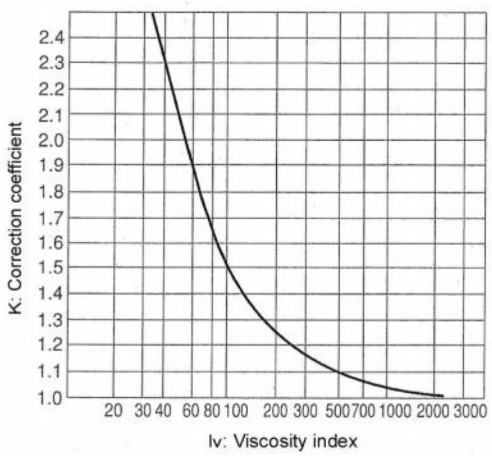
•Formula for Correction of Viscosity

First, find viscosity index Iv.

$$Iv = \frac{72780}{Mcst}\left(\frac{\triangle P}{G}\right)^{\frac{1}{4}}V^{\frac{1}{2}}$$

Find K from calculated Iv on the viscosity correction curve. The calculated maximum flow rate (V) divided by correction coefficient (K) is the value of the corrected flow rate.

Viscosity correction curve



Corrected maximum flow rate: V'=V/K (m³/h)

•Cv Value

65A	80A	100A	150A
28	36	68	108

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