GD-20R,20RC

Direct type | Pilot type | Diaphragm | Piston
Bellows | Internal sensing | External sensing | Stainless steel
Nylon | Low pressure | DP regulating | Pressure sustaining

■Features

1. No leakage when closed due to single seat valve and valve disc.
2. Large diaphragm ensures reliable response to pressure fluctuations and shutoff.
3. Used as relief valves for pumps, relieves excess pressure caused by load fluctuations, and keeps internal pressure of piping constant during pump operation.
4. Used to sustain water pressure inside piping when the pump of open circuit system for mid-rise or high-rise building equipment is shutdown.
5. For the GD-20RC, the internal and external surfaces of the body are coated with Nylon 11, offering excellent corrosion resistance.


GD-20RC


GD-20R

■Specifications

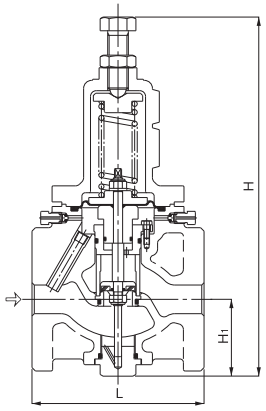
Model		GD-20R	GD-20RC
Application		Cold and hot water, Oil (kerosene-heavy oils A and B), Air, Other non-dangerous fluids	
Pressure regulating range		15A-80A (A) 0.05-0.25 MPa (B) 0.26-0.7 MPa 100A-150A (A) 0.05-0.25 MPa (B) 0.26-0.5 MPa	
Fluid temperature		5-80°C	5-60°C
Fluid viscosity		600 cSt or less	
Material	Body	Ductile cast iron (FCD450)	
	Valve seat	Stainless steel or Bronze	
	Valve disc	NBR	
	Diaphragm	NBR	
Connection		JIS 10K FF flanged	
Inside surface treatment of body		15A~100A Electrodeposition coating 125A~150A Tar-based coating (Black) or Electrodeposition coating.	Nylon 11 (inside and outside surfaces of body)

· Available with FKM.
· Available with external sensing type.
· Available with stainless steel made trim parts.
· Available with stainless steel (15A to 100A). Please contact us about availability of 65A to 100A for all stainless steel made.
· Available with drain plug.
· Depending on the additives contained in the oil, the deterioration of rubbers may be accelerated.

■Dimensions (mm) and Weights (kg)

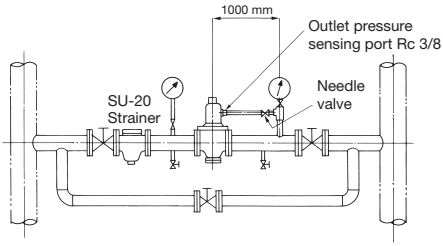
Nominal size	L	H	H1	Weight
15A	145	309	57	8.2
20A	150	309	57	8.2
25A	150	330	67	10.0
32A	195	395	76	17.3
40A	195	395	76	17.3
50A	195	409	81	19.2
65A	270	555	105	40.0
80A	270	582	120	43.7
100A	308	645	135	70.0
125A	380	849	169	144.0
150A	400	918	194	173.0

* The weight are for GD-20R



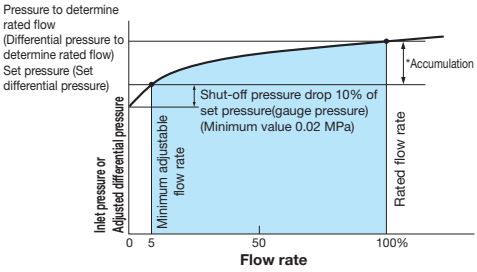
The material shapes are slightly different depending on the nominal size.

■Piping Example



* Install a needle valve to the outlet side of the product and plumb it to the pressure sensing pipe using copper piping.

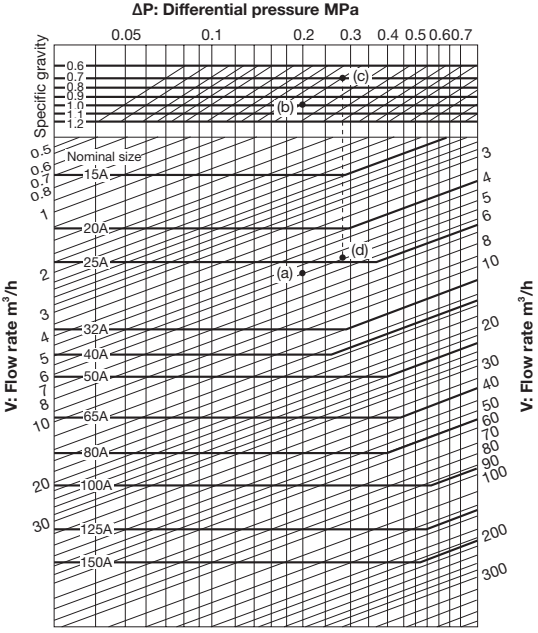
■Flow Characteristic Chart



* Accumulation

Set range MPa	Accumulation MPa
0.05-0.25	Within 0.05
0.26-0.7	Within 0.105

■GD-20R, GD-21 Nominal Size Selection Chart (For Liquid)



[Example]

When selecting the nominal size of a differential pressure regulating valve whose differential pressure (ΔP), specific gravity, and flow rate (V) are 0.2 MPa, 1 (water), and 5.5 m^3/h, respectively, first trace down vertically from the differential pressure (ΔP) of 0.2 MPa to find intersection point (a) with the flow rate (V) of 5.5 m^3/h. Since this intersection point (a) lies between nominal sizes 25A and 32A, select the larger one, 32A.

When the specific gravity is 0.7 under the same conditions, trace down vertically from the differential pressure (ΔP) of 0.2 MPa to find intersection point (b) with the specific gravity 1. Find intersection point (c) with the specific gravity of 0.7 by tracing horizontally to the slant lines from this intersection point (b). Then, find intersection point (d) with the flow rate (V) of 5.5 m^3/h by tracing down vertically from intersection point (c). Since this intersection point (d) lies between nominal sizes 20A and 25A, select the larger one, 25A.

* Select the GD-21 differential pressure regulating valve under a specific gravity of 1.

■GD-20R Nominal Size Selection Chart (For Air)

